6588 R-023-204 .13

UNH NEUTRALIZATION PROJECT INDEPENDENT DESIGN REVIEW REPORT, VOLUME 2 - E-7 PURCHASE ORDER DATA, PURCHASE ORDER DETAIL REPORT, PURCHASE ORDER CHECKLIST, FIELD CHANGE REQUESTS, E-8 STRESS CALCULATIONS, FERMCO PS-1, PS-2, PS-3 - FEBRUARY 1, 1995

02/01/95

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REPORT

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UNH NEUTRALIZATION PROJECT
INDEPENDENT DESIGN REVIEW REPORT

VOLUME 2

E-7 Purchase Order Data

Purchase Order Detail Report
Purchase Order Checklist
Field Change Requests

E-8 Stress Calculations

FERMCO PS-1
FERMCO PS-2
FERMCO PS-3

February 1, 1995

Fernald Environmental Restoration Management Corporation

6588

February 1, 1995

Purchase Order Detail Report

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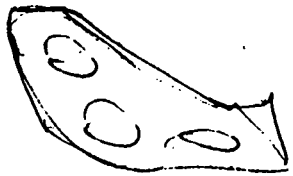

FERMCO Purchase Order Detail Report
OPEN AND CLOSED PURCHASE ORDERS

Sorted by Division, CAM, Charge Number and PO Number

17 \ OGG JW \ 9BAA2

UNH PROCESSING

OK	COMPLETE	CLOSED	PO NUMBER REL C\O LINE / REQUISITION NUMBER	ITEM NUMBER	TYPE U/M	BUYER	QUANTITY ORDERED / RECEIVED / INVOICED	VALUES UNIT / EXTENDED / OPEN	DATES REQUIRED / REQUISITION ISSUED	DESCRIPTION / VENDOR / DELIVER TO
____	____	N	221487 99 06 012	105719-12	G LT	BKC	1 0 0^	0.00 0.00 0.00	09/30/95 09/30/93 01/04/95	9BAA2, UNH PROJECT P&ID $12,400 RALPH M PARSONS
____	____	Y	221487 110 03 001	1	G LT	BKC	1 0C 10^	340,499.00 340,499.00 0.01 *	01/16/94 09/30/93 07/19/94	9BAA2 - URANYL NITRATE. INCREASE FUNDS RALPH M PARSONS
____	____	Y	234988 0 03 002 101978-2	101978-2	G EA	TH	48 48C 48	41.25 1,980.00 330.00	01/05/93 03/28/94	SP CHEMCASSETTES FOR NO2 FOR M D A SCIENTIFIC, INC.
____	____	Y	94CP002354 0 00 001 113996	402235	S FT	DAY	1100 1113C 1113	19.98 21,978.00 (24.11)	03/10/94 09/30/93 03/03/94	3" SCH 40 STAINLESS STEEL (SS) 304L PIPE AMERICAN STAINLESS & SUPPLY
____	____	Y	94CP002354 0 00 002 113996	402240	S EA	DAY	50 50C 50	26.10 1,305.00 0.00	03/14/94 09/30/93 03/03/94	3" SS 304L RAISED FACE SLIP ON FLANGE AMERICAN STAINLESS & SUPPLY
____	____	Y	94CP002354 0 01 003 113996	402250	S EA	DAY	20 20C 20	30.89 617.80 0.00	03/14/94 09/30/93 03/03/94	3"SS 304L BLIND FLANGE #150, RAISED FACE AMERICAN STAINLESS & SUPPLY
____	____	Y	94CP002354 0 00 004 113996	402245	S EA	DAY	75 75C 75	29.41 2,205.75 0.00	03/14/94 09/30/93 03/03/94	3" SS 304L BUTT WELD JOINT 90 DEG ELL, AMERICAN STAINLESS & SUPPLY
____	____	Y	94CP002354 0 00 005 113996	402255	S EA	DAY	20 20C 20	22.87 457.40 0.00	03/14/94 09/30/93 03/03/94	3" SS 304L BUTT WELD JOINT 45 DEG ELL AMERICAN STAINLESS & SUPPLY
____	____	Y	94CP002354 0 00 006 113996	402260	S EA	DAY	2 2C 2	40.86 81.72 0.00	03/14/94 09/30/93 03/03/94	2" X 2" X 2" DIA SS 304L BUTT WELD JOINT AMERICAN STAINLESS & SUPPLY
____	____	Y	94CP002354 0 00 007 113996	402265	S EA	DAY	12 12C 12	22.88 274.56 0.00	03/14/94 09/30/93 03/03/94	4" X 3" DIA SS 304L BUTT WELD JOINT ECCE AMERICAN STAINLESS & SUPPLY
____	____	Y	94CP002354 0 00 008 113996	402270	S EA	DAY	16 16C 16	559.75 8,956.00 89.56	03/17/94 09/30/93 03/03/94	3" DIA SS#150 FLANGED BALL VALVE, FULL P AMERICAN STAINLESS & SUPPLY
____	____	Y	94CP002354 0 00 009 113996	402280	S EA	DAY	300 300C 300	7.20 2,160.00 21.60	03/16/94 09/30/93 03/03/94	3" DIA TEFLON IMPREGNATED SPIRAL WOUND AMERICAN STAINLESS & SUPPLY

^ INDICATES NUMBER OF INVOICES - VALUE BASED ORDER

* REMAINING CALCULATED ON FY94 INVOICED DOLLARS ONLY

FERMCO Purchase Order Detail Report
OPEN AND CLOSED PURCHASE ORDERS

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17 \ OGG JW \ 9BAA2
UNH PROCESSING

OK	COMPLETE	CLOSED	PO NUMBER REL C\O LINE / REQUISITION NUMBER	ITEM NUMBER	TYPE U/M	BUYER	QUANTITY ORDERED / RECEIVED / INVOICED	VALUES UNIT / EXTENDED / OPEN	DATES REQUIRED / REQUISITION ISSUED	DESCRIPTION / VENDOR / DELIVER TO
		Y	94CP002354 0 00 010 113996	402290	S EA	DAY	100 100C 100	4.25 425.00 4.25	03/16/94 09/30/93 03/03/94	1" DIA TEFLON IMPREGNATED SPIRAL WOUND AMERICAN STAINLESS & SUPPLY
		Y	94CP002354 0 00 011 113996	402295	S EA	DAY	50 50C 50	5.39 269.50 2.70	03/16/94 09/30/93 03/03/94	2" DIA TEFLON IMPREGNATED SPIRAL WOUND AMERICAN STAINLESS & SUPPLY
		Y	94CP002382 0 00 001 138861	403340	S FT	CJD	2000 2040C 2000	1.38 2,752.00 7.59	03/07/94 02/16/94 03/03/94	1 1/2" RIGID CONDUIT F. D. LAWRENCE ELECTRIC
		Y	94CP002685 0 00 001 138856	403325	S EA	CJD	5 5C 5	10.68 53.40 0.80	03/21/94 02/16/94 03/17/94	3" WING NUT TEST PLUGS MUTUAL MFG. & SUPPLY CO.
		Y	94CP002685 0 00 002	138856-2	G EA	CJD	5 5C 5	8.28 41.40 0.62	03/21/94 09/30/93 03/17/94	2" WING NUT TEST PLUGS MUTUAL MFG. & SUPPLY CO.
		Y	94CP003434 0 00 001 136152	1	G EA	JRM	16 16C 16	2.31 36.96 0.00	04/19/94 04/16/94 04/26/94	3 5/8" X 12' METAL STUDS UNITED DRYWALL
		Y	94CP003434 0 00 002 136152	2	G EA	JRM	140 140C 140	1.54 215.60 0.00	04/19/94 04/16/94 04/26/94	3 5/8" X 8' METAL STUDS UNITED DRYWALL
		Y	94CP003434 0 00 003 136152	3	G EA	JRM	40 40C 40	1.93 77.20 0.00	04/19/94 04/16/94 04/26/94	3 5/8" X 10' METAL TRACK UNITED DRYWALL
		Y	94CP003434 0 00 004 136152	4	G EA	JRM	1 1C 1	30.00 30.00 0.00	04/19/94 04/16/94 04/26/94	7/16 FRAMING SCREWS (BLACK) 5 LB. BOX UNITED DRYWALL
		Y	94CP003465 0 01 001 133533	1	G EA	JRM	4 4C 4^	900.00 3,600.00 0.00	06/21/94 04/19/94 11/15/94	RENTAL OF WELDING MACHINES AS FOLLOWS: WELDCO, INC
		Y	94CP003465 0 01 002	02	G LT	JRM	1 1C 1^	160.00 160.00 110.25	06/21/94 09/30/93 11/15/94	DELIVERY AND PICK-UP CHARGE WELDCO, INC
		Y	94CP003702 0 00 001 133600	1	G EA	CJD	10 10C 10	5.86 58.60 1.17	05/09/94 04/16/94 05/02/94	825-2 GREENLEE 1 1/2" HOLE SAW RICHARDS ELECTRIC SUPPLY CO.

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FERMCO Purchase Order Detail Report
OPEN AND CLOSED PURCHASE ORDERS

Sorted by Division, CAM, Charge Number and PO Number
17 \ OGG JW \ 9BAA2
UNH PROCESSING

OK	COMPLETE	CLOSED	PO NUMBER REL C\O LINE / REQUISITION NUMBER / ITEM	ITEM NUMBER	TYPE U/M	BUYER	QUANTITY ORDERED / RECEIVED / INVOICED	VALUES UNIT / EXTENDED / OPEN	DATES REQUIRED / REQUISITION / ISSUED	DESCRIPTION / VENDOR / DELIVER TO
		Y	94CP003702 0 00 002 2 133600		G EA	CJD	10 10C 10	4.71 47.10 0.94	05/09/94 04/16/94 05/02/94	825-1 3/8 GREENLEE 1" HOLE SAW RICHARDS ELECTRIC SUPPLY CO.
		Y	94CP003702 0 00 003 3 133600		G EA	CJD	10 10C 10	4.45 44.50 0.89	05/09/94 04/16/94 05/02/94	825-1 1/8 GREENLEE 3/4 HOLE SAW RICHARDS ELECTRIC SUPPLY CO.
		Y	94CP003702 0 00 004 4 133600		G EA	CJD	10 10C 10	4.20 42.00 0.84	05/09/94 04/16/94 05/02/94	825-7/8 GREENLEE 1/2 HOLE SAW RICHARDS ELECTRIC SUPPLY CO.
		Y	94CP003702 0 00 005 5 133600		G EA	CJD	5 5C 5	10.88 54.40 1.09	05/09/94 04/16/94 05/02/94	37156 GREENLEE ARBOR RICHARDS ELECTRIC SUPPLY CO.
		Y	94CP003702 0 00 006 6 133600		G EA	CJD	5 5C 5	5.52 27.60 0.55	05/09/94 04/16/94 05/02/94	37155 GREENLEE ARBOR RICHARDS ELECTRIC SUPPLY CO.
		Y	94CP003702 0 00 007 7 133600		G EA	CJD	20 20C 20	2.00 40.00 0.80	05/09/94 04/16/94 05/02/94	37623 GREENLEE PILOT BIT RICHARDS ELECTRIC SUPPLY CO.
		Y	94CP003709 0 00 010 10 133626		G FT	CJD	450 462C 462	2.41 1,084.50 (28.92)	05/13/94 04/16/94 05/12/94	3" SCH40 BLK STEEL PIPE A-53 GRADE B MUTUAL MFG. & SUPPLY CO.
		Y	94CP003709 0 00 021 8 133619		G FT	CJD	600 609C 609	2.41 1,446.00 (21.69)	05/13/94 04/16/94 05/12/94	3" SCH40 BLK STEEL PIPE A-53 GRADE B MUTUAL MFG. & SUPPLY CO.
		Y	94CP003731 0 00 001 1 133596		G FT	CJD	1000 1000C 1000	0.81 810.00 8.10	05/04/94 09/30/93 05/03/94	1" RIGID CONDUIT BECKER ELECTRIC SUPPLY CO.
		Y	94CP003731 0 00 002 2 133596		G FT	CJD	2000 2000C 2000	0.57 1,140.00 11.40	05/04/94 09/30/93 05/03/94	3/4" RIGID CONDUIT BECKER ELECTRIC SUPPLY CO.
		Y	94CP003731 0 00 003 5 133596		G FT	CJD	1000 1000C 1000	0.21 209.00 2.09	05/04/94 09/30/93 05/03/94	#4 THHN STRANDED COPPER WIRE BECKER ELECTRIC SUPPLY CO.
		Y	94CP004054 0 00 001 9 133596		G EA	MLL	1 1C 1	294.45 294.45 0.00	05/25/94 09/30/93 05/24/94	A423616LP, HOFFMAN ELECTRICAL PANEL BOX F. D. LAWRENCE ELECTRIC

N/A

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* REMAINING CALCULATED ON EX24 INVOICED DOLLARS ONLY

FERMCO Purchase Order Detail Report
OPEN AND CLOSED PURCHASE ORDERS

Sorted by Division, CAM, Charge Number and PO Number
17 \ OGG JW \ 9BAA2
UNH PROCESSING

OK	COMPLETE	CLOSED	PO NUMBER REL C\O LINE / REQUISITION NUMBER ITEM	ITEM NUMBER	TYPE	U/M	BUYER	QUANTITY ORDERED / RECEIVED / INVOICED	VALUES UNIT / EXTENDED / OPEN	DATES REQUIRED / REQUISITION ISSUED	DESCRIPTION / VENDOR / DELIVER TO
		Y	94CP003702 0 00 002 2 133600		G	EA	CJD	10 10C 10	4.71 47.10 0.94	05/09/94 04/16/94 05/02/94	825-1 3/8 GREENLEE 1" HOLE SAW RICHARDS ELECTRIC SUPPLY CO.
		Y	94CP003702 0 00 003 3 133600		G	EA	CJD	10 10C 10	4.45 44.50 0.89	05/09/94 04/16/94 05/02/94	825-1 1/8 GREENLEE 3/4 HOLE SAW RICHARDS ELECTRIC SUPPLY CO.
		Y	94CP003702 0 00 004 4 133600		G	EA	CJD	10 10C 10	4.20 42.00 0.84	05/09/94 04/16/94 05/02/94	825-7/8 GREENLEE 1/2 HOLE SAW RICHARDS ELECTRIC SUPPLY CO.
		Y	94CP003702 0 00 005 5 133600		G	EA	CJD	5 5C 5	10.88 54.40 1.09	05/09/94 04/16/94 05/02/94	37156 GREENLEE ARBOR RICHARDS ELECTRIC SUPPLY CO.
		Y	94CP003702 0 00 006 6 133600		G	EA	CJD	5 5C 5	5.52 27.60 0.55	05/09/94 04/16/94 05/02/94	37155 GREENLEE ARBOR RICHARDS ELECTRIC SUPPLY CO.
		Y	94CP003702 0 00 007 7 133600		G	EA	CJD	20 20C 20	2.00 40.00 0.80	05/09/94 04/16/94 05/02/94	37623 GREENLEE PILOT BIT RICHARDS ELECTRIC SUPPLY CO.
		Y	94CP003709 0 00 010 10 133626		G	FT	CJD	450 462C 462	2.41 1,084.50 (28.92)	05/13/94 04/16/94 05/12/94	3" SCH40 BLK STEEL PIPE A-53 GRADE B MUTUAL MFG. & SUPPLY CO.
		Y	94CP003709 0 00 021 8 133619		G	FT	CJD	600 609C 609	2.41 1,446.00 (21.69)	05/13/94 04/16/94 05/12/94	3" SCH40 BLK STEEL PIPE A-53 GRADE B MUTUAL MFG. & SUPPLY CO.
		Y	94CP003731 0 00 001 1 133596		G	FT	CJD	1000 1000C 1000	0.81 810.00 8.10	05/04/94 09/30/93 05/03/94	1" RIGID CONDUIT BECKER ELECTRIC SUPPLY CO.
		Y	94CP003731 0 00 002 2 133596		G	FT	CJD	2000 2000C 2000	0.57 1,140.00 11.40	05/04/94 09/30/93 05/03/94	3/4" RIGID CONDUIT BECKER ELECTRIC SUPPLY CO.
		Y	94CP003731 0 00 003 5 133596		G	FT	CJD	1000 1000C 1000	0.21 209.00 2.09	05/04/94 09/30/93 05/03/94	#4 THHN STRANDED COPPER WIRE BECKER ELECTRIC SUPPLY CO.
		Y	94CP004054 0 00 001 9		G	EA	MLL	1 1C 1	294.45 294.45 0.00	05/25/94 09/30/93 05/24/94	A423616LP, HOFFMAN ELECTRICAL PANEL BOX F. D. LAWRENCE ELECTRIC

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FERMCO Purchase Order Detail Report
OPEN AND CLOSED PURCHASE ORDERS

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17 \ OGG JW \ 9BAA2
UNH PROCESSING

OK	COMPLETE	CLOSED	PO NUMBER / REQUISITION	REL	C\O	LINE ITEM	ITEM NUMBER	TYPE	U/M	BUYER	QUANTITY ORDERED / RECEIVED / INVOICED	VALUES UNIT / EXTENDED / OPEN	DATES REQUIRED / REQUISITION / ISSUED	DESCRIPTION / VENDOR / DELIVER TO
		N	94PP003334 128541	0	00	003	128539	G	EA	MLL	2 0 0	61.05 122.10 122.10	04/23/94 09/30/93 04/13/94	CAULK GUN FOR 5.4 OZ CARTRIDGES F. B. WRIGHT CO.
		Y	94PP003394 128538	0	00	016	128538	G	EA	MLL	12 12C 12	54.28 651.36 6.51	04/22/94 09/30/93 04/15/94	14545, EXTRA HEAVY DUTY "C" CLAMPS TRADE & INDUSTRIAL SUPPLY INC
		Y	94PP003394 128538	0	00	017	128538	G	RO	MLL	1 1C 1	55.00 55.00 0.55	04/22/94 09/30/93 04/15/94	4001, 1/2" WIDE SST HOSE CLAMP BANDING TRADE & INDUSTRIAL SUPPLY INC
		Y	94PP003394 128538	0	00	018	128538	G	BX	MLL	2 2C 2	11.55 23.10 0.23	04/22/94 09/30/93 04/15/94	4004 HOSE CLAMP FASTENERS TRADE & INDUSTRIAL SUPPLY INC
		Y	94PP003394 128538	0	00	019	128538	G	EA	MLL	3 3C 3	23.37 70.11 0.70	04/22/94 09/30/93 04/15/94	AIW-2322, 50' EXTENSION CORD TRADE & INDUSTRIAL SUPPLY INC
		Y	94PP003394 128538	0	00	020	128538	G	EA	MLL	3 3C 3	40.92 122.76 1.22	04/22/94 09/30/93 04/15/94	OKI-4209, GFI BOXES TRADE & INDUSTRIAL SUPPLY INC
		Y	N/A 94PP006548 115895	0	01	001	01	G	LT	RAH	1 1C 1	5,908.00 5,908.00 3.93	09/21/94 09/20/94 10/13/94	PROVIDE TRAINING PROGRAM AND SEMINARS KC SERVICES
		Y	94SP001723 65057	0	00	001	400585	S	EA	JEC	10 10C 10	36.52 365.20 5.40	01/02/94 01/25/94 01/31/94	VALVE, 3/4" STAINLESS STEEL SCREWED BALL MUTUAL MFG. & SUPPLY CO.
		Y	94SP001723 65057	0	00	002	400590	S	EA	JEC	12 12C 12	5.60 67.20 (0.06)	02/02/94 01/25/94 01/31/94	3/4" STAINLESS STEEL SCREWED 90 DEGREE MUTUAL MFG. & SUPPLY CO.
		Y	94SP001723 65057	0	00	003	400595	S	EA	JEC	20 20C 20	1.66 33.20 0.50	02/02/94 01/25/94 01/31/94	3/4"X4" STAINLESS STEEL THREADED NIPPLE MUTUAL MFG. & SUPPLY CO.
		Y	94SP001723 65057	0	00	004	400610	S	EA	JEC	20 20C 20	1.29 25.80 0.39	02/02/94 01/25/94 01/31/94	3\4"X3" STAINLESS STEEL THREADED NIPPLE MUTUAL MFG. & SUPPLY CO.
		Y	94SP001723 65057	0	00	005	400625	S	EA	JEC	10 10C 10	13.70 137.00 2.05	02/02/94 01/25/94 01/31/94	3\4" STAINLESS STEEL SCREWED FLANGE MUTUAL MFG. & SUPPLY CO.

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FERMCO Purchase Order Detail Report
OPEN AND CLOSED PURCHASE ORDERS

Sorted by Division, CAM, Charge Number and PO Number
17 \ OGG JW \ 9BAA2
UNH PROCESSING

OK	COMPLETE	CLOSED	PO NUMBER / REQUISITION	REL	C\O NUMBER	LINE ITEM	ITEM NUMBER	TYPE	U/M	BUYER	QUANTITY ORDERED / RECEIVED / INVOICED	VALUES UNIT / EXTENDED / OPEN	DATES REQUIRED / REQUISITION / ISSUED	DESCRIPTION / VENDOR / DELIVER TO
		N	94PP003334 128541	0	00	003	128539	G	EA	MLL	2 0 0	61.05 122.10 122.10	04/23/94 09/30/93 04/13/94	CAULK GUN FOR 5.4 OZ CARTRIDGES F. B. WRIGHT CO.
		Y	94PP003394 128538	0	00	016	128538	G	EA	MLL	12 12C 12	54.28 651.36 6.51	04/22/94 09/30/93 04/15/94	14545, EXTRA HEAVY DUTY "C" CLAMPS TRADE & INDUSTRIAL SUPPLY INC
		Y	94PP003394 128538	0	00	017	128538	G	RO	MLL	1 1C 1	55.00 55.00 0.55	04/22/94 09/30/93 04/15/94	4001, 1/2" WIDE SST HOSE CLAMP BANDING TRADE & INDUSTRIAL SUPPLY INC
		Y	94PP003394 128538	0	00	018	128538	G	BX	MLL	2 2C 2	11.55 23.10 0.23	04/22/94 09/30/93 04/15/94	4004 HOSE CLAMP FASTENERS TRADE & INDUSTRIAL SUPPLY INC
		Y	94PP003394 128538	0	00	019	128538	G	EA	MLL	3 3C 3	23.37 70.11 0.70	04/22/94 09/30/93 04/15/94	AIW-2322, 50' EXTENSION CORD TRADE & INDUSTRIAL SUPPLY INC
		Y	94PP003394 128538	0	00	020	128538	G	EA	MLL	3 3C 3	40.92 122.76 1.22	04/22/94 09/30/93 04/15/94	OKI-4209, GFI BOXES TRADE & INDUSTRIAL SUPPLY INC
		Y	N/A 94PP006548 115895	0	01	001	01	G	LT	RAH	1 1C 1	5,908.00 5,908.00 3.93	09/21/94 09/20/94 10/13/94	PROVIDE TRAINING PROGRAM AND SEMINARS KC SERVICES
		Y	94SP001723 65057	0	00	001	400585	S	EA	JEC	10 10C 10	36.52 365.20 5.40	01/02/94 01/25/94 01/31/94	VALVE, 3/4" STAINLESS STEEL SCREWED BALL MUTUAL MFG. & SUPPLY CO.
		Y	94SP001723 65057	0	00	002	400590	S	EA	JEC	12 12C 12	5.60 67.20 (0.06)	02/02/94 01/25/94 01/31/94	3/4" STAINLESS STEEL SCREWED 90 DEGREE MUTUAL MFG. & SUPPLY CO.
		Y	94SP001723 65057	0	00	003	400595	S	EA	JEC	20 20C 20	1.66 33.20 0.50	02/02/94 01/25/94 01/31/94	3/4"X4" STAINLESS STEEL THREADED NIPPLE MUTUAL MFG. & SUPPLY CO.
		Y	94SP001723 65057	0	00	004	400610	S	EA	JEC	20 20C 20	1.29 25.80 0.39	02/02/94 01/25/94 01/31/94	3\4"X3" STAINLESS STEEL THREADED NIPPLE MUTUAL MFG. & SUPPLY CO.
		Y	94SP001723 65057	0	00	005	400625	S	EA	JEC	10 10C 10	13.70 137.00 2.05	02/02/94 01/25/94 01/31/94	3\4" STAINLESS STEEL SCREWED FLANGE MUTUAL MFG. & SUPPLY CO.

400000

6588

FERMCO Purchase Order Detail Report
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OK	COMPLETE	CLOSED	PO NUMBER / REQUISITION	REL	C\O	LINE ITEM	ITEM NUMBER	TYPE	U/M	BUYER	QUANTITY ORDERED / RECEIVED / INVOICED	VALUES UNIT / EXTENDED / OPEN	DATES REQUIRED / REQUISITION ISSUED	DESCRIPTION / VENDOR / DELIVER TO
		Y	94SP002620 128893	0	00	005	001	G	EA	JEC	100 100C 100	4.61 461.00 0.00	03/18/94 03/17/94 03/18/94	STYLE 3510 1/8" THK 150# RING GASKET 1/2 F. B. WRIGHT CO.
		Y	94SP002620 128893	0	00	006	002	G	EA	JEC	100 100C 100	7.88 788.00 0.00	03/18/94 03/17/94 03/18/94	3510 1/8" THK 150# RING GASKETS 3/4" F. B. WRIGHT CO.
		Y	94SP002620 128893	0	00	007	003	G	EA	JEC	100 100C 100	12.74 1,274.00 0.00	03/18/94 03/17/94 03/18/94	3510 1/8" THK 150# RING GASKETS 1" F. B. WRIGHT CO.
		Y	94SP002620 128893	0	00	008	004	G	EA	JEC	25 25C 25	19.01 475.25 0.00	03/18/94 03/17/94 03/18/94	3510 1/8" THK 150# RING GASKETS 6" F. B. WRIGHT CO.
		Y	94SP002620 128893	0	00	009	005	G	EA	JEC	25 25C 25	27.99 699.75 0.00	03/18/94 03/17/94 03/18/94	3510 1/8" THK 150# RING GASKETS 8" F. B. WRIGHT CO.
		Y	94SP002878 131909	0	00	002	131909	G	EA	MLL	1 1C 1	135.00 135.00 15.00	03/14/94 03/24/94 03/24/94	PH ELECTRODE DOUBLE JUNCTION, REFEREN KITRICK MANAGEMENT CO.
		Y	94SP002878 131909	0	00	003	131909	G	LT	MLL	1 0C 1	25.00 25.00 1.50	03/24/94 03/24/94 03/24/94	OVERNIGHT CHARGES - ESTIMATE KITRICK MANAGEMENT CO.
		Y	94SP002891 97802	0	00	001	001	G	EA	JEC	6 6C 6	1.19 7.14 0.00	04/01/94 03/28/94 03/31/94	RED POST-IT TAPE FLAGS LANLOR OFFICE PRODUCTS, INC.
		Y	94SP002891 97802	0	01	002	002	G	EA	JEC	6 6C 6	1.19 7.14 0.00	04/01/94 03/28/94 03/31/94	PURPLE POST-IT TAPE FLAGS LANLOR OFFICE PRODUCTS, INC.
		Y	94SP002891 97802	0	01	003	003	G	EA	JEC	1 1C 1	2.50 2.50 0.00	04/01/94 03/28/94 03/31/94	RED ROUND LABELS LANLOR OFFICE PRODUCTS, INC.
		Y	94SP002891 97802	0	01	004	004	G	EA	JEC	1 1C 1	4.32 4.32 0.00	04/01/94 03/28/94 03/31/94	FILE STAMPER LANLOR OFFICE PRODUCTS, INC.
		Y	94SP002891 97802	0	01	005	005	G	EA	JEC	1 1C 1	4.32 4.32 0.00	04/01/94 03/28/94 03/31/94	COPY POM STAMPER LANLOR OFFICE PRODUCTS, INC.

FERMCO Purchase Order Detail Report
OPEN AND CLOSED PURCHASE ORDERS

Sorted by Division, CAM, Charge Number and PO Number

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UNH PROCESSING

OK	COMPLETE	CLOSED	PO NUMBER / REQUISITION	REL	C\O	LINE ITEM	ITEM NUMBER	TYPE	U/M	BUYER	QUANTITY ORDERED / RECEIVED / INVOICED	VALUES UNIT / EXTENDED / OPEN	DATES REQUIRED / REQUISITION ISSUED	DESCRIPTION / VENDOR / DELIVER TO
		Y	94SP002620 128893	0	00	005	001	G	EA	JEC	100 100C 100	4.61 461.00 0.00	03/18/94 03/17/94 03/18/94	STYLE 3510 1/8" THK 150# RING GASKET 1/2 F. B. WRIGHT CO.
		Y	94SP002620 128893	0	00	006	002	G	EA	JEC	100 100C 100	7.88 788.00 0.00	03/18/94 03/17/94 03/18/94	3510 1/8" THK 150# RING GASKETS 3/4" F. B. WRIGHT CO.
		Y	94SP002620 128893	0	00	007	003	G	EA	JEC	100 100C 100	12.74 1,274.00 0.00	03/18/94 03/17/94 03/18/94	3510 1/8" THK 150# RING GASKETS 1" F. B. WRIGHT CO.
		Y	94SP002620 128893	0	00	008	004	G	EA	JEC	25 25C 25	19.01 475.25 0.00	03/18/94 03/17/94 03/18/94	3510 1/8" THK 150# RING GASKETS 6" F. B. WRIGHT CO.
		Y	94SP002620 128893	0	00	009	005	G	EA	JEC	25 25C 25	27.99 699.75 0.00	03/18/94 03/17/94 03/18/94	3510 1/8" THK 150# RING GASKETS 8" F. B. WRIGHT CO.
		Y	94SP002878 131909	0	00	002	131909	G	EA	MLL	1 1C 1	135.00 135.00 15.00	03/14/94 03/24/94 03/24/94	PH ELECTRODE DOUBLE JUNCTION, REFEREN KITRICK MANAGEMENT CO.
		Y	94SP002878 131909	0	00	003	131909	G	LT	MLL	1 0C 1	25.00 25.00 1.50	03/24/94 03/24/94 03/24/94	OVERNIGHT CHARGES - ESTIMATE KITRICK MANAGEMENT CO.
		Y	94SP002891 97802	0	00	001	001	G	EA	JEC	6 6C 6	1.19 7.14 0.00	04/01/94 03/28/94 03/31/94	RED POST-IT TAPE FLAGS LANLOR OFFICE PRODUCTS, INC.
		Y	94SP002891 97802	0	01	002	002	G	EA	JEC	6 6C 6	1.19 7.14 0.00	04/01/94 03/28/94 03/31/94	PURPLE POST-IT TAPE FLAGS LANLOR OFFICE PRODUCTS, INC.
		Y	94SP002891 97802	0	01	003	003	G	EA	JEC	1 1C 1	2.50 2.50 0.00	04/01/94 03/28/94 03/31/94	RED ROUND LABELS LANLOR OFFICE PRODUCTS, INC.
		Y	94SP002891 97802	0	01	004	004	G	EA	JEC	1 1C 1	4.32 4.32 0.00	04/01/94 03/28/94 03/31/94	FILE STAMPER LANLOR OFFICE PRODUCTS, INC.
		Y	94SP002891 97802	0	01	005	005	G	EA	JEC	1 1C 1	4.32 4.32 0.00	04/01/94 03/28/94 03/31/94	COPY POM STAMPER LANLOR OFFICE PRODUCTS, INC.

FERMCO Purchase Order Detail Report
OPEN AND CLOSED PURCHASE ORDERS

Sorted by Division, CAM, Charge Number and PO Number
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UNH PROCESSING

OK	COMPLETE	CLOSED	PO NUMBER REL C\O LINE / REQUISITION NUMBER / ITEM	ITEM NUMBER	TYPE	U/M	BUYER	QUANTITY ORDERED / RECEIVED / INVOICED	VALUES UNIT / EXTENDED / OPEN	DATES REQUIRED / REQUISITION / ISSUED	DESCRIPTION / VENDOR / DELIVER TO
____	____	N	94SPN05477 0 00 003 131556	131556-03	G	LT	ELH	1 0 1^	30.00 30.00 0.00	08/26/94 08/11/94 10/19/94	RELEASE 1000003462, SAMPLE 33417, ENVIRONMENTAL CHEMICAL CORP.
____	____	Y	94SS000343 2 00 087 IS063094OCT	088	G	LT	DM	1 0C 1^	12.39 12.39 0.00	08/15/94 08/03/94 08/03/94	ANALYTICAL SERVICES FOR JUNE ERA
____	____	Y	94SS000343 3 00 196 ALS053094OCT	094	G	LT	DM	1 0C 1^	15.05 15.05 0.00	07/25/94 07/27/94 08/16/94	ANALYTICAL SERVICES FOR MAY ERA
____	____	N	94SS000343 10 00 101 ALS073194OCT	101	G	LT	DM	1 0 1^	65.67 65.67 0.00	09/15/94 09/12/94 09/14/94	ANALYTICAL SERVICES FOR JULY ERA
____	____	N	94SS000343 12 00 083 IS083194OCT	083	G	LT	DM	1 0 1^	9.91 9.91 9.91	09/30/94 09/28/94 10/12/94	ANALYTICAL SERVICES FOR AUGUST ERA
____	____	N	94SS000343 13 00 050 ALS093094OCT	050	G	LT	DM	1 0 1^	8.67 8.67 0.00	10/30/94 10/31/94 11/29/94	ANALYTICAL SERVICES FOR SEPTEMBER ERA
____	____	N	94SS000343 13 00 051 ALS093094OCT	051	G	LT	DM	1 0 1^	6.18 6.18 0.00	10/30/94 10/31/94 11/29/94	ANALYTICAL SERVICES FOR SEPTEMBER ERA
____	____	Y	94SS001833 4 00 081 ALS032594	081	G	LT	DM	1 0C 1^	178.66 178.66 0.00	05/25/94 04/14/94 04/26/94	ANALYTICAL SERVICES FOR WEEKS ENDING LABYRINTH GROUP
____	____	Y	94SS001833 4 00 082 ALS032594	082	G	LT	DM	1 0C 1^	61.77 61.77 0.00	05/25/94 04/14/94 04/26/94	ANALYTICAL SERVICES FOR WEEKS ENDING LABYRINTH GROUP
____	____	Y	94SS001833 4 00 083 ALS032594	083	G	LT	DM	1 0C 1^	13.98 13.98 0.11	05/25/94 04/14/94 04/26/94	ANALYTICAL SERVICES FOR WEEKS ENDING LABYRINTH GROUP
____	____	Y	94SS001833 5 00 083 ALS043094LAB	084	G	LT	DM	1 0C 1^	27.96 27.96 0.00	05/30/94 05/20/94 05/20/94	ANALYTICAL SERVICES FOR APRIL 1994 LABYRINTH GROUP
____	____	Y	94SS001833 5 00 084 ALS043094LAB	085	G	LT	DM	1 0C 1^	57.50 57.50 0.00	05/30/94 05/20/94 05/20/94	ANALYTICAL SERVICES FOR APRIL 1994 LABYRINTH GROUP

^ INDICATES NUMBER OF INVOICES - VALUE BASED ORDER

* REMAINING CALCULATED ON FY94 INVOICED DOLLARS ONLY

PERMOO Purchase Order Detail Report
OPEN AND CLOSED PURCHASE ORDERS

Sorted by Division, CAM, Charge Number and PO Number

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UNH PROCESSING

OK	COMPLETE	CLOSED	PO NUMBER REL C\O LINE / REQUISITION NUMBER	ITEM NUMBER	TYPE U/M	BUYER	QUANTITY ORDERED / RECEIVED / INVOICED	VALUES UNIT / EXTENDED / OPEN	DATES REQUIRED / REQUISITION ISSUED	DESCRIPTION / VENDOR / DELIVER TO
		N	94SPN05477 0 00 003 131556	131556-03	G LT	ELH	1 0 1^	30.00 30.00 0.00	08/26/94 08/11/94 10/19/94	RELEASE 1000003462, SAMPLE 33417, ENVIRONMENTAL CHEMICAL CORP.
		Y	94SS000343 2 00 087 IS063094OCT	088	G LT	DM	1 0C 1^	12.39 12.39 0.00	08/15/94 08/03/94 08/03/94	ANALYTICAL SERVICES FOR JUNE ERA
		Y	94SS000343 3 00 196 ALS053094OCT	094	G LT	DM	1 0C 1^	15.05 15.05 0.00	07/25/94 07/27/94 08/16/94	ANALYTICAL SERVICES FOR MAY ERA
		N	94SS000343 10 00 101 ALS073194OCT	101	G LT	DM	1 0 1^	65.67 65.67 0.00	09/15/94 09/12/94 09/14/94	ANALYTICAL SERVICES FOR JULY ERA
		N	94SS000343 12 00 083 IS083194OCT	083	G LT	DM	1 0 1^	9.91 9.91 9.91	09/30/94 09/28/94 10/12/94	ANALYTICAL SERVICES FOR AUGUST ERA
		N	94SS000343 13 00 050 ALS093094OCT	050	G LT	DM	1 0 1^	8.67 8.67 0.00	10/30/94 10/31/94 11/29/94	ANALYTICAL SERVICES FOR SEPTEMBER ERA
		N	94SS000343 13 00 051 ALS093094OCT	051	G LT	DM	1 0 1^	6.18 6.18 0.00	10/30/94 10/31/94 11/29/94	ANALYTICAL SERVICES FOR SEPTEMBER ERA
		Y	94SS001833 4 00 081 ALS032594	081	G LT	DM	1 0C 1^	178.66 178.66 0.00	05/25/94 04/14/94 04/26/94	ANALYTICAL SERVICES FOR WEEKS ENDING LABYRINTH GROUP
		Y	94SS001833 4 00 082 ALS032594	082	G LT	DM	1 0C 1^	61.77 61.77 0.00	05/25/94 04/14/94 04/26/94	ANALYTICAL SERVICES FOR WEEKS ENDING LABYRINTH GROUP
		Y	94SS001833 4 00 083 ALS032594	083	G LT	DM	1 0C 1^	13.98 13.98 0.11	05/25/94 04/14/94 04/26/94	ANALYTICAL SERVICES FOR WEEKS ENDING LABYRINTH GROUP
		Y	94SS001833 5 00 083 ALS043094LAB	084	G LT	DM	1 0C 1^	27.96 27.96 0.00	05/30/94 05/20/94 05/20/94	ANALYTICAL SERVICES FOR APRIL 1994 LABYRINTH GROUP
		Y	94SS001833 5 00 084 ALS043094LAB	085	G LT	DM	1 0C 1^	57.50 57.50 0.00	05/30/94 05/20/94 05/20/94	ANALYTICAL SERVICES FOR APRIL 1994 LABYRINTH GROUP

^ INDICATES NUMBER OF INVOICES - VALUE BASED ORDER

* REMAINING CALCULATED ON FY94 INVOICED DOLLARS ONLY

FERMCO Purchase Order Detail Report
OPEN AND CLOSED PURCHASE ORDERS

Sorted by Division, CAM, Charge Number and PO Number

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CONSTRUCTION-UNH NEUTRALIZATION

OK	COMPLETE	CLOSED	PO NUMBER, REL, C/O / REQUISITION NUMBER			LINE ITEM	ITEM NUMBER	TYPE	U/M	BUYER	QUANTITY ORDERED / RECEIVED / INVOICED	VALUES UNIT / EXTENDED / OPEN	DATES REQUIRED / REQUISITION ISSUED	DESCRIPTION / VENDOR / DELIVER TO
___	___	Y	500508	80	01	001	1	G	LT	FJM	1 0C 12^	59,598.59 59,598.59 (0.27)*	09/30/94 09/30/93 09/24/94	UNH NEUTRALIZATION WISE CONSTRUCTION
___	___	N	500508	100	11	002	TASK ORDER 100	G	LT	FJM	1 0 34^	2,052,000.00 2,052,000.00 122,746.54 *	09/30/95 09/30/93 12/20/94	UNH PIPELINE REQUISITION 163634 WISE CONSTRUCTION
___	___	N	94CP001851	1	03	001	REQ. # 133383	G	LT	CJD	1 0 38^	31,000.00 31,000.00 (14,262.50)*	02/07/94 09/30/93 09/01/94	RENTAL OF TWO (2) EACH JLG 40H PLATFORM APK/EQUIPMENT SUPPLY
___	___	Y	94CP002382 138861	0	00	002	403345	S	FT	CJD	1000 1000C 1000	0.75 747.00 1.67	02/28/94 02/16/94 03/03/94	1" UNI-STRUT F. D. LAWRENCE ELECTRIC
___	___	N	94CP002939 125535	0	00	001	1	G	FT	DAY	400 400C 400	20.50 8,200.00 0.00	06/03/94 09/30/93 03/29/94	3" PIPE SEAMLESS 304L STAINLESS STEEL READING SUPPLIES INCORPORATED
___	___	N	94CP002939 125535	0	00	002	2	G	EA	DAY	12 12C 12	28.80 345.60 0.00	06/03/94 09/30/93 03/29/94	3" FLANGES CLASS 150, STAINLESS STEEL READING SUPPLIES INCORPORATED
___	___	N	94CP002939 125535	0	00	003	3	G	EA	DAY	24 24C 24	58.75 1,410.00 0.00	06/03/94 09/30/93 03/29/94	3" X 2" ECCENTRIC REDUCER, SEAMLESS 304L READING SUPPLIES INCORPORATED
___	___	N	94CP002939 125535	0	00	004	4	G	EA	DAY	14 14C 14	630.00 8,820.00 176.40	06/03/94 09/30/93 03/29/94	3" FLANGED BALL VALVE, CLASS 150, FULL READING SUPPLIES INCORPORATED
___	___	N	94CP002939	0	00	005	REQ. # 125535	G	EA	DAY	1 1C 0	500.00 500.00 500.00	06/03/94 09/30/93 03/29/94	SHIPPING AND HANDLING CHARGES NOT TO READING SUPPLIES INCORPORATED
___	___	Y	94CP003234 133504	0	00	001	1	G	EA	DAY	150 150C 150	12.00 1,800.00 36.00	04/13/94 09/30/93 04/11/94	ADJUSTABLE ROLLER TYPE HANGER ASSEMBL READING SUPPLIES INCORPORATED
___	___	Y	94CP003234 133504	0	00	002	2	G	FT	DAY	1000 1000C 1002	0.33 330.00 5.95	04/13/94 09/30/93 04/11/94	1/2" DIA. ALL THREAD ROD READING SUPPLIES INCORPORATED
___	___	Y	94CP003234 133504	0	00	003	3	G	EA	DAY	1000 1000C 1000	0.04 40.00 0.80	04/13/94 09/30/93 04/11/94	WASHERS (FLAT) TO FIT 1/2" DIA. ROD READING SUPPLIES INCORPORATED

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CONSTRUCTION-UNH NEUTRALIZATION

OK	COMPLETE	CLOSED	PO NUMBER / REQUISITION NUMBER	REL	C\O	LINE ITEM	ITEM NUMBER	TYPE	U/M	BUYER	QUANTITY ORDERED / RECEIVED / INVOICED	VALUES UNIT / EXTENDED / OPEN	DATES REQUIRED / REQUISITION ISSUED	DESCRIPTION / VENDOR / DELIVER TO
____	____	Y	94CP003234 133504	0	00	004 4		G	EA	DAY	1000 1000C 1000	0.05 50.00 1.00	04/13/94 09/30/93 04/11/94	NUTS (HEX) FOR 1/2" DIA. ALL THREAD ROD READING SUPPLIES INCORPORATED
____	____	Y	94CP003234 133504	0	00	005 5		G	EA	DAY	125 125C 125	0.77 96.25 1.92	04/13/94 09/30/93 04/11/94	1/2" BEAM CLAMPS READING SUPPLIES INCORPORATED
____	____	Y	94CP003235 133508	0	00	001 1		G	EA	DAY	25 25C 25	35.64 891.00 0.00	04/13/94 04/04/94 04/11/94	4" X 4" X 1/4" ANGLE IRON TYPE A-36. ACKERMAN STEEL CO
____	____	Y	94CP003235	0	00	002	REQ. # 133508	G	EA	DAY	1 1C 1	35.00 35.00 0.00	04/13/94 09/30/93 04/11/94	SHIPPING CHARGES NOT TO EXCEED $35.00. ACKERMAN STEEL CO
____	____	Y	94CP003427 140917	0	00	001 1		G	EA	JRM	2 2C 2	68.41 136.82 0.00	04/20/94 03/14/94 04/18/94	TIG WELDING TORCH, WELDCRAFT P/N WELDCO, INC
____	____	Y	94CP003427 140917	0	00	002 2		G	EA	JRM	4 4C 4	19.74 78.96 0.00	04/20/94 03/14/94 04/18/94	50 FT ARGON HOSE WELDCO, INC
____	____	Y	94CP003427 140917	0	00	003 3		G	EA	JRM	4 4C 4	22.30 89.20 0.00	04/20/94 03/14/94 04/18/94	TIG TORCH HOSE COVERS 12' WELDCO, INC
____	____	Y	94CP003427 140917	0	00	004 4		G	EA	JRM	4 4C 4	1.55 6.20 0.00	04/20/94 03/14/94 04/18/94	SMALL CAP FOR TIG TORCH #57404 WELDCO, INC
____	____	Y	94CP003427 140917	0	00	005 5		G	EA	JRM	4 4C 4	1.99 7.96 0.00	04/20/94 03/14/94 04/18/94	ARGON HOSE COUP (BRASS) #AW430 WELDCO, INC
____	____	Y	94CP003427 140917	0	00	006 6		G	EA	JRM	24 24C 24	2.27 54.48 0.00	04/20/94 03/14/94 04/18/94	WIRE BRUSHES LONG HANDLE, STAINLESS WELDCO, INC
____	____	Y	94CP003427 140917	0	00	007 7		G	EA	JRM	4 4C 4	70.85 283.40 0.00	04/20/94 03/14/94 04/18/94	ARGON FLOWMETER FOR LARGE BOTTLE WELDCO, INC
____	____	Y	94CP003427 140917	0	00	008 8		G	LB	JRM	30 30C 30	3.69 110.70 0.00	04/20/94 03/14/94 04/18/94	3/32" 308 ELC BARE FILLER WIRE X 36" LG WELDCO, INC

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CONSTRUCTION-UNH NEUTRALIZATION

OK	COMPLETE	CLOSED	PO NUMBER REL C\O LINE / REQUISITION NUMBER ITEM	ITEM NUMBER	TYPE	U/M	BUYER	QUANTITY ORDERED / RECEIVED / INVOICED	VALUES UNIT / EXTENDED / OPEN	DATES REQUIRED / REQUISITION ISSUED	DESCRIPTION / VENDOR / DELIVER TO
		Y	94CP003427 0 00 009 9 140917		G	LB	JRM	20 20C 20	3.84 76.80 0.00	04/20/94 03/14/94 04/18/94	1/16" 308 ELC BARE FILLER WIRE X 36" LG WELDCO, INC
		Y	94CP003427 0 00 010 10		G	EA	JRM	2 2C 2	46.25 92.50 0.00	04/20/94 09/30/93 04/18/94	TIG WELDING TORCH WITHOUT FLEXIBLE HEAD WELDCO, INC
		Y	94CP003465 0 01 003 1 162286		G	MT	JRM	4 4C 4^	1,350.00 5,400.00 5,400.00	06/21/94 11/14/94 11/15/94	EXTEND RENTAL AGREEMENT OF THREE (3) WELDCO, INC
		Y	94CP003465 0 01 004 04		G	MT	JRM	6 6C 6^	450.00 2,700.00 1,800.00	06/21/94 09/30/93 11/15/94	EXTEND RENTAL AGREEMENT OF ONE (1) WELDCO, INC
		Y	94CP003465 0 01 005 05		G	LT	JRM	1 1C 1^	249.24 249.24 249.24	06/21/94 09/30/93 11/15/94	REPAIR OF WELDING MACHINES. WELDCO, INC
		Y	94CP003709 0 00 001 1 133626		G	EA	CJD	1 1C 1	13.73 13.73 0.00	05/13/94 04/16/94 05/12/94	3" ON 6" 3000# BLK STEEL WELD-O-LET MUTUAL MFG. & SUPPLY CO.
		Y	94CP003709 0 00 002 2 133626		G	EA	CJD	23 23C 23	7.85 180.55 0.00	05/13/94 04/16/94 05/12/94	3" 150# SCH 40 S.R.F. BLK STEEL W.N. MUTUAL MFG. & SUPPLY CO.
		Y	94CP003709 0 00 003 3 133626		G	EA	CJD	1 1C 1	318.29 318.29 4.77	05/13/94 04/16/94 05/12/94	8" X 3" SCH 40 304L S.S. CONCENTRIC MUTUAL MFG. & SUPPLY CO.
		Y	94CP003709 0 00 004 4 133626		G	EA	CJD	1 1C 1	187.79 187.79 2.82	05/13/94 04/16/94 05/12/94	8" SCH 40 R.F. 304L S.S. W.N. FLANGE MUTUAL MFG. & SUPPLY CO.
		Y	94CP003709 0 00 005 5 133626		G	EA	CJD	1 1C 1	58.67 58.67 0.00	05/13/94 04/16/94 05/12/94	4" SCH 40 R.F. 304L S.S. W.N. FLANGE MUTUAL MFG. & SUPPLY CO.
		Y	94CP003709 0 00 006 6 133626		G	EA	CJD	1 1C 1	40.38 40.38 0.00	05/13/94 04/16/94 05/12/94	3" SCH 40 R.F. 304L S.S. W.N. FLANGE MUTUAL MFG. & SUPPLY CO.
		Y	94CP003709 0 00 007 7 133626		G	EA	CJD	3 3C 3	10.44 31.32 0.00	05/13/94 04/16/94 05/12/94	3" SCH 40 B.S. BUTT WELD TEES MUTUAL MFG. & SUPPLY CO.

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CONSTRUCTION-UNH NEUTRALIZATION

OK	COMPLETE	CLOSED	PO NUMBER REL C\O LINE / REQUISITION NUMBER ITEM	ITEM NUMBER	TYPE U/M	BUYER	QUANTITY ORDERED / RECEIVED / INVOICED	VALUES UNIT / EXTENDED / OPEN	DATES REQUIRED / REQUISITION / ISSUED	DESCRIPTION / VENDOR / DELIVER TO
____	____	Y	94CP003709 0 00 008 8 133626		G EA	CJD	1 1C 1	9.58 9.58 0.00	05/13/94 04/16/94 05/12/94	1" ON 3" 3000# BLK STEEL ELBOWLET MUTUAL MFG. & SUPPLY CO.
____	____	Y	94CP003709 0 00 009 9 133626		G EA	CJD	1 1C 1	2.65 2.65 0.00	05/13/94 04/16/94 05/12/94	1" ON 3" 3000# BLK STEEL SOCK-O-LET MUTUAL MFG. & SUPPLY CO.
____	____	Y	94CP003709 0 00 011 11 133626		G EA	CJD	10 10C 10	4.93 49.30 0.00	05/13/94 04/16/94 05/12/94	3" 90 DEGREE SCH 40 BLK STEEL WELD ELLS MUTUAL MFG. & SUPPLY CO.
____	____	Y	94CP003709 0 00 012 12 133626		G EA	CJD	6 6C 6	3.65 21.90 0.00	05/13/94 04/16/94 05/12/94	3" 45 DEGREE SCH 40 BLK STEEL WELD ELLS MUTUAL MFG. & SUPPLY CO.
____	____	Y	94CP003709 0 00 013 13 133626		G EA	CJD	2 2C 2	7.76 15.52 0.00	05/13/94 04/16/94 05/12/94	1" 150# R.F.S.W. FLANGES MUTUAL MFG. & SUPPLY CO.
____	____	Y	94CP003709 0 00 014 1 133619		G EA	CJD	12 12C 12	7.85 94.20 0.00	05/13/94 04/16/94 05/12/94	3" CARBON STEEL R.F.S.F. W.N. FLANGE MUTUAL MFG. & SUPPLY CO.
____	____	Y	94CP003709 0 00 015 2 133619		G EA	CJD	4 4C 4	2.65 10.60 0.00	05/13/94 04/16/94 05/12/94	1" ON 3" BLK STEEL 3000# SOCK-O-LETS MUTUAL MFG. & SUPPLY CO.
____	____	Y	94CP003709 0 00 016 3 133619		G EA	CJD	2 2C 2	10.44 20.88 0.00	05/13/94 04/16/94 05/12/94	3" BLK STEEL WELD TEES SCH.40 MUTUAL MFG. & SUPPLY CO.
____	____	Y	94CP003709 0 00 017 4 133619		G EA	CJD	1 1C 1	5.60 5.60 0.00	05/13/94 04/16/94 05/12/94	4 X 3 SCH 40 CONE BUTT WELD REDUCER MUTUAL MFG. & SUPPLY CO.
____	____	Y	94CP003709 0 00 018 5 133619		G EA	CJD	2 2C 2	40.38 80.76 0.00	05/13/94 04/16/94 05/12/94	3" 150# 304 L R.F. W.N. FLANGE (S.S.) MUTUAL MFG. & SUPPLY CO.
____	____	Y	94CP003709 0 00 019 6 133619		G EA	CJD	2 2C 2	19.78 39.56 0.59	05/13/94 04/16/94 05/12/94	1" ON 3" 304L WELD-O-LET MUTUAL MFG. & SUPPLY CO.
____	____	Y	94CP003709 0 00 020 7 133619		G EA	CJD	15 15C 15	4.93 73.95 0.00	05/13/94 04/16/94 05/12/94	3" 90 DEGREE SCH40 BLK STEEL WELD ELLS MUTUAL MFG. & SUPPLY CO.

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		Y	94CP003709 0 00 022	FREIGHT	G	LT	CJD	1 1C 0	15.00 15.00 15.00	05/13/94 09/30/93 05/12/94	FREIGHT CHARGES - NOT TO EXCEED $15.00 MUTUAL MFG. & SUPPLY CO.
		Y	94CP003718 0 00 001 140916	1	G	EA	CJD	4 4C 4	292.90 1,171.60 0.00	05/13/94 03/14/94 05/03/94	PORTABLE TRI STAND CHAIN VISE F & M MAFCO, INC.
		Y	94CP003718 0 00 002 140916	2	G	EA	CJD	4 4C 4	54.00 216.00 0.00	05/13/94 03/14/94 05/03/94	PIPE STANDS ADJUSTABLE 25" - 48" F & M MAFCO, INC.
		Y	94CP003718 0 00 003 140916	3	G	EA	CJD	50 50C 50	2.38 119.00 0.00	05/13/94 03/14/94 05/03/94	FLAPPER WHEELS 2" X 1" F & M MAFCO, INC.
		Y	94CP003718 0 00 004 140916	4	G	SE	CJD	3 3C 3	39.10 117.30 0.00	05/13/94 03/14/94 05/03/94	REPLACEMENT JAWS FOR RIDGID 535 F & M MAFCO, INC.
		Y	94CP003732 0 00 001 133596	13	G	FT	CJD	100 100C 100	1.91 190.80 3.82	05/04/94 09/30/93 05/03/94	#4/4 COND 50 CORD F. D. LAWRENCE ELECTRIC
		Y	94CP003732 0 00 002 133595	25	G	EA	CJD	10 10C 10	10.05 100.50 2.01	05/04/94 09/30/93 05/03/94	CGB 599 CROUSE HINDS CORD CONNECTOR F. D. LAWRENCE ELECTRIC
		Y	94CP003732 0 00 003 133595	26	G	EA	CJD	10 10C 10	11.51 115.10 2.28	05/04/94 09/30/93 05/03/94	CGB 5911 CROUSE HINDS CORD CONNECTOR F. D. LAWRENCE ELECTRIC
		Y	94CP003732 0 00 004 133604	2	G	EA	CJD	500 500C 500	0.05 26.50 0.51	05/04/94 09/30/93 05/03/94	TY523M TY RAP T2B F. D. LAWRENCE ELECTRIC
		Y	94CP003732 0 00 005 133604	3	G	EA	CJD	100 100C 100	0.39 39.10 0.75	05/04/94 09/30/93 05/03/94	TC5342A T & B MOUNTING BASE F. D. LAWRENCE ELECTRIC
		Y	94CP003732 0 00 006 133604	4	G	EA	CJD	500 500C 500	0.19 96.00 1.85	05/04/94 09/30/93 05/03/94	TY528NX T&B TY RAP F. D. LAWRENCE ELECTRIC
		Y	94CP003732 0 00 007 133604	5	G	EA	CJD	20 20C 20	8.33 166.60 3.29	05/04/94 09/30/93 05/03/94	WM 0-45 T & B MARKING BOOK F. D. LAWRENCE ELECTRIC

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___	___	Y	94CP003709 0 00 022	FREIGHT	G	LT	CJD	1 1C 0	15.00 15.00 15.00	05/13/94 09/30/93 05/12/94	FREIGHT CHARGES - NOT TO EXCEED $15.00 MUTUAL MFG. & SUPPLY CO.
___	___	Y	94CP003718 0 00 001 140916	1	G	EA	CJD	4 4C 4	292.90 1,171.60 0.00	05/13/94 03/14/94 05/03/94	PORTABLE TRI STAND CHAIN VISE F & M MAFCO, INC.
___	___	Y	94CP003718 0 00 002 140916	2	G	EA	CJD	4 4C 4	54.00 216.00 0.00	05/13/94 03/14/94 05/03/94	PIPE STANDS ADJUSTABLE 25" - 48" F & M MAFCO, INC.
___	___	Y	94CP003718 0 00 003 140916	3	G	EA	CJD	50 50C 50	2.38 119.00 0.00	05/13/94 03/14/94 05/03/94	FLAPPER WHEELS 2" X 1" F & M MAFCO, INC.
___	___	Y	94CP003718 0 00 004 140916	4	G	SE	CJD	3 3C 3	39.10 117.30 0.00	05/13/94 03/14/94 05/03/94	REPLACEMENT JAWS FOR RIDGID 535 F & M MAFCO, INC.
___	___	Y	94CP003732 0 00 001 133596	13	G	FT	CJD	100 100C 100	1.91 190.80 3.82	05/04/94 09/30/93 05/03/94	#4/4 COND 50 CORD F. D. LAWRENCE ELECTRIC
___	___	Y	94CP003732 0 00 002 133595	25	G	EA	CJD	10 10C 10	10.05 100.50 2.01	05/04/94 09/30/93 05/03/94	CGB 599 CROUSE HINDS CORD CONNECTOR F. D. LAWRENCE ELECTRIC
___	___	Y	94CP003732 0 00 003 133595	26	G	EA	CJD	10 10C 10	11.51 115.10 2.28	05/04/94 09/30/93 05/03/94	CGB 5911 CROUSE HINDS CORD CONNECTOR F. D. LAWRENCE ELECTRIC
___	___	Y	94CP003732 0 00 004 133604	2	G	EA	CJD	500 500C 500	0.05 26.50 0.51	05/04/94 09/30/93 05/03/94	TY523M TY RAP T2B F. D. LAWRENCE ELECTRIC
___	___	Y	94CP003732 0 00 005 133604	3	G	EA	CJD	100 100C 100	0.39 39.10 0.75	05/04/94 09/30/93 05/03/94	TC5342A T & B MOUNTING BASE F. D. LAWRENCE ELECTRIC
___	___	Y	94CP003732 0 00 006 133604	4	G	EA	CJD	500 500C 500	0.19 96.00 1.85	05/04/94 09/30/93 05/03/94	TY528NX T&B TY RAP F. D. LAWRENCE ELECTRIC
___	___	Y	94CP003732 0 00 007 133604	5	G	EA	CJD	20 20C 20	8.33 166.60 3.29	05/04/94 09/30/93 05/03/94	WM 0-45 T & B MARKING BOOK F. D. LAWRENCE ELECTRIC

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		Y	94CP003732	0 00 020	9		G	EA	CJD	6	47.95	05/04/94	A12126GSC HOFFMAN 12X12X6 SCREW COVER
			133597							6C	287.70	09/30/93	F. D. LAWRENCE ELECTRIC
										6	5.76	05/03/94	
		N	94CP003733	0 00 001	3		G	FT	MLL	1000	0.48	05/04/94	#1 THHN STRANDED COPPER WIRE
			133596							1000C	478.00	09/30/93	RICHARDS ELECTRIC SUPPLY CO.
										1000	0.00	10/25/94	
		N	94CP003733	0 00 002	4		G	FT	MLL	1000	0.10	05/04/94	#8 THHN STRANDED COPPER WIRE
			133596							1000C	100.00	09/30/93	RICHARDS ELECTRIC SUPPLY CO.
										1000	0.00	10/25/94	
		N	94CP003733	0 00 003	6		G	FT	MLL	1000	0.14	05/04/94	#6 THHN STRANDED COPPER WIRE
			133596							1000C	142.00	09/30/93	RICHARDS ELECTRIC SUPPLY CO.
										1000	0.00	10/25/94	
		N	94CP003733	0 00 004	7		G	FT	MLL	1000	0.10	05/04/94	#8 THHN STRANDED COPPER WIRE GREEN
			133596							1000C	104.00	09/30/93	RICHARDS ELECTRIC SUPPLY CO.
										1000	2.08	10/25/94	
		N	94CP003733	0 00 005	8		G	FT	MLL	2000	0.06	05/04/94	#10 THHN STRANDED COPPER WIRE BLACK
			133596							2000C	120.00	09/30/93	RICHARDS ELECTRIC SUPPLY CO.
										2000	0.00	10/25/94	
		N	94CP003733	0 00 006	9		G	FT	MLL	1000	0.06	05/04/94	#10 THHN STRANDED COPPER WIRE WHITE
			133596							1000C	60.00	09/30/93	RICHARDS ELECTRIC SUPPLY CO.
										1000	0.00	10/25/94	
		N	94CP003733	0 00 007	10		G	FT	MLL	1000	0.06	05/04/94	#10 THHN STRANDED COPPER WIRE GREEN
			133596							1000C	60.00	09/30/93	RICHARDS ELECTRIC SUPPLY CO.
										1000	0.00	10/25/94	
		N	94CP003733	0 00 008	11		G	FT	MLL	500	0.34	05/04/94	#12/3 50 CORD
			133596							500C	170.00	09/30/93	RICHARDS ELECTRIC SUPPLY CO.
										500	0.00	10/25/94	
		N	94CP003733	0 00 009	12		G	FT	MLL	100	2.71	05/04/94	#2/4 COND 50 CORD
			133596							100C	270.60	09/30/93	RICHARDS ELECTRIC SUPPLY CO.
										100	0.00	10/25/94	
		N	94CP003733	0 00 010	1		G	EA	MLL	20	12.10	05/04/94	LB 58 CROUSE HINDS CONDULET
			133595							20C	242.00	09/30/93	RICHARDS ELECTRIC SUPPLY CO.
										15	60.50	10/25/94	
		N	94CP003733	0 00 011	2		G	EA	MLL	5	4.16	05/04/94	T58 CROUSE HINDS CONDULET
			133595							5C	20.80	09/30/93	RICHARDS ELECTRIC SUPPLY CO.
										5	0.00	10/25/94	

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____	____	N	94CP003733 0 00 012 3 133595		G	EA	MLL	5 5C 5	12.11 60.55 0.05	05/04/94 09/30/93 10/25/94	LL58 CROUSE HINDS CONDULET RICHARDS ELECTRIC SUPPLY CO.
____	____	N	94CP003733 0 00 013 4 133595		G	EA	MLL	5 5C 10	12.11 60.55 (60.31)	05/04/94 09/30/93 10/25/94	LR58 CROUSE HINDS CONDULET RICHARDS ELECTRIC SUPPLY CO.
____	____	N	94CP003733 0 00 014 5 133595		G	EA	MLL	2 2C 2	12.11 24.22 0.00	05/04/94 09/30/93 10/25/94	C58 CROUSE HINDS CONDULET RICHARDS ELECTRIC SUPPLY CO.
____	____	N	94CP003733 0 00 015 6 133595		G	EA	MLL	40 40C 40	1.73 69.20 0.00	05/04/94 09/30/93 10/25/94	580 CROUSE HINDS COVER RICHARDS ELECTRIC SUPPLY CO.
____	____	N	94CP003733 0 00 016 7 133595		G	EA	MLL	40 40C 40	1.66 66.40 0.00	05/04/94 09/30/93 10/25/94	GASK 805N CROUSE HINDS GASKET RICHARDS ELECTRIC SUPPLY CO.
____	____	N	94CP003733 0 00 017 8 133595		G	EA	MLL	20 20C 20	5.88 117.60 0.00	05/04/94 09/30/93 10/25/94	LB38 CROUSE HINDS CONDULET RICHARDS ELECTRIC SUPPLY CO.
____	____	N	94CP003733 0 00 018 9 133595		G	EA	MLL	5 5C 5	5.88 29.40 0.00	05/04/94 09/30/93 10/25/94	LL38 CROUSE HINDS CONDULET RICHARDS ELECTRIC SUPPLY CO.
____	____	N	94CP003733 0 00 019 10 133595		G	EA	MLL	5 5C 5	5.82 29.10 0.00	05/04/94 09/30/93 10/25/94	LR38 CROUSE HINDS CONDULET RICHARDS ELECTRIC SUPPLY CO.
____	____	N	94CP003733 0 00 020 11 133595		G	EA	MLL	10 10C 10	8.19 81.90 0.00	05/04/94 09/30/93 10/25/94	T38 CROUSE HINDS CONDULET RICHARDS ELECTRIC SUPPLY CO.
____	____	N	94CP003733 0 00 021 12 133595		G	EA	MLL	2 2C 2	5.89 11.78 0.00	05/04/94 09/30/93 10/25/94	C38 CROUSE HINDS CONDULET RICHARDS ELECTRIC SUPPLY CO.
____	____	N	94CP003733 0 00 022 13 133595		G	EA	MLL	50 50C 50	1.62 81.00 0.00	05/04/94 09/30/93 10/25/94	380 CROUSE HINDS CONDULET RICHARDS ELECTRIC SUPPLY CO.
____	____	N	94CP003733 0 00 023 14 133595		G	EA	MLL	50 50C 50	1.33 66.50 0.00	05/04/94 09/30/93 10/25/94	GASK 853N CROUSE HINDS GASKET RICHARDS ELECTRIC SUPPLY CO.

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___	___	N	94CP003733 133595	0	00	024	15		G	EA	MLL	20 20C 20	3.91 78.20 0.00	05/04/94 09/30/93 10/25/94	LB28 CROUSE HINDS CONDULET RICHARDS ELECTRIC SUPPLY CO.
___	___	N	94CP003733 133595	0	00	025	16		G	EA	MLL	20 20C 20	4.92 98.40 0.00	05/04/94 09/30/93 10/25/94	T28 CROUSE HINDS CONDULET RICHARDS ELECTRIC SUPPLY CO.
___	___	N	94CP003733 133595	0	00	026	17		G	EA	MLL	10 10C 10	3.91 39.10 0.00	05/04/94 09/30/93 10/25/94	LR28 CROUSE HINDS CONDULET RICHARDS ELECTRIC SUPPLY CO.
___	___	N	94CP003733 133595	0	00	027	18		G	EA	MLL	10 10C 10	3.91 39.10 0.00	05/04/94 09/30/93 10/25/94	LL28 CROUSE HINDS CONDULET RICHARDS ELECTRIC SUPPLY CO.
___	___	N	94CP003733 133595	0	00	028	19		G	EA	MLL	5 5C 5	3.91 19.55 0.00	05/04/94 09/30/93 10/25/94	C28 CROUSE HINDS GASKET RICHARDS ELECTRIC SUPPLY CO.
___	___	N	94CP003733 133595	0	00	029	20		G	EA	MLL	70 70C 70	1.09 76.30 0.00	05/04/94 09/30/93 10/25/94	280 CROUSE HINDS COVER RICHARDS ELECTRIC SUPPLY CO.
___	___	N	94CP003733 133595	0	00	030	21		G	EA	MLL	70 70C 70	0.98 68.60 0.00	05/04/94 09/30/93 10/25/94	GASK 852N CROUSE HINDS GASKET RICHARDS ELECTRIC SUPPLY CO.
___	___	N	94CP003733 133595	0	00	031	22		G	EA	MLL	100 100C 100	0.39 38.50 0.00	05/04/94 09/30/93 10/25/94	RE21 CROUSE HINDS REDUCER RICHARDS ELECTRIC SUPPLY CO.
___	___	N	94CP003733 133595	0	00	032	23		G	EA	MLL	50 50C 50	0.59 29.70 0.00	05/04/94 09/30/93 10/25/94	RE32 CROUSE HINDS REDUCER RICHARDS ELECTRIC SUPPLY CO.
___	___	N	94CP003733 133595	0	00	033	24		G	EA	MLL	50 50C 50	0.59 29.70 0.00	05/04/94 09/30/93 10/25/94	RE31 CROUSE HINDS REDUCER RICHARDS ELECTRIC SUPPLY CO.
___	___	N	94CP003733 133604	0	00	034	1		G	EA	MLL	20 20C 20	2.79 55.80 0.67	05/04/94 09/30/93 10/25/94	BLACK MARKING PENS. EL MARKO RICHARDS ELECTRIC SUPPLY CO.
___	___	N	94CP003733 133604	0	00	035	7		G	EA	MLL	2 2C 2	104.93 209.86 0.00	05/04/94 09/30/93 10/25/94	A241206LP HOFFMAN BOX RICHARDS ELECTRIC SUPPLY CO.

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___	___	N	94CP003733 0 00 036 8 133604		G	EA	MLL	1 1C 1	97.69 97.69 0.00	05/04/94 09/30/93 10/25/94	A161208LP HOFFMAN BOX RICHARDS ELECTRIC SUPPLY CO.
___	___	N	94CP003733 0 01 037 9 133604		G	EA	MLL	1 1C 0	282.21 282.21 282.21	05/04/94 09/30/93 10/25/94	A423616LP HOFFMAN BOX RICHARDS ELECTRIC SUPPLY CO.
___	___	N	94CP003733 0 00 038 11 133604		G	EA	MLL	1 1C 1	8.60 8.60 0.00	05/04/94 09/30/93 10/25/94	A16P12 HOFFMAN BLACK BOX RICHARDS ELECTRIC SUPPLY CO.
___	___	N	94CP003733 0 00 039 3 133599		G	EA	MLL	200 200C 200	0.49 97.40 0.00	05/04/94 09/30/93 10/25/94	B2012 B-LINE 1 1/2 RIGID STRAP RICHARDS ELECTRIC SUPPLY CO.
___	___	N	94CP003733 0 00 040 4 133599		G	EA	MLL	200 200C 200	0.34 67.60 0.00	05/04/94 09/30/93 10/25/94	B2010 B-LINE 1" RIGID STRAP RICHARDS ELECTRIC SUPPLY CO.
___	___	N	94CP003733 0 00 041 5 133599		G	EA	MLL	200 200C 200	0.33 65.60 0.00	05/04/94 09/30/93 10/25/94	B2009 B-LINE 3/4" RIGID STRAP RICHARDS ELECTRIC SUPPLY CO.
___	___	N	94CP003733 0 00 042 6 133599		G	EA	MLL	500 500C 500	0.10 51.50 0.00	05/04/94 09/30/93 10/25/94	B22SH B-LINE 1 5/8" X 1 5/8" CHANNEL TO RICHARDS ELECTRIC SUPPLY CO.
___	___	N	94CP003733 0 00 043 7 133599		G	EA	MLL	100 100C 100	0.27 26.60 0.00	05/04/94 09/30/93 10/25/94	B441-22A B'LINE CHANNEL TO BEAM CLAMP RICHARDS ELECTRIC SUPPLY CO.
___	___	N	94CP003733 0 00 044 1 133597		G	EA	MLL	20 20C 20	0.32 6.34 0.00	05/04/94 09/30/93 10/25/94	ST 5 MEYER HUB RICHARDS ELECTRIC SUPPLY CO.
___	___	N	94CP003733 0 00 045 2 133597		G	EA	MLL	25 25C 25	2.22 55.45 0.00	05/04/94 09/30/93 10/25/94	ST 3 MEYER HUB RICHARDS ELECTRIC SUPPLY CO.
___	___	N	94CP003733 0 00 046 10 133597		G	EA	MLL	50 50C 50	0.37 18.50 0.00	05/04/94 09/30/93 10/25/94	TA6S ILSCO MECHANICAL LUG RICHARDS ELECTRIC SUPPLY CO.
___	___	N	94CP003733 0 00 047 11 133597		G	EA	MLL	50 50C 50	0.49 24.60 0.49	05/04/94 09/30/93 10/25/94	TA 5 ILSCO MECHANICAL LUG. RICHARDS ELECTRIC SUPPLY CO.

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OK	COMPLETE	CLOSED	PO NUMBER / REQUISITION NUMBER	REL	C\O	LINE ITEM		ITEM NUMBER	TYPE	U/M	BUYER	QUANTITY ORDERED / RECEIVED / INVOICED	VALUES UNIT / EXTENDED / OPEN	DATES REQUIRED / REQUISITION ISSUED	DESCRIPTION / VENDOR / DELIVER TO
___	___	Y	94CP003796 133603	0	00	001	1		G	EA	CJD	5 5C 5	345.23 1,726.15 34.53	05/16/94 09/30/93 05/09/94	H363NRB SQUARE D HEAVY DUTY 600 VOLT F. D. LAWRENCE ELECTRIC
___	___	Y	94CP003796 133603	0	00	002	2		G	EA	CJD	10 10C 10	225.41 2,254.10 45.09	05/16/94 09/30/93 05/09/94	H362NRB SQUARE D HEAVY DUTY 600 VOLT F. D. LAWRENCE ELECTRIC
___	___	Y	94CP003796 133603	0	00	003	3		G	EA	CJD	2 2C 2	326.88 653.76 13.08	05/16/94 09/30/93 05/09/94	H363RB SQUARE D HEAVY DUTY 600 VOLT F. D. LAWRENCE ELECTRIC
___	___	Y	94CP003796 133603	0	00	004	4		G	EA	CJD	10 10C 10	5.88 58.80 1.18	05/16/94 09/30/93 05/09/94	B150 SQUARE D HUBS F. D. LAWRENCE ELECTRIC
___	___	Y	94CP003796 133603	0	00	005	5		G	EA	CJD	10 10C 10	5.88 58.80 1.18	05/16/94 09/30/93 05/09/94	B100 SQUARE D HUBS F. D. LAWRENCE ELECTRIC
___	___	Y	94CP003796 133603	0	00	006	6		G	EA	CJD	3 3C 3	607.00 1,821.00 36.42	05/16/94 09/30/93 05/09/94	MPZ5S40F SQUARE D MINI POWER ZONE 5KUA F. D. LAWRENCE ELECTRIC
___	___	Y	94CP003796 133603	0	00	007	7		G	EA	CJD	4 4C 4	79.21 316.84 6.34	05/16/94 09/30/93 05/09/94	Q0130EPD SQUARE D 1 POLE 30 AMP GFI F. D. LAWRENCE ELECTRIC
___	___	Y	94CP003796 133603	0	00	008	8		G	EA	CJD	6 6C 6	79.21 475.26 9.51	05/16/94 09/30/93 05/09/94	Q0120EPD SQUARE D 1 POLE 30 AMP GF1 F. D. LAWRENCE ELECTRIC
___	___	Y	94CP003796 133603	0	00	009	9		G	EA	CJD	10 10C 10	4.77 47.70 0.95	05/16/94 09/30/93 05/09/94	QO120 SQUARE D 20 AMP 1 POLE F. D. LAWRENCE ELECTRIC
___	___	Y	94CP003796 133603	0	00	010	10		G	EA	CJD	1 1C 1	142.75 142.75 2.84	05/16/94 09/30/93 05/09/94	EHB 34100 SQUARE D CIRCUIT BREAKER FOR F. D. LAWRENCE ELECTRIC
___	___	Y	94CP003797 133598	0	00	001	1		G	EA	CJD	500 500C 500	0.05 25.00 0.00	05/13/94 04/16/94 05/09/94	1/4 20 X 3/8" MACHINE BOLTS NATIONAL AIRCRAFT SUPPLY
___	___	Y	94CP003797 133598	0	00	002	2		G	EA	CJD	500 500C 500	0.06 30.00 0.00	05/13/94 04/16/94 05/09/94	1/4 20 X 1" MACHINE BOLTS NATIONAL AIRCRAFT SUPPLY

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____	____	Y	94CP003797 133598	0	00	003 3		G	EA	CJD	500 500C 500	0.07 35.00 0.00	05/13/94 04/16/94 05/09/94	1/4 20 X 1 1/2" MACHINE BOLTS NATIONAL AIRCRAFT SUPPLY
____	____	Y	94CP003797 133598	0	00	004 4		G	EA	CJD	1000 1000C 1000	0.03 30.00 0.00	05/13/94 04/16/94 05/09/94	1/4" STEEL HEX NUTS NATIONAL AIRCRAFT SUPPLY
____	____	Y	94CP003797 133598	0	00	005 5		G	EA	CJD	2000 2000C 2000	0.04 80.00 0.00	05/13/94 04/16/94 05/09/94	1/4" X 1 STEEL FLAT WASHERS NATIONAL AIRCRAFT SUPPLY
____	____	Y	94CP003797 133598	0	00	006 6		G	EA	CJD	500 500C 500	0.09 45.00 0.00	05/13/94 04/16/94 05/09/94	3/8 X 1 MACHINE BOLTS NATIONAL AIRCRAFT SUPPLY
____	____	Y	94CP003797 133598	0	00	007 7		G	EA	CJD	500 500C 500	0.06 30.00 0.00	05/13/94 04/16/94 05/09/94	3/8 STEEL HEX NUTS NATIONAL AIRCRAFT SUPPLY
____	____	Y	94CP003797 133598	0	00	008 8		G	EA	CJD	1000 1000C 1000	0.06 60.00 0.00	05/13/94 04/16/94 05/09/94	3/8 X 1 STEEL FLAT WASHERS NATIONAL AIRCRAFT SUPPLY
____	____	Y	94CP003797 133598	0	00	009 9		G	EA	CJD	300 300C 300	0.30 90.00 0.00	05/13/94 04/16/94 05/09/94	3/8 DROP-IN ANCHORS NATIONAL AIRCRAFT SUPPLY
____	____	Y	94CP003797 133598	0	00	010 10		G	EA	CJD	300 300C 300	0.27 81.00 0.00	05/13/94 04/16/94 05/09/94	1/4 DROP-IN ANCHORS NATIONAL AIRCRAFT SUPPLY
____	____	Y	94CP003797 133598	0	00	011 11		G	EA	CJD	10 10C 10	2.10 21.00 0.00	05/13/94 04/16/94 05/09/94	3/8 SETS FOR ABOVE ANCHORS NATIONAL AIRCRAFT SUPPLY
____	____	Y	94CP003797 133598	0	00	012 12		G	EA	CJD	10 10C 10	2.75 27.50 0.00	05/13/94 04/16/94 05/09/94	1/4 SETS FOR ABOVE ANCHORS NATIONAL AIRCRAFT SUPPLY
____	____	Y	94CP003799 138991	0	00	001 1		G	EA	CJD	2 2C 2	31.50 63.00 0.00	05/11/94 04/16/94 05/10/94	50 LB. BOXES 5/32" ATOM ARC 7018 WELDCO, INC
____	____	Y	94CP003799 138991	0	00	002 2		G	EA	CJD	4 4C 4	32.50 130.00 0.00	05/11/94 04/16/94 05/10/94	50 LB. BOXES 1/8" ATOM ARC 7018 WELDCO, INC

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___	___	Y	94CP003799 0 00 003 3 138991		G	EA	CJD	4 4C 4	38.00 152.00 0.00	05/11/94 04/16/94 05/10/94	50 LB. BOXES 3/32" ATOM ARC 7018 WELDCO, INC
___	___	Y	94CP003799 0 00 004 4 138991		G	EA	CJD	4 4C 4	43.00 172.00 0.00	05/11/94 04/16/94 05/10/94	50 LB. BOXES 1/8" FLEET WELD 5P PLUS WELDCO, INC
___	___	Y	94CP003799 0 00 005 5 138991		G	EA	CJD	2 2C 2	35.50 71.00 0.00	05/11/94 04/16/94 05/10/94	10 LB. BOXES 1/8" 316L STAINLESS STEEL WELDCO, INC
___	___	Y	94CP003799 0 00 006 6 138991		G	EA	CJD	12 12C 12	3.98 47.76 (16.08)	05/11/94 04/16/94 05/10/94	INSPECTION MIRRORS 1" X 2" OVAL WITH WELDCO, INC
___	___	Y	94CP003799 0 00 007 7 138991		G	EA	CJD	12 12C 12	12.16 145.92 0.00	05/11/94 04/16/94 05/10/94	PENLIGHTS WITH/2AA BATTERIES, METAL CASE WELDCO, INC
___	___	Y	94CP003799 0 00 008 8 138991		G	EA	CJD	24 24C 24	2.15 51.60 0.00	05/11/94 04/16/94 05/10/94	AA PENLIGHT BATTERIES ALKALINE WELDCO, INC
___	___	Y	94CP003799 0 00 009 9 138991		G	EA	CJD	4 4C 4	29.67 118.68 (14.32)	05/11/94 04/16/94 05/10/94	BULL PINS, LONG TAPERED, WELDCO, INC
___	___	Y	94CP003802 0 00 001 1 136153		G	EA	CJD	2 2C 2	75.00 150.00 0.00	05/10/94 04/16/94 05/10/94	FIRE RETARTANT PLASTIC 6 MILL. ABATEMENT COOPERATIVES
___	___	Y	94CP003804 0 01 001 1 138854		G	LT	MLL	1 1C 1	261,304.00 261,304.00 140,844.00	09/19/94 03/08/94 08/08/94	PROCUREMENT OF A DESIGN-BUILD PACKAGE I FISCHER PUMP & VALVE
___	___	N	94CP004025 0 00 001 1		G	MT	CJD	5 0 4^	2,800.00 14,000.00 6,862.68	05/20/94 09/30/93 08/29/94	RENTAL OF LINKBELT HSP 6028 ON A BARE CARLISLE CONSTRUCTION CO., INC
___	___	N	94CP004039 0 00 001 3 133601		G	EA	CJD	100 100C 100	1.04 103.90 2.14	05/31/94 05/16/94 05/27/94	STB 50 APPLETON STRAIGHT CONNECTOR F. D. LAWRENCE ELECTRIC
___	___	N	94CP004039 0 00 002 4 133601		G	EA	CJD	100 100C 100	1.73 173.10 3.49	05/31/94 05/16/94 05/27/94	STB9050 APPLETON 90 DEGREE CONNECTORS F. D. LAWRENCE ELECTRIC

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____	____	N	94CP004039 0 00 003 5 133601		G	EA	CJD	100 100C 100	1.49 148.70 2.98	05/31/94 05/16/94 05/27/94	STB75 APPLETON STRAIGHT CONNECTORS F. D. LAWRENCE ELECTRIC
____	____	N	94CP004039 0 00 004 6 133601		G	EA	CJD	100 100C 100	2.65 264.50 5.29	05/31/94 05/16/94 05/27/94	STB75 APPLETON 90 DEGREE CONNECTORS F. D. LAWRENCE ELECTRIC
____	____	N	94CP004039 0 00 005 1 133605		G	EA	CJD	6 6C 6	21.25 127.50 2.55	05/31/94 05/16/94 05/27/94	800TA1A ALLEN BRADLEY PUSH BUTTON F. D. LAWRENCE ELECTRIC
____	____	N	94CP004039 0 00 006 2 133605		G	EA	CJD	4 4C 4	36.25 145.00 2.90	05/31/94 05/16/94 05/27/94	800TH2B ALLEN BRADLEY 2 POSITION F. D. LAWRENCE ELECTRIC
____	____	N	94CP004039 0 00 007 3 133605		G	EA	CJD	4 4C 4	51.25 205.00 4.10	05/31/94 05/16/94 05/27/94	800T PT16R ALLEN BRADLEY PILOT LIGHT F. D. LAWRENCE ELECTRIC
____	____	N	94CP004039 0 00 008 4 133605		G	EA	CJD	200 200C 200	1.12 224.00 4.48	05/31/94 05/16/94 05/27/94	1492-F1 ALLEN BRADLEY TERMINAL BLOCK F. D. LAWRENCE ELECTRIC
____	____	N	94CP004039 0 00 009 5 133605		G	EA	CJD	6 6C 6	4.51 27.06 0.54	05/31/94 05/16/94 05/27/94	1492-N1 ALLEN BRADLEY MOUNTING RAIL. F. D. LAWRENCE ELECTRIC
____	____	N	94CP004039 0 00 010 6 133605		G	EA	CJD	20 20C 20	2.16 43.20 0.86	05/31/94 05/16/94 05/27/94	1492-N23 ALLEN BRADLEY END ANCHORS F. D. LAWRENCE ELECTRIC
____	____	N	94CP004039 0 00 011 7 133605		G	EA	CJD	20 20C 20	0.29 5.80 0.12	05/31/94 05/16/94 05/27/94	1492-N18 ALLEN BRADLEY END BARRIER F. D. LAWRENCE ELECTRIC
____	____	N	94CP004039 0 00 012 8 133605		G	EA	CJD	1 1C 1	7.21 7.21 0.14	05/31/94 05/16/94 05/27/94	1492N4 ALLEN BRADLEY MARKING STRIP F. D. LAWRENCE ELECTRIC
____	____	N	94CP004039 0 00 013 9 133605		G	EA	CJD	20 20C 20	2.61 52.20 0.00	05/31/94 05/16/94 05/27/94	1492 N90 ALLEN BRADLEY SCREW DRIVER F. D. LAWRENCE ELECTRIC
____	____	N	94CP004039 0 00 014 10 133605		G	EA	CJD	10 10C 10	4.47 44.70 0.89	05/31/94 05/16/94 05/27/94	1492 CE6 ALLEN BRADLEY FUSE BLOCK F. D. LAWRENCE ELECTRIC

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		N	94CP004039 133605	0	00	015	11	G	EA	CJD	10 10C 10	0.65 6.50 0.13	05/31/94 05/16/94 05/27/94	1492 N12 ALLEN BRADLEY FUSE HOLDER F. D. LAWRENCE ELECTRIC
		N	94CP004039 133605	0	00	016	12	G	EA	CJD	10 10C 10	2.22 22.20 0.44	05/31/94 05/16/94 05/27/94	1492 N88 ALLEN BRADLEY MARKING PEN F. D. LAWRENCE ELECTRIC
		N	94CP004039 133605	0	00	017	13	G	EA	CJD	10 10C 10	60.00 600.00 12.00	05/31/94 05/16/94 05/27/94	700P400A1 ALLEN BRADLEY RELAY 120V COIL F. D. LAWRENCE ELECTRIC
		N	94CP004039 133527	0	00	018	7	G	FT	CJD	3000 3000C 3000	0.17 516.00 1.95	05/31/94 05/16/94 05/27/94	#16 STRANDED TWISTED PAIR WITH ALUMINUM F. D. LAWRENCE ELECTRIC
		N	94CP004039	0	00	019	FRIEGHT	G	EA	CJD	1 1C 0	20.00 20.00 20.00	05/31/94 09/30/93 05/27/94	FREIGHT CHARGE FOR ABOVE ITEM NO. 18 F. D. LAWRENCE ELECTRIC
		Y	94CP004040 133601	0	00	001	2	G	FT	CJD	200 200C 200	0.36 71.20 0.08	05/31/94 05/16/94 05/27/94	3/4 TYPE EF LIQUID TIGHT CONDUIT (1-BOX) ALL-PHASE ELECTRIC
		Y	94CP004040 133602	0	00	002	2	G	EA	CJD	10 10C 10	119.60 1,196.00 0.00	05/31/94 05/16/94 05/27/94	460R7W HUBBEL RECEPTACLE ALL-PHASE ELECTRIC
		Y	94CP004040 133602	0	00	003	7	G	EA	CJD	20 20C 20	7.16 143.20 0.00	05/31/94 05/16/94 05/27/94	5352 HUBBEL RECEPTACLE ALL-PHASE ELECTRIC
		Y	94CP004040 133602	0	00	004	8	G	EA	CJD	20 20C 20	54.95 1,099.00 0.00	05/31/94 05/16/94 05/27/94	GF5362 HUBBEL GFI RECEPTACLE ALL-PHASE ELECTRIC
		Y	94CP004040 133602	0	00	005	9	G	EA	CJD	20 20C 20	16.65 333.00 0.00	05/31/94 05/16/94 05/27/94	5221 HUBBEL RECEPTACLE COVER ALL-PHASE ELECTRIC
		Y	94CP004040 133527	0	00	006	1	G	FT	CJD	200 200C 200	1.10 220.00 0.00	05/31/94 05/16/94 05/27/94	#6/4 CONDUCTOR S0 CORD ALL-PHASE ELECTRIC
		Y	94CP004040 133527	0	00	007	2	G	FT	CJD	3000 3000C 3000	0.04 129.00 1.89	05/31/94 05/16/94 05/27/94	#12 THHN BLACK STRANDED WIRE ALL-PHASE ELECTRIC

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____	____	Y	94CP004040 133527	0	00	008 3		G	FT	CJD	3000 3000C 3000	0.04 129.00 1.86	05/31/94 05/16/94 05/27/94	#12 THHN WHITE STRANDED WIRE ALL-PHASE ELECTRIC
____	____	Y	94CP004040 133527	0	00	009 4		G	FT	CJD	3000 3000C 3000	0.04 129.00 0.00	05/31/94 05/16/94 05/27/94	#12 THHN GREEN STRANDED WIRE ALL-PHASE ELECTRIC
____	____	Y	94CP004040 133527	0	00	010 5		G	FT	CJD	3000 3000C 3000	0.04 129.00 1.89	05/31/94 05/16/94 05/27/94	#12 THHN RED STRANDED WIRE ALL-PHASE ELECTRIC
____	____	Y	94CP004040 133527	0	00	011 6		G	FT	CJD	6000 6000C 6000	0.03 168.00 4.80	05/31/94 05/16/94 05/27/94	#14 THHN RED STRANDED WIRE. ALL-PHASE ELECTRIC
____	____	Y	94CP004041 133601	0	00	001 1		G	FT	CJD	200 200C 200	0.30 59.60 1.19	05/31/94 05/16/94 05/27/94	1/2 TYPE EF LIQUID TIGHT CONDUIT (1-BOX) RICHARDS ELECTRIC SUPPLY CO.
____	____	Y	94CP004041 133601	0	00	002 7		G	EA	CJD	30 30C 30	8.78 263.40 5.27	05/31/94 05/16/94 05/27/94	FRS100 BUSS FUSES. REPLACED BY GOULD RICHARDS ELECTRIC SUPPLY CO.
____	____	Y	94CP004041 133601	0	00	003 8		G	EA	CJD	30 30C 30	4.41 132.30 2.65	05/31/94 05/16/94 05/27/94	FRS60 BUSS FUSES. REPLACED BY GOULD RICHARDS ELECTRIC SUPPLY CO.
____	____	Y	94CP004041 133601	0	00	004 9		G	EA	CJD	10 10C 10	1.60 16.00 0.32	05/31/94 05/16/94 05/27/94	FNM-10 BUSS FUSES RICHARDS ELECTRIC SUPPLY CO.
____	____	Y	94CP004041 133602	0	00	005 1		G	EA	CJD	10 10C 10	27.72 277.20 5.54	05/31/94 05/16/94 05/27/94	BB602W HUBBEL BACK BOX RICHARDS ELECTRIC SUPPLY CO.
____	____	Y	94CP004041 133602	0	00	006 3		G	EA	CJD	10 10C 10	127.45 1,274.50 25.49	05/31/94 05/16/94 05/27/94	460P7W HUBBEL MALE PLUG RICHARDS ELECTRIC SUPPLY CO.
____	____	Y	94CP004041 133602	0	00	007 4		G	EA	CJD	5 5C 5	152.17 760.85 0.00	05/31/94 05/16/94 05/27/94	4100R7W HUBBEL RECEPTACLE RICHARDS ELECTRIC SUPPLY CO.
____	____	Y	94CP004041 133602	0	00	008 5		G	EA	CJD	5 5C 5	165.65 828.25 0.00	05/31/94 05/16/94 05/27/94	4100P7W HUBBEL MALE PLUG RICHARDS ELECTRIC SUPPLY CO.

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____	____	Y	94CP004041 0 00 009 6 133602		G EA	CJD	5 5C 5	56.52 282.60 5.65	05/31/94 05/16/94 05/27/94	BB1002W HUBBEL BACK BOX RICHARDS ELECTRIC SUPPLY CO.
____	____	Y	94CP004041 0 00 010 10 133602		G EA	CJD	20 20C 20	12.01 240.20 4.80	05/31/94 05/16/94 05/27/94	WPFS26 HUBBEL GFI COVER RICHARDS ELECTRIC SUPPLY CO.
____	____	Y	94CP004041 0 00 011 11 133602		G EA	CJD	40 40C 40	5.82 232.80 4.66	05/31/94 05/16/94 05/27/94	5266C HUBBEL MALE CAP RICHARDS ELECTRIC SUPPLY CO.
____	____	Y	94CP004149 0 00 001 1 133630		G EA	LF	6 6C 6	7.50 45.00 0.90	06/02/94 05/18/94 06/03/94	3" 150# SCH S.R.F. W.N. FLANGES, WORLEY PLUMBING SUPPLY INC.
____	____	Y	94CP004149 0 00 002 2 133630		G EA	LF	3 3C 3	9.10 27.30 0.55	05/20/94 05/18/94 06/03/94	2" 3000# S.W. 90 DEGREE ELLS WORLEY PLUMBING SUPPLY INC.
____	____	Y	94CP004149 0 00 003 3 133630		G EA	LF	1 1C 1	41.57 41.57 0.83	05/20/94 05/18/94 06/03/94	8" X 3" SCH 40 BLK STEEL CONC WELD RED. WORLEY PLUMBING SUPPLY INC.
____	____	Y	94CP004149 0 00 004 4 133630		G EA	LF	2 2C 2	11.06 22.12 0.44	05/20/94 05/18/94 06/03/94	3" SCH 40 BLK STEEL B.W. TEES WORLEY PLUMBING SUPPLY INC.
____	____	Y	94CP004149 0 00 005 6 133630		G EA	LF	2 2C 2	5.19 10.38 0.21	05/20/94 05/18/94 06/03/94	2" 3000# BLK STEEL S.W. COUPLING WORLEY PLUMBING SUPPLY INC.
____	____	Y	94CP004149 0 00 006 7 133630		G EA	LF	1 1C 1	4.54 4.54 0.09	05/20/94 05/18/94 06/03/94	2" ON 3" 3000# BLK STEEL S.O.L. WORLEY PLUMBING SUPPLY INC.
____	____	Y	94CP004149 0 00 007 8 133630		G EA	LF	2 2C 2	2.67 5.34 0.11	05/20/94 05/18/94 06/03/94	1" ON 3" 3000# BLK STEEL S.O.L. WORLEY PLUMBING SUPPLY INC.
____	____	Y	94CP004149 0 00 008 9 133630		G EA	LF	1 1C 1	4.20 4.20 0.08	05/20/94 05/18/94 06/03/94	1/2" ON 3" 3000# BLK STEEL S.O.L. WORLEY PLUMBING SUPPLY INC.
____	____	Y	94CP004149 0 00 009 10 133630		G EA	LF	2 2C 2	9.87 19.74 0.40	05/20/94 05/18/94 06/03/94	2" 150# BLK STEEL S.R.F. S.W. FLGS WORLEY PLUMBING SUPPLY INC.

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OK	COMPLETE	CLOSED	PO NUMBER REL C\O LINE / REQUISITION NUMBER	ITEM NUMBER	TYPE	U/M	BUYER	QUANTITY ORDERED / RECEIVED / INVOICED	VALUES UNIT / EXTENDED / OPEN	DATES REQUIRED / REQUISITION ISSUED	DESCRIPTION / VENDOR / DELIVER TO
____	____	Y	94CP004149 0 00 010 133630	11	G	EA	LF	1 1C 1	26.07 26.07 0.52	05/20/94 05/18/94 06/03/94	8" 150# SCH 40 BLK STEEL W.N. FLANGE WORLEY PLUMBING SUPPLY INC.
____	____	N	94CP004220 0 00 002 133630	5	G	EA	LF	1 1C 0	29.85 29.85 29.85	06/09/94 05/18/94 06/03/94	3" X 2" SCH 80 BLK STEEL CONC SWAGE READING SUPPLIES INCORPORATED
____	____	Y	94CP004231 0 00 001	139000-1	G	MT	CJD	4 4C 9^	8,400.00 33,600.00 1,441.05	06/06/94 09/30/93 06/03/94	RENTAL OF FOUR (4) EACH, 60 FT. MANLIFTS AGGREGATE EQUIPMENT & SUPPLY
____	____	Y	94CP004231 0 00 002	139000-2	G	EA	CJD	1 1C 0^	138.00 138.00 138.00	06/06/94 09/30/93 06/03/94	MOBILIZATION CHARGE AGGREGATE EQUIPMENT & SUPPLY
____	____	Y	94CP004231 0 00 003	139000-3	G	EA	CJD	1 1C 2^	138.00 138.00 0.00	10/06/94 09/30/93 06/03/94	DEMOBILIZATION CHARGE AGGREGATE EQUIPMENT & SUPPLY
____	____	Y	94CP004246 0 00 001 133272	NS000952	S	EA	JWE	12 12C 12	2.19 26.28 0.00	05/23/94 05/26/94 06/15/94	MANDRELS, F&M MODEL FA-375 MAFCO EQUIPMENT CO.
____	____	Y	94CP004246 0 00 002 133272	NS000953	S	EA	JWE	50 50C 50	1.20 60.00 0.00	05/23/94 05/26/94 06/15/94	WHEEL, GRINDING, 4 1/2" X 1/8" X 7/8" MAFCO EQUIPMENT CO.
____	____	Y	94CP004246 0 00 003 133272	NS000955	S	EA	JWE	10 10C 10	0.65 6.50 0.00	05/23/94 05/26/94 06/15/94	MANDRELS, F & M MAFCO MODEL MAQC4 MAFCO EQUIPMENT CO.
____	____	Y	94CP004246 0 00 004 133476	NS000961	S	EA	JWE	5 5C 5	255.00 1,275.00 0.00	05/24/94 05/26/94 06/15/94	BAND SAW, MILWAUKEE MODEL #6225 MAFCO EQUIPMENT CO.
____	____	Y	94CP004246 0 00 005 133476	NS000964	S	EA	JWE	2 2C 2	425.60 851.20 0.00	05/24/94 05/26/94 06/15/94	TOOL BOX, KNAACK MODEL 40 (NO WHEELS MAFCO EQUIPMENT CO.
____	____	Y	94CP004246 0 00 006 133476	NS000974	S	EA	JWE	6 6C 6	7.50 45.00 0.00	05/24/94 05/26/94 06/15/94	PLIERS, CHANNEL LOCK, 6", PLASTIC COATED MAFCO EQUIPMENT CO.
____	____	Y	94CP004246 0 00 007 133476	NS000976	S	EA	JWE	2 2C 2	22.00 44.00 0.00	05/24/94 05/26/94 06/15/94	PLIER SET, SNAP RING, WILLIAMS MAFCO EQUIPMENT CO.

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		Y	94CP004246 133476	0	00	008	NS000977	S	EA	JWE	2 2C 2	43.75 87.50 0.00	05/24/94 05/26/94 06/15/94	JAW INSERT SET, F&M CAT. # 44715, MAFCO EQUIPMENT CO.
		Y	94CP004246 133476	0	00	009	NS000978	S	PR	JWE	36 36C 36	5.10 183.60 0.00	05/24/94 05/26/94 06/15/94	GLOVES, TIG WELDING, LARGE MAFCO EQUIPMENT CO.
		Y	94CP004246 133476	0	00	010	NS000983	S	EA	JWE	10 10C 10	7.97 79.70 0.00	05/24/94 05/26/94 06/15/94	BURRING TOOL, CARBIDE, F&M MAFCO MAFCO EQUIPMENT CO.
		Y	94CP004246 133476	0	00	011	NS000984	S	EA	JWE	10 10C 10	7.97 79.70 0.00	05/24/94 05/26/94 06/15/94	BURRING TOOL, CARBIDE, F&M MAFCO MAFCO EQUIPMENT CO.
		Y	94CP004246 111979	0	00	014	NS000948	S	EA	JWE	15 15C 15	29.81 447.15 (0.45)	05/25/94 05/26/94 06/15/94	GASOLINE CAN, 5 GALLON, WITH SPOUT, MAFCO EQUIPMENT CO.
		Y	94CP004247 139005	0	00	001	NS001007	S	EA	JWE	4 4C 4	281.40 1,125.60 0.00	05/23/94 05/26/94 06/15/94	LADDER, EXTENSION, 32', WERNER, WELDCO, INC
		Y	94CP004247 139005	0	00	002	NS001008	S	EA	JWE	2 2C 2	404.83 809.66 0.00	05/23/94 05/26/94 06/15/94	LADDER, EXTENSION, 40', WERNER, WELDCO, INC
		Y	94CP004247 139005	0	00	003	NS001009	S	EA	JWE	2 2C 2	188.49 376.98 0.00	05/23/94 05/26/94 06/15/94	LADDER, EXTENSION, 24', WERNER, WELDCO, INC
		Y	94CP004247 133272	0	00	004	NS000951	S	EA	JWE	100 100C 100	1.13 113.00 0.00	05/23/94 05/26/94 06/15/94	WHEEL, GRINDING, NO. 4 WELDCO, INC
		Y	94CP004247 133272	0	00	005	NS000956	S	EA	JWE	4 4C 4	17.25 69.00 0.00	05/23/94 05/26/94 06/15/94	" TIGERHOOD WELDING HELMET ", WELDCO, INC
		Y	94CP004247 133272	0	00	006	NS000957	S	EA	JWE	4 4C 4	7.57 30.28 0.00	05/23/94 05/26/94 06/15/94	LOOP, SPEEDY MTG., F & M MODEL FI5000 WELDCO, INC
		Y	94CP004247 133272	0	00	007	NS000958	S	EA	JWE	8 8C 8	7.62 60.96 0.00	05/23/94 05/26/94 06/15/94	HEADGEAR, FREE FLOATING WELDCO, INC

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____	____	Y	94CP004247 133272	0	00	008	NS000959	S	EA	JWE	5 5C 5	14.11 70.55 0.00	05/23/94 05/26/94 06/15/94	BRUSH, WIRE, S.S., F & M CAT. # 17637 WELDCO, INC
____	____	Y	94CP004247 133476	0	00	009	NS000967	S	EA	JWE	1 1C 1	18.41 18.41 0.00	05/24/94 05/26/94 06/15/94	HOOD, WELDING, HUNTSMAN MODEL 951P WELDCO, INC
____	____	Y	94CP004247 133476	0	00	010	NS000968	S	EA	JWE	2 2C 2	6.71 13.42 0.00	05/24/94 05/26/94 06/15/94	LENSE, GOLD, 4 1/2" X 5 1/4", #10 SHADE WELDCO, INC
____	____	Y	94CP004247 133476	0	00	011	NS000971	S	EA	JWE	6 6C 6	18.61 111.66 0.00	05/24/94 05/26/94 06/15/94	TAPE, LOFKIN MODEL 4125, OR EQUAL WELDCO, INC
____	____	Y	94CP004247 133476	0	00	012	NS000975	S	EA	JWE	2 2C 2	34.20 68.40 0.00	05/24/94 05/26/94 06/15/94	TIP, HEATING, ROSEBUD, SMITH MODEL 610 WELDCO, INC
____	____	Y	94CP004247 133476	0	00	013	NS000979	S	EA	JWE	15 15C 15	0.83 12.45 0.00	05/24/94 05/26/94 06/15/94	LENS, WELDING, 2" X 4 1/4", SHADE # 10 WELDCO, INC
____	____	Y	94CP004247 133476	0	00	014	NS000980	S	EA	JWE	15 15C 15	0.83 12.45 0.00	05/24/94 05/26/94 06/15/94	LENS, WELDING, 2" X 4 1/4", SHADE # 11 WELDCO, INC
____	____	Y	94CP004247 133476	0	00	015	NS000981	S	EA	JWE	15 15C 15	0.83 12.45 0.00	05/24/94 05/26/94 06/15/94	LENS, WELDING, 2" X 4 1/4", SHADE # 12 WELDCO, INC
____	____	Y	94CP004248 133272	0	00	001	NS000954	S	EA	JWE	6 0C 6	167.75 1,006.50 0.00	06/23/94 05/26/94 06/15/94	GRINDER, DIE, MILWAUKEE MODEL MT-5192 SCALLAN SUPPLY COMPANY
____	____	Y	94CP004248 133476	0	00	002	NS000962	S	EA	JWE	30 30C 30	3.24 97.20 0.00	06/23/94 05/26/94 06/15/94	BLADE, BAND SAW, S.S., SANDVIK-MILFORD SCALLAN SUPPLY COMPANY
____	____	Y	94CP004248 133476	0	00	003	NS000963	S	EA	JWE	30 30C 30	3.24 97.20 0.00	06/23/94 05/26/94 06/15/94	BLADE, BAND SAW, STANDARD CARBON STEEL SCALLAN SUPPLY COMPANY
____	____	Y	94CP004248 133476	0	00	004	NS000965	S	EA	JWE	6 6C 6	12.94 77.64 0.00	06/23/94 05/26/94 06/15/94	PLIERS, SIDE CUTTING, HIGH LEVERAGE, SCALLAN SUPPLY COMPANY

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		Y	94CP004248 0 00 005 133476	NS000966	S	SE	JWE	2 2C 2	23.40 46.80 0.00	06/23/94 05/26/94 06/15/94	WRENCH, COMBINATION, 7 PIECE SET, SCALLAN SUPPLY COMPANY
		Y	94CP004248 0 00 006 133476	NS000969	S	EA	JWE	2 2C 2	149.99 299.98 0.00	06/23/94 05/26/94 06/15/94	VISE, PIPE, RIDGID, F & M MAFCO SCALLAN SUPPLY COMPANY
		Y	94CP004248 0 00 007 133476	NS000972	S	EA	JWE	12 12C 12	7.20 86.40 0.00	06/23/94 05/26/94 06/15/94	RULE, LUFKIN 066F, NO SUBSTITUTION SCALLAN SUPPLY COMPANY
		Y	94CP004248 0 00 008 133476	NS000973	S	EA	JWE	6 6C 6	8.56 51.36 0.00	06/23/94 05/26/94 06/15/94	WRENCH, ADJUSTABLE, 6", PLASTIC COATED SCALLAN SUPPLY COMPANY
		Y	94CP004248 0 00 009 133476	NS000982	S	EA	JWE	24 24C 24	5.27 126.48 0.00	06/23/94 05/26/94 06/15/94	LOCK, MASTER # 1KA, KEYED ALIKE SCALLAN SUPPLY COMPANY
		Y	94CP004265 0 00 001 133635	NS000998	S	EA	RTH	19 19C 19	37.99 721.81 7.22	06/17/94 05/26/94 06/14/94	FLANGE, 150#, 4", 304L, S.S., S.O. AMERICAN STAINLESS & SUPPLY
		Y	94CP004265 0 00 002 133635	NS000999	S	EA	RTH	3 3C 3	58.87 176.61 0.00	06/17/94 05/26/94 06/14/94	FLANGE, 150#, 6", 304L, S.S., S.O. AMERICAN STAINLESS & SUPPLY
		Y	94CP004265 0 00 003 133635	NS001000	S	FT	RTH	63 63C 63	4.23 266.49 (1.06)	06/17/94 05/26/94 06/14/94	PIPE, 1 1/2", SCH40, 304L, S.S. AMERICAN STAINLESS & SUPPLY
		Y	94CP004265 0 00 004 133635	NS001001	S	FT	RTH	42 42C 41	5.45 228.90 8.17	06/17/94 05/26/94 06/14/94	PIPE, 2", SCH 40, 304L, S.S. AMERICAN STAINLESS & SUPPLY
		Y	94CP004265 0 00 005 133635	NS001002	S	EA	RTH	5 5C 5	17.98 89.90 0.00	06/17/94 05/26/94 06/14/94	FLANGE, 2", 150#, 304L, S.S., S.O. AMERICAN STAINLESS & SUPPLY
		Y	94CP004265 0 00 006 133635	NS001003	S	EA	RTH	1 1C 1	63.22 63.22 0.00	06/17/94 05/26/94 06/14/94	FLANGE, BLIND, 6" 150#, 304L, S.S. AMERICAN STAINLESS & SUPPLY
		Y	94CP004265 0 00 007 133635	NS001004	S	EA	RTH	34 34C 34	33.93 1,153.62 11.54	06/17/94 05/26/94 06/14/94	FLANGE, WELD NECK, 3", 150#, SCH 40, AMERICAN STAINLESS & SUPPLY

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___	___	Y	94CP004265 0 00 008 133635	NS001005	S	EA	RTH	4 4C 4	14.12 56.48 0.56	06/17/94 05/26/94 06/14/94	REDUCER, CONC. WELD, 3" X 1 1/2", SCH 40 AMERICAN STAINLESS & SUPPLY
___	___	Y	94CP004265 0 00 009 133635	NS001006	S	EA	RTH	3 3C 3	12.69 38.07 0.38	06/17/94 05/26/94 06/14/94	REDUCER, CONC. WELD, 3" X 2", SCH 40, AMERICAN STAINLESS & SUPPLY
___	___	Y	94CP004265 0 00 010 133633	NS000901	S	EA	RTH	11 11C 11	27.26 299.86 3.00	06/17/94 05/26/94 06/14/94	FLANGE, S.O., 3", 150#, S.R.F., 304L AMERICAN STAINLESS & SUPPLY
___	___	Y	94CP004265 0 00 011 133633	NS000902	S	EA	RTH	40 40C 40	33.93 1,357.20 13.57	06/17/94 05/26/94 06/14/94	FLANGE, WELD NECK, 3", 150#, S.R.F., AMERICAN STAINLESS & SUPPLY
___	___	Y	94CP004265 0 00 012 133484	NS000895	S	EA	RTH	2 2C 2	259.19 518.38 5.18	06/17/94 05/26/94 06/14/94	BUTT WELD, CONC. RED., 8" X 3", 304L, AMERICAN STAINLESS & SUPPLY
___	___	Y	94CP004265 0 00 013 133484	NS000896	S	EA	RTH	2 2C 2	153.99 307.98 0.00	06/17/94 05/26/94 06/14/94	FLANGE, WELD NECK, 8", 150#, 304L, AMERICAN STAINLESS & SUPPLY
___	___	Y	94CP004265 0 00 014 133484	NS000897	S	EA	RTH	7 7C 7	33.93 237.51 2.38	06/17/94 05/26/94 06/14/94	FLANGE, WELD NECK, 3", 150#, 304L, R.F., AMERICAN STAINLESS & SUPPLY
___	___	Y	94CP004265 0 00 015 133484	NS000898	S	EA	RTH	2 2C 2	18.04 36.08 0.36	06/17/94 05/26/94 06/14/94	WELD-O-LET, 1" ON 3", 304L, S.S. AMERICAN STAINLESS & SUPPLY
___	___	Y	94CP004265 0 00 016 133484	NS000899	S	EA	RTH	2 2C 2	10.82 21.64 0.22	06/17/94 05/26/94 06/14/94	WELD-O-LET, 1/2" ON 3", 304L, S.S. AMERICAN STAINLESS & SUPPLY
___	___	Y	94CP004265 0 00 017 133484	NS000900	S	EA	RTH	2 2C 2	30.03 60.06 0.60	06/17/94 05/26/94 06/14/94	TEE, BUTT WELD, 3", 304L, S.S. AMERICAN STAINLESS & SUPPLY
___	___	Y	94CP004282 0 00 001 133629	NS000846	S	EA	RTH	9 9C 9	9.00 81.00 0.00	06/13/94 05/26/94 06/15/94	FLANGE, SOCKET WELD, 150#, 2", BLK STEEL PIPE PRODUCTS, INC.
___	___	Y	94CP004282 0 00 002 133629	NS000847	S	EA	RTH	10 10C 10	8.78 87.80 (2.00)	06/13/94 05/26/94 06/15/94	ELL, BLK STEEL, 2", 3000#, SOCKET WELD PIPE PRODUCTS, INC.

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___	___	Y	94CP004282 0 00 003 133629	NS000848	S	EA	RTH	4 4C 4	10.41 41.64 0.00	06/13/94 05/26/94 06/15/94	ELL, 45 DEGREE, 2", 3000#, SOCKET WELD, PIPE PRODUCTS, INC.
___	___	Y	94CP004282 0 00 004 133629	NS000849	S	EA	RTH	3 3C 3	12.47 37.41 0.00	06/13/94 05/26/94 06/15/94	TEE, BLK STEEL, 2", 3000#, SOCKET WELD, PIPE PRODUCTS, INC.
___	___	Y	94CP004282 0 00 005 133629	NS000850	S	EA	RTH	1 1C 1	76.25 76.25 0.00	06/13/94 05/26/94 06/15/94	NIPPLE, SWAGE, 6" X 2", SCH 80, BLK PIPE PRODUCTS, INC.
___	___	Y	94CP004282 0 00 006 133629	NS000852	S	EA	RTH	1 1C 1	161.00 161.00 0.00	06/13/94 05/26/94 06/15/94	NIPPLE, SWAGE, 6" X 2", SCH 80, BLK PIPE PRODUCTS, INC.
___	___	Y	94CP004282 0 00 007 133629	NS000853	S	EA	RTH	1 1C 1	167.70 167.70 0.00	06/13/94 05/26/94 06/15/94	NIPPLE, SWAGE, 8" X 2", SCH 80, BLK PIPE PRODUCTS, INC.
___	___	Y	94CP004282 0 00 008 133629	NS000854	S	EA	RTH	1 1C 1	22.25 22.25 0.00	06/13/94 05/26/94 06/15/94	NIPPLE, SWAGE, 6" X 2", SCH 80, BLK PIPE PRODUCTS, INC.
___	___	Y	94CP004282 0 00 009 133629	NS000856	S	FT	RTH	200 200C 217	1.68 336.00 (28.56)	06/13/94 05/26/94 06/15/94	PIPE, BLK STEEL, 2", SMLS, A-53, GRADE B PIPE PRODUCTS, INC.
___	___	Y	94CP004282 0 00 010 133629	NS000858	S	EA	RTH	12 12C 12	5.10 61.20 0.00	06/13/94 05/26/94 06/15/94	COUPLING, SOCKET WELD, 2", 3000#, BLK PIPE PRODUCTS, INC.
___	___	Y	94CP004282 0 00 011 133629	NS000859	S	EA	RTH	2 2C 2	16.70 33.40 0.00	06/13/94 05/26/94 06/15/94	FLANGE, WELD NECK, 6", 150#, SCH 40 PIPE PRODUCTS, INC.
___	___	Y	94CP004282 0 00 012 133629	NS000861	S	EA	RTH	3 3C 3	2.56 7.68 0.00	06/13/94 05/26/94 06/15/94	SOCK-O-LET, BLK STEEL, 1/2" ON 2", PIPE PRODUCTS, INC.
___	___	Y	94CP004282 0 00 013 133629	NS000862	S	EA	RTH	2 2C 2	29.20 58.40 0.00	06/13/94 05/26/94 06/15/94	FLANGE, WELD NECK, 2", 150# SCH 40, PIPE PRODUCTS, INC.
___	___	Y	94CP004282 0 00 014 133629	NS000864	S	EA	RTH	1 1C 1	68.00 68.00 0.00	06/13/94 05/26/94 06/15/94	FLANGE, WELD NECK, 4", 150# SCH 40, PIPE PRODUCTS, INC.

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OK	COMPLETE	CLOSED	PO NUMBER REL C\O LINE REQUISITION NUMBER	ITEM NUMBER	TYPE	U/M	BUYER	QUANTITY ORDERED RECEIVED INVOICED	VALUES UNIT EXTENDED OPEN	DATES REQUIRED REQUISITION ISSUED	DESCRIPTION VENDOR DELIVER TO
___	___	Y	94CP004282 0 00 015 133629	NS000865	S	EA	RTH	1 1C 1	212.40 212.40 0.00	06/13/94 05/26/94 06/15/94	FLANGE, WELD NECK, 8", 150# SCH 40, PIPE PRODUCTS, INC.
___	___	Y N/A	94CP004319 0 00 001 000000000160586	1	G	EA	MSA	22 22C 22	69.84 1,536.48 0.00	06/15/94 06/09/94 06/09/94	WELDING BLANKETS, #916-24 WELDCO, INC
___	___	Y	94CP004357 0 00 001 136167	1	G	EA	JWE	40 40C 40	6.67 266.80 5.33	06/06/94 06/09/94 06/15/94	2" X 4" X 16' LUMBER RIEMEIER LUMBER
___	___	Y	94CP004357 0 00 002 136167	2	G	EA	JWE	15 15C 15	24.80 372.00 7.44	06/06/94 06/09/94 06/15/94	4" X 8" X 3/4" FORM PLYWOOD RIEMEIER LUMBER
___	___	Y	94CP004357 0 00 003 136167	3	G	BX	JWE	2 2C 2	25.70 51.40 1.03	06/06/94 06/09/94 06/15/94	16P DOUBLE HEADED NAILS, 50 LB BOX RIEMEIER LUMBER
___	___	Y	94CP004363 0 00 001 000000000160611	1	G	EA	ADS	12 12C 12	19.86 238.32 0.00	06/14/94 06/09/94 06/13/94	#2 X 12' LONG WELDING LEADS WITH LENCO WELDCO, INC
___	___	Y N/A	94CP004363 0 00 002 000000000160611	2	G	EA	ADS	12 12C 12	18.11 217.32 0.00	06/14/94 06/09/94 06/13/94	#2 X 12' LONG GROUND CABLES WITH 200 AMP WELDCO, INC
___	___	Y	94CP004363 0 00 003 000000000160611	3	G	EA	ADS	2 2C 2	229.56 459.12 0.00	06/14/94 06/09/94 06/13/94	SMALL WELDING ROD OVENS, 115 VOLT WELDCO, INC
___	___	Y	94CP004363 0 00 004 000000000160611	4	G	PR	ADS	24 24C 24	7.45 178.80 0.00	06/14/94 06/09/94 06/13/94	WELDING GLOVES XL WELDCO, INC
___	___	Y	94CP004368 0 00 001 133625	NS000877	S	EA	RTH	1 1C 1	14.15 14.15 0.00	06/06/94 06/14/94 06/14/94	WELD-O-LET, 3000#, 3" ON 6", BLK STEEL, PIPE PRODUCTS, INC.
___	___	Y	94CP004368 0 00 002 133625	NS000878	S	EA	RTH	7 7C 7	8.50 59.50 0.00	06/06/94 06/14/94 06/14/94	FLANGE, WELD NECK, 3", 150#, SCH 40, PIPE PRODUCTS, INC.
___	___	Y	94CP004368 0 00 003 133625	NS000879	S	EA	RTH	2 2C 2	50.50 101.00 0.00	06/06/94 06/14/94 06/14/94	NIPPLE, SWAGE, 3" X 2", SCH 80, ECC., PIPE PRODUCTS, INC.

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OK	COMPLETE	CLOSED	PO NUMBER REL C\O LINE REQUISITION NUMBER	ITEM NUMBER	TYPE	U/M	BUYER	QUANTITY ORDERED RECEIVED INVOICED	VALUES UNIT EXTENDED OPEN	DATES REQUIRED REQUISITION ISSUED	DESCRIPTION VENDOR DELIVER TO
___	___	Y	94CP004368 0 00 004 133625	NS000880	S	EA	RTH	2 2C 2	1.53 3.06 0.05	06/06/94 06/14/94 06/14/94	COUPLING, SOCKET WELD, 1", 3000#, BLK PIPE PRODUCTS, INC.
___	___	Y	94CP004368 0 00 005 133625	NS000882	S	EA	RTH	2 2C 2	5.14 10.28 0.00	06/06/94 06/14/94 06/14/94	SOCK-O-LET, 3000#, 2" ON 3", BLK STEEL PIPE PRODUCTS, INC.
___	___	Y	94CP004368 0 00 006 133625	NS000883	S	EA	RTH	2 2C 2	8.70 17.40 0.00	06/06/94 06/14/94 06/14/94	ELBOW, SOCKET WELD, 2", 3000#, 90 DEGREE PIPE PRODUCTS, INC.
___	___	Y	94CP004368 0 00 007 133625	NS000885	S	EA	RTH	4 4C 4	5.40 21.60 0.00	06/06/94 06/14/94 06/14/94	ELL, WELD, 3", 90 DEGREE, SCH 40 PIPE PRODUCTS, INC.
___	___	Y	94CP004368 0 00 008 133625	NS000886	S	EA	RTH	4 4C 4	9.70 38.80 0.00	06/06/94 06/14/94 06/14/94	FLANGE, SOCKET WELD, 2", 150#, SCH 40, PIPE PRODUCTS, INC.
___	___	Y	94CP004374 0 00 001 133631	2	G	EA	DMK	1 1C 1	28.50 28.50 0.00	06/09/94 07/05/94 07/05/94	8", 150#, SCH 40, S.R.F., BLK STEEL, READING SUPPLIES INCORPORATED
___	___	Y	94CP004374 0 00 002 133631	3	G	EA	DMK	1 1C 2	2.75 2.75 (2.64)*	06/09/94 07/05/94 07/05/94	1/2" ON 2", 3000#, BLK STEEL, S.O.L. READING SUPPLIES INCORPORATED
___	___	Y	94CP004374 0 00 003 133631	4	G	EA	DMK	1 1C 1	211.50 211.50 4.23	06/09/94 07/05/94 07/05/94	8" X 2", SCH 80, BLK STEEL, SWAGE READING SUPPLIES INCORPORATED
___	___	Y	94CP004374 0 00 004 133631	5	G	EA	DMK	4 4C 3	4.92 19.68 5.12	06/09/94 07/05/94 07/05/94	1" ON 2", 3000#, BLK STEEL, S.O.L. READING SUPPLIES INCORPORATED
___	___	Y	94CP004374 0 00 005 133631	6	G	EA	DMK	6 6C 6	17.50 105.00 0.00	06/09/94 07/05/94 07/05/94	2", 3000#, BLK STEEL, SOCKET WELD, TEE READING SUPPLIES INCORPORATED
___	___	Y	94CP004374 0 00 006 133631	7	G	EA	DMK	2 2C 2	29.50 59.00 1.18	06/09/94 07/05/94 07/05/94	3" X 2", SCH 80, CONCENTRIC, SWAGE READING SUPPLIES INCORPORATED
___	___	Y	94CP004374 0 00 007 133631	8	G	EA	DMK	6 6C 6	7.15 42.90 0.00	06/09/94 07/05/94 07/05/94	2", 3000#, SOCKET WELD, BLACK STEEL, READING SUPPLIES INCORPORATED

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OK	COMPLETE	CLOSED	PO NUMBER REL C\O LINE / REQUISITION NUMBER ITEM	ITEM NUMBER	TYPE	U/M	BUYER	QUANTITY ORDERED / RECEIVED / INVOICED	VALUES UNIT / EXTENDED / OPEN	DATES REQUIRED / REQUISITION ISSUED	DESCRIPTION / VENDOR / DELIVER TO
____	____	Y	94CP004374 0 00 008 133631	9	G	EA	DMK	6 6C 6	12.50 75.00 1.50	06/09/94 07/05/94 07/05/94	2", 3000#, SOCKET WELD, BLK STEEL, READING SUPPLIES INCORPORATED
____	____	Y	94CP004374 0 00 009 133631	10	G	EA	DMK	4 4C 4	13.95 55.80 1.11	06/09/94 07/05/94 07/05/94	2", 3000#, SOCKET WELD, BLK STEEL, 45 READING SUPPLIES INCORPORATED
____	____	Y	94CP004374 0 00 010 133631	11	G	EA	DMK	2 2C 2	29.50 59.00 1.18	06/09/94 07/05/94 07/05/94	3" X 2", SCH 80, BLK STEEL, SWAGE NIPPLE READING SUPPLIES INCORPORATED
____	____	Y	94CP004374 0 00 011 133631	12	G	EA	DMK	2 2C 2	7.95 15.90 0.00	06/09/94 07/05/94 07/05/94	3", 150#, S.R.F., BLK STEEL, W.N. READING SUPPLIES INCORPORATED
____	____	Y	94CP004374 0 00 012 133631	13	G	EA	DMK	11 11C 11	5.80 63.80 1.27	06/09/94 07/05/94 07/05/94	2", 150#, S.R.F., BLK STEEL, SOCKET READING SUPPLIES INCORPORATED
____	____	Y	94CP004374 0 00 013 133631	1	G	EA	DMK	1 1C 0	2.75 2.75 2.75	06/09/94 07/05/94 07/05/94	1/2" ON 8", 3000#, BLK STEEL, S.O.L. READING SUPPLIES INCORPORATED
____	____	Y	94CP004374 0 00 014 ~~133631~~	14	G	EA	DMK	25 25C 25	1.60 40.00 0.00	06/09/94 07/05/94 07/05/94	2" CLEVIS HANGERS. READING SUPPLIES INCORPORATED
____	____	Y	94CP004379 0 00 001 138998	NS000780	S	FT	AJH	200 200C 200	0.70 140.00 0.00	06/30/94 06/06/94 06/14/94	ANGLE IRON, BLACK STEEL, 2" X 2" X 1/4" ACKERMAN STEEL CO
____	____	Y	94CP004379 0 00 002 138998	NS000782	S	FT	AJH	200 200C 200	0.82 164.00 0.00	06/30/94 06/06/94 06/14/94	FLAT IRON, BLACK STEEL, 4" WIDE X 1/4" T ACKERMAN STEEL CO
____	____	Y	94CP004379 0 00 003 138998	NS000783	S	FT	AJH	200 200C 200	0.43 86.00 0.00	06/30/94 06/06/94 06/14/94	FLAT IRON, BLACK STEEL, 2" WIDE X 1/4" T ACKERMAN STEEL CO
____	____	Y	94CP004379 0 00 004 138998	NS000784	S	EA	AJH	6 6C 6	57.16 342.96 0.00	06/30/94 06/06/94 06/14/94	PLATE, BLACK STEEL, 4' X 4' X 1/4" T ACKERMAN STEEL CO
____	____	Y	94CP004379 0 00 005 133636	NS000903	S	EA	AJH	200 200C 200	1.68 336.00 (16.80)	06/30/94 06/06/94 06/14/94	PIPE, BLK STEEL, 2", SMLS, ASTM A-53, ACKERMAN STEEL CO

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____	____	Y	94CP004393 0 00 001 133620	NS000868	S	EA	RTH	3 3C 3	175.20 525.60 5.26	05/19/94 06/06/94 06/16/94	FLANGE, WELD NECK, 8", 150#, 304L, R.F., ALLOY PIPING SUPPLY, INC.
____	____	Y	94CP004393 0 00 002 133620	NS000869	S	EA	RTH	1 1C 1	282.00 282.00 1.68	05/19/94 06/06/94 06/16/94	REDUCER, WELD, 8" X 3", 304L, CONC., ALLOY PIPING SUPPLY, INC.
____	____	Y	94CP004393 0 00 003 133620	NS000870	S	EA	RTH	2 2C 2	12.50 25.00 0.25	05/19/94 06/06/94 06/16/94	WELD-O-LET, 3000#, 1" ON 3", 304L ALLOY PIPING SUPPLY, INC.
____	____	Y	94CP004393 0 00 004 133620	NS000871	S	EA	RTH	2 2C 2	8.50 17.00 0.17	05/19/94 06/06/94 06/16/94	WELD-O-LET, 3000#, 1/2" ON 3", 304L, ALLOY PIPING SUPPLY, INC.
____	____	Y	94CP004393 0 00 005 133620	NS000872	S	EA	RTH	4 4C 4	32.75 131.00 0.78	05/19/94 06/06/94 06/16/94	TEE, BUTT WELD, 3", 304L, S.S. ALLOY PIPING SUPPLY, INC.
____	____	Y	94CP004393 0 00 006 133620	NS000873	S	EA	RTH	12 12C 12	38.50 462.00 4.62	05/19/94 06/06/94 06/16/94	FLANGE, WELD NECK, 3", 150#, SCH 40, ALLOY PIPING SUPPLY, INC.
____	____	Y	94CP004393 0 00 007 133620	NS000874	S	EA	RTH	2 2C 2	56.00 112.00 1.12	05/19/94 06/06/94 06/16/94	FLANGE, WELD NECK, 4", 150#, SCH 40, ALLOY PIPING SUPPLY, INC.
____	____	Y	94CP004393 0 00 008 133620	NS000875	S	EA	RTH	2 2C 2	8.50 17.00 0.17	05/19/94 06/06/94 06/16/94	WELD-O-LET, 3000#, 1/2" ON 8", 304L, ALLOY PIPING SUPPLY, INC.
____	____	Y	94CP004393 0 00 009 133620	NS000876	S	EA	RTH	2 2C 2	268.50 537.00 3.20	05/19/94 06/06/94 06/16/94	REDUCER, WELD, 8" X 3", 304L, S.S., ALLOY PIPING SUPPLY, INC.
____	____	Y	94CP004393 0 00 010 133624	NS000887	S	EA	RTH	4 4C 4	175.20 700.80 7.01	05/19/94 06/06/94 06/16/94	FLANGE, WELD NECK, 8", 150#, SCH 40, ALLOY PIPING SUPPLY, INC.
____	____	Y	94CP004393 0 00 011 133624	NS000888	S	EA	RTH	2 2C 2	282.00 564.00 3.36	05/19/94 06/06/94 06/16/94	REDUCER, CONC. WELD, 8" X 3", SCH 40, ALLOY PIPING SUPPLY, INC.
____	____	Y	94CP004393 0 00 012 133624	NS000889	S	EA	RTH	22 22C 22	38.50 847.00 8.47	05/19/94 06/06/94 06/16/94	FLANGE, WELD NECK, 3", 150#, SCH 40, ALLOY PIPING SUPPLY, INC.

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OK	COMPLETE	CLOSED	PO NUMBER / REQUISITION NUMBER	REL	C\O	LINE ITEM	ITEM NUMBER	TYPE	U/M	BUYER	QUANTITY ORDERED / RECEIVED / INVOICED	VALUES UNIT / EXTENDED / OPEN	DATES REQUIRED / REQUISITION ISSUED	DESCRIPTION / VENDOR / DELIVER TO
___	___	Y	94CP004393 133624	0	00	013	NS000890	S	EA	RTH	4 4C 4	8.50 34.00 0.34	05/19/94 06/06/94 06/16/94	WELD-O-LET, 3000#, 1/2" ON 3", 304L, ALLOY PIPING SUPPLY, INC.
___	___	Y	94CP004393 133624	0	00	014	NS000891	S	EA	RTH	6 6C 6	32.75 196.50 1.17	05/19/94 06/06/94 06/16/94	TEE, BUTT WELD, 3", SCH 40, 304L, S.S. ALLOY PIPING SUPPLY, INC.
___	___	Y	94CP004393 133624	0	00	015	NS000892	S	EA	RTH	6 6C 6	12.50 75.00 0.75	05/19/94 06/06/94 06/16/94	WELD-O-LET, 3000#, 1" ON 3", 304L, S.S. ALLOY PIPING SUPPLY, INC.
___	___	Y	94CP004393 133624	0	00	016	NS000893	S	EA	RTH	2 2C 2	268.50 537.00 3.20	05/19/94 06/06/94 06/16/94	REDUCER, ECC. WELD, 8" X 3", SCH 40, ALLOY PIPING SUPPLY, INC.
___	___	Y	94CP004393 133624	0	00	017	NS000894	S	EA	RTH	2 2C 2	8.50 17.00 0.17	05/19/94 06/06/94 06/16/94	WELD-O-LET, 3000#, 1/2" ON 8", 304L, ALLOY PIPING SUPPLY, INC.
___	___	Y	94CP004393 133628	0	00	018	NS000840	S	EA	RTH	5 5C 5	38.50 192.50 1.92	05/19/94 06/06/94 06/16/94	FLANGE, WELD NECK, 3", 150#, SCH 40 ALLOY PIPING SUPPLY, INC.
___	___	Y	94CP004393 133628	0	00	019	NS000841	S	EA	RTH	1 1C 1	282.00 282.00 1.68	05/19/94 06/06/94 06/16/94	WELD RED, CONC., 8" X 3", SCH 40, ALLOY PIPING SUPPLY, INC.
___	___	Y	94CP004393 133628	0	00	020	NS000842	S	EA	RTH	1 1C 1	56.00 56.00 0.56	05/19/94 06/06/94 06/16/94	FLANGE, WELD NECK, 4", 150#, SCH 40 ALLOY PIPING SUPPLY, INC.
___	___	Y	94CP004393 133628	0	00	021	NS000843	S	EA	RTH	1 1C 1	175.00 175.00 1.55	05/19/94 06/06/94 06/16/94	FLANGE, WELD NECK, 8", 150#, SCH 40 ALLOY PIPING SUPPLY, INC.
___	___	Y	94CP004393 133628	0	00	022	NS000844	S	EA	RTH	4 4C 4	32.75 131.00 0.78	05/19/94 06/06/94 06/16/94	TEE, BUTT WELD, 3", SCH 40, 304L ALLOY PIPING SUPPLY, INC.
___	___	Y	94CP004393 133628	0	00	023	NS000845	S	EA	RTH	1 1C 1	12.50 12.50 0.15	05/19/94 06/06/94 06/16/94	WELD-O-LET, 3000#, 1" ON 3", 304L S.S. ALLOY PIPING SUPPLY, INC.
___	___	Y	94CP004394 139007	0	00	001	1	G	EA	MSA	200 200C 200	0.39 78.00 1.17	06/20/94 06/09/94 06/14/94	PLASTIC PIPE AND THREAD PROTECTORS MUTUAL MFG. & SUPPLY CO.

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____	____	Y	94CP004394 139007	0	00	002	2	G	EA	MSA	50 50C 50	0.67 33.50 0.50	06/06/94 06/09/94 06/14/94	PLASTIC PIPE AND THREAD PROTECTORS FOR MUTUAL MFG. & SUPPLY CO.
____	____	Y	94CP004394 139007	0	00	003	3	G	EA	MSA	50 50C 50	0.21 10.50 0.16	06/06/94 06/09/94 06/14/94	2" PLASTIC PIPE AND THREAD PROTECTORS MUTUAL MFG. & SUPPLY CO.
____	____	Y	94CP004394 139007	0	00	004	4	G	EA	MSA	50 50C 50	0.13 6.50 0.10	06/06/94 06/09/94 06/14/94	1 1/2" PLASTIC PIPE AND THREAD MUTUAL MFG. & SUPPLY CO.
____	____	Y	94CP004394 139007	0	00	005	5	G	EA	MSA	50 50C 50	0.11 5.50 0.08	06/06/94 06/09/94 06/14/94	1 1/4" PLASTIC PIPE AND THREAD MUTUAL MFG. & SUPPLY CO.
____	____	Y	94CP004394 139007	0	00	006	6	G	EA	MSA	50 50C 50	0.08 4.00 0.06	06/06/94 06/09/94 06/14/94	1" PLASTIC PIPE AND THREAD PROTECTORS MUTUAL MFG. & SUPPLY CO.
____	____	Y	94CP004394 139007	0	00	007	7	G	EA	MSA	50 50C 50	0.05 2.50 0.04	06/06/94 06/09/94 06/14/94	1/2" PLASTIC PIPE AND THREAD PROTECTORS MUTUAL MFG. & SUPPLY CO.
____	____	Y	94CP004397 133637	0	00	001	NS000985	S	EA	AJH	120 120C 120	2.23 267.60 0.00	07/30/94 05/26/94 06/14/94	BOLT, STUD, 3/4" X 4 1/2", 304 , S.S., P.A.M. DISTRIBUTING
____	____	Y	94CP004397 133637	0	00	002	NS000986	S	EA	AJH	40 40C 40	2.15 86.00 0.00	07/30/94 05/26/94 06/14/94	BOLT, STUD, 3/4" X 4 1/4", 304 , S.S., P.A.M. DISTRIBUTING
____	____	Y	94CP004397 133637	0	00	003	NS000987	S	EA	AJH	1215 1215C 1215	1.30 1,579.50 0.00	07/30/94 05/26/94 06/14/94	BOLT, STUD, 5/8" X 3 3/4", 304 , S.S., P.A.M. DISTRIBUTING
____	____	Y	94CP004397 133637	0	00	004	NS000988	S	EA	AJH	35 35C 35	1.22 42.70 0.00	07/30/94 05/26/94 06/14/94	BOLT, STUD, 5/8" X 3 1/2", 304 , S.S., P.A.M. DISTRIBUTING
____	____	Y	94CP004397 133637	0	00	005	NS000989	S	EA	AJH	350 350C 350	8.60 3,010.00 0.00	07/30/94 05/26/94 06/14/94	NUT, HEX, HEAVY, 3/4", 304 , S.S., P.A.M. DISTRIBUTING
____	____	Y	94CP004397 133637	0	00	006	NS000990	S	EA	AJH	2600 2600C 2600	5.14 13,364.00 0.00	07/30/94 05/26/94 06/14/94	NUT, HEX, HEAVY, 5/8", 304 , S.S., P.A.M. DISTRIBUTING

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___	___	Y	94CP004397 133637	0	00	007	NS000991	S	EA	AJH	20 20C 20	0.67 13.40 0.00	07/30/94 05/26/94 06/14/94	BOLT, STUD, BLK STEEL, 3/4" X 4 1/2", P.A.M. DISTRIBUTING
___	___	Y	94CP004397 133637	0	00	008	NS000992	S	EA	AJH	28 28C 28	0.68 19.04 0.00	07/30/94 05/26/94 06/14/94	BOLT, STUD, 3/4" X 4 1/4", BLK STEEL, P.A.M. DISTRIBUTING
___	___	Y	94CP004397 133637	0	00	009	NS000993	S	EA	AJH	280 280C 280	0.38 106.40 0.00	07/30/94 05/26/94 06/14/94	BOLT, STUD, 5/8" X 3 3/4", BLK STEEL, P.A.M. DISTRIBUTING
___	___	Y	94CP004397 133637	0	00	010	NS000994	S	EA	AJH	60 60C 60	0.37 22.20 0.00	07/30/94 05/26/94 06/14/94	BOLT, STUD, 5/8" X 3 1/2", BLK STEEL, P.A.M. DISTRIBUTING
___	___	Y	94CP004397 133637	0	00	011	NS000995	S	EA	AJH	10 10C 10	0.20 2.00 0.00	07/30/94 05/26/94 06/14/94	BOLT, STUD, 1/2" X 2 3/4", BLK STEEL, P.A.M. DISTRIBUTING
___	___	Y	94CP004397 133637	0	00	012	NS000996	S	EA	AJH	110 110C 110	0.23 24.75 0.03	07/30/94 05/26/94 06/14/94	NUT, HEX, HEAVY, 3/4", BLK STEEL, P.A.M. DISTRIBUTING
___	___	Y	94CP004397 133637	0	00	013	NS000997	S	EA	AJH	750 750C 750	0.16 120.75 0.07	07/30/94 05/26/94 06/14/94	NUT, HEX, HEAVY, 5/8", BLK STEEL, P.A.M. DISTRIBUTING
___	___	Y	94CP004406 000000000160562	0	00	001	1	G	EA	MSA	1 1C 1	2,506.39 2,506.39 0.00	06/20/94 06/06/94 06/15/94	FISHER HYDRAULIC BENDER, #BTI-B WITH WELDCO, INC
___	___	Y	94CP004406 000000000160562	0	00	002	2	G	EA	MSA	1 1C 1	90.00 90.00 0.00	06/20/94 06/06/94 06/15/94	ADAPTOR, MANDREL, NUMBER MA-2 WELDCO, INC
___	___	Y	94CP004406 000000000160562	0	00	003	3	G	EA	MSA	1 1C 1	135.00 135.00 0.00	06/20/94 06/06/94 06/15/94	MANDREL, .872, #MO872 WELDCO, INC
___	___	Y	94CP004413 000000000160610	0	00	001	1	G	EA	AJH	12 12C 12	4.60 55.20 0.00	06/20/94 06/09/94 06/15/94	24" FRAMING SQUARE F & M MAFCO, INC.
___	___	Y	94CP004413 000000000160610	0	00	002	2	G	BX	AJH	1 1C 1	60.00 60.00 0.00	06/20/94 06/09/94 06/15/94	1/2" X 600' PREMIUM GRADE MANILLA ROPE F & M MAFCO, INC.

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___	___	Y	94CP004413 0 00 003 3 000000000160610		G	EA	AJH	12 12C 12	4.35 52.20 0.00	06/20/94 06/09/94 06/15/94	HEX KEY ALLEN WRENCH SET WITH BUILT-IN F & M MAFCO, INC.
___	___	Y	94CP004413 0 00 004 4 000000000160610		G	EA	AJH	12 12C 12	0.74 8.88 0.00	06/20/94 06/09/94 06/15/94	SOAPSTONE HOLDER 1/2" X 3/16" F & M MAFCO, INC.
___	___	Y	94CP004413 0 00 005 1 000000000160614		G	SE	AJH	1 1C 1	60.51 60.51 0.00	06/20/94 06/09/94 06/15/94	METAL EMBOSSING DIE HAND STAMPS, A-Z F & M MAFCO, INC.
___	___	Y	94CP004413 0 00 006 2 000000000160614		G	EA	AJH	24 24C 24	74.76 1,794.24 0.00	06/20/94 06/09/94 06/15/94	WELDING BLANKETS, 66" X 80" WITH F & M MAFCO, INC.
___	___	Y	94CP004413 0 00 007 3 000000000160614		G	EA	AJH	24 24C 24	14.95 358.80 0.00	06/20/94 06/09/94 06/15/94	GREEN WELDING JACKETS XL F & M MAFCO, INC.
___	___	Y N/A	94CP004413 0 00 008 4 000000000160614		G	RO	AJH	24 24C 24	3.08 73.92 0.00	06/20/94 06/09/94 06/15/94	3" WIDE MASKING TAPE F & M MAFCO, INC.
___	___	Y	94CP004413 0 00 009 5 000000000160614		G	EA	AJH	12 12C 12	4.50 54.00 0.00	06/20/94 06/09/94 06/15/94	12" TWO PIECE TRI SQUARE WITH LEVEL F & M MAFCO, INC.
___	___	Y	94CP004413 0 00 010 1 000000000160613		G	EA	AJH	2 2C 2	88.60 177.20 0.00	06/20/94 06/09/94 06/15/94	SIDE ARM GRINDERS 4 1/2", #4245-09 F & M MAFCO, INC.
___	___	Y	94CP004413 0 00 011 2 000000000160613		G	EA	AJH	4 4C 4	10.77 43.08 0.00	06/20/94 06/09/94 06/15/94	TAPE LINES, 50' F & M MAFCO, INC.
___	___	Y	94CP004413 0 00 012 3 000000000160613		G	EA	AJH	12 12C 12	7.95 95.40 0.00	06/20/94 06/09/94 06/15/94	FACE SHIELD HEADGEAR F & M MAFCO, INC.
___	___	Y	94CP004413 0 00 013 4 000000000160613		G	EA	AJH	36 36C 36	2.69 96.84 0.00	06/20/94 06/09/94 06/15/94	CLEAR PLASTIC FACE SHIELDS FOR FACE F & M MAFCO, INC.
___	___	Y	94CP004413 0 00 014 5 000000000160613		G	EA	AJH	12 12C 12	8.80 105.60 0.00	06/20/94 06/09/94 06/15/94	PIPE MARKING WRAP-AROUNDS FOR 3"-6" F & M MAFCO, INC.

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___	___	Y	94CP004413 0 00 015 1 160612		G	EA	AJH	24 24C 24	6.30 151.20 0.00	06/20/94 06/09/94 06/15/94	9" MAGNETIC TORPEDO LEVEL F & M MAFCO, INC.
___	___	Y	94CP004413 0 00 016 2 160612		G	EA	AJH	15 15C 15	6.74 101.10 0.00	06/20/94 06/09/94 06/15/94	6" ADJUSTABLE CRESCENT WRENCH F & M MAFCO, INC.
___	___	Y	94CP004413 0 00 017 3 160612		G	EA	AJH	15 15C 15	8.85 132.75 0.00	06/20/94 06/09/94 06/15/94	7" CHANNEL LOCKS TONGUE AND GROOVE F & M MAFCO, INC.
___	___	Y	94CP004413 0 00 018 4 160612		G	GL	AJH	12 12C 12	8.80 105.60 0.00	06/20/94 06/09/94 06/15/94	CUTTING OIL RIDGID DARK, ONE GALLON F & M MAFCO, INC.
___	___	Y	94CP004413 0 00 019 5 160612		G	EA	AJH	12 12C 12	18.10 217.20 0.00	06/20/94 06/09/94 06/15/94	ELECTRIC ENGRAVING (ETCHING) TOOL F & M MAFCO, INC.
___	___	Y	94CP004413 0 00 021 1 133639		G	EA	AJH	12 12C 12	48.95 587.40 0.00	06/20/94 06/09/94 06/15/94	PIP STANDS, ADJUSTABLE 25"-48" F & M MAFCO, INC.
___	___	Y	94CP004413 0 00 022 2 133639		G	EA	AJH	2 2C 2	287.30 574.60 0.00	06/20/94 06/09/94 06/15/94	PORTABLE TRI STAND CHAIN VISE RIDGID, F & M MAFCO, INC.
___	___	Y	94CP004413 0 00 023 3 133639		G	EA	AJH	48 48C 48	9.60 460.80 0.00	06/20/94 06/09/94 06/15/94	RECTORSEAL #5 PIPE DOPE 16 OZ. CANS F & M MAFCO, INC.
___	___	Y	94CP004413 0 00 024 4 133639		G	EA	AJH	4 4C 4	17.55 70.20 0.00	06/20/94 06/09/94 06/15/94	WELDING HOODS TIGERHOOD #910 F & M MAFCO, INC.
___	___	Y	94CP004413 0 00 025 5 133639		G	EA	AJH	6 6C 6	11.20 67.20 0.00	06/20/94 06/09/94 06/15/94	GALVANIZED FUNNEL, 2 GALLON CAPACITY F & M MAFCO, INC.
___	___	Y	94CP004413 0 00 026 6 133639		G	EA	AJH	6 6C 6	115.00 690.00 0.00	06/20/94 06/09/94 06/15/94	WELDING SCREENS, 2 PANEL 5' X 6' F & M MAFCO, INC.
___	___	Y	94CP004413 0 00 027 1 133638		G	EA	AJH	100 100C 100	1.15 115.00 0.00	06/20/94 06/09/94 06/15/94	GRINDING WHEELS 4 1/2" X 1/4" X 7/8" F & M MAFCO, INC.

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____	____	Y	94CP004413 0 00 028 2 133638		G	EA	AJH	100 100C 100	3.65 365.00 0.00	06/20/94 06/09/94 06/15/94	BAND SAW BLADES 44 7/89" X 1/2" X .020 F & M MAFCO, INC.
____	____	Y	94CP004413 0 00 029 3 133638		G	EA	AJH	24 24C 24	7.85 188.40 0.00	06/20/94 06/09/94 06/15/94	LUFKIN RED END 6' INSIDE FOLDING RULE F & M MAFCO, INC.
____	____	Y	94CP004413 0 00 030 4 133638		G	EA	AJH	6 6C 6	469.00 2,814.00 0.00	06/20/94 06/09/94 06/15/94	KNAACK #89 TOOL BOX WITH CASTERS F & M MAFCO, INC.
____	____	Y	94CP004413 0 00 031 5 133638		G	CS	AJH	1 1C 1	70.00 70.00 0.00	06/20/94 06/09/94 06/15/94	TEFLON TAPE 1/2" THREAD SEAL F & M MAFCO, INC.
____	____	Y	94CP004413 0 00 032 1 138999		G	EA	AJH	4 4C 4	48.60 194.40 0.00	06/20/94 06/09/94 06/15/94	RATCHET-ACTION LOAD BINDERS, HIGH TEST F & M MAFCO, INC.
____	____	Y	94CP004413 0 00 033 2 138999		G	EA	AJH	2 2C 2	23.00 46.00 0.00	06/20/94 06/09/94 06/15/94	LOG CHAINS HIGH TEST, 5/16" X 14' F & M MAFCO, INC.
____	____	Y	94CP004414 0 00 001 1 136168		G	EA	MSA	16 16C 16	17.28 276.48 5.53	06/20/94 06/09/94 06/14/94	1/2" PLYWOOD, B-C GRADE. RIEMEIER LUMBER
____	____	Y	94CP004414 0 00 002 2 136168		G	EA	MSA	10 10C 10	25.44 254.40 5.09	06/20/94 06/09/94 06/14/94	3/4" FORM PLY RIEMEIER LUMBER
____	____	Y	94CP004414 0 00 003 3 136168		G	EA	MSA	45 45C 45	6.67 300.15 6.00	06/20/94 06/09/94 06/14/94	2" X 4" X 16' #2 GRADE LUMBER RIEMEIER LUMBER
____	____	Y	94CP004415 0 00 001 4 136168		G	BX	MSA	1 1C 1	38.00 38.00 0.76	06/20/94 06/09/94 06/14/94	1 5/8" DRYWALL SCREWS, 5000 TO A BOX UNITED DRYWALL
____	____	Y	94CP004415 0 00 002 5 136168		G	BX	MSA	3 3C 3	37.00 111.00 2.22	06/20/94 06/09/94 06/14/94	3" DRYWALL SCREWS, 2000 TO A BOX UNITED DRYWALL
____	____	Y	94CP004444 0 00 001 1 138736		G	FT	MLL	2000 2000C 2000	0.65 1,300.00 0.00	06/24/94 06/15/94 06/15/94	THERMOCOUPLE WIRE EXTENSION GRADE MYERS & HENLEY INC.

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		Y	94CP004562 133607	0	00	001	1		G	EA	MLL	1 1C 1	1,264.00 1,264.00 0.00	07/08/94 06/16/94 06/22/94	ANNUNCIATORS, PANALARM MODEL #910 LESTER JOHNSON COMPANY
		Y	94CP004562 133612	0	00	002	1		G	EA	MLL	2 2C 2	1,264.00 2,528.00 0.00	07/08/94 06/22/94 06/22/94	ANNUNCIATORS, PANALARM MODEL #910 LESTER JOHNSON COMPANY
		Y	94CP004581 133609	0	00	001	1		G	EA	MLL	6 6C 6	173.40 1,040.40 0.00	07/01/94 06/16/94 06/22/94	RECEIVER INSTRUMENT C & E SALES
		Y	94CP004604 136172	0	00	001	1		G	EA	RTH	9 9C 9	48.00 432.00 0.00	06/30/94 06/09/94 08/30/94	6' LADDER SECTIONS AMERICAN SCAFFOLDING
		Y	94CP004604 136172	0	00	002	2		G	EA	RTH	12 12C 12	25.00 300.00 60.00	06/30/94 06/09/94 08/30/94	LADDER BRACKETS AMERICAN SCAFFOLDING
		Y	94CP004604 136172	0	00	003	3		G	EA	RTH	6 6C 6	75.00 450.00 0.00	06/27/94 06/09/94 08/30/94	PLATFORM PLANKS 7' LONG AMERICAN SCAFFOLDING
		Y	94CP004604 136172	0	00	004	4		G	EA	RTH	100 100C 100	1.00 100.00 0.00	07/08/94 06/09/94 08/30/94	PIGTAIL PINS AMERICAN SCAFFOLDING
		Y	94CP004604 136172	0	00	005	5		G	EA	RTH	2 2C 2	700.00 1,400.00 0.00	07/08/94 06/09/94 08/30/94	ALUMINUM STAGE, 24"W X 24'L X 6"H AMERICAN SCAFFOLDING
		Y	94CP004604 136172	0	01	006	6		G	EA	RTH	4 4C 4	340.00 1,360.00 0.00	07/08/94 06/09/94 08/30/94	HANDRAIL FOR ALUMINUM STAGE. AMERICAN SCAFFOLDING
		Y	94CP004616 133610	0	00	001	1		G	EA	MLL	2 2C 2	3,999.50 7,999.00 0.24	08/04/94 06/16/94 06/23/94	6 POINT RECORDERS JAY INSTRUMENT & SPECIALTY CO
		Y	94CP004624 133480	0	00	001	1		G	EA	AJH	1 1C 1	5,327.00 5,327.00 0.00	08/23/94 05/26/94 06/23/94	MAGNETIC FLOWMETER CERAMIC LINED JAY INSTRUMENT & SPECIALTY CO
		Y	94CP004659 133608	0	00	001	1		G	EA	MLL	6 6C 6	283.50 1,701.00 0.00	07/12/94 06/16/94 06/27/94	RECEIVER INSTRUMENTS, C & E SALES

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____	____	Y	94CP004670	0	00	001	1	G	LB	DMK	300 300C 300	0.76 228.00 0.00	06/29/94 09/30/93 06/29/94	ATOM ARC 7018 3/32, ALR 7018093P50 WELDCO, INC
____	____	Y	94CP004670	0	00	002	2	G	LB	DMK	100 100C 100	1.04 104.00 0.00	06/29/94 09/30/93 06/29/94	FLEETWOOD 5P PLUS 3/32 WELDING ROD WELDCO, INC
____	____	Y	94CP004670 160678	0	00	003	3	G	EA	DMK	12 12C 12	8.12 97.44 0.00	06/29/94 06/20/94 06/29/94	SWIVEL HEAD PIN VISE, WELDCO, INC
____	____	N	94CP004673 133514	0	00	001	NS000775	S	EA	MLL	1 0C 0	0.00 0.00 0.00	08/05/94 05/25/94 12/01/94	**DELETED** VALVAX CORPORATION
____	____	N	94CP004673 133514	0	00	002	NS000779	S	EA	MLL	1 0C 0	0.00 0.00 0.00	08/05/94 05/25/94 12/01/94	**DELETED** VALVAX CORPORATION
____	____	N	94CP004673 133477	0	00	003	NS000818	S	EA	MLL	30 30C 30	273.00 8,190.00 0.00	05/18/94 05/25/94 12/01/94	VALVE, BALL, 1", CLASS 150, FULL PORT, VALVAX CORPORATION
____	____	N	94CP004673 133477	0	00	004	NS000820	S	EA	MLL	2 2C 2	1,007.00 2,014.00 0.00	05/18/94 05/25/94 12/01/94	VALVE, BALL, 2", CLASS 150, FULL PORT, VALVAX CORPORATION
____	____	N	94CP004673 133479	0	00	005	NS000800	S	EA	MLL	13 13C 13	1,035.00 13,455.00 0.00	05/18/94 05/25/94 12/01/94	VALVE, BALL, 3", CLASS 150, CARBON STEEL VALVAX CORPORATION
____	____	N	94CP004673 133479	0	00	006	NS000801	S	EA	MLL	1 1C 1	356.00 356.00 0.00	05/18/94 05/25/94 12/01/94	VALVE, GLOBE, CLASS 150, CARBON STEEL, VALVAX CORPORATION
____	____	N	94CP004673 133479	0	00	007	NS000802	S	EA	MLL	1 1C 1	354.00 354.00 0.00	05/18/94 05/25/94 12/01/94	STRAINER, Y TYPE, 3", CLASS 150, VALVAX CORPORATION
____	____	N	94CP004673 133479	0	01	008	NS000806	S	EA	MLL	2 2C 2	385.00 770.00 0.00	05/18/94 05/25/94 12/01/94	VALVE, GATE, CLASS 125, CAST IRON, ASTM VALVAX CORPORATION
____	____	N	94CP004673 133479	0	00	009	NS000807	S	EA	MLL	17 17C 17	101.00 1,717.00 0.00	05/18/94 05/25/94 12/01/94	VALVE, BALL, 1", CLASS 300, CARBON STEEL VALVAX CORPORATION

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____	____	N	94CP004673 133479	0	00	010	NS000809	S	EA	MLL	15 15C 15	101.00 1,515.00 0.00	05/18/94 05/25/94 12/01/94	VALVE, BALL, 1", CLASS 600, CARBON STEEL* VALVAX CORPORATION
____	____	N	94CP004673 133479	0	00	011	NS000815	S	EA	MLL	3 3C 3	196.00 588.00 0.00	05/18/94 05/25/94 12/01/94	VALVE, CHECK, 2", CLASS 150, CAST STEEL VALVAX CORPORATION
____	____	N	94CP004673 133479	0	00	012	NS000813	S	EA	MLL	6 6C 6	399.00 2,394.00 0.00	05/18/94 05/25/94 12/01/94	VALVE, BALL, 2", CLASS 150, CARBON STEEL VALVAX CORPORATION
____	____	N	94CP004673 133479	0	00	013	NS000814	S	EA	MLL	1 1C 1	269.00 269.00 0.00	05/18/94 05/25/94 12/01/94	VALVE, GLOBE, 2", CLAA 150, CARBON STEEL VALVAX CORPORATION
____	____	N	94CP004673 133479	0	01	014	NS000804	S	EA	MLL	1 1C 1	335.00 335.00 0.00	05/18/94 05/25/94 12/01/94	VALVE, CHECK, 3", CLASS 125, CAST IRON, VALVAX CORPORATION
____	____	N	94CP004673	0	01	015	133479-1	G	LT	MLL	1 1C 1	67.80 67.80 0.00	08/10/94 09/30/93 12/01/94	RESTOCKING CHARGE ASSOCIATED WITH VALVAX CORPORATION
____	____	N	94CP004673 160923	0	02	016	1	G	EA	MLL	12 12C 12	273.00 3,276.00 0.00	09/09/94 08/18/94 12/01/94	VALVE, BALL, 1" CLASS 150, FULL PORT, S. VALVAX CORPORATION
____	____	N	94CP004673 160923	0	02	017	2	G	EA	MLL	3 3C 3	101.00 303.00 0.00	09/09/94 08/18/94 12/01/94	VALVE, BALL, 1", CLASS 300, CARBON STEEL VALVAX CORPORATION
____	____	N	94CP004673 160923	0	02	018	3	G	EA	MLL	3 3C 3	101.00 303.00 0.00	09/09/94 08/18/94 12/01/94	VALVE, BALL, 1", CLASS 600, CARBON STEEL VALVAX CORPORATION
____	____	N	94CP004673 162274	0	03	019	1	G	LT	MLL	1 0 0	300.00 300.00 300.00	09/09/94 09/12/94 12/01/94	AIRFRIEGHT FOR 1" VALVES FROM VALVAX CO. VALVAX CORPORATION
____	____	Y	94CP004686 160658	0	00	001	1	G	EA	DMK	1 1C 1	1,091.43 1,091.43 21.83	06/16/94 06/22/94 06/29/94	3" FLGD, REDUCED PRESSURE BACKFLOW READING SUPPLIES INCORPORATED
____	____	Y	94CP004686 160658	0	00	002	2	G	EA	DMK	1 1C 1	41.25 41.25 0.82	06/16/94 06/22/94 06/29/94	AIR GAP FOR FLGD REDUCED PRESSURE READING SUPPLIES INCORPORATED

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____	____	Y	94CP004735 0 00 001 1 138738		G EA	MSA	10 10C 10	145.25 1,452.50 0.00	07/07/94 06/16/94 07/06/94	AMC-1A RAYCHEM THERMOSTAT. RELCON INCORPORATED
____	____	Y	94CP004735 0 01 002 2 138738		G EA	MSA	30 30C 30	59.90 1,797.00 0.00	07/08/94 06/16/94 07/06/94	PMKG-JLP, RAYCHEM POWER CONN. KIT. RELCON INCORPORATED
____	____	Y	94CP004735 0 01 003 3 138738		G EA	MSA	10 10C 10	74.90 749.00 0.00	07/08/94 06/16/94 07/06/94	PMKG-J2LP, RAYCHEM POWER CONN. KIT RELCON INCORPORATED
____	____	Y	94CP004735 0 01 004 4 138738		G EA	MSA	40 40C 40	89.10 3,564.00 0.00	07/14/94 06/16/94 07/06/94	PMKG-JY, RAY CHEM TEE KIT RELCON INCORPORATED
____	____	Y	94CP004735 0 01 005 5 138738		G EA	MSA	40 40C 40	7.80 312.00 0.00	07/08/94 06/16/94 07/06/94	PMKG-LE, RAYCHEM END SEAL KIT RELCON INCORPORATED
____	____	Y	94CP004735 0 01 006 6 138738		G EA	MSA	30 30C 30	79.05 2,371.50 0.00	07/14/94 06/16/94 07/06/94	PMKG-LS, RAYCHEM SPLICE KIT RELCON INCORPORATED
____	____	Y	94CP004735 0 01 007 7 138738		G EA	MSA	200 200C 200	1.95 390.00 0.00	07/08/94 06/16/94 07/06/94	PS03 RAYCHEM PIPE STRAPS 1" - 3" RELCON INCORPORATED
____	____	Y	94CP004735 0 00 008 8 138738		G EA	MSA	500 500C 500	0.80 400.00 0.00	07/08/94 06/16/94 07/06/94	ETL, RAY CHEM ELECTRIC TRACED LABELS RELCON INCORPORATED
____	____	Y	94CP004735 0 00 009 9 138738		G EA	MSA	50 50C 50	3.40 170.00 0.00	07/08/94 06/16/94 07/06/94	GT-66, RAYCHEM GLASS TAPE RELCON INCORPORATED
____	____	Y	94CP004735 0 01 010 10 138738		G FT	MSA	1000 1000C 1000	2.85 2,850.00 0.00	07/08/94 06/16/94 07/06/94	5BTV1 RAYCHEM HEAT TRACE, 120V RELCON INCORPORATED
____	____	Y	94CP004735 0 01 011 11 138738		G EA	MSA	1000 1000C 1000	2.45 2,450.00 0.00	07/08/94 06/16/94 07/06/94	3BTV1 RAYCHEM HEAT TRACE, 120V RELCON INCORPORATED
____	____	Y	94CP004735 0 01 012 12 138738		G EA	MSA	22 22C 22	29.60 651.20 0.00	07/08/94 06/16/94 07/06/94	AM-LIN, RAYCHEM SIGNAL LITE RELCON INCORPORATED

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CONSTRUCTION-UNH NEUTRALIZATION

OK	COMPLETE	CLOSED	PO NUMBER REL C\O LINE / REQUISITION NUMBER ITEM	ITEM NUMBER	TYPE U/M	BUYER	QUANTITY ORDERED / RECEIVED / INVOICED	VALUES UNIT / EXTENDED / OPEN	DATES REQUIRED / REQUISITION ISSUED	DESCRIPTION / VENDOR / DELIVER TO
___	___	Y	94CP004777 0 00 001 1 133496		G EA	AJH	30 30C 30	132.53 3,975.90 59.64	07/12/94 07/05/94 07/05/94	STEELEVEST, P/N SA1140-FR FOSTER & ASSOCIATES
___	___	Y	94CP004807 0 00 001 1 160698		G EA	AJH	36 36C 36	26.00 936.00 4.68	07/13/94 07/06/94 07/06/94	LIFTING LUG, FABRICATE FROM 1/4" AR INDUSTRIES, INC.
___	___	Y	94CP004822 0 00 001 1 160742		G EA	DMK	3 3C 3	46.25 138.75 0.00	08/01/94 06/30/94 08/15/94	TORCH, TIG, WELDCRAFT, WP-17V-12-2 WELDCO, INC
___	___	Y	94CP004822 0 00 002 2 160742		G EA	DMK	3 3C 3	68.41 205.23 0.00	08/01/94 06/30/94 08/15/94	TORCH, TIG, WELDCRAFT, WP-17FV-12-2 WELDCO, INC
___	___	Y	94CP004822 0 00 003 3 160742		G EA	DMK	6 6C 6	7.06 42.36 0.00	08/01/94 06/30/94 08/15/94	LENS, GAS, WELDCRAFT, 45V26 WELDCO, INC
___	___	Y	94CP004822 0 00 004 4 160742		G EA	DMK	10 10C 10	1.73 17.30 0.00	08/01/94 06/30/94 08/15/94	CUP, WELDCRAFT, SIZE 8, 54N14 WELDCO, INC
___	___	Y	94CP004822 0 00 005 5 160742		G BX	DMK	4 40C 40	25.14 100.56 0.00	08/01/94 06/30/94 08/15/94	TUNGSTEN, 2% THORIATED, 3/32 X 7" WELDCO, INC
___	___	Y	94CP004822 0 00 006 6 160742		G EA	DMK	6 6C 6	22.30 133.80 0.00	08/01/94 06/30/94 08/15/94	CABLE COVER, 1WED WC-3-10 WELDCO, INC
___	___	Y	94CP004822 0 00 007 7 160742		G EA	DMK	6 6C 6	1.55 9.30 0.00	08/01/94 06/30/94 08/15/94	BACK CAP, SHORT, WED 57Y04 WELDCO, INC
___	___	Y	94CP004822 0 00 008 8 160742		G EA	DMK	6 6C 6	1.99 11.94 0.00	08/01/94 06/30/94 08/15/94	COUPLER, INERT ARC, WES AM-430 WELDCO, INC
___	___	Y	94CP004822 0 00 009 9 160742		G EA	DMK	4 4C 4	19.74 78.96 0.00	08/01/94 06/30/94 08/15/94	THIS IS AN ASSEMBLY THAT INCLUDES THE WELDCO, INC
___	___	Y	94CP004822 0 00 010 13 160742		G LB	DMK	10 10C 10	3.98 39.80 0.00	08/01/94 06/30/94 08/15/94	WELDING ROD, 1/16 X 36, ER316L WELDCO, INC

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OK	COMPLETE	CLOSED	PO NUMBER REL C\O LINE / REQUISITION NUMBER	ITEM NUMBER	TYPE U/M	BUYER	QUANTITY ORDERED / RECEIVED / INVOICED	VALUES UNIT / EXTENDED / OPEN	DATES REQUIRED / REQUISITION ISSUED	DESCRIPTION / VENDOR / DELIVER TO
___	___	Y	94CP004822 0 00 011 14 160742		G LB	DMK	10 10C 10	3.55 35.50 0.00	08/01/94 06/30/94 08/15/94	WELDING ROD, 1/8 X 36, ER316L WELDCO, INC
___	___	Y	94CP004822 0 00 012 15 160742		G LB	DMK	50 50C 50	3.72 186.00 (1.08)	08/01/94 06/30/94 08/15/94	WELDING ROD, 3/32 X 36, ER316L WELDCO, INC
___	___	Y	94CP004822 0 00 013 16 160742		G EA	DMK	24 24C 24	4.00 96.00 5.16	08/01/94 06/30/94 08/15/94	BRUSH, POWER WIRE, S.S., 3" DIAMETER, WELDCO, INC
___	___	Y	94CP004822 0 00 014 17 160742		G EA	DMK	2 2C 2	70.85 141.70 0.00	08/01/94 06/30/94 08/15/94	FLOWMETER, ARGON REGULATOR, SHI WELDCO, INC
___	___	Y	94CP004822 0 00 015 18 160742		G EA	DMK	4 4C 4	14.75 59.00 0.00	08/01/94 06/30/94 08/15/94	*REPLACEMENT GUAGES FOR ARGON REGULAT* WELDCO, INC
___	___	Y	94CP004844 0 00 001 1 138693		G EA	DMK	8 8C 8	7.49 59.92 0.00	07/08/94 06/29/94 07/11/94	TROWEL, POINTING, MARSHALLTOWN, #45, 6" AUFDEMKAMPE HARDWARE CO
___	___	Y	94CP004844 0 00 002 2 138693		G EA	DMK	8 8C 8	17.99 143.92 0.00	07/08/94 06/29/94 07/11/94	NIPPER, END CUTTING, CHANNEL LOCK, 8" AUFDEMKAMPE HARDWARE CO
___	___	Y	94CP004844 0 00 003 3 138693		G EA	DMK	8 8C 8	25.00 200.00 120.40	07/08/94 06/29/94 07/11/94	SNIPS, AVIATION, LEFT CUT, WISS AUFDEMKAMPE HARDWARE CO
___	___	Y	94CP004844 0 00 004 4 138693		G EA	DMK	8 8C 8	15.00 120.00 13.20	07/08/94 06/29/94 07/11/94	TAPE MEASURE, POWER LOCK, STANLEY AUFDEMKAMPE HARDWARE CO
___	___	Y	94CP004844 0 00 005 5 138693		G EA	DMK	4 4C 4	35.00 140.00 28.20	07/08/94 06/29/94 07/11/94	DIVIDER, WING, 12" AUFDEMKAMPE HARDWARE CO
___	___	Y	94CP004854 0 00 001 1 133535		G EA	DMK	12 12C 12	16.80 201.60 2.02	07/11/94 06/29/94 07/11/94	REDUCER, CONCENTRIC, 4 X 3", BUTT WELD, ALLOY PIPING SUPPLY, INC.
___	___	Y	94CP004857 0 00 001 1 160727		G CS	JRM	1 1C 1	105.35 105.35 1.05	07/08/94 06/30/94 07/11/94	GLOVE BAG, CONTINUOUS ROLL, 54 X 60" R.E. KRAMIG & COMPANY, INC.

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CONSTRUCTION-UNH NEUTRALIZATION

OK	COMPLETE	CLOSED	PO NUMBER / REQUISITION	REL	C\O	LINE / ITEM		ITEM NUMBER	TYPE	U/M	BUYER	QUANTITY ORDERED / RECEIVED / INVOICED / OPEN	VALUES UNIT / EXTENDED	DATES REQUIRED / REQUISITION ISSUED	DESCRIPTION / VENDOR / DELIVER TO
___	___	Y	94CP004857 160727	0	00	002	2		G	CS	JRM	1 1C 1	110.50 110.50 1.11	07/08/94 06/30/94 07/11/94	GLOVE BAG, 60 X 72" R.E. KRAMIG & COMPANY, INC.
___	___	Y	94CP004857 160727	0	00	003	3		G	EA	JRM	4 4C 4	46.99 187.96 1.88	07/08/94 06/30/94 07/11/94	SPRAY CAN, METAL, 3 GALLON R.E. KRAMIG & COMPANY, INC.
___	___	Y	94CP004857 160727	0	00	004	4		G	EA	JRM	4 4C 4	46.25 185.00 1.85	07/08/94 06/30/94 07/11/94	STAPLE GUN, PLIER, P-6 R.E. KRAMIG & COMPANY, INC.
___	___	Y	94CP004857 160727	0	00	005	5		G	EA	JRM	2 2C 2	8.55 17.10 0.17	07/08/94 06/30/94 07/11/94	STAPLES, FOR P-6 PLIER R.E. KRAMIG & COMPANY, INC.
___	___	Y	94CP004857 160727	0	00	006	6		G	EA	JRM	6 6C 6	8.69 52.14 0.52	07/08/94 06/30/94 07/11/94	SAW, WALLBOARD, 6" R.E. KRAMIG & COMPANY, INC.
___	___	Y	94CP004857 160727	0	00	007	7		G	GL	JRM	4 4C 4	11.27 45.08 0.45	07/08/94 06/30/94 07/11/94	CHILL PERM, LP-11 R.E. KRAMIG & COMPANY, INC.
___	___	Y	94CP004905 160774	0	00	001	1		G	EA	JRM	100 100C 100	6.88 688.00 0.00	07/18/94 07/11/94 07/13/94	CONNECTOR, FEMALE, SWAGELOK, BRASS, CINCINNATI VALVE & FITTING CO
___	___	Y	94CP004905 160774	0	00	002	2		G	EA	JRM	100 100C 100	3.07 307.00 0.00	07/18/94 07/11/94 07/13/94	CONNECTOR, MALE, SWAGELOK, BRASS, CINCINNATI VALVE & FITTING CO
___	___	Y	94CP004905 160774	0	00	003	3		G	EA	JRM	200 200C 200	2.70 540.00 0.00	07/18/94 07/11/94 07/13/94	UNION, TUBE, SWAGELOK, BRASS, CINCINNATI VALVE & FITTING CO
___	___	Y	94CP004908 160741	0	00	001	1		G	EA	MSA	3 3C 3	157.05 471.15 7.07	08/05/94 06/30/94 07/12/94	VALVE, GATE, 1-1/2", CLASS 150, CARBON PIPE PRODUCTS, INC.
___	___	Y	94CP004908 160741	0	00	002	2		G	EA	MSA	3 3C 3	94.85 284.55 4.27	07/14/94 06/30/94 07/12/94	VALVE, GLOBE, 1-1/2", CLASS 800, CARBON PIPE PRODUCTS, INC.
___	___	Y	94CP004908 160741	0	00	003	3		G	EA	MSA	30 30C 30	2.24 67.20 1.01	07/14/94 06/30/94 07/12/94	SOCK-O-LET, 3/4 X 2 - 4", CLASS 3000, PIPE PRODUCTS, INC.

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OK	COMPLETE	CLOSED	PO NUMBER REL C\O LINE / REQUISITION NUMBER	ITEM NUMBER	TYPE U/M	BUYER	QUANTITY ORDERED / RECEIVED / INVOICED	VALUES UNIT / EXTENDED / OPEN	DATES REQUIRED / REQUISITION ISSUED	DESCRIPTION / VENDOR / DELIVER TO
____	____	Y	94CP004908 0 00 004 4 160741		G EA	MSA	80 80C 80	72.80 5,824.00 87.36	07/21/94 06/30/94 07/12/94	VALVE, GATE, 3/4", CLASS 150, CARBON PIPE PRODUCTS, INC.
____	____	Y	94CP004908 0 00 005 5 160741		G EA	MSA	3 3C 3	34.82 104.46 1.57	07/21/94 06/30/94 07/12/94	VALVE, GLOBE, 3/4", CLASS 800, CARBON PIPE PRODUCTS, INC.
____	____	Y	94CP004908 0 00 006 6 160741		G EA	MSA	1 1C 1	92.54 92.54 1.39	08/04/94 06/30/94 07/12/94	VALVE, GATE, 1", CLASS 150, CARBON STEEL PIPE PRODUCTS, INC.
____	____	Y	94CP004908 0 00 007 7 160741		G EA	MSA	1 1C 1	49.80 49.80 0.75	07/21/94 06/30/94 07/12/94	VALVE, GLOBE, 1", CLASS 800, CARBON PIPE PRODUCTS, INC.
____	____	Y	94CP004908 0 00 008 8 160741		G EA	MSA	25 25C 25	194.00 4,850.00 72.75	07/18/94 06/30/94 07/12/94	TRAP, STEAM, 1/2", CLASS 600, SCREWED, PIPE PRODUCTS, INC.
____	____	Y	94CP004908 0 00 009 9 160741		G EA	MSA	25 25C 25	3.83 95.75 1.43	07/14/94 06/30/94 07/12/94	UNION, 3/4", CLASS 3000, CARBON STEEL, PIPE PRODUCTS, INC.
____	____	Y	94CP004908 0 00 010 10 160741		G EA	MSA	75 75C 75	1.91 143.25 2.15	07/14/94 06/30/94 07/12/94	ELL, 90 DEGREE, 3/4", CLASS 3000, CARBON PIPE PRODUCTS, INC.
____	____	Y	94CP004908 0 00 011 11 160741		G EA	MSA	30 30C 30	2.67 80.10 1.20	07/14/94 06/30/94 07/12/94	TEE, 3/4", CLASS 3000, CABON STEEL, PIPE PRODUCTS, INC.
____	____	Y	94CP004908 0 00 012 12 160741		G EA	MSA	1 1C 1	2.40 2.40 0.04	07/14/94 06/30/94 07/12/94	SOCK-O-LET, ASTM A105, CARBON STEEL, PIPE PRODUCTS, INC.
____	____	Y	94CP004908 0 00 013 13 160741		G EA	MSA	40 40C 40	4.60 184.00 2.76	07/18/94 06/30/94 07/12/94	NIPPLE, PIPE, 3/4 X 6", CARBON STEEL, PIPE PRODUCTS, INC.
____	____	Y	94CP004908 0 00 014 14 160741		G FT	MSA	80 87C 87	1.36 108.80 (7.74)	07/14/94 06/30/94 07/12/94	PIPE, CARBON STEEL, SEAMLESS, 3/4", PIPE PRODUCTS, INC.
____	____	Y	94CP004908 0 00 015 15 160741		G FT	MSA	80 94C 94	2.34 187.20 (29.46)	07/14/94 06/30/94 07/12/94	PIPE, CARBON STEEL, SEAMLESS, 1-1/2", PIPE PRODUCTS, INC.

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OK	COMPLETE	CLOSED	PO NUMBER REL C\O LINE / REQUISITION NUMBER ITEM	ITEM NUMBER	TYPE U/M	BUYER	QUANTITY ORDERED / RECEIVED / INVOICED	VALUES UNIT / EXTENDED / OPEN	DATES REQUIRED / REQUISITION ISSUED	DESCRIPTION / VENDOR / DELIVER TO
____	____	Y	94CP004908 0 00 016 16 160741		G FT	MSA	80 96C 96	1.50 120.00 (21.84)	07/14/94 06/30/94 07/12/94	PIPE, CARBON STEEL, SEAMLESS, 1", PIPE PRODUCTS, INC.
____	____	Y	94CP004908 0 00 017 17 160741		G EA	MSA	80 92C 92	1.18 94.40 (12.53)	07/14/94 06/30/94 07/12/94	PIPE, CARBON STEEL, SEAMLESS, 1/2" PIPE PRODUCTS, INC.
____	____	Y	94CP004908 0 00 018 18 160741		G FT	MSA	3000 3000C 3000	0.29 870.00 13.05	07/18/94 06/30/94 07/12/94	COPPER, ANNEALED, SEAMLESS SOFT, 3/8"OD PIPE PRODUCTS, INC.
____	____	Y	94CP004908 0 00 019 19 160741		G EA	MSA	50 50C 50	1.90 95.00 1.43	07/18/94 06/30/94 07/12/94	SOCKET WELD, INSERTS, 3/4 X 1/2", CLASS PIPE PRODUCTS, INC.
____	____	Y	94CP004908 0 00 020 20 160741		G EA	MSA	25 25C 25	3.32 83.00 1.23	07/18/94 06/30/94 07/12/94	NIPPLE, PIPE, 1/2 X 6", CARBON STEEL, PIPE PRODUCTS, INC.
____	____	Y	94CP004912 0 00 001 1 133581		G GL	DMK	5 5C 5	16.16 80.80 0.00	08/01/94 06/22/94 07/28/94	INDUSTRIAL ENAMEL MC-71 S.V. ROSS COMPANY INCORPORATED
____	____	Y	94CP004912 0 00 002 2 133581		G GL	DMK	5 5C 5	20.29 101.45 0.00	08/01/94 06/22/94 07/28/94	KEM KROMIK B50W1 WHITE S.V. ROSS COMPANY INCORPORATED
____	____	Y	94CP004912 0 00 003 3 133581		G GL	DMK	3 3C 3	2.63 7.89 0.00	08/01/94 06/22/94 07/28/94	MINERAL SPIRITS #154-2331 S.V. ROSS COMPANY INCORPORATED
____	____	Y	94CP004912 0 00 004 4 133581		G EA	DMK	6 6C 6	7.92 47.52 0.00	08/01/94 06/22/94 07/28/94	#113 SASH BRUSH, #173-3627 S.V. ROSS COMPANY INCORPORATED
____	____	Y	94CP004912 0 00 005 5 133581		G GL	DMK	5 5C 5	20.80 104.00 0.00	08/01/94 06/22/94 07/28/94	REDUCER #54, #631-0932 S.V. ROSS COMPANY INCORPORATED
____	____	Y	94CP004913 0 00 001 1 138692		G FT	MLL	2400 2400C 2400	4.56 10,944.00 109.44	07/22/94 06/30/94 07/12/94	PIPE COVERING, WITH ASJ, FOAMGLASS, ALLOYD
____	____	Y	94CP004913 0 00 002 2 138692		G FT	MLL	250 250C 250	8.23 2,057.50 20.58	07/22/94 06/30/94 07/12/94	PIPE COVERING, WITH ASJ, 9 X 1-1/2", ALLOYD

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OK	COMPLETE	CLOSED	PO NUMBER REQUISITION NUMBER	REL	C/O	LINE ITEM		ITEM NUMBER	TYPE	U/M	BUYER	QUANTITY ORDERED RECEIVED INVOICED	VALUES UNIT EXTENDED OPEN	DATES REQUIRED REQUISITION ISSUED	DESCRIPTION VENDOR DELIVER TO
____	____	Y	94CP004913 138692	0	00	003	3		G	FT	MLL	50 50C 50	3.18 159.00 1.59	07/22/94 06/30/94 07/12/94	PIPE COVERING, WITH ASJ, FOAMGLASS, ALLOYD
____	____	Y	94CP004913 138692	0	00	004	4		G	FT	MLL	204 204C 204	2.20 448.80 4.49	07/22/94 06/30/94 07/12/94	INSULATION, THERMAL, ELASTOMERIC, ALLOYD
____	____	Y	94CP004913 138692	0	00	005	5		G	FT	MLL	204 204C 204	2.83 577.32 5.77	07/22/94 06/30/94 07/12/94	INSULATION, THERMAL, ELASTOMERIC, ALLOYD
____	____	Y	94CP004913 138692	0	00	006	6		G	FT	MLL	54 54C 54	1.68 90.72 0.91	07/22/94 06/30/94 07/12/94	INSULATION, THERMAL, ELASTOMERIC, ALLOYD
____	____	Y	94CP004913 138692	0	00	007	7		G	FT	MLL	54 54C 54	2.34 126.36 1.26	07/22/94 06/30/94 07/12/94	INSULATION, THERMAL, ELASTOMERIC, ALLOYD
____	____	Y	94CP004913 138692	0	00	008	8		G	RO	MLL	1 1C 1	198.80 198.80 1.99	07/22/94 06/30/94 07/12/94	INSULATION, THERMAL, ELASTOMERIC, ALLOYD
____	____	Y	94CP004913 138692	0	00	009	9		G	RO	MLL	16 16C 16	125.85 2,013.60 20.14	07/22/94 06/30/94 07/12/94	ALUMINUM, CORRUGATED, WITH MB, 4'X 100' ALLOYD
____	____	Y	94CP004913 138692	0	00	010	11		G	BG	MLL	5 5C 5	35.75 178.75 1.79	07/22/94 06/30/94 07/12/94	SCREW, STAINLESS STEEL, HEX HEAD ALLOYD
____	____	Y	94CP004913 138692	0	00	011	12		G	RO	MLL	12 12C 12	59.40 712.80 7.13	07/22/94 06/30/94 07/12/94	BANDING MATERIAL, STAINLESS STEEL, 1/2" ALLOYD
____	____	Y	94CP004913 138692	0	00	012	13		G	RO	MLL	2 2C 2	89.10 178.20 1.78	07/22/94 06/30/94 07/12/94	BANDING MATERIAL, STAINLES STEEL, 3/4" ALLOYD
____	____	Y	94CP004913 138692	0	00	013	14		G	BX	MLL	4 4C 4	28.60 114.40 1.14	07/22/94 06/30/94 07/12/94	CLIP, WING SEAL, FOR BANDS, STAINLESS ALLOYD
____	____	Y	94CP004913 138692	0	00	014	15		G	BX	MLL	1 1C 1	39.20 39.20 0.39	07/22/94 06/30/94 07/12/94	CLIP, WING SEAL, FOR BANDS, STAINLESS ALLOYD

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CONSTRUCTION-UNH NEUTRALIZATION

OK	COMPLETE	CLOSED	PO NUMBER REL C\O LINE / REQUISITION NUMBER ITEM	ITEM NUMBER	TYPE	U/M	BUYER	QUANTITY ORDERED / RECEIVED / INVOICED	VALUES UNIT / EXTENDED / OPEN	DATES REQUIRED / REQUISITION ISSUED	DESCRIPTION / VENDOR / DELIVER TO
____	____	Y	94CP004913 0 00 015 16 138692		G	GL	MLL	15 15C 15	19.80 297.00 2.97	07/22/94 06/30/94 07/12/94	BEDDING COMPOUND, PIT SEAL #444N ALLOYD
____	____	Y	94CP004913 0 00 016 17 138692		G	GL	MLL	15 15C 15	6.28 94.20 0.94	07/22/94 06/30/94 07/12/94	ADHESIVE, FIBROUS, CHILDERS CP97 ALLOYD
____	____	Y	94CP004913 0 00 017 18 138692		G	GL	MLL	5 5C 5	19.25 96.25 0.96	07/22/94 06/30/94 07/12/94	SEALER, WHITE, RUBATEX #374, FOR CLOSED ALLOYD
____	____	Y	94CP004913 0 00 018 19 138692		G	RO	MLL	1 1C 1	41.95 41.95 0.42	07/22/94 06/30/94 07/12/94	GLASFAB, 10 X 10 WEAVE, ALLOYD
____	____	Y	94CP004913 0 00 019 20 138692		G	GL	MLL	5 5C 5	21.45 107.25 1.07	07/22/94 06/30/94 07/12/94	ADHESIVE, RUBATEX OR ARMSTRONG, #520 ALLOYD
____	____	Y	94CP004913 0 00 020 21 138692		G	EA	MLL	6 6C 6	14.00 84.00 0.84	07/22/94 06/30/94 07/12/94	GUN, GLUE, FOR RUBATEX ADHESIVE ALLOYD
____	____	Y	94CP004913 0 00 021 22 138692		G	EA	MLL	12 12C 12	2.80 33.60 0.34	07/22/94 06/30/94 07/12/94	TIP, BRUSH, ROUND, FOR GLUE GUN ALLOYD
____	____	Y	94CP004913 0 00 022 23 138692		G	EA	MLL	12 12C 12	1.14 13.68 0.14	07/22/94 06/30/94 07/12/94	BRUSH, 2", FOR GLUE ALLOYD
____	____	Y	94CP004913 0 00 023 24 138692		G	EA	MLL	12 12C 12	0.77 9.24 0.09	07/22/94 06/30/94 07/12/94	BRUSH, 1", FOR GLUE ALLOYD
____	____	Y	94CP004913 0 00 024 25 138692		G	SE	MLL	100 100C 100	4.30 430.00 4.30	07/22/94 06/30/94 07/12/94	COVER, FITTING, ELL JAC, ALUMINUM, CLEAR ALLOYD
____	____	Y	94CP004913 0 00 025 26 138692		G	SE	MLL	35 35C 35	3.22 112.70 1.13	07/22/94 06/30/94 07/12/94	COVER, FITTING, ELL JAC, ALUMINUM, CLEAR ALLOYD
____	____	Y	94CP004913 0 00 026 27 138692		G	SE	MLL	10 10C 10	10.95 109.50 1.10	07/22/94 06/30/94 07/12/94	COVER, FITTING, ELL JAC, ALUMINUM, CLEAR ALLOYD

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___	___	Y	94CP004913 0 00 027 138692	28	G	SE	MLL	6 6C 6	7.05 42.30 0.42	07/22/94 06/30/94 07/12/94	COVER, FITTING, ELL JAC, ALUMINUM, CLEAR ALLOYD
___	___	Y	94CP004913 0 00 028 138692	29	G	EA	MLL	8 8C 8	15.00 120.00 1.20	07/22/94 06/30/94 07/12/94	SAW, FOAMGLASS, 18" ALLOYD
___	___	Y	94CP004913 0 00 029 138692	30	G	EA	MLL	14 14C 14	5.00 70.00 0.70	07/22/94 06/30/94 07/12/94	SAW, WALLBOARD, 6" ALLOYD
___	___	Y	94CP004913 0 00 030 138692	31	G	EA	MLL	8 8C 8	21.75 174.00 1.74	07/22/94 06/30/94 07/12/94	STAPLE GUN, BOSTITCH T-5-6 ALLOYD
___	___	Y	94CP004913 0 00 031 138692	32	G	BX	MLL	8 8C 8	6.65 53.20 0.53	07/22/94 06/30/94 07/12/94	STAPLE, FOR T5-6 GUN, 1/2", STCR2619 ALLOYD
___	___	Y	94CP004913 0 00 032 138692	33	G	TU	MLL	24 24C 24	2.70 64.80 0.65	07/22/94 06/30/94 07/12/94	CAULKING, SILICONE, DOW, ALUMINUM ALLOYD
___	___	Y	94CP004913 0 00 033 138692	NS000496	S	EA	MLL	14 14C 14	6.00 84.00 0.84	07/22/94 06/30/94 07/12/94	STRAP, CINCH, 12' LENGTHS. ALLOYD
___	___	Y	94CP004913 0 00 034 138692	10	G	LB	MLL	100 100C 100	2.90 290.00 2.90	07/22/94 06/30/94 07/12/94	WIRE, TIE, S.S., #18 ALLOYD
___	___	Y	94CP004920 0 00 001 000000000160793	1	G	EA	DMK	30 30C 30	28.01 840.30 16.80	07/12/94 07/12/94 07/12/94	ELBOW, 90 DEGREES, S.S. 3", SCH 40, 304L READING SUPPLIES INCORPORATED
___	___	Y	94CP004933 0 00 001 000000000160606	1	G	EA	PMP	12 12C 12	528.28 6,339.36 0.00	06/15/94 06/09/94 07/14/94	HOSES, 3" I.D., 200 PSI, ULTRA HIGH NETHERLAND RUBBER COMPANY
___	___	Y	94CP004933 0 00 002 000000000160606	2	G	EA	PMP	6 6C 6	433.40 2,600.40 0.00	06/15/94 06/09/94 07/14/94	HOSE, 3", HIGH MOLECULAR WEIGHT NETHERLAND RUBBER COMPANY
___	___	Y	94CP004933 0 00 003 000000000160606	3	G	EA	PMP	4 4C 4	401.78 1,607.12 0.00	06/15/94 06/09/94 07/14/94	3" HOSE, ULTRA HIGH MOLECULAR WEIGHT NETHERLAND RUBBER COMPANY

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____	____	Y	94CP004933 0 00 004 4 000000000160606		G	EA	PMP	4 4C 4	229.35 917.40 0.00	06/15/94 06/09/94 07/14/94	HOSE, 2", I.D., 150 PSI, ASSEMBLY TO NETHERLAND RUBBER COMPANY
____	____	N	94CP004937 0 00 001 1 160683		G	FT	DMK	400 399 399	2.75 1,100.00 2.75	06/22/94 06/27/94 07/13/94	PIPE, BLACK STEEL, 3", BEVELED ENDS, PIPE PRODUCTS, INC.
____	____	N	94CP004937 0 00 002 2 160683		G	EA	DMK	18 18C 18	8.95 161.10 0.00	06/22/94 06/27/94 07/13/94	ELBOW, 90 DEGREE, 4", SEAMLESS, CARBON PIPE PRODUCTS, INC.
____	____	N	94CP004937 0 00 003 3 160683		G	EA	DMK	4 4C 4	13.56 54.24 0.00	06/22/94 06/27/94 07/13/94	UNION, 2", FORGED STEEL, 3000#, SOCKET PIPE PRODUCTS, INC.
____	____	Y	94CP004964 0 00 001 1 000000000160779		G	EA	JRM	2 2C 2	44.00 88.00 0.88	07/08/94 07/11/94 07/13/94	ELBOW, SHORT RADIUS, 3", 90 DEGREE, ALLOY PIPING SUPPLY, INC.
____	____	Y	94CP004964 0 00 002 2 000000000160779		G	EA	JRM	8 8C 8	33.60 268.80 2.69	07/08/94 07/11/94 07/13/94	TEE, WELD, 3", SCH 40, 304L, S.S. ALLOY PIPING SUPPLY, INC.
____	____	Y	94CP004964 0 00 003 3 000000000160779		G	EA	JRM	20 20C 20	23.50 470.00 4.70	07/08/94 07/11/94 07/13/94	ELBOW, 90 DEGREE, 3", SCH 40, 304L, S.S. ALLOY PIPING SUPPLY, INC.
____	____	Y	94CP004970 0 00 001 1 133611		G	EA	MLL	2 2C 2	725.00 1,450.00 0.00	07/29/94 06/16/94 07/15/94	PH CONTROLER JAY INSTRUMENT & SPECIALTY CO
____	____	Y	94CP004970 0 00 002 2 133611		G	EA	MLL	2 2C 2	694.00 1,388.00 0.00	07/29/94 06/16/94 07/15/94	PH PROBES JAY INSTRUMENT & SPECIALTY CO
____	____	Y	94CP004979 0 00 001 1 000000000160778		G	EA	JRM	4 4C 4	75.00 300.00 3.00	07/08/94 07/11/94 07/14/94	FLANGE, BLIND, 4", 150#, S.R.F., 304L ALLOY PIPING SUPPLY, INC.
____	____	Y	94CP005010 0 00 001 1 000000000160776		G	EA	JRM	20 20C 20	30.26 605.20 0.00	07/08/94 07/11/94 07/15/94	CONNECTION, HOSE, UNIVERSAL, 1" F.M.P. NETHERLAND RUBBER COMPANY
____	____	Y	94CP005028 0 00 001 1 000000000160777		G	EA	JRM	15 15C 15	3.39 50.85 0.56	07/08/94 07/11/94 07/18/94	NIPPLE, PIPE, 1 X 6", SCH 40, 304L, S.S. ALLOY PIPING SUPPLY, INC.

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___	___	Y	94CP005028 0 00 002 000000000160777	2	G	EA	JRM	15 15C 15	2.30 34.50 0.38	07/08/94 07/11/94 07/18/94	NIPPLE, PIPE, 1/2 X 6", SCH 40, 304L, ALLOY PIPING SUPPLY, INC.
___	___	Y	94CP005028 0 00 003 000000000160777	3	G	EA	JRM	10 10C 10	4.90 49.00 0.00	07/08/94 07/11/94 07/18/94	ELBOW, BUTT WELD, 90 DEGREE, 1", SCH 40 ALLOY PIPING SUPPLY, INC.
___	___	Y	94CP005028 0 00 004 000000000160777	4	G	EA	JRM	20 20C 20	8.50 170.00 1.88	07/08/94 07/11/94 07/18/94	THREAD-O-LET, 1/2 ON 3", 304L, S.S. ALLOY PIPING SUPPLY, INC.
___	___	Y	94CP005028 0 00 005 000000000160777	5	G	EA	JRM	10 10C 10	12.15 121.50 1.34	07/08/94 07/11/94 07/18/94	WELD-O-LET, 1 ON 3", 304L, S.S. ALLOY PIPING SUPPLY, INC.
___	___	Y	94CP005028 0 00 006 000000000160777	6	G	EA	JRM	10 10C 10	8.50 85.00 0.95	07/08/94 07/11/94 07/18/94	WELD-O-LET, 1/2 ON 3", 304L, S.S. ALLOY PIPING SUPPLY, INC.
___	___	Y N/A	94CP005036 0 00 001 160755	1	G	EA	DMK	2 2C 2	630.00 1,260.00 12.60	07/22/94 07/11/94 07/19/94	MACHINE, CRIMPING/BENDING, TENNSMITH R.E. KRAMIG & COMPANY, INC.
___	___	Y N/A	94CP005112 0 00 001 000000000160794	1	G	EA	DMK	3 3C 3	190.00 570.00 5.70	07/26/94 07/12/94 07/26/94	PUSHER BAR TENSIONER, FOR BANDING R.E. KRAMIG & COMPANY, INC.
___	___	Y	94CP005165 0 00 001 133607	2	G	EA	MLL	1 1C 1	280.12 280.12 0.00	08/12/94 06/16/94 07/25/94	TE608A, REF 1, THERMOCOUPLE C&E SALES
___	___	Y	94CP005165 0 00 002 133607	3	G	EA	MLL	1 1C 1	276.64 276.64 0.00	08/12/94 06/16/94 07/25/94	TE101A, REF 2, THERMOCOUPLE C&E SALES
___	___	Y	94CP005165 0 00 003	133607	G	EA	MLL	1 1C 1	300.89 300.89 0.00	08/12/94 09/30/93 07/25/94	TE101A, REF 3, THERMOCOUPLE C&E SALES
___	___	Y	94CP005165 0 00 004	133607	G	EA	MLL	1 1C 1	381.98 381.98 0.00	08/12/94 09/30/93 07/25/94	TE101A, REF 4, THERMOCOUPLE C&E SALES
___	___	Y	94CP005165 0 00 005	133607	G	EA	MLL	1 1C 1	300.89 300.89 0.00	08/12/94 09/30/93 07/25/94	TE105A, REF 5, THERMOCOUPLE C&E SALES

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___	___	Y	94CP005165 0 00 006	133607	G EA	MLL	1 1C 1	381.98 381.98 0.00	08/12/94 09/30/93 07/25/94	TE105A, REF 6, THERMOCOUPLE C&E SALES
___	___	Y	94CP005165 0 00 007	133607	G EA	MLL	1 1C 1	381.98 381.98 0.00	08/12/94 09/30/93 07/25/94	TE250A, REF 7, THERMOCOUPLE C&E SALES
___	___	Y	94CP005165 0 00 008	133607	G EA	MLL	1 1C 1	381.98 381.98 0.00	08/12/94 09/30/93 07/25/94	TE260A, REF 8, THERMOCOUPLE C&E SALES
___	___	Y	94CP005225 0 00 001 141041	1	G EA	DMK	2 2C 2	139.92 279.84 0.00	07/28/94 07/26/94 07/28/94	24 X 12 X 10 NEMA 12 HOFFMAN BOX WITH LUCE ELECTRIC
___	___	Y	94CP005225 0 00 002	2	G EA	DMK	1 2C 1	118.25 118.25 0.00	07/28/94 09/30/93 07/28/94	ITEM 2 IS FOR NEXT DAY AIR FREIGHT LUCE ELECTRIC
___	___	Y	94CP005245 0 00 001 133481	1	G EA	JRM	1 1C 1	1,294.00 1,294.00 0.00	05/20/94 05/22/94 07/29/94	3" RELIEF VALVE - TAG# PSV101 SIMCO CONTROLS
___	___	Y	94CP005245 0 00 002 133481	2	G EA	JRM	1 1C 1	1,294.00 1,294.00 0.00	08/28/94 05/22/94 07/29/94	3" RELIEF VALVE - TAG# PSV250 SIMCO CONTROLS
___	___	Y	94CP005245 0 00 003 133481	3	G EA	JRM	1 1C 1	1,294.00 1,294.00 0.00	08/28/94 05/22/94 07/29/94	3" RELIEF VALVE - TAG# PSV260 SIMCO CONTROLS
___	___	Y	94CP005245 0 00 004 133481	4	G EA	JRM	1 1C 1	769.00 769.00 0.00	08/28/94 05/22/94 07/29/94	2" RELIEF VALVE - TAG# PSV104 SIMCO CONTROLS
___	___	Y	94CP005245 0 00 005 133481	5	G EA	JRM	1 1C 1	1,294.00 1,294.00 0.00	08/28/94 05/22/94 07/29/94	3" RELIEF VALVE - TAG# PSV105 SIMCO CONTROLS
___	___	Y	94CP005245 0 00 006 133481	6	G EA	JRM	1 1C 1	769.00 769.00 0.00	08/28/94 05/22/94 07/29/94	2" RELIEF VALVE - TAG# PSV106 SIMCO CONTROLS
___	___	Y	94CP005256 0 00 001 133482	2	G EA	JRM	4 4C 4	1,011.37 4,045.48 (0.04)	08/19/94 05/22/94 08/02/94	3"-2501-112A 150 LBS. FLG. BALL VALVE, JAY INSTRUMENT & SPECIALTY CO

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		Y	94CP005256 0 00 005 6 133482		G EA	JRM	2 2C 2	790.56 1,581.12 0.06	08/19/94 05/22/94 08/02/94	3"-1501-112A 150 LB. FLG. BALL VALVE, CS JAY INSTRUMENT & SPECIALTY CO
		Y	94CP005256 0 00 007 8 133482		G EA	JRM	2 2C 2	668.63 1,337.26 0.04	08/19/94 05/22/94 08/02/94	3"-2501-112A 150LB,FLG.BALL VALVE, 316SS JAY INSTRUMENT & SPECIALTY CO
		Y	94CP005256 0 00 009 10 133482		G EA	JRM	2 2C 2	604.33 1,208.66 0.00	08/19/94 05/22/94 08/02/94	4"-1501-112A 150LB. FLG. BALL VALVE, CS JAY INSTRUMENT & SPECIALTY CO
		Y	94CP005256 0 00 011 12 133482		G EA	JRM	2 2C 2	668.63 1,337.26 (0.04)	08/19/94 05/22/94 08/02/94	3"-1501-112A 150 LB. FLG. BALL VAVLE, CS JAY INSTRUMENT & SPECIALTY CO
		Y	94CP005262 0 00 001 1 160848		G EA	DMK	10 10C 10	5.86 58.60 0.00	08/01/94 07/26/94 08/03/94	MSA #473332 FAS TRAC RATCHET HARD HAT S F & M MAFCO, INC.
		Y	94CP005262 0 00 002 2 160848		G EA	DMK	6 6C 6	4.03 24.18 0.00	08/01/94 07/26/94 08/03/94	#A-16 1" MORSE HIGH SPEED HOLE SAWS F & M MAFCO, INC.
		Y	94CP005262 0 00 003 4 160848		G EA	DMK	1 1C 1	35.20 35.20 0.00	08/01/94 07/26/94 08/03/94	#A-92 5-3/4" MORSE HIGH SPEED HOLE SAW F & M MAFCO, INC.
		Y	94CP005262 0 00 004 3 160848		G EA	DMK	3 3C 3	8.50 25.50 0.00	08/01/94 07/26/94 08/03/94	#M-44 MORSE ARBORS W/PILOT DRILL F & M MAFCO, INC.
		Y	94CP005262 0 00 005 5 160848		G EA	DMK	1 1C 1	9.16 9.16 0.00	08/01/94 07/26/94 08/03/94	#M-45P MORSE ARBOR W/PILOT DRILL F & M MAFCO, INC.
		N	94CP005273 0 02 006 6		G LT	JRM	1 0 1	690.00 690.00 0.00	08/10/94 09/30/93 08/12/94	CANCELLATION CHARGES W.R. FREW COMPANY INCORPORATED
		Y	94CP005284 0 00 001 1 000000000160871		G EA	DMK	1 1C 1	360.00 360.00 0.00	08/01/94 08/01/94 08/01/94	8" DIAMOND CORE DRILLING BIT, FIXED EDINGTON SALES CO.
		N	94CP005294 0 00 001 2 160817		G EA	CJD	20 20C 20	5.15 103.00 0.00	08/03/94 08/01/94 10/19/94	BUSHING, SCREWED, STAINLESS STEEL, ALLOY PIPING SUPPLY, INC.

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____	____	N	94CP005294 0 00 002 3 160817		G	EA	CJD	20 20C 20	8.94 178.80 (0.20)	08/03/94 08/01/94 10/19/94	THREAD-O-LET, 3 X 1/4", 304L, S.S. ALLOY PIPING SUPPLY, INC.
____	____	N	94CP005294 0 01 003 1 160817		G	FT	CJD	648 648C 649	17.50 11,340.00 (116.22)	08/03/94 08/01/94 10/19/94	PIPE, 3", SEAMLESS, 304L, STAINLESS ALLOY PIPING SUPPLY, INC.
____	____	Y	94CP005295 0 00 001 1 159252		G	LB	DMK	50 50C 50	4.02 201.00 0.00	08/02/94 07/26/94 08/02/94	ER 316L 1/8 X 36" EMBOSSED WELDING ROD F & M MAFCO, INC.
____	____	Y	94CP005295 0 00 002 2 159252		G	LB	DMK	50 50C 50	4.09 204.50 0.00	08/02/94 07/26/94 08/02/94	ER 316L 3/32 X 36" EMBOSSED WELDING ROD F & M MAFCO, INC.
____	____	Y	94CP005295 0 00 003 3 159252		G	BX	DMK	2 2C 2	12.00 24.00 0.00	08/01/94 07/26/94 08/02/94	3/32" X 7" LONG 2% THORIATED TUNGSTEN F & M MAFCO, INC.
____	____	N	94CP005298 0 00 001 1 160838		G	FT	JRM	400 401C 400	1.18 472.00 (1.18)	08/08/94 07/26/94 08/04/94	1/2" BLACK STEEL PIPE SCH 40, SEAMLESS PIPE PRODUCTS, INC.
____	____	N	94CP005298 0 00 002 2 160838		G	EA	JRM	50 50C 50	1.95 97.50 0.00	08/08/94 07/26/94 08/04/94	1/2" ELBOWS FORGED STEEL 3000# PIPE PRODUCTS, INC.
____	____	N	94CP005298 0 00 003 3 160838		G	EA	JRM	12 12C 12	0.76 9.12 0.00	08/08/94 07/26/94 08/04/94	1/2" COUPLINGS FORGED STEEL 3000# PIPE PRODUCTS, INC.
____	____	N	94CP005298 0 00 004 4 160838		G	EA	JRM	12 12C 12	2.58 30.96 0.00	08/08/94 07/26/94 08/04/94	1/2" 45 DEGREE ELBOWS, FORGED STEEL 3000 PIPE PRODUCTS, INC.
____	____	N	94CP005298 0 00 005 5 160838		G	EA	JRM	15 0C 0	4.85 72.75 72.75	08/08/94 07/26/94 08/04/94	1/2" 150# BRASS SCREWED BALL, VALVES SCR PIPE PRODUCTS, INC.
____	____	N	94CP005298 0 00 006 6 160838		G	EA	JRM	200 200C 200	0.03 6.00 0.00	08/08/94 07/26/94 08/04/94	3/8" HVY HEX NUTS ZINC PLATED PIPE PRODUCTS, INC.
____	____	N	94CP005298 0 00 007 7 160838		G	FT	JRM	200 200C 200	0.17 34.00 0.00	08/08/94 07/26/94 08/04/94	3/8" ALL THREAD ROD ZINC PLATED PIPE PRODUCTS, INC.

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OK	COMPLETE	CLOSED	PO NUMBER / REQUISITION NUMBER	REL	C\O	LINE ITEM		ITEM NUMBER	TYPE	U/M	BUYER	QUANTITY ORDERED / RECEIVED / INVOICED	VALUES UNIT / EXTENDED / OPEN	DATES REQUIRED / REQUISITION ISSUED	DESCRIPTION / VENDOR / DELIVER TO
____	____	N	94CP005298 160838	0	00	008	8		G	EA	JRM	25 25C 25	0.30 7.50 0.00	08/08/94 07/26/94 08/04/94	1/2" BLACK STEEL CLEVIS HANGERS PIPE PRODUCTS, INC.
____	____	N	94CP005298 160838	0	00	009	9		G	EA	JRM	25 25C 25	0.40 10.00 0.00	08/08/94 07/26/94 08/04/94	3/8" FORGED STEEL BEAM CLAMPS PIPE PRODUCTS, INC.
____	____	N	94CP005298 160838	0	00	010	10		G	EA	JRM	12 12C 12	2.70 32.40 0.00	08/08/94 07/26/94 08/04/94	1/2" TEES FORGED STEEL 3000# SCREWED AST PIPE PRODUCTS, INC.
____	____	N	94CP005298 160838	0	00	011	11		G	EA	JRM	12 12C 12	18.33 219.96 0.00	08/08/94 07/26/94 08/04/94	1/2" NPT GAUGE SNUBBERS (VIBRATION ELIMI PIPE PRODUCTS, INC.
____	____	N	94CP005298 160838	0	00	012	12		G	EA	JRM	12 12C 12	9.20 110.40 0.00	08/08/94 07/26/94 08/04/94	1/4" NPT GAUGE SNUBBERS (VIBRATION ELIMI PIPE PRODUCTS, INC.
____	____	Y	94CP005324 160842	0	00	001	1		G	EA	JRM	2 2C 2	58.00 116.00 0.00	08/13/94 07/26/94 08/08/94	0-300# PRESSURE GAUGES 4-1/2" DIAMETER, SIMCO CONTROLS
____	____	Y	94CP005324 160842	0	00	002	2		G	EA	JRM	1 1C 1	91.00 91.00 0.00	08/13/94 07/26/94 08/08/94	PRESSURE RELIEF VALVE 1/2" X 1", SIMCO CONTROLS
____	____	Y	94CP005327 160818	0	00	001	1		G	EA	DMK	1 1C 1	140.00 140.00 2.10	08/08/94 07/20/94 08/03/94	FLANGE, WELD NECK, 304L, S.S., S.R.F. PIPE PRODUCTS, INC.
____	____	Y	94CP005327 160818	0	00	002	2		G	EA	DMK	1 1C 1	188.00 188.00 2.82	08/08/94 07/20/94 08/03/94	REDUCER, CONCENTRIC WELD, 6 X 2", PIPE PRODUCTS, INC.
____	____	Y	94CP005327 160818	0	00	003	4		G	FT	DMK	60 63C 63	7.15 429.00 (14.69)	08/08/94 07/20/94 08/03/94	PIPE, 2", SCH 40, 304L, S.S., ASTM A312 PIPE PRODUCTS, INC.
____	____	Y	94CP005327 160818	0	00	004	3		G	EA	DMK	6 6C 6	12.00 72.00 1.08	08/08/94 07/20/94 08/03/94	ELBOW, 90 DEGREE, 2", SCH 40, 304L, S.S. PIPE PRODUCTS, INC.
____	____	Y	94CP005330 159251	0	00	001	1		G	EA	DMK	1 1C 1	110.50 110.50 1.66	08/08/94 07/26/94 08/04/94	THAXTON HYDROSTATIC TEST PLUG PIPE PRODUCTS, INC.

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		Y	94CP005330 0 00 002 2 159251		G EA	DMK	1 1C 1	125.75 125.75 1.89	08/08/94 07/26/94 08/04/94	#D-2.067-0, 2" SCH 40 TYPE D PIPE PRODUCTS, INC.
		Y	94CP005330 0 00 003 3 159251		G EA	DMK	2 2C 2	180.50 361.00 5.42	08/08/94 07/26/94 08/04/94	D-3.068-0 3" SCH 40 TYPE D PIPE PRODUCTS, INC.
		Y	94CP005330 0 00 004 4 159251		G EA	DMK	1 1C 1	246.75 246.75 3.69	08/08/94 07/26/94 08/04/94	#D-4.026-0 4" SCH 40 TYPE D PIPE PRODUCTS, INC.
		Y	94CP005340 0 00 001 1 133627		G EA	JRM	1 1C 1	1,197.00 1,197.00 0.00	08/30/94 05/22/94 08/10/94	2" LEVEL TRANSMITTER - TAG # LT101 B. C. ENGINEERING
		Y	94CP005340 0 00 002 2 133627		G EA	JRM	1 1C 1	1,197.00 1,197.00 0.00	08/30/94 05/22/94 08/10/94	2" LEVEL TRANSMITTER - TAG # LT105 B. C. ENGINEERING
		Y	94CP005340 0 00 003 3 133627		G EA	JRM	1 1C 1	1,229.00 1,229.00 0.00	08/30/94 05/22/94 08/10/94	4" LEVEL TRANSMITTER - TAG# LT250 B. C. ENGINEERING
		Y	94CP005340 0 00 004 4 133627		G EA	JRM	1 1C 1	1,229.00 1,229.00 0.00	08/30/94 05/22/94 08/10/94	4" LEVEL TRANSMITTER - TAG# LT260 B. C. ENGINEERING
		Y	94CP005340 0 00 005 5 133627		G EA	JRM	1 1C 1	1,197.00 1,197.00 0.00	08/30/94 05/22/94 08/10/94	2" LEVEL TRANSMITTER - TAG# LT203 B. C. ENGINEERING
		Y	94CP005340 0 00 006 6 133627		G EA	JRM	1 1C 1	1,213.00 1,213.00 0.00	08/30/94 05/22/94 08/10/94	3" LEVEL TRANSMITTER - TAG# LT203A B. C. ENGINEERING
		Y	94CP005340 0 00 007 1 138988		G EA	JRM	1 1C 1	606.00 606.00 0.00	08/30/94 05/22/94 08/10/94	2" LEVEL SWITCH - TAG# LSHH250 B. C. ENGINEERING
		Y	94CP005340 0 00 008 2 138988		G EA	JRM	1 1C 1	606.00 606.00 0.00	08/30/94 05/22/94 08/10/94	2" LEVEL SWITCH - TAG# LSHH260 B. C. ENGINEERING
		Y	94CP005340 0 00 009 3 138988		G EA	JRM	1 1C 1	814.00 814.00 0.00	08/30/94 05/22/94 08/10/94	3" LEVEL SWITCH - TAG# LSH203 B. C. ENGINEERING

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		Y	94CP005340 0 00 010 4 138988		G	EA	JRM	1 1C 1	933.00 933.00 0.00	08/30/94 05/22/94 08/10/94	6" LEVEL SWITCH - TAG# LSHH203A B. C. ENGINEERING
		Y	94CP005340 0 00 011 5 138988		G	EA	JRM	1 1C 1	459.00 459.00 0.00	08/30/94 05/22/94 08/10/94	4" LEVEL SWITCH - TAG# LSH104A B. C. ENGINEERING
		Y	94CP005340 0 00 012 6 138988		G	EA	JRM	1 1C 1	459.00 459.00 0.00	08/30/94 05/22/94 08/10/94	4" LEVEL SWITCH - TAG# LSH104B B. C. ENGINEERING
		Y	94CP005346 0 00 001 1 160866		G	EA	DMK	25 25C 25	41.29 1,032.25 20.64	08/11/94 08/01/94 08/17/94	FLANGE, 3", 150#, S.S., S.R.F, WELD NECK READING SUPPLIES INCORPORATED
		Y	94CP005356 0 00 001 1 133524		G	FT	DMK	3000 3000C 3000	0.46 1,365.00 0.00	08/11/94 07/20/94 08/24/94	THERMOCOUPLE WIRE EXTENSION, GRADE MYERS & HENLEY INC.
		Y	94CP005366 0 00 001 1 133482		G	EA	JRM	1 1C 1	1,055.00 1,055.00 0.00	08/30/94 05/22/94 08/17/94	2" CONTROL VALVE SIMCO CONTROLS
		Y	94CP005414 0 00 001 1 160682		G	EA	JRM	1 1C 1	4,015.00 4,015.00 0.00	09/03/94 06/30/94 08/10/94	DIRECT STEAM INJECTION PIPELINE HEATER, PICK HEATERS, INC.
		N	94CP005418 0 00 001 1 000000000160884		G	EA	DMK	10 9 9	9.85 98.50 10.74	08/22/94 08/08/94 08/16/94	8 X 1/8" THK, 150#, STYLE C.G. CINCINNATI GASKET PKG & MFG
		N	94CP005418 0 00 002 2 000000000160884		G	EA	DMK	24 24C 24	7.49 179.76 1.80	08/22/94 08/08/94 08/16/94	GASKET, 6 X 1/8" THK, 150#, STYLE C.G. CINCINNATI GASKET PKG & MFG
		N	94CP005418 0 00 003 3 000000000160884		G	EA	DMK	40 40C 40	4.97 198.80 1.99	08/22/94 08/08/94 08/16/94	GASKET, 4 X 1/8" THK, 150#, STYLE C.G., CINCINNATI GASKET PKG & MFG
		N	94CP005418 0 00 004 4 000000000160884		G	EA	DMK	2 2C 2	3.40 6.80 0.06	08/22/94 08/08/94 08/16/94	GASKET, 3 X 1/8" THK, 150#, FULL FACE CINCINNATI GASKET PKG & MFG
		Y	94CP005427 0 00 001 1 159254		G	EA	DMK	1 1C 1	250.00 250.00 116.52	08/11/94 08/01/94 08/24/94	ENCLOSURE NEMA 12/13, WITH HINGED DOOR, MURPHY'S ELECTRIC SUPPLY CO.

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___	___	Y	94CP005427 0 00 002 159254	2	G EA	DMK	1 1C 1	50.00 50.00 36.73	08/11/94 08/01/94 08/24/94	BACKPLATE #A-20P16 MURPHY'S ELECTRIC SUPPLY CO.
___	___	Y	94CP005427 0 00 003	159254	G LT	DMK	1 1C 1	56.00 56.00 0.56	08/11/94 09/30/93 08/24/94	UPS BLUE 2ND DAY DELIVERY. MATERIAL IS MURPHY'S ELECTRIC SUPPLY CO.
___	___	Y	94CP005438 0 00 001 160885	1	G EA	JRM	4 4C 4	65.76 263.04 3.95	08/15/94 08/09/94 08/10/94	CONCENTRIC REDUCER, 6" X 3", SEAMLESS PIPE PRODUCTS, INC.
___	___	Y	94CP005438 0 00 002 160885	2	G EA	JRM	4 4C 4	138.84 555.36 8.33	08/15/94 08/09/94 08/10/94	ECCENTRIC REDUCER, 6" X 4", SEAMLESS PIPE PRODUCTS, INC.
___	___	Y	94CP005438 0 00 003 160885	3	G EA	JRM	8 8C 8	140.00 1,120.00 16.80	08/15/94 08/09/94 08/10/94	6" FLANGES, CLASS 150, STAINLESS STEEL, PIPE PRODUCTS, INC.
___	___	Y	94CP005438 0 00 004 160885	4	G EA	JRM	2 2C 2	16.65 33.30 0.50	08/15/94 08/09/94 08/10/94	6" FLANGES, CLASS 150 CARBON STEEL, RFSF PIPE PRODUCTS, INC.
___	___	Y	94CP005438 0 00 005 160885	5	G EA	JRM	1 1C 1	78.67 78.67 1.18	08/15/94 08/09/94 08/10/94	6" X 2" ECCENTRIC REDUCER, SEAMLESS, CAR PIPE PRODUCTS, INC.
___	___	Y	94CP005438 0 00 006 160885	6	G EA	JRM	1 1C 1	16.00 16.00 0.24	08/15/94 08/09/94 08/10/94	6" X 3" CONCENTRIC REDUCER SEAMLESS CAR PIPE PRODUCTS, INC.
___	___	Y	94CP005445 0 00 001 141047	1	G EA	DMK	2 2C 2	11.25 22.50 0.45	08/04/94 08/08/94 08/15/94	CONTACT BLOCK, 800TXA, ALLEN BRADLEY F.D. LAWRENCE
___	___	Y	94CP005494 0 00 001 160901	1	G EA	JRM	6 6C 6	24.80 148.80 2.23	08/22/94 08/09/94 08/12/94	FLANGE, THREADED, 2", 150#, S.R.F., 304L PIPE PRODUCTS, INC.
___	___	Y	94CP005494 0 00 002 160901	2	G EA	JRM	2 2C 2	45.33 90.66 1.36	08/22/94 08/09/94 08/12/94	FLANGE, THREADED, REDUCING, 3 X 2", 150# PIPE PRODUCTS, INC.
___	___	Y	94CP005494 0 00 003 160901	3	G EA	JRM	2 2C 2	62.80 125.60 1.88	08/22/94 08/09/94 08/12/94	FLANGE, THREADED, REDUCING, 4 X 2", 150# PIPE PRODUCTS, INC.

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		Y	94CP005494 0 00 004 4 160901		G	EA	JRM	1 1C 1	346.00 346.00 5.19	08/22/94 08/09/94 08/12/94	FLANGE, THREADED, REDUCING, 12 X 2" PIPE PRODUCTS, INC.
		Y	94CP005494 0 00 005 5 160901		G	EA	JRM	2 2C 2	126.00 252.00 3.79	08/22/94 08/09/94 08/12/94	FLANGE, THREADED, REDUCING, 6 X 2", 150# PIPE PRODUCTS, INC.
		Y	94CP005520 0 00 001 1 000000000160911		G	EA	JRM	1 1C 1	247.96 247.96 0.00	08/22/94 08/15/94 08/17/94	ELCLOSURE, 30 X 24 X 24", NEMA 12 F.D. LAWRENCE
		Y	94CP005520 0 00 002 2 000000000160911		G	EA	JRM	1 1C 1	30.16 30.16 0.60	08/22/94 08/15/94 08/17/94	BACK PLATE, FOR ENCLOSURE F.D. LAWRENCE
		Y	94CP005520 0 00 003 3 000000000160911		G	EA	JRM	2 2C 2	62.10 124.20 1.24	08/22/94 08/15/94 08/17/94	ENCLOSURE WINDOW KIT, HOFFMAN NUMBER F.D. LAWRENCE
		Y	94CP005520 0 00 004 4 000000000160911		G	EA	JRM	4 4C 4	11.95 47.80 0.00	08/22/94 08/15/94 08/17/94	MYER, 2", HUB F.D. LAWRENCE
		Y	94CP005546 0 00 001 1 160879		G	EA	DMK	30 30C 30	25.90 777.00 15.54	08/17/94 08/04/94 08/16/94	6" X 6" X 12' LONG PRESSURE TREATED LUMB MYRON JOHNSON & SON LUMBER CO.
		Y N/A	94CP005582 0 00 001 1 160843		G	EA	DMK	1 1C 1	126.15 126.15 0.15	08/18/94 07/26/94 08/24/94	DRILL PRESS VICE, MODEL #15-026, FOR DEL PRO TOOL SERVICE, INC.
		N	94CP005585 0 00 001 1 136161		G	EA	DMK	16 16C 16	18.54 296.64 5.93	08/17/94 08/09/94 08/24/94	PLYWOOD, CDX, 3/4" X 4' X 8' RIEMEIER LUMBER
		N	94CP005585 0 00 002 2 136161		G	EA	DMK	68 68C 68	6.35 431.80 8.63	08/17/94 08/09/94 08/24/94	2" X 4" X 16', LUMBER, #2 GRADE RIEMEIER LUMBER
		N	94CP005585 0 00 003 3 136161		G	BX	DMK	1 1C 1	25.25 25.25 0.50	08/17/94 08/09/94 08/24/94	NAIL, 16 PENNY, DOUBLE HEADED RIEMEIER LUMBER
		N	94CP005585 0 00 004 4 136161		G	EA	DMK	4 0 0	0.00 0.00 0.01	08/17/94 08/09/94 08/24/94	APRON, CLOTH, NAIL RIEMEIER LUMBER

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____	____	Y	94CP005587 0 00 001 1 136164		G EA	DMK	12 12C 12	26.00 312.00 0.00	08/24/94 08/10/94 08/24/94	13' SCAFFOLDING TUBE AMERICAN SCAFFOLDING
____	____	Y	94CP005587 0 00 002 2 136164		G EA	DMK	24 24C 24	19.00 456.00 0.00	08/24/94 08/10/94 08/24/94	8' SCAFFOLDING TUBE AMERICAN SCAFFOLDING
____	____	Y	94CP005587 0 00 003 3 136164		G EA	DMK	24 24C 24	17.00 408.00 0.00	08/24/94 08/10/94 08/24/94	6' SCAFFOLDING TUBE AMERICAN SCAFFOLDING
____	____	Y	94CP005587 0 00 004 4 136164		G EA	DMK	12 12C 12	13.00 156.00 0.00	08/24/94 08/10/94 08/24/94	4' SCAFFOLDING TUBE AMERICAN SCAFFOLDING
____	____	Y	94CP005587 0 00 005 5 136164		G EA	DMK	100 100C 100	11.00 1,100.00 0.00	08/24/94 08/10/94 08/24/94	RIGID CLAMPS AMERICAN SCAFFOLDING
____	____	Y	94CP005587 0 00 006 6 136164		G EA	DMK	16 16C 16	12.00 192.00 0.00	08/24/94 08/10/94 08/24/94	SWIVEL CLAMPS AMERICAN SCAFFOLDING
____	____	Y	94CP005587 0 00 007 7 136164		G FT	DMK	8 8C 8	8.00 64.00 0.00	08/24/94 08/10/94 08/24/94	BASE PLATES AMERICAN SCAFFOLDING
____	____	Y	94CP005587 0 00 008 8 136164		G EA	DMK	2 2C 2	32.00 64.00 0.00	08/24/94 08/10/94 08/24/94	3' LADDER SECTIONS AMERICAN SCAFFOLDING
____	____	Y	94CP005587 0 00 009 9 136164		G EA	DMK	2 2C 2	20.00 40.00 0.00	08/24/94 08/10/94 08/24/94	LADDER BRACKETS AMERICAN SCAFFOLDING
____	____	Y	94CP005588 0 00 001 1 000000000160905		G EA	JRM	2 2C 2	60.00 120.00 0.00	08/24/94 08/09/94 08/17/94	NIPPLE, 3", BUTT WELD, X 2" M.P.T., PIPE PRODUCTS, INC.
____	____	N	94CP005591 0 01 001 1 000000000160881		G EA	DMK	77 77C 77	2.25 173.25 0.00	08/31/94 08/04/94 09/22/94	5/8 X 4-3/4 STUDS 304L S.S. ASTM A-193 HILLMAN FASTENER INDUSTRIAL
____	____	N	94CP005591 0 00 002 2 000000000160881		G EA	DMK	150 150 150	0.15 22.50 0.00	08/31/94 08/04/94 09/22/94	1/2 X 2" LG. HEX MACHINE SCREWS, CARBON HILLMAN FASTENER INDUSTRIAL

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___	___	N	94CP005591 0 00 003	160811-3	G	LT	DMK	1 1C 1	10.00 10.00 0.00	08/31/94 09/30/93 09/22/94	CERTIFICATION PAPERS HILLMAN FASTENER INDUSTRIAL
___	___	Y	94CP005646 0 00 001 160925	1	G	EA	JRM	12 12C 12	46.75 561.00 5.61	08/24/94 08/18/94 08/19/94	1" F.N.P.T. X CHICAGO HOSE FITTING SUPERIOR RUBBER CO.
___	___	Y	94CP005652 0 00 001 160924	1	G	EA	JRM	6 6C 6	18.80 112.80 1.12	08/26/94 08/18/94 08/19/94	WELD-O-LETS, 1" ON 3" STAINLESS STEEL PIPE PRODUCTS, INC.
___	___	Y	94CP005652 0 00 002 160924	2	G	EA	JRM	6 6C 6	3.00 18.00 0.18	08/26/94 08/18/94 08/19/94	SOCK-O-LETS, 1" ON 3" CARBON STEEL 3000# PIPE PRODUCTS, INC.
___	___	Y	94CP005652 0 00 003 160924	3	G	EA	JRM	1 1C 1	26.69 26.69 (0.72)	08/26/94 08/18/94 08/19/94	CONCENTRIC REDUCER 6" X 2" FULL FACE, PIPE PRODUCTS, INC.
___	___	Y	94CP005751 0 00 001 000000000160951	1	G	PR	JRM	1000 1008C 1008	1.36 1,360.00 (10.88)	08/24/94 08/24/94 08/29/94	GLOVE, LEATHER PALMED, PART #N2G50 NETHERLAND RUBBER COMPANY
___	___	N	94CP005839 0 00 001 160953	1	G	C	JRM	1 1C 0	14.00 14.00 14.00	08/29/94 08/24/94 09/02/94	ROD, ALL THREAD, 1/4" X 20 RICHARDS ELECTRIC SUPPLY CO.
___	___	N	94CP005839 0 00 002 160953	2	G	C	JRM	1 1C 0	18.00 18.00 18.00	08/29/94 08/24/94 09/02/94	ROD, ALL THREAD, 3/8" X 16 RICHARDS ELECTRIC SUPPLY CO.
___	___	N	94CP005839 0 00 003 160953	3	G	C	JRM	3 3C 0	4.25 12.75 12.75	08/29/94 08/24/94 09/02/94	1/4 X 1-1/2" FENDER WASHER RICHARDS ELECTRIC SUPPLY CO.
___	___	N	94CP005839 0 00 004 160953	4	G	EA	JRM	50 0 0	0.29 14.50 14.50	08/29/94 08/24/94 09/02/94	CLAMP, BEAM, 1/4" X 20, STEEL CITY, #500 RICHARDS ELECTRIC SUPPLY CO.
___	___	N	94CP005839 0 00 005 160953	5	G	EA	JRM	50 0 0	2.11 105.50 105.50	08/29/94 08/24/94 09/02/94	CLAMP, BEAM, 3/8" X 16, STEEL CITY #502 RICHARDS ELECTRIC SUPPLY CO.
___	___	N	94CP005839 0 00 006 160953	6	G	EA	JRM	20 0 0	10.94 218.80 218.80	08/29/94 08/24/94 09/02/94	CONDULET, WITH COVER AND GASKET, 1" RICHARDS ELECTRIC SUPPLY CO.

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CONSTRUCTION-UNH NEUTRALIZATION

OK	COMPLETE	CLOSED	PO NUMBER REL C\O LINE / REQUISITION NUMBER ITEM	ITEM NUMBER	TYPE U/M	BUYER	QUANTITY ORDERED / RECEIVED / INVOICED	VALUES UNIT / EXTENDED / OPEN	DATES REQUIRED / REQUISITION ISSUED	DESCRIPTION / VENDOR / DELIVER TO
____	____	N	94CP005839 0 00 007 7 160953		G EA	JRM	20 0 0	9.30 186.00 186.00	08/29/94 08/24/94 09/02/94	CONDULET, WITH COVER AND GASKET, 1", RICHARDS ELECTRIC SUPPLY CO.
____	____	N	94CP005839 0 00 008 8 160953		G EA	JRM	30 0 0	6.46 193.80 193.80	08/29/94 08/24/94 09/02/94	CONDULET, WITH COVER AND GASKET, 3/4" RICHARDS ELECTRIC SUPPLY CO.
____	____	N	94CP005839 0 00 009 9 160953		G EA	JRM	50 0 0	7.53 376.50 376.50	08/29/94 08/24/94 09/02/94	CONDULET, 3/4", T, STEEL BODY, WITH RICHARDS ELECTRIC SUPPLY CO.
____	____	N	94CP005839 0 00 010 10 160953		G EA	JRM	10 0 0	16.16 161.60 161.60	08/29/94 08/24/94 09/02/94	CONDULET, 1-1/2", LB, STEEL BODY, WITH RICHARDS ELECTRIC SUPPLY CO.
____	____	N	94CP005839 0 00 011 11 160953		G EA	JRM	5 0 0	2.52 12.60 12.60	08/29/94 08/24/94 09/02/94	O-Z GEDNEY, 1", LB, 100, COVER AND RICHARDS ELECTRIC SUPPLY CO.
____	____	N	94CP005839 0 00 012 12 160953		G EA	JRM	5 0 0	3.89 19.45 19.45	08/29/94 08/24/94 09/02/94	COVER AND GASKET, FOR APPLETON, 1", LB RICHARDS ELECTRIC SUPPLY CO.
____	____	Y	94CP005891 0 00 001 1 000000000160993		G YD	JRM	5 5C 5	47.00 235.00 0.00	08/29/94 09/06/94 09/07/94	CONCRETE, 6" SLUMP, 4000 PSI MORAINE MATERIALS
____	____	Y	94CP005968 0 01 001 1 160920		G EA	JRM	2 2C 2	116.00 232.00 0.00	09/14/94 08/18/94 11/10/94	STRAINERS, PLATE FINDLOW & SONS INCORPORATED
____	____	Y	94CP005968 0 01 002 2 160920		G EA	JRM	8 8C 8	116.00 928.00 0.00	09/14/94 08/18/94 11/10/94	STRAINERS, PLATE FINDLOW & SONS INCORPORATED
____	____	N	94CP005979 0 00 001 1 000000000160975		G EA	JRM	8 8C 8	2.72 21.76 0.00	09/09/94 08/29/94 09/07/94	HUB, MYER, 3/4", SCRU-TITE F.D. LAWRENCE
____	____	N	94CP005979 0 00 002 2 000000000160975		G EA	JRM	4 4C 4	21.22 84.88 0.00	08/29/94 08/29/94 09/07/94	OUTLET BOX, CAST, DRILLED AND TAPPED F.D. LAWRENCE
____	____	N	94CP005979 0 00 003 3 000000000160975		G EA	JRM	4 4C 4	5.58 22.32 0.00	09/09/94 08/29/94 09/07/94	BOX COVER, OUTLET, CROUSE HINDS GRF10 F.D. LAWRENCE

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____	____	N	94CP005979 0 00 004 4 000000000160975		G	EA	JRM	4 3 3	2.07 8.28 2.07	08/29/94 08/29/94 09/07/94	GASKET, OUTLET BOX, CROUSE HINDS GASK64 F.D. LAWRENCE
____	____	N	94CP005979 0 00 005 5 000000000160975		G	LT	JRM	1 1C 1	18.83 18.83 0.00	09/09/94 08/29/94 09/07/94	WIRE, COPPER, STRANDED, #14 AWG F.D. LAWRENCE
____	____	N	94CP005979 0 00 006 6 000000000160975		G	LT	JRM	1 1C 1	27.00 27.00 0.00	09/09/94 08/29/94 09/07/94	WIRE, COPPER, STRANDED, #12 AWG F.D. LAWRENCE
____	____	N	94CP005979 0 00 007 7 000000000160975		G	EA	JRM	1 1C 1	19.64 19.64 0.00	09/09/94 08/29/94 09/07/94	ENCLOSURE, PUSHBUTTON, 1-HOLE WITH F.D. LAWRENCE
____	____	N	94CP005979 0 00 008 8 000000000160975		G	EA	JRM	1 1C 1	22.43 22.43 0.00	09/09/94 08/29/94 09/07/94	ENCLOSURE, PUSHBUTTON, 2-HOLE WITH F.D. LAWRENCE
____	____	N	94CP005979 0 00 009 9 000000000160975		G	EA	JRM	4 4C 4	2.16 8.64 0.00	09/09/94 08/29/94 09/07/94	FUSE, BUSSMAN, TYPE FNM, 5AMP F.D. LAWRENCE
____	____	N	94CP005979 0 00 010 10 000000000160975		G	EA	JRM	2 2C 2	4.47 8.94 0.00	09/09/94 08/29/94 09/07/94	FUSE BLOCK, ALLEN BRADLEY #1492-CE6 F.D. LAWRENCE
____	____	N	94CP005979 0 00 011 11 000000000160975		G	EA	JRM	50 50C 50	1.26 63.00 0.00	09/09/94 08/29/94 09/07/94	BLOCK, TERMINAL, ALLEN BRADLEY #1492-CA2 F.D. LAWRENCE
____	____	N	94CP005979 0 00 012 12 000000000160975		G	EA	JRM	10 10C 10	0.36 3.60 0.00	09/09/94 08/29/94 09/07/94	BARRIER, END, ALLEN BRADLEY #1492-N16 F.D. LAWRENCE
____	____	N	94CP005979 0 00 013 13 000000000160975		G	EA	JRM	10 10C 10	2.16 21.60 0.00	09/09/94 08/29/94 09/07/94	ANCHOR, END, ALLEN BRADLEY #1492-N23 F.D. LAWRENCE
____	____	N	94CP005979 0 00 014 14 000000000160975		G	EA	JRM	1 1C 1	25.13 25.13 0.00	09/09/94 08/29/94 09/07/94	SELECTOR SWITCH, 2 POSITION, CORROSION F.D. LAWRENCE
____	____	N	94CP005979 0 00 015 15 000000000160975		G	EA	JRM	1 1C 1	21.38 21.38 0.00	09/09/94 08/29/94 09/07/94	PUSHBUTTON, MOMENTARY CONTACT, GREEN F.D. LAWRENCE

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____	____	N	94CP005979 0 00 016 16 000000000160975		G EA	JRM	1 1C 1	32.50 32.50 0.00	09/09/94 08/29/94 09/07/94	PUSHBUTTON, MOMENTARY CONTACT, F.D. LAWRENCE
____	____	N	94CP005979 0 00 017 17 000000000160975		G EA	JRM	2 2C 2	678.75 1,357.50 0.00	09/09/94 08/29/94 09/07/94	STARTER, COMBINATION, NEMA, WITH THERMA F.D. LAWRENCE
____	____	N	94CP005979 0 00 018 18 000000000160975		G EA	JRM	2 2C 2	30.00 60.00 0.00	09/09/94 08/29/94 09/07/94	CONTACT, AUXILLARY, EXTERNAL FIELD F.D. LAWRENCE
____	____	N	94CP005979 0 00 019 19 000000000160975		G EA	JRM	3 3C 3	5.63 16.89 0.00	09/09/94 08/29/94 09/07/94	OVERLOAD, THERMAL, SQUARE D #B1.88 F.D. LAWRENCE
____	____	N	94CP005979 0 00 020 20 000000000160975		G EA	JRM	3 3C 3	5.63 16.89 0.00	09/09/94 08/29/94 09/07/94	OVERLOAD, THERMAL, SQUARE D #B3.30 F.D. LAWRENCE
____	____	Y	94CP005980 0 00 001 13 160953		G EA	JRM	1 1C 1	88.60 88.60 0.89	08/31/94 08/24/94 08/31/94	HEAT GUN, 4:5 AMP/120V, IDEAL P/N 46-013 BECKER ELECTRIC SUPPLY CO.
____	____	N	94CP006039 0 00 001 1 000000000160971		G EA	JRM	100 98 98	1.98 197.50 5.65	09/05/94 08/29/94 09/01/94	FITTING, STRAIGHT, SEALTIGHT, 3/4" RICHARDS ELECTRIC SUPPLY CO.
____	____	N	94CP006039 0 00 002 2 000000000160971		G EA	JRM	50 50C 50	1.39 69.25 1.38	09/05/94 08/29/94 09/01/94	FITTING, STRAIGHT, SEALTIGHT, 1/2" RICHARDS ELECTRIC SUPPLY CO.
____	____	N	94CP006039 0 00 003 3 000000000160971		G EA	JRM	200 200C 200	0.37 74.40 1.57	09/05/94 08/29/94 09/01/94	CLAMP, CONDUIT, RIGID, 3/4", KINDOR RICHARDS ELECTRIC SUPPLY CO.
____	____	N	94CP006039 0 00 004 4 000000000160971		G EA	JRM	200 0 0	0.34 68.20 68.20	09/05/94 08/29/94 09/01/94	CLAMP, CONDUIT, RIGID, 1", KINDOR RICHARDS ELECTRIC SUPPLY CO.
____	____	N	94CP006039 0 00 005 5 000000000160971		G EA	JRM	100 100C 100	0.41 40.60 0.80	09/05/94 08/29/94 09/01/94	J&B, 3/4" TO 1/2", RE RICHARDS ELECTRIC SUPPLY CO.
____	____	N	94CP006039 0 00 006 6 000000000160971		G RO	JRM	20 20C 20	2.29 45.80 (7.12)	09/05/94 08/29/94 09/01/94	TAPE, BLACK, SCOTCH 33 RICHARDS ELECTRIC SUPPLY CO.

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____	____	Y	94CP006122 0 00 001 1 160959		G	EA	DMK	24 24C 24	1.25 30.00 0.00	09/12/94 08/29/94 09/22/94	STUD, 3/4 X 5-1/2", ASTM A193, GRADE B7 HILLMAN FASTENER INDUSTRIAL
____	____	Y	94CP006122 0 00 002 2 160959		G	EA	DMK	40 40C 40	5.28 211.20 0.00	09/12/94 08/29/94 09/22/94	STUD, 3/4 X 5-1/2", 304L, STAINLESS HILLMAN FASTENER INDUSTRIAL
____	____	Y	94CP006300 0 00 001 1 162265		G	EA	JRM	1000 1000C 1000	0.11 110.00 0.00	09/19/94 09/12/94 09/19/94	TYRAP, T&B, TY525MX F.D. LAWRENCE
____	____	Y	94CP006300 0 00 002 3 162265		G	EA	JRM	50 50C 50	0.90 45.00 0.02	09/19/94 09/12/94 09/19/94	MOUNTING BASE, ADHESIVE, TYRAP, T & B F.D. LAWRENCE
____	____	Y	94CP006300 0 00 003 4 162265		G	EA	JRM	2 2C 2	34.95 69.90 0.00	09/19/94 09/12/94 09/19/94	FISH TAPE, IDEAL, 31-038 F.D. LAWRENCE
____	____	Y	94CP006300 0 00 004 5 162265		G	EA	JRM	2 2C 2	19.95 39.90 0.00	09/19/94 09/12/94 09/19/94	FISH TAPE, IDEAL, 31-036 F.D. LAWRENCE
____	____	Y	94CP006300 0 00 005 6 162265		G	EA	JRM	2 2C 2	58.95 117.90 0.00	09/19/94 09/12/94 09/19/94	FISH TAPE, IDEAL, 31-052 F.D. LAWRENCE
____	____	Y	94CP006300 0 00 006 7 162265		G	EA	JRM	6 6C 6	12.45 74.70 0.00	09/19/94 09/12/94 09/19/94	TAPE LEADER, IDEAL, 31-148 F.D. LAWRENCE
____	____	Y	94CP006320 0 00 001 1 162250		G	EA	DMK	1 1C 1	90.00 90.00 0.00	09/20/94 09/01/94 09/22/94	FLANGE, 10", WELD NECK, CLASS 150, CINCINNATI PIPING SUPPLY
____	____	Y	94CP006320 0 00 002 2 162250		G	EA	DMK	2 2C 2	31.00 62.00 0.00	09/20/94 09/01/94 09/22/94	FLANGE, 6", WELD NECK, CLASS 150, CARBON CINCINNATI PIPING SUPPLY
____	____	Y	94CP006320 0 00 003 3 162250		G	EA	DMK	1 1C 1	48.00 48.00 0.00	09/20/94 09/01/94 09/22/94	REDUCER, CONCENTRIC, 10 X 6", SEAMLESS CINCINNATI PIPING SUPPLY
____	____	Y	94CP006326 0 00 001 1 162270		G	EA	JRM	1 1C 1	360.00 360.00 0.00	09/07/94 09/12/94 09/19/94	FLANGE, BLIND, 10", 150#, RAISED FACE PIPE PRODUCTS, INC.

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____	____	Y	94CP006326 0 00 002 2 162270		G EA	JRM	1 1C 1	24.00 24.00 0.00	09/15/94 09/12/94 09/19/94	GASKET, 10", 150#, TEFLON IMPREGNATED PIPE PRODUCTS, INC.
____	____	Y	94CP006352 0 00 001 1 160918		G FT	DMK	600 600C 600	4.92 2,952.00 0.00	09/20/94 08/17/94 10/07/94	PIPE COVERING, WITH ASJ, FOAMGLASS R.E. KRAMIG & COMPANY, INC.
____	____	Y	94CP006352 0 00 002 2 160918		G FT	DMK	250 250C 250	4.59 1,147.50 0.00	09/20/94 08/17/94 10/07/94	PIPE COVERING, WITH ASJ, FOAMGLASS R.E. KRAMIG & COMPANY, INC.
____	____	Y	94CP006352 0 00 003 3 160918		G FT	DMK	20 20C 20	5.24 104.80 0.00	09/20/94 08/17/94 10/07/94	PIPE COVERING, WITH ASJ, FOAMGLASS R.E. KRAMIG & COMPANY, INC.
____	____	Y	94CP006352 0 00 004 4 160918		G FT	DMK	20 20C 20	7.15 143.00 0.00	09/20/94 08/17/94 10/07/94	PIPE COVERING, WITH ASJ, FOAMGLASS R.E. KRAMIG & COMPANY, INC.
____	____	Y	94CP006352 0 00 005 5 160918		G FT	DMK	100 100C 100	8.89 889.00 0.00	09/20/94 08/17/94 10/07/94	PIPE COVERING, WITH ASJ, FOAMGLASS R.E. KRAMIG & COMPANY, INC.
____	____	Y	94CP006352 0 00 006 6 160918		G FT	DMK	50 50C 50	3.36 168.00 0.00	09/20/94 08/17/94 10/07/94	PIPE COVERING, WITH ASJ, FOAMGLASS R.E. KRAMIG & COMPANY, INC.
____	____	Y	94CP006352 0 00 007 7 160918		G FT	DMK	50 50C 50	13.93 696.50 0.00	09/20/94 08/17/94 10/07/94	PIPE COVERING, WITH ASJ, FOAMGLASS R.E. KRAMIG & COMPANY, INC.
____	____	Y	94CP006352 0 00 008 8 160918		G SE	DMK	40 40C 40	4.39 175.60 0.00	09/20/94 08/17/94 10/07/94	FITTING COVER, 90 DEGREE, #21, ELL JAC R.E. KRAMIG & COMPANY, INC.
____	____	Y	94CP006352 0 00 009 9 160918		G SE	DMK	20 20C 20	3.27 65.40 0.00	09/20/94 08/17/94 10/07/94	FITTING COVER, 90 DEGREE, ELL JAC R.E. KRAMIG & COMPANY, INC.
____	____	Y	94CP006352 0 00 010 10 160918		G SE	DMK	10 10C 10	11.10 111.00 0.00	09/20/94 08/17/94 10/07/94	FITTING COVER, 90 DEGREE, #46, ELL JAC R.E. KRAMIG & COMPANY, INC.
____	____	Y	94CP006352 0 00 011 11 160918		G SE	DMK	20 20C 20	3.63 72.60 0.00	09/20/94 08/17/94 10/07/94	FITTING COVER, 45 DEGREE, #8, ELL JAC R.E. KRAMIG & COMPANY, INC.

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___	___	Y	94CP006352 0 00 012 12 160918		G SE	DMK	10 10C 10	2.63 26.30 0.00	09/20/94 08/17/94 10/07/94	FITTING COVER, 45 DEGREE, ELL JAC R.E. KRAMIG & COMPANY, INC.
___	___	Y	94CP006352 0 00 013 13 160918		G RO	DMK	8 8C 8	150.00 1,200.00 0.00	09/20/94 08/17/94 10/07/94	JACKET, ALUMINUM, WITH MB, EMBOSSED R.E. KRAMIG & COMPANY, INC.
___	___	Y	94CP006352 0 00 014 14 160918		G BG	DMK	2 2C 2	18.00 36.00 0.00	09/20/94 08/17/94 10/07/94	SCREW, STAINLESS STEEL, #8 X 1/2", HEX R.E. KRAMIG & COMPANY, INC.
___	___	Y	94CP006352 0 00 015 15 160918		G RO	DMK	4 4C 4	57.12 228.48 0.00	09/20/94 08/17/94 10/07/94	BAND, STAINLESS STEEL, 1/2" R.E. KRAMIG & COMPANY, INC.
___	___	Y	94CP006352 0 00 016 16 160918		G BX	DMK	2 2C 2	37.20 74.40 0.00	09/20/94 08/17/94 10/07/94	CLIP, WING SEAL, STAINLESS STEEL, 1/2" R.E. KRAMIG & COMPANY, INC.
___	___	Y	94CP006352 0 00 017 17 160918		G RO	DMK	2 2C 2	22.80 45.60 0.00	09/20/94 08/17/94 10/07/94	BAND, ALUMINUM, 1/2" R.E. KRAMIG & COMPANY, INC.
___	___	Y	94CP006352 0 00 018 18 160918		G BX	DMK	2 2C 2	15.60 31.20 0.00	09/20/94 08/17/94 10/07/94	CLIP, WING SEAL, ALUMINUM, 1/2" R.E. KRAMIG & COMPANY, INC.
___	___	Y	94CP006352 0 00 019 19 160918		G RO	DMK	2 2C 2	73.20 146.40 0.00	09/20/94 08/17/94 10/07/94	ROPE, BRAIDED, FIBERGLASS, WICKING R.E. KRAMIG & COMPANY, INC.
___	___	Y	94CP006352 0 00 020 20 160918		G GL	DMK	8 8C 8	10.02 80.16 0.00	09/20/94 08/17/94 10/07/94	CHILDERS, WHITE, U-CRYL, CP-11 R.E. KRAMIG & COMPANY, INC.
___	___	Y	94CP006352 0 00 021 21 160918		G GL	DMK	30 30C 30	21.60 648.00 0.00	09/20/94 08/17/94 10/07/94	COMPOUND, BEDDING, 444N, PITSEAL R.E. KRAMIG & COMPANY, INC.
___	___	Y	94CP006352 0 00 022 22 160918		G EA	DMK	6 6C 6	20.95 125.70 0.00	09/20/94 08/17/94 10/07/94	SAW, FOAMGLASS, 24" R.E. KRAMIG & COMPANY, INC.
___	___	Y	94CP006352 0 01 023 23 160918		G EA	DMK	8 8C 8	4.50 36.00 0.00	09/20/94 08/17/94 10/07/94	BIT, NUT RUNNER, 1/4" R.E. KRAMIG & COMPANY, INC.

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		Y	94CP006352 0 00 024 24 160918		G	SF	DMK	72 72C 72	1.74 125.28 0.00	09/20/94 08/17/94 10/07/94	BLOCK, FOAMGLASS R.E. KRAMIG & COMPANY, INC.
		Y	94CP006352 0 00 025 25 160918		G	FT	DMK	20 20C 20	13.93 278.60 0.00	09/20/94 08/17/94 10/07/94	PIPE COVERING, WITH ASJ, FOAMGLASS R.E. KRAMIG & COMPANY, INC.
		Y	94CP006352 0 00 026 26 160918		G	LB	DMK	50 50C 50	2.04 102.00 0.00	09/20/94 08/17/94 10/07/94	TIE WIRE, STAINLESS STEEL, #18 R.E. KRAMIG & COMPANY, INC.
		Y	94CP006485 0 00 001 1 162272		G	C	JRM	2 2C 2	28.56 57.12 0.00	09/26/94 09/12/94 09/20/94	COAXIAL CABLE, RG58A/U BECKER ELECTRIC SUPPLY CO.
		Y	94CP006485 0 00 002 2 162272		G	PG	JRM	1 1C 1	20.68 20.68 0.00	09/26/94 09/12/94 09/20/94	SPLICE, BUTT TYPE BECKER ELECTRIC SUPPLY CO.
		Y	94CP006522 0 00 001 1 162275		G	EA	JRM	30 30C 30	89.45 2,683.50 0.00	09/29/94 09/13/94 09/28/94	VALVE, GATE, 3/4", CLASS 150, CARBON WORLY PLUMBING SUPPLY INC.
		Y	94CP006522 0 00 002 2 162275		G	EA	JRM	4 4C 4	195.95 783.80 0.00	09/29/94 09/13/94 09/28/94	VALVE, GATE, 1-1/2", CLASS 150, CARBON WORLY PLUMBING SUPPLY INC.
		Y	94CP006522 0 00 003 3 162275		G	EA	JRM	18 18C 18	2.88 51.84 0.00	09/29/94 09/13/94 09/28/94	TEE, 3/4", CLASS 3000, CARBON STEEL WORLY PLUMBING SUPPLY INC.
		Y	94CP006522 0 00 004 4 162275		G	EA	JRM	12 12C 12	14.00 168.00 0.00	09/29/94 09/13/94 09/28/94	GASKET, 6", RING 1/8" THICK TEFLON WORLY PLUMBING SUPPLY INC.
		Y	94CP006522 0 00 005 5 162275		G	EA	JRM	12 12C 12	9.00 108.00 0.00	09/29/94 09/13/94 09/28/94	GASKET, 6", RING 1/8" THICK TEFLON WORLY PLUMBING SUPPLY INC.
		Y	94CP006615 0 00 001 1 162304		G	FT	JRM	200 240C 240	0.63 126.20 (25.24)	09/26/94 09/21/94 09/28/94	ROD, ALL THREAD, PLATED, 1/2" HILLMAN FASTENER INDUSTRIAL
		Y	94CP006615 0 00 002 2 162304		G	C	JRM	10 10C 10	9.61 96.10 0.00	09/26/94 09/21/94 09/28/94	NUT, PLATED, EXTRA HEAVY, 1/2" HILLMAN FASTENER INDUSTRIAL

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		Y	94CP006615 162304	0	00	003	3		G	C	JRM	10 10C 10	7.68 76.80 0.00	09/26/94 09/21/94 09/28/94	WASHER, PLATED, 1/2" HILLMAN FASTENER INDUSTRIAL
		Y	94CP006615 162304	0	00	004	4		G	EA	JRM	50 50C 50	1.75 87.50 0.00	09/26/94 09/21/94 09/28/94	BEAM CLAMP, STEEL, 1/2" HILLMAN FASTENER INDUSTRIAL
		Y	94CP006633 162309	0	00	001	1		G	EA	JRM	8 8C 8	33.50 268.00 0.00	09/23/94 09/21/94 09/28/94	AIR REGULATORS 0 - 30#, CONTROL AIR #300 SIMCO CONTROLS
		Y	94CP006672 162303	0	00	001	1		G	EA	JRM	1 1C 1	1,267.00 1,267.00 0.00	10/06/94 09/21/94 09/28/94	SIGHT FLOW INDICATOR, 4", 150# FLANGED B. C. ENGINEERING
		Y	94CP006675 162307	0	00	001	1		G	FT	JRM	600 600C 600	5.16 3,096.00 0.00	10/03/94 09/21/94 09/28/94	3-1/2" X 1-1/2" (4" I.D.) FOAMGLASS PIPE R.E. KRAMIG & COMPANY, INC.
		Y	94CP006675 162307	0	00	002	2		G	RO	JRM	4 4C 4	157.00 628.00 0.00	10/03/94 09/21/94 09/28/94	4' X 100' - .020 STUCCO EMBOSSED ALUMINU R.E. KRAMIG & COMPANY, INC.
		Y	94CP006675 162307	0	00	003	3		G	RO	JRM	4 4C 4	57.20 228.80 0.00	10/03/94 09/21/94 09/28/94	1/2" STAINLESS STEEL BANDS R.E. KRAMIG & COMPANY, INC.
		Y	94CP006675 162307	0	00	004	4		G	BX	JRM	2 2C 2	37.20 74.40 0.00	10/03/94 09/21/94 09/28/94	1/2" STAINLESS STEEL WING SEAL CLIPS R.E. KRAMIG & COMPANY, INC.
		Y	94CP006675 162307	0	00	005	5		G	LB	JRM	50 50C 50	2.04 102.00 0.00	10/03/94 09/21/94 09/28/94	#18 STAINLESS STEEL TIE WIRE R.E. KRAMIG & COMPANY, INC.
		Y	94CP006675 162307	0	00	006	6		G	SE	JRM	60 60C 60	4.40 264.00 0.00	10/03/94 09/21/94 09/28/94	3-1/2" X 1-1/2" - 90 DEGREE ALUMINUM ELL R.E. KRAMIG & COMPANY, INC.
		Y	94CP006763 162302	0	00	001	1		G	FT	JRM	200 200C 200	5.15 1,030.00 0.00	09/29/94 09/21/94 10/26/94	PIPE, PLASTIC, SCH 80, CPVC, 3" WORLY PLUMBING SUPPLY INC.
		Y	94CP006763 162302	0	00	002	2		G	EA	JRM	12 12C 12	9.40 112.80 0.00	09/29/94 09/21/94 10/26/94	ELBOW, 90 DEGREE, PLASTIC, SCH 80, CPVC WORLY PLUMBING SUPPLY INC.

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____	____	Y	94CP006763 162302	0	00	003	3		G	EA	JRM	4 4C 4	12.45 49.80 0.00	09/29/94 09/21/94 10/26/94	TEE, PLASTIC, SCH 80, CPVC, 3" WORLY PLUMBING SUPPLY INC.
____	____	Y	94CP006763 162302	0	00	004	4		G	EA	JRM	4 4C 4	10.38 41.52 0.00	09/29/94 09/21/94 10/26/94	ELBOW, 45 DEGREE, PLASTIC, SCH 80, CPVC WORLY PLUMBING SUPPLY INC.
____	____	Y	94CP006763 162302	0	00	005	5		G	EA	JRM	1 1C 1	23.51 23.51 0.00	09/29/94 09/21/94 10/26/94	FLANGE, THREADED, REDUCING, FLAT FACE WORLY PLUMBING SUPPLY INC.
____	____	Y	94CP006763 162302	0	00	006	6		G	EA	JRM	1 1C 1	47.33 47.33 11.57	09/29/94 09/21/94 10/26/94	COUPLING, REDUCING, SOLVENT WELD ENDS WORLY PLUMBING SUPPLY INC.
____	____	Y	94CP006763 162302	0	00	007	7		G	EA	JRM	2 2C 2	6.00 12.00 0.00	09/29/94 09/21/94 10/26/94	NIPPLE, PIPE, PLASTIC, SCH 80, CPVC WORLY PLUMBING SUPPLY INC.
____	____	Y	94CP006763 162302	0	00	008	8		G	EA	JRM	1 1C 1	2.05 2.05 0.00	09/29/94 09/21/94 10/26/94	COUPLING, FERNCO, 3" PIPE SIZE WORLY PLUMBING SUPPLY INC.
____	____	Y	94CP006763 162302	0	00	009	9		G	EA	JRM	1 1C 1	6.26 6.26 0.00	09/29/94 09/21/94 10/26/94	COUPLING, FERNCO, 3 X 6" PIPE SIZE WORLY PLUMBING SUPPLY INC.
____	____	Y	94CP006763 162302	0	00	010	10		G	EA	JRM	6 6C 6	4.10 24.60 0.00	09/29/94 09/21/94 10/26/94	PRIMER, PURPLE, WITH APPLICATOR, CPVC WORLY PLUMBING SUPPLY INC.
____	____	Y	94CP006763 162302	0	00	011	11		G	EA	JRM	6 6C 6	6.00 36.00 0.00	09/29/94 09/21/94 10/26/94	GLUE, WITH APPLICATOR, CPVC, 32 OZ CANS WORLY PLUMBING SUPPLY INC.
____	____	Y	94CP006763 162302	0	00	012	12		G	EA	JRM	2 2C 2	225.00 450.00 0.00	09/29/94 09/21/94 10/26/94	VALVE, BUTTERFLY, 3" CPVC 80 WORLY PLUMBING SUPPLY INC.
____	____	Y	94CP006763 162302	0	00	013	13		G	EA	JRM	3 3C 3	24.76 74.28 0.00	09/29/94 09/21/94 10/26/94	UNION, WITH VITON "O" RING, S.W., CPVC WORLY PLUMBING SUPPLY INC.
____	____	Y	94CP006763 162302	0	00	014	14		G	EA	JRM	1 1C 1	3.48 3.48 0.00	09/29/94 09/21/94 10/26/94	UNION, WITH VITON "O" RING, S.W., CPVC WORLY PLUMBING SUPPLY INC.

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____	____	Y	94CP006763 162302	0	00	015	15	G	EA	JRM	25 25C 25	0.72 18.00 0.00	09/29/94 09/21/94 10/26/94	HANGER, CLEVIS, BLACK, 3" WORLY PLUMBING SUPPLY INC.
____	____	Y	94CP006763 162302	0	00	016	16	G	EA	JRM	2 2C 2	14.85 29.70 0.00	09/29/94 09/21/94 10/26/94	FLANGE, SOLVENT WELD ENDS, F.F., CPVC WORLY PLUMBING SUPPLY INC.
____	____	Y	94CP006763	0	00	017	17	G	EA	JRM	4 4C 4	14.07 56.28 1.36	09/29/94 09/30/93 10/26/94	CPVC 80 SOCKET FLANGE WORLY PLUMBING SUPPLY INC.
____	____	Y	94CP006763	0	00	018	18	G	EA	JRM	4 4C 4	1.35 5.40 0.52	09/29/94 09/30/93 10/26/94	GASKET, RED RUBBER FF, 1/8" THK WORLY PLUMBING SUPPLY INC.
____	____	Y	94CP006763	0	00	019	19	G	EA	JRM	8 8C 8	0.42 3.36 0.00	09/29/94 09/30/93 10/26/94	HEX HD CAP SCREW, 5/8 X 3 1/2" WORLY PLUMBING SUPPLY INC.
____	____	Y	94CP006763	0	00	020	20	G	EA	JRM	8 8C 8	0.21 1.68 0.00	09/29/94 09/30/93 10/26/94	HEX NUTS, 5/8" WORLY PLUMBING SUPPLY INC.
____	____	Y	94CP006802 163584	0	00	001	1	G	EA	JRM	2 2C 2	66.00 132.00 0.00	10/04/94 09/28/94 10/02/94	1/4" DIA., 316 STAINLESS STEEL, PLAIN RO WILLIAMS & COMPANY, INC.
____	____	Y	94KP002026	0	01	001	122282	G	LT	CDP	1 0C 13^	23,040.00 23,040.00 17,034.00 *	01/30/95 09/30/93 07/14/94	PROVIDE TEMPORARY CLERICAL SERVICES OF EXPERITEMPS
____	____	N	94KSN00983 127964	11	01	001	127964-1	G	LT	DM	1 0 0^	1,624.00 1,624.00 1,624.00	07/25/94 07/11/94 09/29/94	PROVIDE THE SERVICES OF A SR. RAD.TECH GTS/DURATEK
____	____	N	94PP005455 64938	0	00	001	1-64938	G	EA	JEC	2 2C 2	169.32 338.64 0.00	08/19/94 08/11/94 08/18/94	8" STAINLESS STEEL BLIND FLANGE TRI-VECTOR CONSULTANTS
____	____	N	94PP005455 64938	0	00	002	2-64938	G	EA	JEC	4 4C 4	59.88 239.52 0.00	08/19/94 08/11/94 08/18/94	4"-304 STAINLESS STEEL BLIND FLANGE TRI-VECTOR CONSULTANTS
____	____	N	94PP005455 64938	0	00	003	3-64938	G	EA	JEC	7 7C 7	26.42 184.94 0.00	08/19/94 08/11/94 08/18/94	2"-304 STAINLESS STEEL BLIND FLANGE TRI-VECTOR CONSULTANTS

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____	____	N	94PP005455 0 00 004 64938	4-64938	G	EA	JEC	3 3C 3	24.70 74.10 0.00	08/19/94 08/11/94 08/18/94	GASKET TASKLINE 8" TRI-VECTOR CONSULTANTS
____	____	N	94PP005455 0 00 005 64938	5-64938	G	EA	JEC	1 1C 1	31.76 31.76 0.00	08/19/94 08/11/94 08/18/94	GASKET TASKLINE 10" TRI-VECTOR CONSULTANTS
____	____	N	94PP005455 0 00 006 64938	6-64938	G	EA	JEC	16 16C 16	6.12 97.92 0.00	08/19/94 08/11/94 08/18/94	BOLTS STAINLESS STEEL 3/4" X 3 1/2" TRI-VECTOR CONSULTANTS
____	____	N	94PP005455 0 00 007 64994	1-64994	G	EA	JEC	2 1 1	26.42 52.84 26.42	08/19/94 08/11/94 08/18/94	2"-304 STAINLESS STEEL BLIND FLANGE TRI-VECTOR CONSULTANTS
____	____	N	94PP005455 0 00 008 64994	2-64994	G	EA	JEC	6 6C 6	59.88 359.28 0.00	08/19/94 08/11/94 08/18/94	4"-304 STAINLESS STEEL BLIND FLANGE TRI-VECTOR CONSULTANTS
____	____	N	94PP005455 0 00 009 64994	3-64994	G	EA	JEC	2 2C 2	15.68 31.36 0.00	08/19/94 08/11/94 08/18/94	1"-304 STAINLESS STEEL BLIND FLANGE TRI-VECTOR CONSULTANTS
____	____	N	94PP005455 0 00 010 64994	4-64994	G	EA	JEC	3 3C 3	20.65 61.95 0.00	08/19/94 08/11/94 08/18/94	1 1/2"-304 STAINLESS STEEL BLIND FLANGE TRI-VECTOR CONSULTANTS
____	____	N	94PP005455 0 00 011 64994	5-64994	G	EA	JEC	2 2C 2	42.95 85.90 0.00	08/19/94 08/11/94 08/18/94	3"-304 STAINLESS STEEL BLIND FLANGE TRI-VECTOR CONSULTANTS
____	____	N	94PP005455 0 00 012 64994	6-64994	G	EA	JEC	1 1C 1	169.32 169.32 0.00	08/19/94 08/11/94 08/18/94	8"-304 STAINLESS STEEL BLIND FLANGE TRI-VECTOR CONSULTANTS
____	____	N	94PP005455 0 00 013 133201	1-133201	G	EA	JEC	2 0 0	66.00 132.00 132.00	08/19/94 08/16/94 08/18/94	3" STAINLESS STEEL BLIND FLANGE TRI-VECTOR CONSULTANTS
____	____	Y	94PP005623 0 00 001 92173	1-92173	G	EA	JEC	6 6C 6	16.00 96.00 0.00	08/25/94 08/22/94 08/23/94	K-VL2 1" TO 2 1/2" GATE VALVE LOCKOUT TRI-VECTOR CONSULTANTS
____	____	Y	94PP005623 0 00 002 92173	2-92173	G	EA	JEC	3 3C 3	29.00 87.00 0.00	08/25/94 08/22/94 08/23/94	K-VL3 2 1/2" TO 5" GATE VALVE LOCKOUT TRI-VECTOR CONSULTANTS

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____	____	Y	94PP005623 0 00 003 92173	3-92173	G	EA	JEC	6 6C 6	30.00 180.00 0.00	08/25/94 08/22/94 08/23/94	K-BVL125 3/8" TO 1/4" BALL VALVE LOCKOUT TRI-VECTOR CONSULTANTS
____	____	Y	94PP005623 0 00 004 92173	4-92173	G	EA	JEC	6 6C 6	39.50 237.00 0.00	08/25/94 08/22/94 08/23/94	K-BVL250 1 1/2" TO 2 1/2" BALL VALVE TRI-VECTOR CONSULTANTS
____	____	Y	94PP005637 0 00 001 65095	001	G	EA	JEC	2 2C 2	26.80 53.60 0.00	08/26/94 08/08/94 08/18/94	GASKET - TASK LINE 8" 150 LB. KITRICK MANAGEMENT COMPANY
____	____	Y	94PP005637 0 00 002 65095	002	G	EA	JEC	1 1C 1	33.80 33.80 0.00	08/26/94 08/08/94 08/18/94	GASKET - TASK LINE 10" 150 LB. KITRICK MANAGEMENT COMPANY
____	____	Y	94PP005637 0 00 003 65095	003	G	EA	JEC	1 1C 1	189.75 189.75 0.00	08/26/94 08/08/94 08/18/94	GASKET - TASK LINE 14" 150 LB. KITRICK MANAGEMENT COMPANY
____	____	Y	94PP005637 0 00 004 65095	004	G	EA	JEC	16 16C 16	8.20 131.20 0.00	07/30/94 08/08/94 08/18/94	BOLTS - STAINLESS STEEL 3/4" X 3 1/2" KITRICK MANAGEMENT COMPANY
____	____	Y	94PP005637 0 00 005 65095	005	G	EA	JEC	12 12C 12	6.90 82.80 0.00	07/30/94 08/08/94 08/18/94	BOLTS - STAINLESS STEEL 7/8" X 3 3/4" KITRICK MANAGEMENT COMPANY
____	____	Y	94PP005637 0 00 006 64991	001	G	EA	JEC	1 1C 1	26.80 26.80 0.00	08/26/94 08/11/94 08/18/94	GASKET -- TASK LINE 8" 150 LB. KITRICK MANAGEMENT COMPANY
____	____	Y	94PP005637 0 00 007 64991	002	G	EA	JEC	8 8C 8	8.20 65.60 0.00	08/17/94 08/11/94 08/18/94	BOLTS -- STSAINLESS STEEL 3/4" X 3 1/2" KITRICK MANAGEMENT COMPANY
____	____	Y	94PP005932 0 00 001 64997	001	G	EA	JEC	6 6C 6	648.40 3,890.40 0.00	09/09/94 08/11/94 09/07/94	HAWS 10 GALLON PORTABLE EYEWASH & BOD MUTUAL MFG. & SUPPLY CO.
____	____	Y	94PP006250 0 00 001 163351	163351-1	G	EA	JEC	1 1C 1	750.00 750.00 0.00	09/15/94 09/15/94 09/16/94	R-EB SINGLE-SPEED ELECTRIC BLOWER, PRE- TRI-VECTOR CONSULTANTS
____	____	Y	94PP006250 0 00 002 163351	163351-2	G	EA	JEC	4 4C 4	195.00 780.00 0.00	09/15/94 09/15/94 09/16/94	R-HOSE 25, 8" VINYL BLOWER HOSE 25' TRI-VECTOR CONSULTANTS

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____	____	Y	94PP006250 163351	0	00	003	163351-3	G	EA	JEC	4 4C 4	35.00 140.00 0.00	09/15/94 09/15/94 09/16/94	R-DC, DUCT COUPLER TRI-VECTOR CONSULTANTS
____	____	Y	94RP006207 126468	0	01	001	126468	G	EA	DJW	1 0C 1^	141.00 141.00 0.00	09/08/94 09/15/94 09/22/94	PRESSURE TEST AIR MANIFOLD H. C. NUTTING COMPANY
____	____	N	94SB006849 F4342/6531DAT	16	00	001	F4342/6531DAT	G	LT	JKH	1 0 1^	120.00 120.00 0.00	11/25/94 11/07/94 12/22/94	SAMPLE ANALYSIS R#F4342/6531 DATACHEM LABORATORIES
____	____	Y	94SP002890 128899	0	03	001	001	G	EA	JEC	1 1C 1	615.00 615.00 0.00	04/04/94 03/28/94 10/28/94	PLICDO HIGH PRESSURE HYDRAULIC SEALANT TRI-VECTOR CONSULTANTS
____	____	Y	94SP002890 128899	0	03	002	002	G	CS	JEC	4 4C 4	300.00 1,200.00 0.00	04/04/94 03/28/94 10/28/94	WHITE BAKER SEAL SEALANT W/MSDS SHEETS TRI-VECTOR CONSULTANTS
____	____	Y	94SP002890 128899	0	03	003	003	G	EA	JEC	1 1C 1	484.00 484.00 0.00	04/04/94 03/28/94 10/28/94	1" PLICDO FLANGE AND REPAIR RING TRI-VECTOR CONSULTANTS
____	____	Y	94SP002890 128899	0	03	004	005	G	EA	JEC	1 1C 1	484.00 484.00 0.00	04/04/94 03/28/94 10/28/94	1/2" PLIDCO FLANGE AND REPAIR RING TRI-VECTOR CONSULTANTS
____	____	Y	94SP002890 128899	0	03	005	006	G	EA	JEC	1 1C 1	629.00 629.00 0.00	04/04/94 03/28/94 10/28/94	3" PLIDCO FLANGE AND REPAIR RING TRI-VECTOR CONSULTANTS
____	____	Y	94SP002890 128899	0	03	006	007	G	EA	JEC	1 1C 1	484.00 484.00 0.00	04/04/94 03/28/94 10/28/94	3/4" PLIDCO FLANGE AND REPAIR RING TRI-VECTOR CONSULTANTS
____	____	Y	94SP002890 128899	0	03	007	004	G	EA	JEC	2 2C 2	484.00 968.00 0.00	04/04/94 03/28/94 10/28/94	2" PLICDO FLANGE AND REPAIR RING TRI-VECTOR CONSULTANTS
____	____	Y	94SP003957 65059	0	00	001	1-65059	G	FT	JEC	6 6C 6	7.16 42.96 0.00	05/25/94 05/18/94 05/23/94	1" STAINLESS STEEL ALL THREAD ROD COMPLETE FASTENING SYSTEMS
____	____	Y	94SP003957 65059	0	00	002	2-65059	G	EA	JEC	8 8C 8	2.20 17.60 0.00	05/25/94 05/18/94 05/23/94	1" STAINLESS NUTS COMPLETE FASTENING SYSTEMS

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____	____	Y	94SP003957 0 00 003 65059	3-65059	G	EA	JEC	8 8C 8	0.41 3.28 0.00	05/25/94 05/18/94 05/23/94	1" STAINLESS STEEL FLAT WASHERS COMPLETE FASTENING SYSTEMS
____	____	Y	94SP004013 0 00 001 65060	1-65060	G	EA	JEC	2 2C 2	10.90 21.80 0.00	05/20/94 05/18/94 05/19/94	HAND SUCTION GUN TRI-VECTOR CONSULTANTS
____	____	Y	94SP004400 0 00 001 65083	1-65083	G	EA	JEC	2 2C 2	58.05 116.10 0.00	07/11/94 07/07/94 07/07/94	BLIND FLANGE 3" 316 STAINLESS STEEL KITRICK MANAGEMENT COMPANY
____	____	Y	94SP004400 0 00 002 65083	2-65083	G	EA	JEC	2 2C 2	34.45 68.90 0.00	07/11/94 07/07/94 07/07/94	BLIND FLANGE 2" 304 STAINLESS STEEL KITRICK MANAGEMENT COMPANY
____	____	Y	94SP004400 0 00 003 65083	3-65083	G	EA	JEC	2 2C 2	27.70 55.40 0.00	07/11/94 07/07/94 07/07/94	BLIND FLANGE 1 1/2 " 304 STAINLESS STEEL KITRICK MANAGEMENT COMPANY
____	____	Y	94SP004576 0 01 004 65069	001	G	QT	JEC	48 48C 48	23.00 1,104.00 0.00	06/22/94 06/22/94 06/27/94	WHITE BAKER SEAL (MSDS ALREADY ON HAND) PLIDCO
____	____	Y	94SP004576 0 01 005 65069	002	G	EA	JEC	16 0C 32	7.50 120.00 (120.00)	06/22/94 06/22/94 06/27/94	SP SEAL (MSDS ALREADY ON HAND) PLIDCO
____	____	Y	94SP004641 0 00 001 115890	001	G	BX	JEC	5 5C 5	168.00 840.00 0.00	07/01/94 06/16/94 06/28/94	TYGON MASTERFLEX TUBING SIZE 73 TRI-VECTOR CONSULTANTS
____	____	Y	94SP004641 0 00 002 115890	002	G	EA	JEC	1 1C 1	510.75 510.75 0.00	07/01/94 06/16/94 06/28/94	EZ LOAD PUMP HEAD S.S ROTOR PPS (POLY- TRI-VECTOR CONSULTANTS
____	____	Y	94SP004895 0 02 006 65084	006	G	EA	JEC	2 2C 2	66.00 132.00 0.00	08/18/94 09/30/93 08/18/94	3"- 304 STAINLESS STEEL BLIND FLANGE TRI-VECTOR CONSULTANTS
____	____	Y	94SP004896 0 00 001 65085	AL1138-01	N	EA	JEC	2 2C 2	58.05 116.10 0.00	07/02/94 07/13/94 07/13/94	FLANGE,BLIND 304 STAINLESS STEEL KITRICK MANAGEMENT COMPANY
____	____	Y	94SP004986 0 00 001 65089	001	G	EA	JEC	5 5C 5	21.36 106.80 0.00	07/18/94 07/15/94 07/15/94	P-T COUPLING A ADAPTER 1 1/2" THREAD TRI-VECTOR CONSULTANTS

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OK	COMPLETE	CLOSED	PO NUMBER / REQUISITION	REL	C\O	LINE ITEM	ITEM NUMBER	TYPE	U/M	BUYER	QUANTITY ORDERED / RECEIVED / INVOICED	VALUES UNIT / EXTENDED / OPEN	DATES REQUIRED / REQUISITION ISSUED	DESCRIPTION / VENDOR / DELIVER TO
		Y	94SP004986 65089	0	00	002	002	G	EA	JEC	10 10C 10	36.18 361.80 0.00	07/18/94 07/15/94 07/15/94	P-T COUPLING, B COUPLER 1 1/2" THREAD TRI-VECTOR CONSULTANTS
		Y	94SP004986 65089	0	00	003	003	G	EA	JEC	15 15C 15	32.47 487.05 0.00	07/18/94 07/15/94 07/15/94	P-T COUPLING, C COUPLER 1 1/2" HOSE TRI-VECTOR CONSULTANTS
		Y	94SP004986 65089	0	00	004	004	G	EA	JEC	2 2C 2	40.00 80.00 0.00	07/18/94 07/15/94 07/15/94	P-T COUPLING, D COUPLER 1 1/2" THREAD TRI-VECTOR CONSULTANTS
		Y	94SP004986 65089	0	00	005	005	G	EA	JEC	5 5C 5	24.03 120.15 0.00	07/18/94 07/15/94 07/15/94	P-T COUPLING, E ADAPTER 1 1/2" HOSE TRI-VECTOR CONSULTANTS
		Y	94SP004986 65089	0	00	006	006	G	EA	JEC	15 15C 15	29.55 443.25 0.00	07/18/94 07/15/94 07/15/94	P-T COUPLING, F ADAPTER 1 1/2" THREAD TRI-VECTOR CONSULTANTS
		Y	94SP004986 65089	0	00	007	007	G	EA	JEC	10 10C 10	31.37 313.70 0.00	07/18/94 07/15/94 07/15/94	P-T FITTING, V DUST CAP FOR 1 1/2" P-T TRI-VECTOR CONSULTANTS
		Y	94SP004986 65089	0	00	008	008	G	EA	JEC	10 10C 10	19.84 198.40 0.00	07/18/94 07/15/94 07/15/94	P-T FITTING, W DUST PLUG FOR 1 1/2" P-T TRI-VECTOR CONSULTANTS
		Y	94SP004986 65089	0	00	009	009	G	EA	JEC	25 25C 25	5.60 140.00 0.00	07/18/94 07/15/94 07/15/94	GASKETS 1 1/2" TEFLON FOR COUPLERS TRI-VECTOR CONSULTANTS
		Y	94SP004986 65089	0	00	010	010	G	LT	JEC	1 1C 1	170.00 170.00 0.00	07/18/94 07/15/94 07/15/94	OVERNIGHT FREIGHT TRI-VECTOR CONSULTANTS
		Y	94SP004987 65081	0	00	001	001	G	EA	JEC	3 3C 3	69.80 209.40 0.00	07/16/94 07/15/94 07/15/94	BALL VALVE 1" SCREWED STAINLESS STEEL TRI-VECTOR CONSULTANTS
		Y	94SP004987 65081	0	00	002	002	G	EA	JEC	3 3C 3	57.00 171.00 0.00	07/16/94 07/15/94 07/15/94	BALL VALVE 3/4" SCREWED STAINLESS STEEL TRI-VECTOR CONSULTANTS
		Y	94SP004987 65081	0	00	003	003	G	EA	JEC	10 10C 10	6.77 67.70 0.00	07/16/94 07/15/94 07/15/94	PIPE NIPPLE 1" X 4" 304 STAINLESS STEEL TRI-VECTOR CONSULTANTS

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___	___	Y	94SP004987 0 00 004 65081	004	G EA	JEC	10 10C 10	5.19 51.90 0.00	07/16/94 07/15/94 07/15/94	PIPE NIPPLE 1" X 3" 304 STAINLESS STEEL TRI-VECTOR CONSULTANTS
___	___	Y	94SP004987 0 00 005 65081	005	G EA	JEC	10 10C 10	9.57 95.70 0.00	07/16/94 07/15/94 07/15/94	PIPE NIPPLE 1" X 6" 304 STAINLESS STEEL TRI-VECTOR CONSULTANTS
___	___	Y	94SP004987 0 00 006 65081	006	G EA	JEC	3 3C 3	15.18 45.54 0.00	07/16/94 07/15/94 07/15/94	TEE 1" 304 STAINLESS STEEL TRI-VECTOR CONSULTANTS
___	___	Y	94SP004987 0 00 007 65081	007	G EA	JEC	3 3C 3	27.55 82.65 0.00	07/16/94 07/15/94 07/15/94	FLANGE 1" SCREWED 304 STAINLESS STEEL TRI-VECTOR CONSULTANTS
___	___	Y	94SP004987 0 00 008 65081	008	G EA	JEC	2 2C 2	10.44 20.88 0.00	07/16/94 07/15/94 07/15/94	COUPLING 1" SCREWED 304 STAINLESS STEEL TRI-VECTOR CONSULTANTS
___	___	Y	94SP004987 0 00 009 65081	009	G EA	JEC	8 8C 8	7.24 57.92 0.00	07/16/94 07/15/94 07/15/94	PIPE NIPPLE 3/4" X 6" 304 STAINLESS TRI-VECTOR CONSULTANTS
___	___	Y	94SP004987 0 00 010 65081	010	G EA	JEC	8 8C 8	5.14 41.12 0.00	07/16/94 07/15/94 07/15/94	PIPE NIPPLE 3/4" X 4" 304 STAINLESS TRI-VECTOR CONSULTANTS
___	___	Y	94SP004987 0 00 011 65081	011	G EA	JEC	8 8C 8	3.96 31.68 0.00	07/16/94 07/15/94 07/15/94	PIPE NIPPLE 3/4" X 3" 304 STAINLESS TRI-VECTOR CONSULTANTS
___	___	Y	94SP004987 0 00 012 65081	012	G EA	JEC	1 1C 1	22.97 22.97 0.00	07/16/94 07/15/94 07/15/94	FLANGE 1/2" SCREWED 304 STAINLESS STEEL TRI-VECTOR CONSULTANTS
___	___	Y	94SP004987 0 00 013 65081	013	G EA	JEC	1 1C 1	11.17 11.17 0.00	07/16/94 07/15/94 07/15/94	SCREWED REDUCER 1" X 1/2" 304 STAINLESS TRI-VECTOR CONSULTANTS
___	___	Y	94SP004987 0 00 014 65081	014	G EA	JEC	1 1C 1	83.70 83.70 0.00	07/16/94 07/15/94 07/15/94	FLANGE 4" SLIP ON 304 STAINLESS STEEL TRI-VECTOR CONSULTANTS
___	___	Y	94SP004987 0 00 015 65081	015	G EA	JEC	2 2C 2	39.60 79.20 0.00	07/30/94 07/15/94 07/15/94	FLANGE 2" SLIP ON 304 STAINLESS STEEL TRI-VECTOR CONSULTANTS

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____	____	Y	94SP004987 0 00 016 65081	016	G	EA	JEC	6 6C 6	17.90 107.40 0.00	07/16/94 07/15/94 07/15/94	COUPLING 1/2" SCREWED 304 STAINLESS TRI-VECTOR CONSULTANTS
____	____	Y	94SP004987 0 00 017 65081	017	G	EA	JEC	8 8C 8	25.24 201.92 0.00	07/30/94 07/15/94 07/15/94	COUPLING REDUCING SCREWED 1 1/2" X 3/4" TRI-VECTOR CONSULTANTS
____	____	Y	94SP004987 0 00 018 65081	018	G	EA	JEC	8 8C 8	25.55 204.40 0.00	07/30/94 07/15/94 07/15/94	COUPLING REDUCING SCREWED 1 1/2" X 1" TRI-VECTOR CONSULTANTS
____	____	Y	94SP004987 0 00 019 65081	019	G	EA	JEC	2 2C 2	138.50 277.00 0.00	07/30/94 07/15/94 07/15/94	BALL VALVE 1 1/2" SCREWED 304 STAINLESS TRI-VECTOR CONSULTANTS
____	____	Y	94SP004987 0 00 020 65081	020	G	EA	JEC	2 2C 2	20.43 40.86 0.00	07/30/94 07/15/94 07/15/94	BUSHING, SCREWED 1 1/2" X 1/2" 304 TRI-VECTOR CONSULTANTS
____	____	Y	94SP004987 0 00 021 65081	021	G	EA	JEC	8 8C 8	13.44 107.52 0.00	07/30/94 07/15/94 07/15/94	NIPPLE 1 1/2" X 6" 304 STAINLESS STEEL TRI-VECTOR CONSULTANTS
____	____	Y	94SP004987 0 00 022 65081	022	G	EA	JEC	2 2C 2	19.00 38.00 0.00	07/30/94 07/15/94 07/15/94	COUPLING REDUCING WELD SCH 40 TRI-VECTOR CONSULTANTS
____	____	Y	94SP005113 0 00 001 65092	1-65092	G	EA	JEC	3 3C 3	39.95 119.85 0.60	08/05/94 07/22/94 07/27/94	2"- 304 STAINLESS STEEL BLIND FLANGE KITRICK MANAGEMENT COMPANY
____	____	Y	94SP005113 0 00 002 65092	2-65092	G	EA	JEC	4 4C 4	89.45 357.80 0.00	08/05/94 07/22/94 07/27/94	4"- 304 STAINLESS STEEL BLIND FLANGE KITRICK MANAGEMENT COMPANY
____	____	Y	94SP005113 0 00 003 65092	3-65092	G	EA	JEC	4 4C 4	17.25 69.00 0.00	08/05/94 07/22/94 07/27/94	1"- 304 STAINLESS STEEL BLIND FLANGE KITRICK MANAGEMENT COMPANY
____	____	Y	94SP005113 0 00 004 65092	4-65092	G	EA	JEC	5 5C 5	25.60 128.00 0.00	08/05/94 07/22/94 07/27/94	1 1/2"- 304 STAINLESS STEEL BLIND FLANGE KITRICK MANAGEMENT COMPANY
____	____	Y	94SP005113 0 00 005 65092	5-65092	G	EA	JEC	7 7C 7	58.05 406.35 0.00	08/05/94 07/22/94 07/27/94	3"- 304 STAINLESS STEEL BLIND FLANGE KITRICK MANAGEMENT COMPANY

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		Y	94SP005113 65092	0	00	006	6-65092	G	EA	JEC	2 2C 2	185.85 371.70 0.00	08/05/94 07/22/94 07/27/94	8"- 304 STAINLESS STEEL BLIND FLANGE KITRICK MANAGEMENT COMPANY
		Y	94SP005113 65092	0	00	007	7-65092	G	EA	JEC	1 1C 1	301.20 301.20 0.00	08/05/94 07/22/94 07/27/94	10"- STAINLESS STEEL BLIND FLANGE KITRICK MANAGEMENT COMPANY
		Y	94SP005113 65092	0	00	008	8-65092	G	EA	JEC	1 1C 1	2.10 2.10 0.00	08/05/94 07/22/94 07/27/94	3"- CAP FERNCO WITH BAND STRAP KITRICK MANAGEMENT COMPANY
		Y	94SP005396 64993	0	00	001	1-64993	G	EA	JEC	4 4C 4	39.95 159.80 0.80	08/15/94 08/08/94 08/10/94	2"- 304 STAINLESS STEEL BLIND FLANGE KITRICK MANAGEMENT COMPANY
		Y	94SP005396 64993	0	00	002	2-64993	G	EA	JEC	4 4C 4	89.45 357.80 0.00	08/15/94 08/08/94 08/10/94	4"-304 STAINLESS STEEL BLIND FLANGE KITRICK MANAGEMENT COMPANY
		Y	94SP005396 64993	0	00	003	3-64993	G	EA	JEC	4 4C 4	25.60 102.40 0.00	08/15/94 08/08/94 08/10/94	1-1/2" 304 STAINLESS STEEL BLIND FLANGE KITRICK MANAGEMENT COMPANY
		Y	94SP005396 64993	0	00	004	4-64993	G	EA	JEC	7 7C 7	58.05 406.35 0.00	08/15/94 08/08/94 08/10/94	3"-304 STAINLESS STEEL BLIND FLANGE KITRICK MANAGEMENT COMPANY
		Y	94SP005396 64995	0	00	005	1-64995	G	EA	JEC	6 6C 6	58.05 348.30 0.00	08/15/94 08/08/94 08/10/94	3"-304 STAINLESS STEEL BLIND FLANGE KITRICK MANAGEMENT COMPANY
		Y	94SP005396 64995	0	00	006	2-64995	G	EA	JEC	1 1C 1	89.45 89.45 0.00	08/15/94 08/08/94 08/10/94	4"-304 STAINLESS STEEL BLIND FLANGE KITRICK MANAGEMENT COMPANY
		Y	94SP005396 64995	0	00	007	3-64995	G	EA	JEC	3 3C 3	17.25 51.75 0.00	08/15/94 08/08/94 08/10/94	1"-304 STAINLESS STEEL BLIND FLANGE KITRICK MANAGEMENT COMPANY
		Y	94SP005396 65096	0	00	008	1-65096	G	EA	JEC	1 1C 1	25.60 25.60 0.00	08/15/94 08/08/94 08/10/94	1-1/2"- 304 STAINLESS STEEL BLIND FLANGE KITRICK MANAGEMENT COMPANY
		Y	94SP005396 65096	0	00	009	2-65096	G	EA	JEC	3 3C 3	39.95 119.85 0.60	08/15/94 08/08/94 08/10/94	2"-304 STAINLESS STEEL BLIND FLANGE KITRICK MANAGEMENT COMPANY

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____	____	Y	94SP005396 0 00 010 65096	3-65096	G	EA	JEC	4 4C 4	58.05 232.20 0.00	08/15/94 08/08/94 08/10/94	3"-304 STAINLESS STEEL BLIND FLANGE KITRICK MANAGEMENT COMPANY
____	____	Y	94SP005396 0 00 011 65096	4-65096	G	EA	JEC	1 1C 1	89.45 89.45 0.00	08/15/94 08/08/94 08/10/94	4"-304 STAINLESS STEEL BLIND FLANGE KITRICK MANAGEMENT COMPANY
____	____	Y	94SS001833 15 00 020 ALS102894LAB	021	G	LT	DM	1 0C 1^	10.97 10.97 10.97	11/15/94 11/07/94 11/15/94	ANALYTICAL SERVICES FOR OCTOBER LABYRINTH GROUP
____	____	Y	94SS001833 16 00 017 ALS112594LAB	018	G	LT	DM	1 0C 1^	21.94 21.94 0.00	12/15/94 12/08/94 12/09/94	ANALYTICAL SERVICES FOR NOVEMBER LABYRINTH GROUP
____	____	N	94TPN00087 0 04 016	138812-1	G	LT	CDP	1 0C 0^	1,040.00 1,040.00 1,040.00	04/26/94 09/30/93 05/27/94	TEMPORARY SERVICES - MERCER BARTECH, INC.
____	____	N	94TPN00089 0 09 011	138809-1	G	LT	CDP	1 0 4^	845.00 845.00 574.60	04/11/94 09/30/93 04/29/94	TEMPORARY SERVICES - FOYE BELCAN CORP.
____	____	Y	95CP000012 0 00 001 163583	1	G	EA	JRM	25 25C 25	1.46 36.50 0.00	10/10/94 09/28/94 10/04/94	BRADY SELF STICKING PIPE MARKERS, SYTLE F.D. LAWRENCE
____	____	Y	95CP000012 0 00 002 163583	2	G	EA	JRM	25 25C 25	1.46 36.50 0.00	10/10/94 09/28/94 10/04/94	BRADY SELF STICKING PIPE MARKERS, STYLE F.D. LAWRENCE
____	____	Y	95CP000012 0 00 003 163583	3	G	EA	JRM	100 100C 100	1.46 146.00 0.00	10/10/94 09/28/94 10/04/94	BRADY SELF STICKING PIPE MARKERS, STYLE F.D. LAWRENCE
____	____	Y	95CP000012 0 00 004 163583	4	G	EA	JRM	25 25C 25	1.46 36.50 0.00	10/10/94 09/28/94 10/04/94	BRADY SELF STICKING PIPE MARKERS, STYLE F.D. LAWRENCE
____	____	Y	95CP000012 0 00 005 163583	5	G	EA	JRM	100 100C 100	2.45 245.00 0.00	10/10/94 09/28/94 10/04/94	BRADY SELF STICKING PIPE MARKERS, STYLE F.D. LAWRENCE
____	____	Y	95CP000012 0 00 006 163583	6	G	EA	JRM	25 25C 25	2.45 61.25 0.00	10/10/94 09/28/94 10/04/94	BRADY SELF STICKING PIPE MARKERS, STYLE F.D. LAWRENCE

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____	____	Y	95CP000012 0 00 007 7 163583		G	EA	JRM	25 25C 25	2.45 61.25 0.00	10/10/94 09/28/94 10/04/94	BRADY SELF STICKING PIPE MARKERS, STYLE F.D. LAWRENCE
____	____	Y	95CP000012 0 00 008 8 163583		G	RO	JRM	8 8C 8	16.90 135.20 0.00	10/10/94 09/28/94 10/04/94	DIRECTIONAL FLOW, ARROW TAPE, BRADY #91 F.D. LAWRENCE
____	____	Y	95CP000012 0 00 009 9 163583		G	RO	JRM	2 2C 2	16.90 33.80 0.00	10/10/94 09/28/94 10/04/94	DIRECTIONAL FLOW, ARROW TAPE, BRADE #91 F.D. LAWRENCE
____	____		95CP000015 0 00 001 1 163586		G	EA	JRM	6 6C 6	91.61 549.66 0.00	10/06/94 10/03/94 10/04/94	NITROGEN GAUGE, 0-600#, DELIVERY F & M MAFCO, INC.
____	____	Y	95CP000018 0 00 001 1 163585		G	EA	JRM	1 1C 1	380.00 380.00 0.00	10/04/94 10/03/94 10/04/94	VALVE, BALL, 4", CALSS 150, CARBON STEEL VALVAX CORPORATION
____	____	Y	95CP000050 0 00 001 1 162321		G	EA	JRM	1 1C 1	52.36 52.36 0.00	10/06/94 10/04/94 10/06/94	MULTIMETER, 3-1/2" DIGIT, INDUSTRIAL BECKER ELECTRIC SUPPLY CO.
____	____	Y	95CP000050 0 00 002 2 162321		G	EA	JRM	1 1C 1	25.55 25.55 0.25	10/06/94 10/04/94 10/06/94	PROBE, UNIVERSAL, AMPROBE, MODEL RBT-12 BECKER ELECTRIC SUPPLY CO.
____	____	Y	95CP000050 0 00 003 3 162321		G	EA	JRM	1 1C 1	2,613.00 2,613.00 0.00	10/06/94 10/04/94 10/06/94	TESTER, MODEL TRX, ELCON INSTRUMENTS BECKER ELECTRIC SUPPLY CO.
____	____	N	95CP000055 0 01 001 1 162284		G	EA	JRM	2 2C 2	688.50 1,377.00 1,377.00	11/04/94 09/28/94 01/04/95	PH ANALYZERS/TRANSMITTERS CKM INDUSTRIAL SALES
____	____	N	95CP000055 0 01 002 2 162284		G	EA	JRM	7 8C 6	127.50 892.50 765.00	11/04/94 09/28/94 01/04/95	PH PROBE CKM INDUSTRIAL SALES
____	____	N	95CP000055 0 01 003 3 162284		G	EA	JRM	4 4C 2	425.00 1,700.00 1,700.00	11/04/94 09/28/94 01/04/95	MOUNTING HARDWARE KIT CKM INDUSTRIAL SALES
____	____	N	95CP000055 0 01 004 4 162284		G	EA	JRM	2 2C 2	106.25 212.50 212.50	11/04/94 09/28/94 01/04/95	PREAMPLIFIER CIRCUIT CARD CKM INDUSTRIAL SALES

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OK	COMPLETE	CLOSED	PO NUMBER REL C\O LINE / REQUISITION NUMBER ITEM	ITEM NUMBER	TYPE	U/M	BUYER	QUANTITY ORDERED / RECEIVED / INVOICED	VALUES UNIT / EXTENDED / OPEN	DATES REQUIRED / REQUISITION / ISSUED	DESCRIPTION / VENDOR / DELIVER TO
____	____	N	95CP000055 0 01 005	5	G	EA	JRM	2 2C 0	72.25 144.50 144.50	11/04/94 09/30/93 01/04/95	SURFACE MOUNT ENCLOSURE, NEMA 4 CKM INDUSTRIAL SALES
____	____	Y	95CP000154 0 00 001 163587	1	G	EA	JRM	6 6C 6	145.00 870.00 0.00	10/11/94 10/10/94 10/11/94	NITROGEN CYLINDERS, 128 CUBIC FEET WELDCO, INC
____	____	Y	95CP000154 0 00 002	002	G	LT	JRM	1 1C 1	4.50 4.50 1.50	10/11/94 09/30/93 10/11/94	DELIVERY CHARGE WELDCO, INC
____	____	N	95CP000173 0 00 001 163580	1	G	EA	JRM	20 20C 20	4.59 91.80 0.00	10/14/94 10/10/94 12/06/94	ELL, WELD, 90 DEGREE, BLACK STEEL, 3" WORLY PLUMBING SUPPLY INC.
____	____	N	95CP000173 0 00 002 163580	2	G	EA	JRM	1 1C 1	9.75 9.75 0.00	10/14/94 10/10/94 12/06/94	TEE, WELD, BLACK STEEL, 3" WORLY PLUMBING SUPPLY INC.
____	____	N	95CP000173 0 00 003 163580	3	G	EA	JRM	3 3C 3	7.34 22.02 0.00	10/14/94 10/10/94 12/06/94	FLANGE, WELD NECK, BORE, SCH 40, 150# WORLY PLUMBING SUPPLY INC.
____	____	N	95CP000173 0 00 004 163580	4	G	EA	JRM	1 1C 1	5.86 5.86 0.00	10/14/94 10/10/94 12/06/94	FLANGE, WELD NECK, BORE, 2", R.F.S.F. WORLY PLUMBING SUPPLY INC.
____	____	N	95CP000173 0 00 005 163580	5	G	EA	JRM	1 1C 1	12.96 12.96 0.00	10/14/94 10/10/94 12/06/94	TEE, RED, BLACK STEEL, 3 X 3 X 2" WORLY PLUMBING SUPPLY INC.
____	____	N	95CP000173 0 00 006 163580	6	G	EA	JRM	1 1C 1	73.75 73.75 0.00	10/14/94 10/10/94 12/06/94	REDUCER, ECCENTRIC, SCH 80, 3 X 2" WORLY PLUMBING SUPPLY INC.
____	____	N	95CP000173 0 00 007 163580	7	G	EA	JRM	2 2C 2	2.70 5.40 0.00	10/14/94 10/10/94 12/06/94	SOCK-O-LET, BLACK STEEL, 1 ON 3" WORLY PLUMBING SUPPLY INC.
____	____	N	95CP000173 0 00 008 163580	8	G	EA	JRM	1 1C 1	2.70 2.70 0.00	10/14/94 10/10/94 12/06/94	SOCK-O-LET, BLACK STEEL, 1 ON 1-1/2" WORLY PLUMBING SUPPLY INC.
____	____	N	95CP000173 0 00 009 163580	9	G	EA	JRM	1 1C 1	25.70 25.70 0.00	10/14/94 10/10/94 12/06/94	COUPLING, SOCKET WELD, 3", 3000# WORLY PLUMBING SUPPLY INC.

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		N	95CP000173 0 00 010 10 163580		G EA	JRM	1 1C 1	39.95 39.95 0.00	10/14/94 10/10/94 12/06/94	ELL, 90 DEGREE, SOCKET WELD, 3", 3000# WORLY PLUMBING SUPPLY INC.
		N	95CP000173 0 00 011 11 163580		G RO	JRM	1 1C 1	11.20 11.20 0.00	10/14/94 10/10/94 12/06/94	TAPE, COAT, X-TRU, YELLOW, 12 ML WORLY PLUMBING SUPPLY INC.
		N	95CP000173 0 00 012 12 163580		G QT	JRM	4 4C 4	7.50 30.00 0.00	10/14/94 10/10/94 12/06/94	PRIMER, COAT, X-TRU WORLY PLUMBING SUPPLY INC.
		N	95CP000173 0 00 013 13 163580		G FT	JRM	63 72C 71	1.50 94.50 (13.25)	10/14/94 10/10/94 12/06/94	PIPE, CARBON STEEL, SEAMLESS, 1" WORLY PLUMBING SUPPLY INC.
		N	95CP000173 0 00 014 14 163580		G EA	JRM	50 50C 50	0.67 33.50 0.00	10/14/94 10/10/94 12/06/94	HANGER, CLEVIS, 3" WORLY PLUMBING SUPPLY INC.
		Y	95CP000181 0 00 001 1 163577		G EA	JRM	2 2C 2	1,035.00 2,070.00 0.00	10/17/94 10/10/94 10/14/94	FLANGE, R.F.S.F., GRADE WCB, ASTM A216 VALVAX CORPORATION
		Y	95CP000220 0 00 001 1 163581		G EA	JRM	200 200C 200	0.40 80.00 0.00	10/20/94 10/10/94 10/13/94	STUD, B-7, 5/8 X 3-3/4" NATIONAL AIRCRAFT SUPPLY
		Y	95CP000220 0 00 002 2 163581		G EA	JRM	400 400C 400	0.20 80.00 0.00	10/20/94 10/10/94 10/13/94	NUT, FLANGE, HEAVY HEX, GRADE 2-H NATIONAL AIRCRAFT SUPPLY
		Y	95CP000220 0 00 003 3 163581		G EA	JRM	12 12C 12	5.20 62.40 0.00	10/20/94 10/10/94 10/13/94	STUD, S.S., B-8, 5/8 X 6" NATIONAL AIRCRAFT SUPPLY
		Y	95CP000220 0 00 004 4 163581		G EA	JRM	12 12C 12	6.15 73.80 0.00	10/20/94 10/10/94 10/13/94	STUD, S.S., B-8, 7/8 X 4-3/4" NATIONAL AIRCRAFT SUPPLY
		Y	95CP000389 0 00 001 1 133328		G EA	JRM	32 32C 32	15.37 491.84 0.00	10/25/94 10/13/94 11/08/94	LOCK-OUT DEVICE FOR GATE VALVE AMERICAN MERCHANDISING SERVICE
		Y	95CP000389 0 00 002 2 133328		G EA	JRM	15 15C 15	25.82 387.30 0.00	10/25/94 10/13/94 11/08/94	LOCK-OUT DEVICE FOR 6-1/2"-10" VALVE AMERICAN MERCHANDISING SERVICE

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		Y	95CP000389 0 01 003 3 133328		G	PG	JRM	20 20C 20	7.34 146.80 0.00	10/25/94 10/13/94 11/08/94	CHAIN ATTACHMENT FOR LOCK-OUT DEVICE AMERICAN MERCHANDISING SERVICE
		Y	95CP000389 0 00 004 1 133327		G	EA	JRM	119 119C 119	11.28 1,342.32 0.00	10/25/94 10/13/94 11/08/94	LOCK-OUT DEVICE FOR 1/4"-1" VALVE AMERICAN MERCHANDISING SERVICE
		Y	95CP000389 0 00 005 2 133327		G	EA	JRM	62 62C 62	19.49 1,208.38 0.00	10/25/94 10/13/94 11/08/94	LOCK-OUT DEVICE FOR BALL VALVE, 1/4"-3" AMERICAN MERCHANDISING SERVICE
		Y	95CP000439 0 00 001 1 163588		G	EA	JRM	100 100C 100	1.09 109.00 0.00	10/31/94 10/25/94 10/28/94	GRINDING WHEEL, 4-1/2 X 1/4 X 7/8" WELDCO, INC
		Y	95CP000439 0 00 002 2 163588		G	EA	JRM	100 100C 100	10.01 1,001.00 0.00	10/31/94 10/25/94 10/28/94	BLADE, BAND SAW, 44-7/8 X 1/2 X .020" WELDCO, INC
		Y	95CP000439 0 00 003 3 163588		G	BX	JRM	4 4C 4	38.00 152.00 0.00	10/31/94 10/25/94 10/28/94	WELDING ROD, 3/32", 50 LB BOX, ATOM WELDCO, INC
		Y	95CP000439 0 00 004 4 163588		G	BX	JRM	2 2C 2	43.00 86.00 0.00	10/31/94 10/25/94 10/28/94	WELDING ROD, 1/8", 50 LB BOX, FLEETWOOD WELDCO, INC
		Y	95CP000439 0 00 005 5 163588		G	PR	JRM	12 12C 12	7.45 89.40 0.00	10/31/94 10/25/94 10/28/94	GOLVE, WELDING, SIZE XL WELDCO, INC
		Y	95CP000477 0 00 001 1 163590		G	EA	JRM	4 4C 4	194.25 777.00 0.00	11/02/94 10/26/94 10/28/94	PRESSURE SWITCHES, AIR B. C. ENGINEERING
		Y	95CP000478 0 00 001 1 163591		G	EA	JRM	4 4C 4	150.40 601.60 0.00	11/02/94 10/26/94 10/28/94	SOLENOID VALVE, 2-WAY, NORMALLY CLOSED JAY INSTRUMENT & SPECIALTY CO
		Y	95CP000482 0 00 001 1 163592		G	EA	JRM	4 4C 4	259.00 1,036.00 0.00	11/02/94 10/26/94 10/28/94	LEAK DETECTION SWITCHES, WILDEN WAGNER SMITH
		Y	95CP000483 0 00 001 1 163593		G	EA	JRM	4 4C 4	120.00 480.00 0.00	11/02/94 10/26/94 10/28/94	FILTER/REGULATOR, 1" R.A. MUELLER INCORPORATED

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		Y	95CP000483	0	00	002	2		G	EA	JRM	4 4C 4	55.00 220.00 0.00	11/02/94 09/30/93 10/28/94	LUBRICATOR, 1" R.A. MUELLER INCORPORATED
		Y	95CP000538 163595	0	00	001	1		G	FT	JRM	40 40C 40	10.85 434.00 (7.23)	11/04/94 10/31/94 11/01/94	PIPE, 2", STAINLESS STEEL, 304L ALLOY PIPING SUPPLY, INC.
		Y	95CP000538 163595	0	00	002	2		G	FT	JRM	100 93C 93	23.50 2,350.00 304.74	11/04/94 10/31/94 11/01/94	PIPE, 3", STAINLESS STEEL, 304L ALLOY PIPING SUPPLY, INC.
		Y	95CP000538 163595	0	00	003	3		G	EA	JRM	8 8C 8	20.70 165.60 0.00	11/04/94 10/31/94 11/01/94	REDUCER, CONCENTRICL, 3 X 2", GRADE WP ALLOY PIPING SUPPLY, INC.
		Y	95CP000538 163595	0	00	004	4		G	EA	JRM	4 4C 4	74.40 297.60 0.00	11/04/94 10/31/94 11/01/94	REDUCER, CONCENTRIC, 6 X 3", GRADE WP ALLOY PIPING SUPPLY, INC.
		Y	95CP000538 163595	0	00	005	5		G	EA	JRM	4 4C 4	196.00 784.00 0.00	11/04/94 10/31/94 11/01/94	REDUCER, ECCENTRIC, 6 X 3", GRADE WP ALLOY PIPING SUPPLY, INC.
		Y	95CP000538 163595	0	00	006	6		G	EA	JRM	8 8C 8	74.95 599.60 0.00	11/04/94 10/31/94 11/01/94	FLANGE, 6", SLIP-ON, GRADE WP, 304L ALLOY PIPING SUPPLY, INC.
		Y	95CP000538 163595	0	00	007	7		G	EA	JRM	8 8C 8	22.95 183.60 0.00	11/04/94 10/31/94 11/01/94	FLANGE, SLIP-ON, 2", GRADE WP, 304L ALLOY PIPING SUPPLY, INC.
		Y	95CP000538 163595	0	00	008	8		G	EA	JRM	8 8C 8	27.00 216.00 0.00	11/04/94 10/31/94 11/01/94	FLANGE, WELD NECK, 2", GRADE WP, 304L ALLOY PIPING SUPPLY, INC.
		Y	95CP000538 163595	0	00	009	9		G	EA	JRM	30 30C 30	17.45 523.50 0.00	11/04/94 10/31/94 11/01/94	ELBOW, 90 DEGREE, 2", GRADE WP, 304L ALLOY PIPING SUPPLY, INC.
		Y	95CP000538 163595	0	00	010	10		G	EA	JRM	8 8C 8	14.85 118.80 0.00	11/04/94 10/31/94 11/01/94	ELBOW, 45 DEGREE, 2", GRADE WP, 304L ALLOY PIPING SUPPLY, INC.
		Y	95CP000538 163595	0	00	011	11		G	EA	JRM	24 24C 24	3.95 94.80 0.00	11/04/94 10/31/94 11/01/94	U-BOLT, 2", PIPE SIZE, 304, S.S. ALLOY PIPING SUPPLY, INC.

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___	___	Y	95CP000538 163595	0	00	012	12	G	EA	JRM	24 24C 24	7.05 169.20 0.00	11/04/94 10/31/94 11/01/94	U-BOLT, 3" PIPE SIZE, 304, S.S. ALLOY PIPING SUPPLY, INC.
___	___	Y	95CP000555 163594	0	00	001	1	G	FT	JRM	260 260C 260	3.30 858.00 0.00	11/07/94 10/31/94 11/07/94	PIPE, GALVANIZED, 1", XTRA STRONG WORLY PLUMBING SUPPLY INC.
___	___	Y	95CP000555 163594	0	00	002	2	G	EA	JRM	6 6C 6	6.75 40.50 0.00	11/07/94 10/31/94 11/07/94	TEE, 1", GALVANIZED, 300# WORLY PLUMBING SUPPLY INC.
___	___	Y	95CP000555 163594	0	00	003	3	G	EA	JRM	8 8C 8	5.69 45.52 0.00	11/07/94 10/31/94 11/07/94	UNION, 1", GALVANIZED, 300# WORLY PLUMBING SUPPLY INC.
___	___	Y	95CP000555 163594	0	00	004	4	G	EA	JRM	12 12C 12	3.82 45.84 0.00	11/07/94 10/31/94 11/07/94	COUPLING, 1", GALVANIZED, 300# WORLY PLUMBING SUPPLY INC.
___	___	Y	95CP000555 163594	0	00	005	5	G	EA	JRM	1 1C 1	2.60 2.60 0.00	11/07/94 10/31/94 11/07/94	THREAD-O-LET, 1" ON 2", 3000#, FORGED WORLY PLUMBING SUPPLY INC.
___	___	Y	95CP000555 163594	0	00	006	6	G	EA	JRM	50 50C 50	4.80 240.00 0.00	11/07/94 10/31/94 11/07/94	ELBOW, 90 DEGREE, 1", GALVANIZED, 300# WORLY PLUMBING SUPPLY INC.
___	___	Y	95CP000555 163594	0	00	007	7	G	EA	JRM	12 12C 12	6.02 72.24 0.00	11/07/94 10/31/94 11/07/94	ELBOW, 45 DEGREE, 1", GALVANIZED, 300# WORLY PLUMBING SUPPLY INC.
___	___	Y	95CP000555 163594	0	00	008	8	G	EA	JRM	24 24C 24	5.35 128.40 0.00	11/07/94 10/31/94 11/07/94	COUPLING, REDUCING, 1 X 3/4", 300# WORLY PLUMBING SUPPLY INC.
___	___	Y	95CP000555 163594	0	00	009	9	G	EA	JRM	24 24C 24	5.25 126.00 0.00	11/07/94 10/31/94 11/07/94	COUPLING, REDUCING, 1 X 1/2", 300# WORLY PLUMBING SUPPLY INC.
___	___	Y	95CP000555 163594	0	00	010	10	G	EA	JRM	12 12C 12	8.12 97.44 0.00	11/07/94 10/31/94 11/07/94	VALVE, BALL, 1", SCREWED BRASS, 600# WORLY PLUMBING SUPPLY INC.
___	___	Y	95CP000555 163594	0	00	011	11	G	EA	JRM	50 50C 50	0.34 17.00 0.00	11/07/94 10/31/94 11/07/94	HANGER, CLEVIS, 1", FORGED STEEL WORLY PLUMBING SUPPLY INC.

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____	____	Y	95CP000555 0 00 012 163594	12	G	EA	JRM	50 50C 50	0.37 18.50 0.00	11/07/94 10/31/94 11/07/94	CLAMP, BEAM, 3/8", FORGED STEEL WORLY PLUMBING SUPPLY INC.
____	____	Y	95CP000555 0 00 013 163594	13	G	EA	JRM	300 300C 300	0.03 9.00 0.00	10/31/94 10/31/94 11/07/94	NUT, ZINC PLATED, HEAVY HEX, 3/8" WORLY PLUMBING SUPPLY INC.
____	____	Y	95CP000555 0 00 014 163594	14	G	EA	JRM	300 300C 300	0.03 9.00 0.00	11/07/94 10/31/94 11/07/94	WASHER, ZINC PLATED, FLAT, 3/8" WORLY PLUMBING SUPPLY INC.
____	____	Y	95CP000555 0 00 015 163594	15	G	FT	JRM	200 200C 200	0.18 36.00 0.00	11/07/94 10/31/94 11/07/94	ROD, ALL THREAD, ZINC PLATED, 3/8" WORLY PLUMBING SUPPLY INC.
____	____	N	95CP000589 0 00 001 163497	1	G	FT	CJC	78 78C 78	1.30 101.40 0.00	11/03/94 10/27/94 11/01/94	COVERING, PIPE, WITH ASJ, 1/2 X 1-1/2" R.E. KRAMIG & COMPANY, INC.
____	____	N	95CP000589 0 00 002 163497	2	G	FT	CJC	136 136C 136	1.35 183.60 0.00	11/03/94 10/27/94 11/01/94	COVERING, PIPE, WITH ASJ, 3/4 X 1-1/2" R.E. KRAMIG & COMPANY, INC.
____	____	N	95CP000589 0 00 003 163497	3	G	FT	CJC	15 15C 15	1.61 24.15 0.00	11/03/94 10/27/94 11/01/94	COVERING, PIPE, WITH ASJ, 1-1/2 X 1-1/2" R.E. KRAMIG & COMPANY, INC.
____	____	N	95CP000589 0 00 004 163497	4	G	FT	CJC	36 36C 36	2.60 93.60 0.00	11/03/94 10/27/94 11/01/94	COVERING, PIPE, WITH ASJ, 2" X 2" R.E. KRAMIG & COMPANY, INC.
____	____	N	95CP000589 0 00 005 163497	5	G	FT	CJC	9 9C 9	3.01 27.09 0.00	11/03/94 10/27/94 11/01/94	COVERING, PIPE, WITH ASJ, 3" X 2" R.E. KRAMIG & COMPANY, INC.
____	____	N	95CP000589 0 00 006 163497	NS000490	S	FT	CJC	36 36C 36	3.46 124.56 0.00	11/03/94 10/27/94 11/01/94	PIPE COVERING, FIBERGLASS, 4" X 2", R.E. KRAMIG & COMPANY, INC.
____	____	N	95CP000589 0 00 007 163497	NS000492	S	FT	CJC	6 6C 6	4.96 29.76 0.00	11/03/94 10/27/94 11/01/94	PIPE COVERING, FIBERGLASS, 8" X 2", R.E. KRAMIG & COMPANY, INC.
____	____	N	95CP000589 0 00 008 163497	8	G	FT	CJC	6 6C 6	6.53 39.18 0.00	11/03/94 10/27/94 11/01/94	COVERING, PIPE, WITH ASJ, 12" X 2" R.E. KRAMIG & COMPANY, INC.

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		N	95CP000589 163497	0	00	009	9		G	SE	CJC	29 29C 29	2.26 65.54 0.00	11/03/94 10/27/94 11/01/94	COVER, FITTING, 90 DEGREE, ELL-JAC, #5 R.E. KRAMIG & COMPANY, INC.
		N	95CP000589 163497	0	00	010	10		G	SE	CJC	7 0 0	2.58 18.06 18.06	11/03/94 10/27/94 11/01/94	COVER, FITTING, 90 DEGREE, ELL-JAC, #8 R.E. KRAMIG & COMPANY, INC.
		N	95CP000589 163497	0	00	011	11		G	SE	CJC	4 4C 4	3.53 14.12 0.00	11/03/94 10/27/94 11/01/94	COVER, FITTING, 90 DEGREE, ELL-JAC, #18 R.E. KRAMIG & COMPANY, INC.
		N	95CP000589 163497	0	00	012	12		G	SE	CJC	2 2C 2	1.92 3.84 0.00	11/03/94 10/27/94 11/01/94	COVER, FITTING, 45 DEGREE, ELL-JAC, #3 R.E. KRAMIG & COMPANY, INC.
		N	95CP000589 163497	0	00	013	13		G	RO	CJC	2 2C 2	125.00 250.00 0.00	11/03/94 10/27/94 11/01/94	JACKET, ALUMINUM, EMBOSSED, WITH MB .016 R.E. KRAMIG & COMPANY, INC.
		N	95CP000589 163497	0	00	014	14		G	BG	CJC	2 2C 2	19.00 38.00 0.00	11/03/94 10/27/94 11/01/94	SCREW, STAINLESS STEEL, #8 X 1/2", HEX R.E. KRAMIG & COMPANY, INC.
		N	95CP000589 163497	0	00	015	15		G	SF	CJC	100 100C 100	0.30 30.00 0.00	11/03/94 10/27/94 11/01/94	GLASS, YELLOW, HIGH TEMP R.E. KRAMIG & COMPANY, INC.
		N	95CP000589 163497	0	00	016	16		G	TU	CJC	4 4C 4	2.88 11.52 0.00	11/03/94 10/27/94 11/01/94	CAULK, ALUMINUM, SILICONE, DOW R.E. KRAMIG & COMPANY, INC.
		Y	95CP000633 163596	0	00	001	1		G	EA	JRM	4 4C 4	58.48 233.92 0.00	11/13/94 10/31/94 11/07/94	AIR HOSE, 1/2" INSIDE DIAMETER MULTI- PENNINGTON RUBBER CO.
		Y	95CP000633 163596	0	00	002	2		G	EA	JRM	4 4C 4	79.64 318.56 0.00	11/13/94 10/31/94 11/07/94	AIR HOSE, 1" INSIDE DIAMETER MULTI - PENNINGTON RUBBER CO.
		Y	95CP000633 163596	0	00	003	3		G	EA	JRM	8 8C 8	372.00 2,976.00 0.00	11/13/94 10/31/94 11/07/94	HOSE, 2" I.D., 1'6" LONG, FACE TO FACE PENNINGTON RUBBER CO.
		Y	95CP000633 163596	0	00	004	4		G	EA	JRM	16 16C 16	25.67 410.72 0.00	11/13/94 10/31/94 11/07/94	FITTING, CHICAGO, MALE NPT, 3/4" PENNINGTON RUBBER CO.

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OK	COMPLETE	CLOSED	PO NUMBER REL C\O LINE / REQUISITION NUMBER	ITEM NUMBER	TYPE	U/M	BUYER	QUANTITY ORDERED / RECEIVED / INVOICED	VALUES UNIT / EXTENDED / OPEN	DATES REQUIRED / REQUISITION ISSUED	DESCRIPTION / VENDOR / DELIVER TO
		Y N/A	95CP000679 0 00 001 1 163597		G	EA	LF	25 25C 25	6.19 154.75 0.00	11/03/94 11/07/94 11/07/94	LOCK, MASTER, #1, KEYED ALIKE, #2006 F & M MAFCO, INC.
		N N/A	95CP000681 0 00 001 1 162336		G	LT	CJC	1 0 1^	210.00 210.00 0.00	10/06/94 11/07/94 11/07/94	THIS PO IS ISSUED TO COVER THE REPAIR OF WELDCO, INC
		Y	95CP000685 0 00 001 1 163600		G	EA	CJC	2 2C 2	120.00 240.00 0.00	11/10/94 11/07/94 11/07/94	FILTER/REGULATOR, 1" R.A. MUELLER INCORPORATED
		Y	95CP000685 0 00 002 2		G	EA	CJC	2 2C 2	55.00 110.00 0.00	11/10/94 09/30/93 11/07/94	LUBRICATOR, 1" R.A. MUELLER INCORPORATED
		Y	95CP000685 0 00 003 3		G	EA	CJC	1 1C 1	25.00 25.00 0.00	11/10/94 09/30/93 11/07/94	NEXT DAY QUICK SHIPMENT CHARGE R.A. MUELLER INCORPORATED
		N	95CP000687 0 00 001 1 163598		G	FT	CJC	20 20C 20	4.70 94.00 0.00	11/10/94 11/07/94 11/07/94	PIPE, PLASTIC, SCHEDULE 80, CPVC, 3" PIPE PRODUCTS INCORPORATED
		N	95CP000687 0 00 002 2 163598		G	EA	CJC	2 2C 2	12.80 25.60 0.00	11/10/94 11/07/94 11/07/94	FLANGE, SOCKET END, R.F., 4", 150#, CPVC PIPE PRODUCTS INCORPORATED
		N	95CP000687 0 00 003 3 163598		G	EA	CJC	2 2C 2	7.50 15.00 0.00	11/10/94 11/07/94 11/07/94	BUSHING, FLUSH, SOCKET X SOCKET, 4 X 3" PIPE PRODUCTS INCORPORATED
		N	95CP000687 0 00 004 4 163598		G	EA	CJC	1 1C 1	3.51 3.51 0.00	11/10/94 11/07/94 11/07/94	COUPLING, FERNCO, PIPE SIZE, 2" PIPE PRODUCTS INCORPORATED
		N	95CP000687 0 00 005 5 163598		G	EA	CJC	4 4C 4	8.30 33.20 0.00	11/10/94 11/07/94 11/07/94	ELBOW, 90 DEGREE, 3", CPVC, SCHEDULE 80 PIPE PRODUCTS INCORPORATED
		N	95CP000687 0 00 006 6 163598		G	EA	CJC	2 2C 2	9.50 19.00 0.00	11/10/94 11/07/94 11/07/94	COUPLING, 3", CPVC, SCHEDULE 80, SOCKET, PIPE PRODUCTS INCORPORATED
		N	95CP000687 0 00 007 1 163601		G	FT	CJC	60 60C 65	3.40 204.00 (17.00)	11/17/94 11/07/94 11/07/94	PIPE, GALVANIZED, 1", SEAMLESS, XTRA PIPE PRODUCTS INCORPORATED

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____	____	N	95CP000687 0 00 008 2 163601		G	EA	CJC	2 2C 2	3.74 7.48 0.00	11/10/94 11/07/94 11/07/94	UNION, 1/2", 300#, GALVANIZED PIPE PRODUCTS INCORPORATED
____	____	N	95CP000687 0 00 009 3 163601		G	EA	CJC	2 2C 2	0.27 0.54 0.00	11/10/94 11/07/94 11/07/94	NIPPLE, 1/2", TBE X 3" LONG, STD GALV PIPE PRODUCTS INCORPORATED
____	____	N	95CP000687 0 00 010 4 163601		G	EA	CJC	2 2C 2	8.30 16.60 0.00	11/10/94 11/07/94 11/07/94	VALVE, BALL, 1", SCREWED, BRASS, 600# PIPE PRODUCTS INCORPORATED
____	____	N	95CP000687 0 00 011 5 163601		G	EA	CJC	2 2C 2	8.00 16.00 0.00	11/10/94 11/07/94 11/07/94	TEE, 300#, 1 X 3/4 X 1/4", 300# PIPE PRODUCTS INCORPORATED
____	____	N	95CP000687 0 00 012 6 163601		G	EA	CJC	2 2C 2	5.05 10.10 0.00	11/10/94 11/07/94 11/07/94	COUPLING, REDUCING, 1 X 1/2", 300# PIPE PRODUCTS INCORPORATED
____	____	N	95CP000687 0 00 013 7 163601		G	FT	CJC	20 21C 21	2.29 45.80 (2.29)	11/10/94 11/07/94 11/07/94	PIPE, 1-1/2", CARBON STEEL, XTRA STRONG PIPE PRODUCTS INCORPORATED
____	____	N	95CP000687 0 00 014 8 163601		G	FT	CJC	20 21C 21	1.40 28.00 (1.40)	11/10/94 11/07/94 11/07/94	PIPE, 2", CARBON STEEL, STANDARD WEIGHT PIPE PRODUCTS INCORPORATED
____	____	N	95CP000687 0 00 015 9 163601		G	EA	CJC	2 2C 2	11.38 22.76 0.00	11/10/94 11/07/94 11/07/94	FLANGE, 6", 150#, RAISED FACE, SLIP-ON PIPE PRODUCTS INCORPORATED
____	____	N	95CP000687 0 00 016 10 163601		G	EA	CJC	5 5C 5	2.55 12.75 0.00	11/10/94 11/07/94 11/07/94	ELBOW, 2", 90 DEGREE, SEAMLESS, CARBON PIPE PRODUCTS INCORPORATED
____	____	N	95CP000687 0 00 017 11 163601		G	EA	CJC	2 2C 2	4.91 9.82 0.00	11/10/94 11/07/94 11/07/94	REDUCER, ECCENTRIC, 2 X 1-1/2", SEAMLESS PIPE PRODUCTS INCORPORATED
____	____	N	95CP000687 0 00 018 12 163601		G	EA	CJC	4 4C 4	5.03 20.12 0.00	11/10/94 11/07/94 11/07/94	ELBOW, 90 DEGREE, 1-1/2", 3000#, CARBON PIPE PRODUCTS INCORPORATED
____	____	N	95CP000687 0 00 019 13 163601		G	EA	CJC	4 4C 4	6.85 27.40 0.00	11/10/94 11/07/94 11/07/94	FLANGE, SOCKET WELD, 1-1/2", R.F., 150# PIPE PRODUCTS INCORPORATED

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		N	95CP000687 0 00 020 14 163601		G	EA	CJC	2 2C 2	27.22 54.44 0.00	11/10/94 11/07/94 11/07/94	REDUCER, CONCENTRIC, 6 X 1-1/2" PIPE PRODUCTS INCORPORATED
		N	95CP000687 0 00 021 15 163601		G	EA	CJC	24 24C 24	1.07 25.68 0.00	11/10/94 11/07/94 11/07/94	U-BOLT, 3", CARBON STEEL, BLACK PIPE PRODUCTS INCORPORATED
		Y	95CP000703 0 00 001 1 163603		G	EA	CJC	12 12C 12	9.41 112.92 0.00	11/10/94 11/07/94 11/08/94	GASKET, 6", CLASS 150, SPIRAL WOUND CINCINNATI GASKET
		Y	95CP000703 0 00 002 2 163603		G	EA	CJC	12 12C 12	10.35 124.20 0.00	11/10/94 11/07/94 11/08/94	GASKET, RING, 6", 150#, 1/8" THICK CINCINNATI GASKET
		Y	95CP000703 0 00 003 3 163603		G	EA	CJC	12 12C 12	3.53 42.36 0.00	11/10/94 11/07/94 11/08/94	GASKET, 1-1/2", CLASS 150, SPIRAL WOUND CINCINNATI GASKET
		Y	95CP000703 0 00 004 4 163603		G	EA	CJC	12 12C 12	1.87 22.44 0.00	11/10/94 11/07/94 11/08/94	GASKET, RING, 1-1/2", 150#, 1/8" THICK CINCINNATI GASKET
		Y	95CP000704 0 00 001 1 163599		G	EA	JRM	2 2C 2	7.00 14.00 0.00	11/18/94 11/07/94 11/10/94	HOSE, AIR, 1/2" DIA. INSIDE, 4' LONG PENNINGTON RUBBER CO.
		Y	95CP000704 0 00 002 2 163599		G	EA	JRM	2 2C 2	17.13 34.26 0.00	11/18/94 11/07/94 11/10/94	HOSE, AIR, 1" I.D., 10' LONG WITH PENNINGTON RUBBER CO.
		Y	95CP000704 0 00 003 3 163599		G	EA	JRM	4 4C 4	59.49 237.96 20.00	11/18/94 11/07/94 11/10/94	HOSE, 1-1/2" I.D., NEOPRENE LINED, 1'3" PENNINGTON RUBBER CO.
		Y	95CP000704 0 00 004 4 163599		G	EA	JRM	4 4C 4	2.22 8.88 0.00	11/18/94 11/07/94 11/10/94	COUPLING, CHICAGO, 1", MPT PENNINGTON RUBBER CO.
		Y	95CP000704 0 00 005 5 163599		G	EA	JRM	4 4C 4	2.00 8.00 0.00	11/18/94 11/07/94 11/10/94	COUPLING, CHICAGO, 3/4" MPT PENNINGTON RUBBER CO.
		Y	95CP000710 0 00 001 1 163602		G	EA	CJC	24 24C 24	2.97 71.28 0.00	11/10/94 11/07/94 11/08/94	STUD, 3/4", B7, ASTM A193, 4-1/4" LONG BUILDING FASTENERS

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		Y	95CP000710 0 00 002 2 163602		G	EA	CJC	48 48C 48	0.50 24.00 0.00	11/10/94 11/07/94 11/08/94	NUT, 3/4", 2H, ASTM A194 BUILDING FASTENERS
		Y	95CP000710 0 00 003 3 163602		G	EA	CJC	64 64C 64	0.70 44.80 0.00	11/10/94 11/07/94 11/08/94	STUD, 1/2", B7, ASTM A193, 3" LONG BUILDING FASTENERS
		Y	95CP000710 0 00 004 4 163602		G	EA	CJC	128 128C 128	0.30 38.40 0.00	11/10/94 11/07/94 11/08/94	NUT, 1/2", 2H, ASTM A194 BUILDING FASTENERS
		Y	95CP000715 0 00 001 1 162282		G	EA	JRM	1 1C 1	14.10 14.10 0.00	11/10/94 11/08/94 11/10/94	TEE, CARBON STEEL, 3 X 3 X 2", SCH 40 WORLY PLUMBING SUPPLY INC.
		Y	95CP000715 0 00 002 2 162282		G	EA	JRM	2 2C 2	5.95 11.90 0.00	11/10/94 11/08/94 11/10/94	FLANGE, 3", 150#, RAISED FACE, CARBON WORLY PLUMBING SUPPLY INC.
		Y	95CP000715 0 00 003 3 162282		G	EA	JRM	1 1C 1	7.99 7.99 0.00	11/10/94 11/08/94 11/10/94	TEE, 2", CARBON STEEL, SCH 40, BUTT WELD WORLY PLUMBING SUPPLY INC.
		Y	95CP000715 0 00 004 4 162282		G	EA	JRM	3 3C 3	5.25 15.75 0.00	11/10/94 11/08/94 11/10/94	FLANGE, BLIND, 2", 150#, RAISED FACE WORLY PLUMBING SUPPLY INC.
		Y	95CP000715 0 00 005 5 162282		G	EA	JRM	2 2C 2	4.25 8.50 0.00	11/10/94 11/08/94 11/10/94	FLANGE, 2", 150#, CARBON STEEL, RAISED WORLY PLUMBING SUPPLY INC.
		Y	95CP000716 0 00 001 1 162281		G	MT	CJC	6 6C 0^	840.00 5,040.00 5,040.00	11/09/94 11/07/94 11/09/94	RENTAL OF TWO (2) PORTABLE AIR ARTS RENTAL EQUIPMENT
		Y	95CP000716 0 00 002 2		G	EA	CJC	4 4C 0^	40.00 160.00 160.00	11/09/94 09/30/93 11/09/94	MOBILIZATION/DEMOBILIZATION ARTS RENTAL EQUIPMENT
		Y	95CP000742 0 00 001 1 163499		G	FT	JRM	24 24C 24	4.29 102.96 0.00	11/20/94 11/10/94 11/10/94	COVERING, PIPE, FOAMGLASS, WITH ASJ R.E. KRAMIG & COMPANY, INC.
		Y	95CP000742 0 00 002 2 163499		G	FT	JRM	72 72C 72	5.63 405.36 0.00	11/20/94 11/10/94 11/10/94	COVERING, PIPE, FOAMGLASS, WITH ASJ R.E. KRAMIG & COMPANY, INC.

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		Y	95CP000742 0 00 003 3 163499		G FT	JRM	30 30C 30	7.24 217.20 0.00	11/20/94 11/10/94 11/10/94	COVERING, PIPE, FOAMGLASS, WITH ASJ R.E. KRAMIG & COMPANY, INC.
		Y	95CP000742 0 00 004 4 163499		G RO	JRM	1 1C 1	150.00 150.00 0.00	11/20/94 11/10/94 11/10/94	JACKET, ALUMINUM, EMBOSSED, STUCCO, .020 R.E. KRAMIG & COMPANY, INC.
		Y	95CP000742 0 00 005 5 163499		G RO	JRM	1 1C 1	58.80 58.80 0.00	11/20/94 11/10/94 11/10/94	BANDING MATERIAL, STAINLESS STEEL, 1/2" R.E. KRAMIG & COMPANY, INC.
		Y	95CP000742 0 00 006 6 163499		G BX	JRM	1 1C 1	28.80 28.80 0.00	11/20/94 11/10/94 11/10/94	SEAL, WING, STAINLESS STEEL, 1/2" FOR R.E. KRAMIG & COMPANY, INC.
		Y	95CP000742 0 00 007 7 163499		G SE	JRM	8 8C 8	2.90 23.20 0.00	11/20/94 11/10/94 11/10/94	COVER, FITTING, ALUMINUM, ELL JAC R.E. KRAMIG & COMPANY, INC.
		Y	95CP000742 0 00 008 8 163499		G SE	JRM	16 16C 16	3.41 54.56 0.00	11/20/94 11/10/94 11/10/94	COVER, FITTING, ALUMINUM, ELL JAC R.E. KRAMIG & COMPANY, INC.
		Y	95CP000765 0 00 001 1 163336		G EA	LF	25 25C 25	6.88 172.00 0.00	11/21/94 11/14/94 11/14/94	LUMBER, 2" X 4" X 16' CONSTRUCTION GRADE RIEMEIER LUMBER
		Y	95CP000765 0 00 002 2 163336		G EA	LF	4 4C 4	26.08 104.32 0.00	11/21/94 11/14/94 11/14/94	FORMPLY, 4" X 8" X 3/4" RIEMEIER LUMBER
		N	95CP000795 0 00 001 1 163503		G EA	JRM	2 0 2	28.50 57.00 57.00	11/17/94 11/15/94 11/15/94	TOOL, POP RIVET, HP-2, MARSON AUFDEMKAMPE HARDWARE CO
		N	95CP000795 0 00 002 2 163503		G EA	JRM	75 0 75	0.78 58.50 58.50	11/17/94 11/15/94 11/15/94	LATCH, SUIT CASE, 2-3/4 X 1-7/16" AUFDEMKAMPE HARDWARE CO
		N	95CP000795 0 00 003 3 163503		G EA	JRM	1 0 1	15.49 15.49 15.49	11/17/94 11/15/94 11/15/94	TAPE MEASURE, STANLEY, #L316, 3/4" X 16' AUFDEMKAMPE HARDWARE CO
		N	95CP000795 0 00 004 4 163503		G EA	JRM	1 0 1	43.39 43.39 43.39	11/17/94 11/15/94 11/15/94	SEAMER, HAND, 6" BLADE WIDTH AUFDEMKAMPE HARDWARE CO

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____	____	N	95CP000816 0 00 001 1 162345		G EA	JRM	30 0 30	10.34 310.20 310.20	11/17/94 11/21/94 11/21/94	BLOCK, TERMINAL, THERMOCOUPLE, TYPE J BECKER ELECTRIC SUPPLY CO.
____	____	N	95CP000816 0 00 002 2 162345		G EA	JRM	10 0 50	3.28 32.80 32.80	11/17/94 11/21/94 11/21/94	BLOCK, TERMINAL BECKER ELECTRIC SUPPLY CO.
____	____	N	95CP000816 0 00 003 3 162345		G EA	JRM	1 0 1	10.59 10.59 10.59	11/17/94 11/21/94 11/21/94	RAIL, DIN, SYMMETRICAL, 1 METER BECKER ELECTRIC SUPPLY CO.
____	____	N	95CP000816 0 00 004 4 162345		G EA	JRM	30 0 50	2.38 71.40 71.40	11/17/94 11/21/94 11/21/94	PLATE, PARTITION, TERMINAL BECKER ELECTRIC SUPPLY CO.
____	____	N	95CP000816 0 00 005 5 162345		G EA	JRM	12 0 12	1.78 21.36 21.36	11/17/94 11/21/94 11/21/94	BARRIER, END BECKER ELECTRIC SUPPLY CO.
____	____	N	95CP000816 0 00 006 6 162345		G EA	JRM	12 0 12	2.25 27.00 27.00	11/17/94 11/21/94 11/21/94	ANCHOR, END, FOR DIN RAIL BECKER ELECTRIC SUPPLY CO.
____	____	Y	95CP000820 0 00 001 1 162344		G EA	JRM	2 2C 2	194.25 388.50 0.00	11/18/94 11/16/94 11/21/94	SWITCH, PRESSURE, AIR, 3-30 PSI, B. C. ENGINEERING
____	____	Y	95CP000896 0 00 001 1 160742		G EA	JRM	4 4C 4	17.00 68.00 0.00	11/23/94 11/21/94 11/21/94	NEOPRENE BACK-UP DIAPHRAGM WAGNER SMITH
____	____	Y	95CP000896 0 00 002 2 160742		G EA	JRM	8 8C 8	22.00 176.00 0.00	11/23/94 11/21/94 11/21/94	NEOPRENE BACK-UP DIAPHRAGM WAGNER SMITH
____	____	Y	95CP000898 0 00 001 1 160650		G EA	JRM	40 40C 40	39.50 1,580.00 0.00	12/02/94 11/21/94 11/21/94	FLANGE, WELD NECK, 3", GRADE WP, 304L ALLOY PIPING SUPPLY, INC.
____	____	Y	95CP000898 0 00 002 2 160650		G EA	JRM	10 10C 10	35.00 350.00 0.00	12/02/94 11/21/94 11/21/94	ELBOW, 90 DEGREE, 3", GRADE WP, 304L ALLOY PIPING SUPPLY, INC.
____	____	Y	95CP000898 0 00 003 3 160650		G EA	JRM	5 5C 5	28.00 140.00 0.00	12/02/94 11/21/94 11/21/94	ELBOW, 45 DEGREE, 3", GRADE WP, 304L ALLOY PIPING SUPPLY, INC.

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___	___	Y	95CP000898 0 00 004 4 160650		G	EA	JRM	24 24C 24	8.50 204.00 0.00	12/02/94 11/21/94 11/21/94	PLUG, 1/2", 304L, HEX HEAD, FORGED STEEL ALLOY PIPING SUPPLY, INC.
___	___	Y	95CP000917 0 00 001 1 160746		G	EA	JRM	2 2C 2	259.00 518.00 0.00	11/23/94 11/22/94 11/22/94	LEAK DETECTION SWITCHES WAGNER SMITH
___	___	Y	95CP000920 0 00 001 1 160749		G	EA	JRM	10 10C 10	41.07 410.70 0.00	12/02/94 11/22/94 11/22/94	FLANGE, BLIND, CLASS 150, 3", STAINLESS ROBERT JAMES SUPPLY
___	___	Y	95CP000928 0 00 001 1 163500		G	SF	CJC	210 210C 210	1.89 396.90 0.00	11/28/94 11/15/94 11/23/94	BLOCK, FOAMGLASS, 2" THICK, 18 X 24" R.E. KRAMIG & COMPANY, INC.
___	___	Y	95CP000928 0 00 002 2 163500		G	LT	CJC	1 1C 1	20.25 20.25 0.00	11/28/94 11/15/94 11/23/94	RIVET, POP, ALUMINUM, 1/8" R.E. KRAMIG & COMPANY, INC.
___	___	Y	95CP000928 0 00 003 3 163500		G	LT	CJC	1 1C 1	13.50 13.50 0.00	11/28/94 11/15/94 11/23/94	RIVET, POP, STAINLESS STEEL, 1/8" R.E. KRAMIG & COMPANY, INC.
___	___	Y	95CP000929 0 00 001 1 160651		G	EA	JRM	50 50C 50	1.46 73.00 0.00	11/28/94 11/23/94 11/23/94	PIPE MARKER, SELF STICKING, BRADY F.D. LAWRENCE COMPANY
___	___	Y	95CP000929 0 00 002 2 160651		G	RO	JRM	2 2C 2	33.75 67.50 0.00	11/28/94 11/23/94 11/23/94	TAPE, ARROW, DIRECTIONAL FLOW, 2"X30YD F.D. LAWRENCE COMPANY
___	___	Y	95CP000948 0 00 001 1 160741		G	EA	JRM	2 2C 2	123.50 247.00 0.00	11/29/94 11/16/94 11/28/94	VALVE, SOLENOID, - 2 WAY NORMALLY CLOSED VOELKER CONTROLS
___	___	Y	95CP001029 0 00 001 1 160653		G	EA	JRM	12 12C 12	23.00 276.00 0.00	12/06/94 12/01/94 12/05/94	FLANGE, 2", 150#, STAINLESS STEEL, 304L ALLOY PIPING SUPPLY, INC.
___	___	Y	95CP001029 0 00 002 2 160653		G	EA	JRM	6 6C 6	35.00 210.00 0.00	12/06/94 12/01/94 12/05/94	FLANGE, 3", 150#, STAINLESS STEEL, 304L ALLOY PIPING SUPPLY, INC.
___	___	Y	95CP001029 0 00 003 3 160653		G	EA	JRM	6 6C 6	47.00 282.00 0.00	12/06/94 12/01/94 12/05/94	FLANGE, 4", 150#, STAINLESS STEEL, 304L ALLOY PIPING SUPPLY, INC.

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OK	COMPLETE	CLOSED	PO NUMBER REL C\O LINE / REQUISITION NUMBER ITEM	ITEM NUMBER	TYPE	U/M	BUYER	QUANTITY ORDERED / RECEIVED / INVOICED	VALUES UNIT / EXTENDED / OPEN	DATES REQUIRED / REQUISITION / ISSUED	DESCRIPTION / VENDOR / DELIVER TO
____	____	Y	95CP001029 0 00 004 4 160653		G	EA	JRM	6 6C 6	41.00 246.00 0.00	12/06/94 12/01/94 12/05/94	COUPLING, SCREWED, 2", STAINLESS STEEL ALLOY PIPING SUPPLY, INC.
____	____	Y	95CP001123 0 00 001 1 000000000160745		G	EA	JRM	10 10C 10	145.00 1,450.00 1,450.00	12/08/94 12/08/94 12/08/94	TEFLON PRIMARY DIAPHRAMS, FOR M8 PUMP WAGNER SMITH
____	____	Y	95CP001123 0 00 002 2 000000000160745		G	EA	JRM	4 4C 4	110.00 440.00 440.00	12/08/94 12/08/94 12/08/94	TEFLON PRIMARY DIAPHRAMS, FOR M4 PUMP WAGNER SMITH
____	____	Y	95CP001123 0 00 003 1 160743		G	EA	JRM	7 7C 7	28.00 196.00 196.00	12/08/94 12/08/94 12/08/94	EXPANDED TEFLON GASKET KIT WAGNER SMITH
____	____	Y	95CP001136 0 00 001 1 163624		G	EA	JRM	7 7C 7	69.00 483.00 483.00	12/08/94 12/08/94 12/08/94	SENSOR CABLES, WIL-GUARD I WAGNER SMITH
____	____	Y	95CP001158 0 00 001 1		G	EA	JRM	1 1C 1	166.00 166.00 0.00	12/07/94 09/30/93 12/14/94	TORQUE WRENCH, 3/8" SQUARE DRIVE, SNAP-ON TOOLS
____	____	N	95CP001167 0 00 001 1 163626		G	EA	CJC	16 16C 12	7.45 119.20 119.20	12/12/94 12/12/94 12/12/94	O-RING, WILDEN, M4P, TFE68BV ENCAPSULATE WAGNER SMITH
____	____	N	95CP001167 0 00 002 2 163626		G	EA	CJC	16 16C 15	7.45 119.20 119.20	12/12/94 12/12/94 12/12/94	O-RING, WILDEN, M4P, TFE70BV ENCAPSULATE WAGNER SMITH
____	____	N	95CP001167 0 00 003 3 163626		G	EA	CJC	98 98C 0	0.50 49.00 49.00	12/12/94 12/12/94 12/12/94	O-RING, CTR. BLOCK, M4/M8, 20JH, WILDEN WAGNER SMITH
____	____	N	95CP001167 0 00 004 4 163626		G	EA	CJC	40 40C 40	7.00 280.00 280.00	12/12/94 12/12/94 12/12/94	O-RING, WILDEN, TFE32BV, TEFLON WITH WAGNER SMITH
____	____	N	95CP001167 0 00 005 5 163626		G	EA	CJC	40 40C 40	9.50 380.00 380.00	12/12/94 12/12/94 12/12/94	WILDEN TFE40BV TEFLON O-RING WITH VITON WAGNER SMITH
____	____	N	95CP001167 0 00 006 1 163627		G	EA	CJC	14 14C 0	28.00 392.00 392.00	12/12/94 12/12/94 12/12/94	WILDEN TF4/8GK EXPANDED TEFLON GASKET WAGNER SMITH

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____	____	N	95CP001167 0 00 007 2 163627		G	EA	CJC	20 20C 0	22.00 440.00 440.00	12/12/94 12/12/94 12/12/94	WILDEN TF63B NEO B-U DIAPHGRAM WAGNER SMITH
____	____	N	95CP001167 0 00 008 3 163627		G	EA	CJC	8 8C 0	17.00 136.00 136.00	12/12/94 12/12/94 12/12/94	WILDEN TF24B NEO B-U DIAPHGRAM WAGNER SMITH
____	____	N	95CP001167 0 00 009 4		G	EA	CJC	1 1C 0	25.00 25.00 25.00	12/12/94 09/30/93 12/12/94	EXPEDITE FEE WAGNER SMITH
____	____	N	95CP001175 0 00 001 1 160656		G	PG	CJC	2 0 2	78.14 156.28 156.28	12/12/94 12/09/94 12/09/94	PLATE, BLANK METAL, STAINLESS STEEL KITRICK MANAGEMENT COMPANY
____	____	N	95CP001175 0 00 002 2 160656		G	PG	CJC	2 0 2	24.86 49.72 49.72	12/12/94 12/09/94 12/09/94	WIRE, STAINLESS STEEL, CUT AND KITRICK MANAGEMENT COMPANY
____	____	N	95CP001211 0 00 001 1 163625		G	EA	JRM	6 5 0	127.50 765.00 765.00	01/12/95 12/12/94 12/12/94	PROBE, PH, CKM INDUSTRIAL SALES
____	____	Y	95CP001292 0 00 001 1 160654		G	FT	CJC	105 107C 107	3.40 357.00 (6.80)	12/27/94 12/15/94 12/15/94	PIPE, 1", SEAMLESS, GALVANIZED, CARBON READING SUPPLIES INCORPORATED
____	____	Y	95CP001292 0 00 002 2 160654		G	EA	CJC	24 24C 24	1.16 27.84 0.00	12/19/94 12/15/94 12/15/94	ELBOW, 90 DEGREE, 1", 150#, SCREWED READING SUPPLIES INCORPORATED
____	____	Y	95CP001292 0 00 003 3 160654		G	EA	CJC	6 6C 6	1.28 7.68 0.00	12/19/94 12/15/94 12/15/94	COUPLING, 1", 150#, SCREWED, GALVANIZED READING SUPPLIES INCORPORATED
____	____	Y	95CP001292 0 00 004 4 160654		G	EA	CJC	6 6C 6	3.35 20.10 0.00	12/19/94 12/15/94 12/15/94	UNION, 1", 150#, SCREWED, GALVANIZED READING SUPPLIES INCORPORATED
____	____	Y	95CP001292 0 00 005 5 160654		G	EA	CJC	6 6C 6	1.28 7.68 0.00	12/19/94 12/15/94 12/15/94	ELBOW, 45 DEGREE, 1", 150#, SCREWED READING SUPPLIES INCORPORATED
____	____	Y	95CP001292 0 00 006 6 160654		G	EA	CJC	12 12C 12	0.55 6.60 0.00	12/19/94 12/15/94 12/15/94	HANGER, CLEVIS, CARBON STEEL, 1" READING SUPPLIES INCORPORATED

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____	____	Y	95CP001292 0 00 007 7 160654		G	EA	CJC	12 12C 12	0.58 6.96 0.00	12/19/94 12/15/94 12/15/94	CLAMP, BEAM, 3/8" MALLEABLE IRON READING SUPPLIES INCORPORATED
____	____	Y	95CP001292 0 00 008 8 160654		G	EA	CJC	200 200C 200	0.10 20.00 0.00	12/19/94 12/15/94 12/15/94	NUT, HEAVY HEX, ZINC PLATED, 3/8" READING SUPPLIES INCORPORATED
____	____	Y	95CP001292 0 00 009 9 160654		G	EA	CJC	4 4C 4	9.60 38.40 0.00	12/19/94 12/15/94 12/15/94	VALVE, BALL, 1", SCREWED, BRASS, 600# READING SUPPLIES INCORPORATED
____	____	Y	95CP001301 0 00 001 1 160657		G	EA	CJC	200 200C 200	1.95 390.00 390.00	12/19/94 12/15/94 12/15/94	TUBE, 3/8", SWAGELOK X 1/4" NPT CINCINNATI VALVE & FITTING CO
____	____	Y	95CP001301 0 00 002 2 160657		G	EA	CJC	200 200C 200	3.07 614.00 614.00	12/19/94 12/15/94 12/15/94	TUBE, 3/8", SWAGELOK X 1/2" NPT CINCINNATI VALVE & FITTING CO
____	____	Y	95CP001301 0 00 003 3 160657		G	EA	CJC	60 60C 60	0.60 36.00 36.00	12/19/94 12/15/94 12/15/94	SWAGELOK, 3/8", #B-600-SET CINCINNATI VALVE & FITTING CO
____	____	N	95CP001327 0 00 001 1 163633		G	EA	CJC	8 0 8	25.00 200.00 200.00	12/20/94 12/19/94 12/20/94	SPEED CONTROL MUFFLERS - WATTS PART JAY INSTRUMENT & SPECIALTY CO
____	____	Y	95CP001340 0 00 001 1 163632		G	EA	JRM	2 2C 2	1,211.00 2,422.00 2,422.00	12/20/94 12/20/94 12/20/94	SURGE SUPPERSOR, BLACOH SENTRY I, WAGNER SMITH
____	____	Y	95CP001343 0 00 001 1 000000000160661		G	FT	JRM	168 168C 168	1.89 317.52 0.00	12/22/94 12/19/94 12/29/94	PIPE, 1", SCHEDULE CARBON STEEL WORLY PLUMBING SUPPLY INC.
____	____	Y	95CP001343 0 00 002 2 000000000160661		G	EA	JRM	12 12C 12	5.80 69.60 0.00	12/22/94 12/19/94 12/29/94	ELBOW, 90 DEGREE, 1-1/2", 3000#, FORGED WORLY PLUMBING SUPPLY INC.
____	____	N	95CP001345 0 00 001 1 160663		G	EA	JRM	100 0 100	6.80 680.00 680.00	12/26/94 12/19/94 12/27/94	GASKET, 3", CLASS 150, SPIRAL WOUND NATIONAL AIRCRAFT SUPPLY
____	____	N	95CP001345 0 00 002 2		G	LT	JRM	1 0 0	75.00 75.00 75.00	12/26/94 09/30/93 12/27/94	EXPEDITING CHARGE TO REDUCE DELIVERY NATIONAL AIRCRAFT SUPPLY

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____	____	Y	95CP001384 163446	0	00	001	1		G	LT	JRM	1 1C 1	112.00 112.00 0.00	12/22/94 12/22/94 12/27/94	ANGLE IRON, CARBON STEEL, 2" X 2" X 1/4" WM. LANG & SONS
____	____	Y	95CP001384 163446	0	00	002	2		G	LT	JRM	1 1C 1	156.00 156.00 0.00	12/22/94 12/22/94 12/27/94	ANGLE IRON, CARBON STEEL, 3" X 3" X 1/4" WM. LANG & SONS
____	____	Y	95CP001384 163446	0	00	003	3		G	LT	JRM	1 1C 1	96.00 96.00 0.00	12/22/94 12/22/94 12/27/94	FLAT IRON, CARBON STEEL, 2" X 3/8" WM. LANG & SONS
____	____	N	95CP001385 163445	0	00	001	1		G	EA	JRM	36 0 36	0.80 28.80 28.80	12/22/94 12/22/94 12/27/94	5/16" N.C. SS HEAVY HEX NUTS NATIONAL AIRCRAFT SUPPLY
____	____	N	95CP001385 163445	0	00	002	2		G	EA	JRM	36 0 36	3.35 120.60 120.60	12/22/94 12/22/94 12/27/94	5/16" N.C. SS ROD COUPLINGS NATIONAL AIRCRAFT SUPPLY
____	____	N	95CP001385 163445	0	00	003	3		G	LT	JRM	1 0 1	13.20 13.20 13.20	12/22/94 12/22/94 12/27/94	5/16" N.C. SS ALL THREAD ROD NATIONAL AIRCRAFT SUPPLY
____	____	Y	95CP001403 163443	0	00	001	1		G	EA	CJC	12 12C 12	27.53 330.36 0.00	12/27/94 12/22/94 12/22/94	CHICAGO FITTINGS, 1", FEMALE NPT, PENNINGTON RUBBER CO.
____	____	Y	95CP001407 163444	0	00	001	1		G	EA	CJC	8 8C 8	15.50 124.00 0.00	12/27/94 12/22/94 12/22/94	3" X 1" WELD-O-LETS, SEAMLESS, 316L SS ALLOY PIPING SUPPLY, INC.
____	____	Y	95CP001409 163631	0	00	001	1		G	EA	JRM	14 14C 14	863.55 12,089.70 12,089.70	01/12/94 12/29/94 12/29/94	VALVE, BALL, 3", 150#, FULL PORT, RF PIPE PRODUCTS INCORPORATED
____	____	Y	95CP001441 163442	0	00	001	1		G	LB	JRM	10 10C 10	6.81 68.10 68.10	01/03/95 12/22/94 12/27/94	1/8" WELDING ROAD, 309-16, SS WELDCO, INC
____	____	Y	95CP001441 163442	0	00	002	2		G	LB	JRM	10 10C 10	6.16 61.60 61.60	01/03/95 12/22/94 12/27/94	3/32" WELDING ROD, 309-16, SS WELDCO, INC
____	____	Y	95CP001441 163442	0	00	003	3		G	EA	JRM	12 12C 12	2.45 29.40 29.40	01/03/95 12/22/94 12/27/94	CUTTING TORCH TIP CLEANERS WELDCO, INC

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____	____	Y	95CP001441 0 00 004 163442	4	G	EA	JRM	8 8C 8	9.25 74.00 74.00	01/03/95 12/22/94 12/27/94	CUTTING TIPS, SMITH SC12-0 WELDCO, INC
____	____	Y	95CP001441 0 00 005 163442	5	G	EA	JRM	8 8C 8	9.25 74.00 74.00	01/03/95 12/22/94 12/27/94	CUTTING TIPS, SMITH SC12-1 WELDCO, INC
____	____	Y	95CP001441 0 00 006 163442	6	G	EA	JRM	12 12C 12	14.01 168.12 168.12	01/03/95 12/22/94 12/27/94	14" HALF ROUND BASTARD FILES WELDCO, INC
____	____	N	95CP001476 0 00 001 163504	1	G	FT	JRM	24 0 0	6.90 165.60 165.60	01/06/95 12/29/94 12/29/94	COVERING, PIPE, WITH ASJ, FOAMGLASS R.E. KRAMIG & COMPANY, INC.
____	____	N	95CP001476 0 00 002 163504	2	G	EA	JRM	1000 0 0	0.02 20.00 20.00	01/06/95 12/29/94 12/29/94	RIVET, POP, ALUMINUM, 1/8" R.E. KRAMIG & COMPANY, INC.
____	____	Y	95CP001518 0 00 001 160671	1	G	EA	JRM	25 25C 25	1.90 47.50 0.00	01/04/94 01/03/95 01/04/95	HANGER, CLEVIS, BLACK STEEL, 6" WORLY PLUMBING SUPPLY INC.
____	____	Y	95CP001518 0 00 002 160671	2	G	EA	JRM	25 25C 25	2.90 72.50 0.00	01/04/95 01/03/95 01/04/95	U-BOLT, BLACK STEEL, 6" WORLY PLUMBING SUPPLY INC.
____	____	N	95CP001586 0 00 001 163630	6	G	LT	JRM	1 0 0^	2,245.00 2,245.00 2,245.00	01/12/95 01/09/95 01/09/95	PERFORMANCE OF TESTING AND ANALYSIS MQS INSPECTION, INC.
____	____	N	95CP001598 0 00 001	001	G	EA	CJC	16 16C 0	121.40 1,942.40 1,942.40	01/06/95 09/30/93 01/05/95	BALL VALVE, 1", CLASS 150 FULL PORT, COLLINS PIPE & SUPPLY CO., INC
____	____	N	95MP001314 0 00 002 157727	157727-2	G	CY	DJW	2 2C 2^	191.66 383.32 383.32	01/05/95 11/17/94 12/16/94	19 PPM CARBON MONOXIDE IN AIR ACCUBLEND A-L COMPRESSED GASES
____	____	N	95MP001314 0 00 003 157727	157727-3	G	CY	DJW	2 2C 2^	133.75 267.50 267.50	11/30/94 11/17/94 12/16/94	19.5% OXYGEN IN NITROGEN ACCUBLEND 0% A-L COMPRESSED GASES
____	____	N	95MP001314 0 00 006 157727	157727-6	G	EA	DJW	4 0 0^	7.50 30.00 30.00	11/30/94 11/17/94 12/16/94	RENTAL FOR ITEM #3 ABOVE FOR 60 DAYS A-L COMPRESSED GASES

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____	____	N	95MP001623 169563	0	00	001	169563-1	G	EA	DJW	4 0 0	4,010.00 16,040.00 16,040.00	02/17/95 01/06/95 01/06/95	BELLIED SPLIT & SLEEVE DRAWING #BPSS-Q PLIDCO
____	____	N	95MP001623 169563	0	00	002	169563-2	G	EA	DJW	4 0 0	473.00 1,892.00 1,892.00	01/20/95 01/06/95 01/06/95	FLANGE REPAIR & RING DRAWING #FRR-553 PLIDCO
____	____	N	95PP000099 65000	0	00	001	AL2639-01	N	EA	JEC	2 2C 2	185.85 371.70 0.00	10/14/94 10/06/94 10/07/94	FLANGE BLIND 8" 304 STAINLESS STEEL KITRICK MANAGEMENT COMPANY
____	____	N	95PP000099 65000	0	00	002	AL2639-02	N	EA	JEC	2 2C 2	89.45 178.90 0.00	10/14/94 10/06/94 10/07/94	FLANGE BLIND 4" 304STAINLESS STEEL KITRICK MANAGEMENT COMPANY
____	____	N	95PP000099 65000	0	00	003	AL2639-03	N	EA	JEC	1 1C 1	25.60 25.60 0.00	10/14/94 10/06/94 10/07/94	FLANGE BLIND 1 1/2" 304 STAINLESS STEEL KITRICK MANAGEMENT COMPANY
____	____	N	95PP000099 65000	0	00	004	AL2639-04	N	EA	JEC	1 1C 1	49.90 49.90 0.00	10/14/94 10/06/94 10/07/94	COULING REDUCING 4" X 2" STAINLESS STEEL KITRICK MANAGEMENT COMPANY
____	____	N	95PP000099 65000	0	00	005	AL2639-05	N	EA	JEC	2 2C 2	30.40 60.80 0.00	10/14/94 10/06/94 10/07/94	GASKET 8" TASK-LINE KITRICK MANAGEMENT COMPANY
____	____	N	95PP000099 65000	0	00	006	AL2639-06	N	EA	JEC	16 16C 16	6.05 96.80 0.00	10/14/94 10/06/94 10/07/94	BOLTS 3/4"X 3 1/2" STAINLESS STEEL KITRICK MANAGEMENT COMPANY
____	____	N	95PP000099 65001	0	00	007	AL3062-01	N	EA	JEC	3 3C 3	25.60 76.80 0.00	10/14/94 10/06/94 10/07/94	FLANGE BLIND 1 1/2" 304 STAINLESS KITRICK MANAGEMENT COMPANY
____	____	N	95PP000099 65001	0	00	008	AL3062-02	N	EA	JEC	1 1C 1	39.75 39.75 0.00	10/14/94 10/06/94 10/07/94	FLANGE BLIND 2" 304 STAINLESS STE KITRICK MANAGEMENT COMPANY
____	____	N	95PP000099 65001	0	00	009	AL3062-03	N	EA	JEC	1 1C 1	58.05 58.05 0.00	10/14/94 10/06/94 10/07/94	FLANGE BLIND 3" 304 STAINLESS STE KITRICK MANAGEMENT COMPANY
____	____	N	95PP000099 65002	0	00	010	AL2644-01	N	EA	JEC	1 1C 0	89.45 89.45 89.45	10/14/94 10/06/94 10/07/94	FLANGE BLIND 4" 304 STAINLESS STEEL KITRICK MANAGEMENT COMPANY

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FERMCO Purchase Order Detail Report
OPEN AND CLOSED PURCHASE ORDERS

Sorted by Division, CAM, Charge Number and PO Number
17 \ BRETTSCHNEIDER DJ \ 3BPC1
CONSTRUCTION-UNH NEUTRALIZATION

OK	COMPLETE	CLOSED	PO NUMBER REL C\O LINE / REQUISITION NUMBER ITEM	ITEM NUMBER	TYPE	U/M	BUYER	QUANTITY ORDERED / RECEIVED / INVOICED	VALUES UNIT / EXTENDED / OPEN	DATES REQUIRED / REQUISITION / ISSUED	DESCRIPTION / VENDOR / DELIVER TO
		N	95PP000099 0 00 011 65002	2	O	EA	JEC	1 1C 1	39.75 39.75 0.00	10/14/94 10/06/94 10/07/94	FLANGE BLIND 2" 304 STAINLESS STEEL KITRICK MANAGEMENT COMPANY
		N	95PP000099 0 00 012 65002	AL2644-03	N	EA	JEC	3 3C 3	106.00 318.00 0.00	10/14/94 10/06/94 10/07/94	FLANGE BLIND 6" 304 STAINLESS STEEL KITRICK MANAGEMENT COMPANY
		N	95PP000099 0 00 013 65002	AL2644-04	N	EA	JEC	24 24C 24	6.05 145.20 0.00	10/14/94 10/06/94 10/07/94	BOLT 3/4"X 3 1/2" STAINLESS STEEL KITRICK MANAGEMENT COMPANY
		N	95PP000099 0 00 014 65004	AL2646-01	N	EA	JEC	1 1C 0	58.05 58.05 58.05	10/14/94 10/06/94 10/07/94	FLANGE BLIND 3" 304 STAINLESS SREEL KITRICK MANAGEMENT COMPANY
		N	95PP000099 0 00 015 65004	AL2646-02	N	EA	JEC	2 2C 0	39.75 79.50 79.50	10/14/94 10/06/94 10/07/94	FLANGE BLIND 2" 304 STAINLESS STEEL KITRICK MANAGEMENT COMPANY
		N	95PP000099 0 00 016 65004	AL2646-03	N	EA	JEC	2 2C 2	25.60 51.20 0.00	10/14/94 10/06/94 10/07/94	FLANGE BLIND 1 1/2" 304 STAINLESS STEEL KITRICK MANAGEMENT COMPANY
		N	95PP000099 0 00 017 65025	AL3065-01	N	EA	JEC	1 1C 0	58.05 58.05 58.05	10/14/94 10/06/94 10/07/94	FLANGE BLIND 3" 304 STAINLESS STEEL KITRICK MANAGEMENT COMPANY
		N	95PP000099 0 00 018 65025	AL3065-02	N	EA	JEC	3 3C 2	25.60 76.80 25.60	10/14/94 10/06/94 10/07/94	FLANGE BLIND 1 1/2" 304 STAINLESS STEEL KITRICK MANAGEMENT COMPANY
		N	95PP000099 0 00 019 65025	AL3065-03	N	EA	JEC	2 2C 2	72.65 145.30 0.00	10/14/94 10/06/94 10/07/94	ELBOW 2" WELD SCH 40 STAINLESS STEEL KITRICK MANAGEMENT COMPANY
		N	95PP000099 0 00 020 65025	AL3065-04	N	EA	JEC	1 1C 1	56.45 56.45 0.00	10/14/94 10/06/94 10/07/94	GASKET 12" TASK-LINE KITRICK MANAGEMENT COMPANY
		Y	95PP000112 0 00 001 65009	1-65009	G	GL	JEC	1 1C 1	36.10 36.10 0.00	10/12/94 10/05/94 10/10/94	SERIES 66 HI-BUILD EPOXOLINE COLOR OHIO COATING CONSULTANCE
		Y	95PP000112 0 00 003 65009	1-65009	G	GL	JEC	1 1C 1	36.10 36.10 0.00	10/12/94 10/07/94 10/10/94	SERIES 66 COLOR: SAFETY YELLOW OHIO COATING CONSULTANCE

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CONSTRUCTION-UNH NEUTRALIZATION

OK	COMPLETE	CLOSED	PO NUMBER REQUISITION	REL	C\O	LINE ITEM	ITEM NUMBER	TYPE	U/M	BUYER	QUANTITY ORDERED / RECEIVED / INVOICED	VALUES UNIT / EXTENDED / OPEN	DATES REQUIRED / REQUISITION / ISSUED	DESCRIPTION / VENDOR / DELIVER TO
____	____	Y	95PP000375 92174	0	00	001	1-92174	G	LT	JEC	2 2C 2	2,495.00 4,990.00 0.00	11/01/94 10/31/94 10/31/94	TANK CLEANING SPRAY NOZZLE ASSEMBLY TRI-VECTOR CONSULTANTS
____	____	N	95PP000520 65010	0	00	001	1-65010	G	EA	JEC	2 2C 2	26.05 52.10 0.00	04/09/44 10/28/94 10/31/94	FLANGE BLIND 2", 304 OR 316 STAINLESS TRI-VECTOR CONSULTANTS
____	____	N	95PP000520 65012	0	00	002	65012-1	G	EA	JEC	1 1C 1	15.47 15.47 0.00	11/04/94 10/31/94 10/31/94	FLANGE BLIND 1" STIANLESS STEEL TRI-VECTOR CONSULTANTS
____	____	N	95PP000520 65012	0	00	003	65012-2	G	EA	JEC	9 9C 9	23.20 208.80 0.00	11/04/94 10/31/94 10/31/94	FLANGE BLIND 1 1/2" STAINLESS STEEL TRI-VECTOR CONSULTANTS
____	____	N	95PP000520 65012	0	00	004	65012-3	G	EA	JEC	3 3C 3	42.33 126.99 0.00	11/04/94 10/31/94 10/31/94	FLANGE BLIND 3" STAINLESS STEEL TRI-VECTOR CONSULTANTS
____	____	N	95PP000520 65012	0	00	005	65012-4	G	EA	JEC	3 3C 3	59.00 177.00 0.00	11/07/94 10/31/94 10/31/94	FLANGE BLIND 4" STAINLESS STEEL TRI-VECTOR CONSULTANTS
____	____	N	95PP000520 65012	0	00	006	65012-5	G	EA	JEC	3 3C 3	88.72 266.16 0.00	11/07/94 10/31/94 10/31/94	FLANGE BLIND 6" STAINLESS STEEL TRI-VECTOR CONSULTANTS
____	____	N	95PP000520 65012	0	00	007	65012-6	G	EA	JEC	3 3C 3	1.85 5.55 0.00	11/07/94 10/31/94 10/31/94	CAP FERNCO 2" (RUBBER CAP W/BAND CLAMP) TRI-VECTOR CONSULTANTS
____	____	N	95PP000520 65012	0	00	008	65012-7	G	EA	JEC	24 24C 24	3.00 72.00 0.00	11/07/94 10/31/94 10/31/94	BOLT 3/4" X 3 1/2" STAINLESS STEEL TRI-VECTOR CONSULTANTS
____	____	N	95PP000520 65011	0	00	009	1-65011	G	EA	JEC	2 2C 2	1.85 3.70 0.00	10/31/94 10/31/94 10/31/94	CAP 2" PIPE FERNCO (RUBBER W/BAND CLAMP) TRI-VECTOR CONSULTANTS
____	____	N	95PP000520 65011	0	00	010	2-65011	G	EA	JEC	1 1C 1	26.05 26.05 0.00	10/31/94 10/31/94 10/31/94	FLANGE BLIND 2" 304 OR 316 STAINLESS TRI-VECTOR CONSULTANTS
____	____	N	95PP000520 65005	0	00	011	65005-1	G	EA	JEC	1 1C 1	88.72 88.72 0.00	11/07/94 10/31/94 10/31/94	FLANGE BLIND 6" STAINLESS STEEL TRI-VECTOR CONSULTANTS

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OK	COMPLETE	CLOSED	PO NUMBER / REQUISITION	REL	C\O	LINE ITEM	ITEM NUMBER	TYPE	U/M	BUYER	QUANTITY ORDERED / RECEIVED / INVOICED	VALUES UNIT / EXTENDED / OPEN	DATES REQUIRED / REQUISITION ISSUED	DESCRIPTION / VENDOR / DELIVER TO
		N	95PP000520 65005	0	00	012	65005-2	G	EA	JEC	3 3C 3	59.00 177.00 0.00	11/07/94 10/31/94 10/31/94	FLANGE BLIND 4" STAINLESS STEEL TRI-VECTOR CONSULTANTS
		N	95PP000520 65005	0	00	013	65005-3	G	EA	JEC	2 2C 2	23.20 46.40 0.00	11/07/94 10/31/94 10/31/94	FLANGE BLIND 1 1/2" STAINLESS STEEL TRI-VECTOR CONSULTANTS
		N	95PP000520 65005	0	00	014	65005-4	G	EA	JEC	2 2C 2	12.00 24.00 0.00	11/07/94 10/31/94 10/31/94	ELBOW 90 DEGREE, 2" WELD, SCH 40, TRI-VECTOR CONSULTANTS
		N	95PP000520 65005	0	00	015	65005-5	G	EA	JEC	8 8C 8	2.95 23.60 0.00	11/07/94 10/31/94 10/31/94	BOLTS 3/4" X 3 1/4" STAINLESS STEEL TRI-VECTOR CONSULTANTS
		N	95PP000520 65020	0	00	016	1-65020	G	EA	JEC	3 3C 3	169.50 508.50 0.00	10/31/94 10/31/94 10/31/94	FLANGE 8" BLIND 304 OR 316 STAINLESS TRI-VECTOR CONSULTANTS
		N	95PP000520 65020	0	00	017	2-65020	G	EA	JEC	1 1C 1	59.00 59.00 0.00	10/31/94 10/31/94 10/31/94	FLANGE 4" BLIND 304 OR 316 STAINLESS TRI-VECTOR CONSULTANTS
		N	95PP000520 65020	0	00	018	3-65020	G	EA	JEC	3 2 2	24.50 73.50 24.50	10/31/94 10/31/94 10/31/94	GASKET 8" TASK-LINE TRI-VECTOR CONSULTANTS
		N	95PP000520 65020	0	00	019	4-65020	G	EA	JEC	24 24C 24	3.00 72.00 0.00	10/31/94 10/31/94 10/31/94	BOLT 3/4" X 3 1/2" STAINLESS STEEL TRI-VECTOR CONSULTANTS
		N	95PP000526 65014	0	00	001	1-65014	G	EA	JEC	1 1C 1	1,646.00 1,646.00 0.00	10/31/94 10/31/94 10/31/94	PLIDCO 1" VALVE OVERSLEEVE PLIDCO
		N	95PP000526 65014	0	00	002	2-65014	G	EA	JEC	1 0 1	411.50 411.50 0.00	10/31/94 10/31/94 10/31/94	PREMIUM PLANT TIME FOR ITEM 001 PLIDCO
		Y	95PP000651 121852	0	02	001	121852-1	G	EA	JEC	2 2C 2	3,005.00 6,010.00 0.00	11/30/94 11/03/94 11/14/94	WILDEN AIR DIAPHRAGM PUMP TRI-VECTOR CONSULTANTS
		Y	95PP000651 121852	0	02	002	121852-2	G	EA	JEC	4 4C 4	4,807.00 19,228.00 0.00	11/30/94 11/03/94 11/14/94	WILDEN AIR DIAPHRAGM PUMP TRI-VECTOR CONSULTANTS

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OK	COMPLETE	CLOSED	PO NUMBER REL C\O LINE / REQUISITION NUMBER	ITEM NUMBER	TYPE	U/M	BUYER	QUANTITY ORDERED / RECEIVED / INVOICED	VALUES UNIT / EXTENDED / OPEN	DATES REQUIRED / REQUISITION / ISSUED	DESCRIPTION / VENDOR / DELIVER TO
		Y	95PP000651 0 02 003	003	G	EA	JEC	4 4C 4	20.00 80.00 0.00	11/28/94 09/30/93 11/14/94	MUFFLER FOR M8/KT PUMP TRI-VECTOR CONSULTANTS
		Y	95PP000856 0 00 001 65016	65016-1	G	EA	JEC	2 2C 2	12.00 24.00 0.00	11/24/94 11/21/94 11/21/94	YELLOW RAINCOATS WITH HOODS SIZE 1X LYNX SUPPLY
		Y	95PP000856 0 00 002 65016	65016-2	G	EA	JEC	4 4C 4	12.00 48.00 0.00	11/24/94 11/21/94 11/21/94	YELLOW RAINCOATS WITH HOODS, SIZE 2X LYNX SUPPLY
		Y	95PP000856 0 00 003 65016	65016-3	G	EA	JEC	2 2C 2	14.75 29.50 0.00	11/24/94 11/21/94 11/21/94	YELLOW RAINCOATS WITH HOODS, SIZE 3X LYNX SUPPLY
		Y	95PP000932 0 00 001 65931	65931-1	G	EA	JEC	1 1C 1	1,945.00 1,945.00 0.00	11/29/94 11/29/94 11/29/94	MOTOR, 60 H.P., 1760 RPM, 440 VOLT MATLOCK ELECTRIC
		N	95PP000972 0 00 001 65017	65017-1	G	EA	JEC	1 1C 0	868.00 868.00 868.00	12/16/94 11/21/94 11/29/94	VALVE 4" FLANGED STAINLESS STEEL PLUG MUTUAL MFG. & SUPPLY CO.
		N	95PP000972 0 00 002 65019	65019-1	G	EA	JEC	50 50C 50	10.20 510.00 0.00	12/16/94 11/21/94 11/29/94	FLANGE BLIND 1/2" STAINLESS STEEL MUTUAL MFG. & SUPPLY CO.
		N	95PP000972 0 00 003 65019	65019-2	G	EA	JEC	50 50C 50	11.80 590.00 0.00	12/16/94 11/21/94 11/29/94	FLANGE BLIND 3/4" STAINLESS STEEL MUTUAL MFG. & SUPPLY CO.
		N	95PP000972 0 00 004 65019	65019-3	G	EA	JEC	50 50C 50	12.75 637.50 0.00	12/16/94 11/21/94 11/29/94	FLANGE BLIND 1" STAINLESS STEEL MUTUAL MFG. & SUPPLY CO.
		N	95PP001455 0 00 001 139780	139780-1	G	EA	JLS	15 15C 0	18.38 275.70 275.70	01/16/94 12/27/94 12/28/94	SHEETS OF RUBBER INSULATED MATERIAL EA R.E. KRAMIG & COMPANY, INC.
		N	95PP001508 0 00 001 139779	139779-1	G	EA	JLS	6 0 0	708.50 4,251.00 4,251.00	01/17/95 09/30/93 01/05/95	MODEL #7500EB PORTABLE EYE WASH STATIO MUTUAL MFG. & SUPPLY CO.
		N	95PP001508 0 00 002 139779	139779-2	G	EA	JLS	5 0 0	1,241.50 6,207.50 6,207.50	01/17/95 09/30/93 01/05/95	MODEL 7601.10.2 PORTABLE EYEWASH STATIO MUTUAL MFG. & SUPPLY CO.

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CONSTRUCTION-UNH NEUTRALIZATION

OK	COMPLETE	CLOSED	PO NUMBER REL C\O LINE REQUISITION NUMBER ITEM	ITEM NUMBER	TYPE U/M	BUYER	QUANTITY ORDERED RECEIVED INVOICED	VALUES UNIT EXTENDED OPEN	DATES REQUIRED REQUISITION ISSUED	DESCRIPTION VENDOR DELIVER TO
____	____	N	95SP000434 0 00 003 163409	163409	G LT	CDP	1 0 0^	9,500.00 9,500.00 9,500.00	04/12/95 10/25/94 10/26/94	TEMPORARY EXPEDITING SERVICES FOR THE BELCAN BUSINESS TEMPORARIES

CHARGE NUMBER SUMMARY BLOCK

TOTAL CHARGE NUMBER	Total Number of PO's 228	$3,019,847.52

GRAND TOTAL: Total Number of PO's 228 $2,696,242.70

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February 1, 1995

Purchase Order Checklist

PO/Req.#	Commodity	Spec. Desc. matches PO Desc.	Spec. Del. matches PO Del.	Comm. Rec. matches PO Desc.	Del. Rec. matches PO Desc.	Comm. Rec. matches Spec.	Del. Rec. matches Spec.	Comments
95CP00 1586	FAILURE ANAL. ON FRACTURED	N.A						
163630	WELD							
94 CP003434	DRYWALL	N.A						
136157	STUDS							
94CP00373	ELECTRICAL	NO	NO	NO				
133597	CONDUIT &			RECEIVING				
(ITEMS 1,2,5)	#1 COPPERWIRE			REPORT				

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ITEM 17

PO/Req.#	Commodity	Spec. Desc. matches PO Desc.	Spec. Del. matches PO Del.	Comm. Rec. matches PO Desc.	Del. Rec. matches PO Desc.	Comm. Rec. matches Spec.	Del. Rec. matches Spec.	Comments
95CP001407	WELDOLETS	~~YES~~ TW			NOT			
~~H60668~~		SEE 40 3000# 316 SS	? ~~YES~~ NO	YES	REQUESTED			REQ LINE OUT
95CP001476	FORM GLASS	INCOMPLETE	NO	No Shipping	NOT			
163504	INSULATION			docs in	REQUESTED			
				file				
95CP001578	CLEVIS	INCOMPLETE	N.A	No shipping docs in file				INCONSEQUENTIAL
160671	HANGERS							
95CP001598	BALL	YES	YES					
160667	VALVES							

000117

PO/Req.#	Commodity	Spec. Desc. matches PO Desc.	Spec. Del. matches PO Del.	Comm. Rec. matches PO Desc.	Del. Rec. matches PO Desc.	Comm. Rec. matches Spec.	Del. Rec. matches Spec.	Comments
95CP001211	ptl Probe	APPROVED BY PARSONS						
163625								
95CP001292	PIPE	A106 vs A-53	NO	YES	NOT			
160654	ELBOWS	A-197 vs A-105		No shipping docs	REQUESTED			
GALVANIZED	COUPLINGS	"		" " "				
	UNIONS	"		" " "				
95CP001327	SPEED CONTROL	?		No shipping				
163633	MUFFLERS			docs				
95CP001340	Surge Supressor	?		No shipping				BLACOH
163632				docs				SENTRY I
95CP001343	Piping	YES	NO	No shipping				Worley quoted sch 40
160661	Elbows	(left out 40) YES		docs				
95CP001345	Gaskets	YES	NO	No shipping	NOT			
160663				docs	REQUESTED			
95CP001385	Hex Nuts							
~~160665~~	ROD COUPLINGS ALL THREAD							REQUISITION # LINED OUT

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000118

0001191

PO/Req.#	Commodity	Spec. Desc. matches PO Desc.	Spec. Del. matches PO Del.	Comm. Rec. matches PO Desc.	Del. Rec. matches PO Desc.	Comm. Rec. matches Spec.	Del. Rec. matches Spec.	Comments
95CP000795	SUPPLIES	NOT APPLICABLE						
163505								
95CP000896	WILDEN PUMP	NOT SPEC'D	N.A.	YES	NOT			
160742	DIAPHRAM	BY PARSONS			REQUESTED			
95CP000920	PIPING (SS)	YES	NO	No Receiver				
160749	FLANGES			in Files				
95CP000929	SUPPLIES	NOT APPLICABLE						
160651								
95CP000948	Solenoid	NO	NO		NOT			SEE P.O 95CP000809
160741	Valves				REQUESTED			Folder?
95CP000167	WILDEN	NOT SPEC'D	NA	No Vendor				
163627	O-RINGS	BY PARSONS		shipping paper				~~SS Plates w/~~
95CP000175	SS. Plates 1" x 2" w/ 1/8" Holes & 24ga SS WIRE	NOT SPEC'D						
160656		BY PARSONS						

PO/Req.#	Commodity	Spec. Desc. matches PO Desc.	Spec. Del. matches PO Del.	Comm. Rec. matches PO Desc.	Del. Rec. matches PO Desc.	Comm. Rec. matches Spec.	Del. Rec. matches Spec.	Comments
95CP000055	PH ANALYZER	REVIEWED & APPROVED BY PARSONS FOR SUPPLY OF GREAT LAKES INSTRUMENTS INC. BASED ON SUBMITTAL OF DATA						
162284		YES	NO	YES	NOT			ONLY ATT DATA SHEET
					REQUESTED			
95CP000181	PIPING	YES	NO	No Receiver	NOT			RE
163577	Ball Valves			in File	REQUESTED			
95CP000482	WILDEN PUMP	NOT	NOT	Y No	NOT			DUMP NOT
163592	SEAL MONITOR	APPLICABLE	REQUESTED	Receiver in File	REQUESTED			ORIGINALLY SPECIFIED
95CP000538	Piping (SS)	YES	NO	YES	YES			~~[illegible]~~ PO didn't specify ASTM
163595	& FITTINGS				MILL TEST			# FOR FITTINGS
95CP000389	LOCK OUT	PARSONS DIDN'T	NO	No Receiver	NOT			
133328	DEVICES	SPECIFY (?)		in File	REQUESTED			
95CP000584	Insulation	FIBER GLASS VS	NO	YES	NOT			DOESN'T
163497		CELLULAR GLASS			REQUESTED			MATTER
95CP000633	Air HOSE	NOT SPEC'D	~~YES~~/NO	YES	NOT			
163596		BY PARSONS	NO		REQUESTED			

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000120[illegible]

ITEM #1

PO/Req.#	Commodity	Spec. Desc. matches PO Desc.	Spec. Del. matches PO Del.	Comm. Rec. matches PO Desc.	Del. Rec. matches PO Desc.	Comm. Rec. matches Spec.	Del. Rec. matches Spec.	Comments
94CP006615	Piping	NOT	NOT	NOT	NOT			
162304	scrubber flanges	APPLICABLE	APPLICABLE	APPLICABLE	APPLICABLE			
94/CP006672	Instrumento	YES	YES	YES	YES			ATTACHED FG-301
162303	SightFlowIndicato				CUT SHEET			DATA SHEET
94/CP006763	Piping(PK		Receiving Report &	RECEIVING	N			
162302	Pipe	YES	Packing Slip	REPORT	P			
	Elbows	No	Not in File & Not Requested	NOT IN				Didn't list ASTM=434
	TEES	NO		FILE				Didn't list ASTM F439
	Flanges	NO						Didn't list ANSI B16.5
	?	?						& ASTM D-1784
	Nipples	No						Didn't list
	Primer	No						Didn't list ASTM=658
	Cement	NO						Didn't list ASTM F493
	Butterfly Valve	No						Didn't list Viton from
		Rubber Gasket	← VS. TE	FLON ?				
94/CP006802	Stainless	?						
163584	Steel Rod							Use unknown
94/CP000012	SUPPLIES	NOT APPLICABLE						
163583								

0001211

PO/Req.#	Commodity	Spec. Desc. matches PO Desc.	Spec. Del. matches PO Del.	Comm. Rec. matches PO Desc.	Del. Rec. matches PO Desc.	Comm. Rec. matches Spec.	Del. Rec. matches Spec.	Comments
94CP005418	Gaskets	PER APPROVED FCR	PER APPROVED FCR - N/A	YES	N.A.			
160884								
94CP005585	CONST.	NOT APPLICABLE		→	→	→	→	
136161	SUPPLIES							
94CP005588	Piping	No		YES				
160905	Nipples (C.S.)	Astm grade Not Specified	NO		NOT SPEC'D			
					~~SPEC~~			
94CP005591	Piping	YES	NO	No Packing	NOT			
160881	Studs (S.S.)			Slip	SPECIFIED			
94CP005918	Piping	YES	NOT REQ'D	No Receiving			-	
160920	Strainers			Report or Packing List				
94CP006039	Electrical							
160971	Fittings	Requisition per manufacturer - Sealtite 3/4" LBI-50 & LBI-75						
94CP006122	Piping	YES	NO	No receiving	NOT			SS. 304L NOT ASTM193
160959	Studs			paperwork	SPEC'D			

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ITEM 1/7

PO/Req.#	Commodity	Spec. Desc. matches PO Desc.	Spec. Del. matches PO Del.	Comm. Rec. matches PO Desc.	Del. Rec. matches PO Desc.	Comm. Rec. matches Spec.	Del. Rec. matches Spec.	Comments
95CP00149	Ball Valves	No YES receiving	No documents in file	?	NOT			Replacement for leaking valve
163631					SPECIFIED			
94CP002354	Pipe & fittings	YES	"YES"	Not yet in file	Partial			Included with selection guide & Specification
113996								
94CP00057	Electrical	See PO 94CP	003733 · Balance of order placed with Richard Electric					
(see)		This order	placed with FD. Lawrence for a "Hoffman" electric panel box"					
94CP00458	Instruments	No	No	No	No			
133609		only the data sheet was	attached to the requisition. This is clearly not					
		adequate. Requires	Parsons verification that the 6 panel-mounted					
		TI's are acceptable.						
94CP00473	Ball valves	YES	NO	YES	NOT			
133479					SPECIFIED			
94CP00492	Paint	NO	NO	YES	Paper lost			
133581		Specified by manufacturer catalog						
94CP00532	Instruments	NOT	NO		NOT			
	Pressure Gages	SPECIFIED BY PARSONS	NOT SPEC	No spec'd by Parsons	SPECIFIED			
	thermal relief valve	YES	NO	YES				

000123

PO/Req.#	Commodity	Spec. Desc. matches PO Desc.	Spec. Del. matches PO Del.	Comm. Rec. matches PO Desc.	Del. Rec. matches PO Desc.	Comm. Rec. matches Spec.	Del. Rec. matches Spec.	Comments
95PP000099	FLANGE BLIND 8" 304 SS (PIPE TO 4" & 1½", ALL 150#)				P.O. NOT IN FILE			
65000	COUPLER, REDUCING	4"x2" SS		SCH 40	WELD			
6501*	GASKET	8" TASK LINE						
6504	BOLTS ¾"x 3½" SS							
65025	ELBOW 2" *	WELD SCH 40 304		SS ALSO	SPEC'D BLIND FLANGES		304 OR	316 SS
94005455	304ss BLIND	N	N	SHIPPED 150# E 304	REJECTED BY QA			
64994	FLANGES			ANSI RF BLIND	PO NOT IN FILE			
E 64938	BOLTS-SS ¾" x3½" N			FLANGE E 304 L-4	VENDOR TRI-VECTOR			
95PP000112	PAINT	Series 66	Hi-Build	Epoxoline	(2 part system) PO NOT IN FILE			
65009								
95PP000520	Flange Blind 2", 304 or 316			SS. 150#	PO NOT IN FILE			
65005 65010								
65020 65011								
65012								
95PP000526	PLUGD				PO NOT IN FILE			
	oversleeve							

00012406

6588

PO/Req.#	Commodity	Spec. Desc. matches PO Desc.	Spec. Del. matches PO Del.	Comm. Rec. matches PO Desc.	Del. Rec. matches PO Desc.	Comm. Rec. matches Spec.	Del. Rec. matches Spec.	Comments
94PP00 5930	OFFICE	N.A →					→	
133226	SUPPLIES							
94SP00 4576	PRICE PACKING	NA →					→	
12884	DEVCON METAL EPOXY							
	SP SEALANT							
	TECH. SUPPORT							
95PP00 0972	VALVE 4"	FLANGED S.S. PLUG VALVE						
65017	FLANGE BLIND 1/2"	SS 304 or 316						
65019	"	" 3/4"	" "	" " #150				
	"	" 1"	" "	" " #150				
94PP00 6756	COMPUTER	NA →					→	
125726	PLOTTER, ETC							
94PP00 6083	LEWIS SYSTEM CONTAINERS			NA →			→	
96183								
94PP00 0932	MOTOR, 60 HP, 1760 RPM, 440 VOLT, 3 PH, 60 HZ,					MOTOR FRAME 445 OP		
	65931							

0001250001

		Desc. matches PO Desc.	Del. matches PO Del.	Rec. matches PO Desc.	matches PO Desc.	Rec. matches Spec.	matches Spec.	Comments
94SP003448	S.S. WASHERS	NO	NO RECEIVING REPORT					BOUGHT 131
65066	5/8 "							
94PP003334	Fluorosilicone sealant &	NO	NO RECEIVING REPORT					COMBINED WITH
128541	gun							9BAA2 ORDER
94SP002890	PLICDO SEALANT, GUN &	NO	RECEIVING REPORT — NO SHIPPING DOCS.					BLUE "Receiver
128898	RINGS							Instruction Sheet"
94SS006849	ANALYTICAL							
	SERVICES							

000126

6588

Showcase ~~[illegible]~~ Procurement - Thurle

PO/Req.#	Commodity	Spec. Desc. matches PO Desc.	Spec. Del. matches PO Del.	Comm. Rec. matches PO Desc.	Del. Rec. matches PO Desc.	Comm. Rec. matches Spec.	Del. Rec. matches Spec.	Comments
94PP006250	BLOWER,	NO PARSONS	NO RECEIVING DOCUMENTS IN "COMPLETED" FILE					
163351	VINYL HOSE	SPEC.						
	& DUCT COUPLER							
94SP002620	"RING" GASKETS	NO	RECEIVING, BUT NO SHIPPING DOCS. "COMPLETED" FILE NOT. SPEC'D					MAINTENANCE
128892		PARSONS' SPEC?						
94PP005637	GASKETS	NO	NO RECEIVING REPORT					MAINTENANCE
64991	BOLTS	PARSONS' SPEC?						
94SP005396	"304 STAINLESS	NO	NO RECEIVING REPORT					MAINTENANCE
64995	STEEL"	PARSONS' SPEC?						
94SP004987	BALL VALVES, NIPPLES, TEES	NO	NO RECEIVING REPORT					MAINTENANCE
65081 —	FLANGES, REDUCERS SLIP ON FLANGES —							
	COUPLINGS, BUSHINGS							
94SP004986	COUPLERS, ADAPTERS, DUST CAPS &	NO	NO RECEIVING REPORT					MAINTENANCE
65089	DUST PLUGS							
94SP004641	PUMP (SS rotor polyphenylene	NO. ORDERED	NO RECEIVING REPORT					
115890	sulfide housing	BY MODEL NO.						
	& Tygon tubing							

000127

PO/Req.#	Commodity	Spec. Desc. matches PO Desc.	Spec. Del. matches PO Del.	Comm. Rec. matches PO Desc.	Del. Rec. matches PO Desc.	Comm. Rec. matches Spec.	Del. Rec. matches Spec.	Comments
(9) 94SP001723	SS/Ball Valve	?	?	N	N			Shannon/OGG
	3/4" Fittings							QA/QL4
	Flange							Hoskins
	* Note - no PO in file							~~no evidence of~~
(10) 95PP000651	• 2 Wilden	?	?	N	N			DeMarco
	Air Diaphragm Pumps							OGG
	M-4							no QA/QL4
	• 4 - M8							
	• Muffler							
(11) 94CP003709	SS/Weldolets	N	N	Y	Y			Schneider
	Flanges							OGG
	Reducers							no QA/QL4
	Tees							
	400' 3" Pipe							
	Elk							
	600' 3" Pipe			N				

only on 9BAA2

→ no Vendor documentation in file.

→ no Vendor documentation or packing list in file

• seamless not on PO or packing list

→ None

→ brief desc. only on packing list. PF [illegible] PF delivered

000128

6588

PO/Req.#	Commodity	Spec. Desc. matches PO Desc.	Spec. Del. matches PO Del.	Comm. Rec. matches PO Desc.	Del. Rec. matches PO Desc.	Comm. Rec. matches Spec.	Del. Rec. matches Spec.	Comments
(4) 94SP004895	Carbon Steel Pipe Plug	?	?	N	N			Brandstetter OGG
				→ no vendor packing list or documentation				QL4 no QA
(5) 94SP004896	SS/ Flange 304	?	?	N	N			Shannon/OGG
				no vendor packing list or documentation				no QA/ /QL4
(6) 94SP004400	SS/ Flanges	?	?	N	N			Shannon/OGG
				← no vendor packing list or documentation				no QA/ [redacted] / No trigger at receiving
(7) 94SP003957	SS/ 1" Rod	?	?	N	N			Shannon/OGG
	1" Nuts	↓	↓	↓	↓			no QA/QL4
	1" Washers	↓	↓	↓	↓			
				→ no vendor packing list or documentation				
(8) 94PP003394	Various Tools	N/A	→				→	Pete Doll (Plant 8)
(9BAA2)	"C" Clamps	?	?	N				M. Townsend
SS	Hose Clamps	banding					→	Romine/OGG
	Extension Cords							

			Desc. matches PO Desc.	Del. matches PO Del.	Rec. matches PO Desc.	matches PO Desc.	Comm. Rec. matches Spec.	Del. Rec. matches Spec.	Comments
①	94RP006207	Pressure Test Air Manifold (Service)	?	N	Y*	Y (more)			Steve Shannon
		– Hydrostatic leak test on Air Manifold per ASTM E-1003-84, 6750 psig for 10 min.							No QA/QC4
		* They attached copy of ASTM std							
		no Test Report, Testing Equip Calib, Test Procedure not supplied by Vendor.							
		– PO did not specify any deliverables Vendor did send letter indicating "HAS SATISFIED" test parameters. No Test Report.							
②	94PP005623	Gate Valve Lockouts	?	?	N	N			Dona Dowd 066
		Ball Valve Lockouts	?	?	N	N			(Maintenance)
		No Vendor packing lists on files							
③	94SP005113	SS/F Flanges	* ?	?	N	N			Shannon/066
			* Whose Spec?		→ no Vendor packing list or other documentation				** No QA/QC4

** – PR does reflect that flanges must be #150, made in USA so as to pass QC.

000130

PO/Req.#	Commodity	Spec. Desc. matches PO Desc.	Spec. Del. matches PO Del.	Comm. Rec. matches PO Desc.	Del. Rec. matches PO Desc.	Comm. Rec. matches Spec.	Del. Rec. matches Spec.	Comments
110 95CP001441	Welding Rod	?	?	N	N			Ruhl/Brettschneider
	1/8" 309-16	?		N	N			
	3/32 SS	.	?					no QA/QL4
				no Vendor packing list				
111 94CP005165	Thermocouples	N	N	N	Y (none)			McCall/OGG
				no vendor packing lists				no QA/QL4
		PO lists part #.						
112 94CP002382	1½ Conduit	N	N	~~N~~	~~N~~ (none)			
	Unistrut	N/A	N/A	N	N			
		No Spec.						
		No Speced DR req.		Vendor Packing lists				

000131

			Desc. matches PO Desc.	Del. matches PO Del.	Rec. matches PO Desc.	Del. Rec. matches PO Desc.	Comm. Rec. matches Spec.	Del. Rec. matches Spec.	Comments
105	95CP001136	Sensor Cables	?	?	N	N			Brennan
			not specifically addressed in pump spec.						Brettschneider
					no vendor packing list				no QA/QL4
106	95CP001158	Torque Wrench	→	→	N	Y (none)			Ruhr/Brettschneider
				No vendor packing list					
107	95CP001301	~~[illegible]~~							Riehle/Brettschneider
		Swagelock Tubing							no QA/no QL
		3/8" x 1/4 NPT	Y	N	N	Y (none)			
		3/8" x 1/2" NPT	Y	N	N	Y			
					no Vendor packing list				
					- no Remia K&C				
					- Inventory printout only				
108	95CP001384	Angle Iron	?	?	N	N			Riehle/Brettschneider
		2x2x1/4							
		3x3x1/4							
		Flat Iron							
		2 x 3/8"							
				no Vendor packing list in file					
109	95CP001403	Chicago fittings	N	N	N	Y (none)			Riehle/Brettschneider
					Vendor packing list references				
					Vendor stock number				no QA/QL4
					— Remia K&C				

6588

0001321000

0001333

PO/Req.#	Commodity	Spec. Desc. matches PO Desc.	Spec. Del. matches PO Del.	Comm. Rec. matches PO Desc.	Del. Rec. matches PO Desc.	Comm. Rec. matches Spec.	Del. Rec. matches Spec.	Comments
(101) 95CP000917	Leak Detection Switches	?	?	N	N (none)			McCall/Brettschneider
				→ No Vendor packing list				QC4
								no QA
(102) 95CP000928	Pipe Insulation	N	N	Y	Y (none)			Cable/OCG
	Rivets (all SS)	N/A	N/A	Y	Y (none)			no QA/QC4
		→ Spec and Execution specify #7 x 3/8" screws, sheet metal type 302 or 304 stainless						
		→ No mention of pop rivets						
		→ Vendor packing list						
(103) 95CP001029	SS/Flanged Coupling	N	N	N	Y (none)			Riehle/Brettschneider
		Y	N	N	Y (none)			
		→ Spec indicates either weld neck or blind						
		→ PO indicates Slip on ??						
				→ Vendor packing list has shorthand for parts				
(104) 95CP001123	Teflon Diaphragm for Pumps	?	?	Y	Y (none)			Brennan/Brettschneider
	Teflon gasket list	?	?	Y	Y (none)			no QA/QC4

? Vendor packing list.

			Desc. matches PO Desc.	Del. matches PO Del.	Rec. matches PO Desc.	matches PO Desc.	Rec. matches Spec.	matches Spec.	
(97)	95CP000715	Carbon Steel/Tees	Y*	N	N				Riehle/OGG
		Flanges	N	N	N				no QA/QL4
			*. did not indicate seamless in desc.						
					Vendor shorthand on packing list.				
(98)	95CP000742	Pipe Insul.	N	N	N	Y (none)			Goble/OGG
		Jackets	N	N	↓	↓			no QA/QL4
		Banding Mat	N	N					
					→ Vendor shorthand on packing list				
		Description of Insulation, Jackets, etc does not identify K values, Temp rating, ASTM C552 conformance. Spec has specific requirements for each item ~~except banding material~~ including banding material.							
(99)	95CP000765	Lumber	?	?	Y	Y (none)			McElroy/OGG
				Vendor packing list.					QL4
	95CP000820	Pressure switch	?	?					Brettschneider only
			PR identifies Part # & desc. (but no Spec Sheet)						
			PO identifies Part #						no QA/QL4
			Vendor Packing list references Part #						
			→ Do Specs identify (spec) Pressure switch?						
(100)	SS/ Flange →		N	N	N	N			Riehle/Brettschn.
	Elbows		Y	↓	↓	↓			no QA/QL4
	Plugs →		?						
	95CP000898		→ Flanges are spec Grade F304L, ASTM A182						
			PO calls out Grade WP (no vendor packing list						

000134 100

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PO/Req.#	Commodity	Spec. Desc. matches PO Desc.	Spec. Del. matches PO Del.	Comm. Rec. matches PO Desc.	Del. Rec. matches PO Desc.	Comm. Rec. matches Spec.	Del. Rec. matches Spec.	Comments
	PO 20 ft of 1½" A106 ordered (This is not a Spec pipe) seamless							
	20 ft of 1½ A106 delivered (Note A53 on PR)							
	-20 ft of 2", Carbon Steel, Std Wt, ASTM 53 Grade B (Ordered							
	(left off seamless requirement							
	-20 ft of .154 W STD ERW A53 B (crossed out with A) delivered							
94 95CP000703	SS/GASKETS	?	?	N	Y (none)			Riehle/OGG
				↳ Vendor shorthand on Packing List				no QA/QL 4
95 95CP000704	Air Hoses	?	?	N	Y (none)			Riehle/OGG
	Couplings	?	?	N	Y (none)			no QA/QL 4
				↳ Vendor part # & shorthand desc. on packing list				
96 95CP000710	3/4" STUDS	Y	N	N	N			Riehle/OGG
	" NUTS	↓	↓	↓	↓			no QA/QL 4
	1/2" STUDS	↓	↓	↓	↓			(SUSPECT BOLT)
	" NUTS	↓	↓	↓	↓			
				↳ no vendor packing list in file				NO
				- no Remia K&C (what is in file				
				to the Remia printout of inventory - printed				
				subsequent to K&C)				

000135

			Desc. matches PO Desc.	Del. matches PO Del.	Rec. matches PO Desc.	matches PO Desc.	Rec. matches Spec.	matches Spec.	
(91)	95CP000555	1" Galvanized pipe	?	?	N	Y			No QA
		Galvanized fittings			Y				QL 4
		elbows							
		Coupling				(none)			
		Ball Valve							
		Clevis Hangers							
		Rod							
		Clamps							
			Pipe PO indicates ASTM A53, Vendor packing list indicates A106, Remia K&C does not reflect/note substitution.						Ruhle/066
(92)	95CP000685	Filter/Regulator	Y	N	Y	Y			Ruhle/066
		Lubricator	Y	N	Y	X (None)			No QA/QL4
			by part #						
(93)	95CP000687	Plastic Pipe	N	N					
		Flanges							
		Coupling							
		Ells							
		1" Galv Pipe							
		Unions							
		Nipples							
		Ball Valves							
		Carbon Pipe							
		2"							
		1"							

— Pipe substitutions A53 ordered A106 received (see next page)

000136

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	PO/Req.#	Commodity	Spec. Desc. matches PO Desc.	Spec. Del. matches PO Del.	Comm. Rec. matches PO Desc.	Del. Rec. matches PO Desc.	Comm. Rec. matches Spec.	Del. Rec. matches Spec.	Comments
(86)	95CP000220	SS/ STUDS	?	?	Y	Y (none)			Schneck/QCG
		BOLTS	↓	↓	↓	↓			
		NUTS	↓	↓	↓ Vendor Packing list				NoQA/QC4
(87)	95CP000439	Weld Rod	?	?	Y	Y (none)			
		3/32-7018	↓	↓	↓	↓		no QA	QC4
		1/8 -7018	↓	↓	↓				
(88)	95CP000477	Air Pressure Switches	Y	N	Y	Y (none)	Y	N	Ruble/
			# PR copied Spec data sheet, and used part #						noQA/ noQC
			to Part Number, Vendor packing list references part #						
(89)	95CP000478	Solenoid Valve	Y	N	N	Y (none)			Ruble/
			PR specified Manufacturer Part # from Spec.						
			PO referenced Part #.						
			→ no Vendor packing list on pkg						
(90)	95CP000483	Filter/Regulator	Y	N	Y	Y (none)	Y		Ruble/ S
					↳ By part # as per PO as per PR.				

			Desc. matches PO Desc.	Del. matches PO Del.	Rec. matches PO Desc.	matches PO Desc.	Rec. matches Spec.	Del. Rec. matches Spec.	Comments
82	94CP006675	Various items	N	N	Y	Y (none)			Gable/OGG
	for pipe insulation	foamglas pipe							
		alum. jackets							no QA/QL4
		Steel bands							
		~~alu. Ells~~							
83	95CP000018	CS/Ball Valve	Y	N	N	Y (none)			Riehle/OGG
					↳ Vendor shorthand on packing list				no QA/QL4
84	95CP000050	Multimeter	?	?	Y	Y/None			Brennan/OGG
		Probe							
		Tester				Vendor packing list			no QA/QL4
85	95CP000173	Carbon Steel							
		Ells	Y	N	Y				Schneider/OGG
		Tees							
		Flanges							No QA/QL4
		Coupling							
		1" Pipe			N				
		Clevis Hanger	N		Y				
					A53 pipe spaced & on PO				
					A106 pipe delivered & received				
		No mention on R&C or packing list of substitution.							

000138000

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PO/Req.#	Commodity	Spec. Desc. matches PO Desc.	Spec. Del. matches PO Del.	Comm. Rec. matches PO Desc.	Del. Rec. matches PO Desc.	Comm. Rec. matches Spec.	Del. Rec. matches Spec.	Comments
(37) 94CP006320	Carbon Steel Flanges	Y	N	N	Y			Riehle/066
	Reducer	Y	N	N	Y (none)			no QA/QC 4
				→ Vendor short hand on packing list				
(78) 94CP006326	SS Flanges	N	N	N				Schneider/066
	Teflon Gaskets	N	N	Y				no QA/QC 4
		→ Drilled & tapped		→ does not mention drill & tap.				
DESIGN								
(74) 94CP006485	Coaxial Cable	?	?	Y	Y (none)			Montach/066
	Splice	?	?	Y	Y (none)			no QA/QC 4
				→ By part # only on Vendor packing list				
(50) 94CP006522	Carbon Steel							
	Gate Valves	Y	N	N	Y (none)			Riehle/066
	Tees	Y	N	N	Y			no QA/QC 4
	Gaskets	Y	N	N	Y			
				→ used Vendor name on packing list				
(51) 94CP006633	Air Regulator	?	?	N	Y (none)			Riehle/066
				→ Vendor name on packing list				no QA/QC 4

	PO/Req.#	Commodity	Spec. Desc. matches PO Desc.	Spec. Del. matches PO Del.	Comm. Rec. matches PO Desc.	Del. Rec. matches PO Desc.	Comm. Rec. matches Spec.	Del. Rec. matches Spec.	Comments
(71)	94CP005587	Scaffolding various	N?	N?	N	Y (none)			McElroy/066
					Vendor packing list is very basic				no QA/no QC
					- Remia K&C				
(72)	94CP005646	1" SS Chicago Hose fitting	N?	N	N	Y (none)			Riehle/066
					Vendor short name on packing list				no QA/QL4
(73)	94CP005652	SS/Weldolite Sockolite reducers	Y	N	Y	Y (none)			Riehle/066
					Vendor packing list				no QA/QL4
(74)	94CP005839	Vendor Rod Beam Clamps Condulets	N	N	N/A	None			QL4
									no QA
					no packing lists or Remia K of C				
(75)	94CP005891	Concrete 5 yds	?	N	Y	Y			McCall/066
						Batch ticket included			no QA/QL4
(76)	94CP005979	Electrical Boxes Box covers #14 stranded wire #12 "	N	N	Y	Y (none)			Murtach/066
									no QA/QL4
		Fuse blocks Contacts Switches							

Vendor packing lists ...

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000140

	PO/Req.#	Commodity	Spec. Desc. matches PO Desc.	Spec. Del. matches PO Del.	Comm. Rec. matches PO Desc.	Del. Rec. matches PO Desc.	Comm. Rec. matches Spec.	Del. Rec. matches Spec.	Comments
(64)	94CP005414	Direct Steam Pipeline Heater	Y?	N →	Y	N (none)			Riehle/no QA/QC
			→ Spec not attached to PO (in file), description is not sufficient						
			→ Spec specifically requires bid & award submittals, This info is not on PO.						
			– Vendor packing list						
			– Remia K&C						
(65)	94CP005427	NEMA enclosure	N	N	N	Y (none)			Mustang/066 no QA/QC
			→ Vendor packing list lists "Box" & part #.						
			– Remia K&C.						
(66)	94CP005436	SS reducers	Y	N	Y	Y (none)			Riehle/066 no QA/QC
		flanges	Y	N	Y	Y			
(67)	94CP005445	contact Block	N?	N	Y	N (none)			Shipped/066 no QA
			– Vendor Packing list, Remia K&C						
(68)	SS flanges 94CP005494	N? →	N →	Y →	Y (none) →				Schneider/066 no QA
			– Vendor Packing list / Remia K&C						
(69)	94CP005520	elect. Enclosures	N	N	N	N (none)			no QA
			→ Vendor packing list has part # only						
			– Remia K&C						
(70)	94CP005546	Press Treated 6"x6"x12'	N	N	Y	Y (none)			Riehle/066 no QA/QC

			Desc. matches PO Desc.	Del. matches PO Del.	Rec. matches PO Desc.	matches PO Desc.	Rec. matches Spec.	Del. Rec. matches Spec.	Comments
58	94CP005327	SS/ Flanges	N	N	Y	N (none)			Schneider/QGG
		Reducers	N		Y				no QA/QL 4
		2" Pipe	Y		N				
		Ells	N		Y				
			– Vendor packing list (did not mark as per PO req)						
			– Remia K&C						
59	94CP005330	Hydostatic Test Plugs	~~N~~	N	Y	Y (none)			Schneider/QGG no QA/QL 4
60	94CP005340	Level Transmitters	N?	N	N	Y (none)			Riehle/QGG
					↳ short packing list description				no QA/QL 4
				– Vendor packing list					
				– Remia K&C					
61	94CP005346	SS/ Flange	N	N	Y	Y (none)			Schneider/QGG
				– Vendor Packing List					no QA/QL 4
				– Remia K&C					
62	94CP005356	Thermocouple	Y	N	?	?			Brennan/QGG
			– Vendor documentation lost						no QA/QL 4
			– Remia K&C						
63	94CP005366	2" Control Valve	Y	N	?	?			Riehle/QGG
			– no packing slip or other vendor data (except bid documentation)						no QA/[illegible] not noted
			– Remia K&C						

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000142

000143

PO/Req.#	Commodity	Spec. Desc. matches PO Desc.	Spec. Del. matches PO Del.	Comm. Rec. matches PO Desc.	Del. Rec. matches PO Desc.	Comm. Rec. matches Spec.	Del. Rec. matches Spec.	Comments
(54) 94CP005256	Ball Valves W/Solenoids Actuators	N.	N	Y (spark)	Y (none)			Spec sheet attached to PR but not on PO
	— Specs discuss Ball Valves, Annunciators, & Actuators separately — This PO combines them. — Spec address Control Valves							
	— No evidence of Review for Tech acceptability							
(55) 94-CP005244	3" SS pipe	Y	N	Y (?)	Y (none)			Riehle/066 No QA/QL4
	Vendor Packing List Handwritten					3" S/40	SMC 304	
	— Remia K&C no C of C							
(56) 94CP005295	Weld Rod ER316L 1/8 3/32 2% Thoriated Tungsten	N	N	Y	N (~~none~~)			Schneider/066 no QA/QL4
					sent typ C of C & CMTR for Rod lot #			
	• Packing List does not reflect lot #							
	• Remia K&C does not reflect lot #.							
(57) 94CP005298	Carbon Pipe 1/2" elbows couplings hanger rods	N	N	(N) Y	Y (none)			Riehle/066

PO/Req.#	Commodity	Spec. Desc. matches PO Desc.	Spec. Del. matches PO Del.	Comm. Rec. matches PO Desc.	Del. Rec. matches PO Desc.	Comm. Rec. matches Spec.	Del. Rec. matches Spec.	Comments
(50) 94CP005010	Hose connection 1" SS	N	N	Y	Y (none)			Schneider/066
		→ C of C provided after concern was raised about magnetic pipe clamps						no QA/QL4
		– Vendor packing list						
		– Remia K & C						
(51) 94CP005028	SS/nipples	N	N	N	Y			
	wild-o-let	↓	↓	↓	↓			no QA/QL4
	thread-o-let							
				↳ packing list is handwritten shorthand				
				→ no C of C				
				– Remia K & C				
(52) 94CP005225	Elec. Box	N	N	Y	Y (none)	see pg 6 of 11 Nema 250, Type 3R steel		Sheppard/066
	Nema 12	↳ Spec says NEMA 12, galvanized steel (sheet)						no QA/QL4
Enclosure		(cast) NEMA FB1, Type FD, alum.						
(53) 94CP005245	Relief Valves	Y	N	Y	Y (none)			Riehle/066
								no QA/QL4
		PR lists part #, PO uses Spec sheets						
		– Vendor packing list included						
		– Remia K & C						

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	PO/Req.#	Commodity	Spec. Desc. matches PO Desc.	Spec. Del. matches PO Del.	Comm. Rec. matches PO Desc.	Del. Rec. matches PO Desc.	Comm. Rec. matches Spec.	Del. Rec. matches Spec.	Comments
(46)	94CP004964	SS/ Elbows	N	N	Y	Y (none)			Schneider/OGC
		Tee	N	N	Y	Y (none)			NoQA/QL4
			- no Vendor packing list						
			- Remia K&C						
(47)	94CP004970	PH Probes	Y	N (~~no spec in PO~~)	Y	Y (none)			Sheppard/OGC
				(Cert on PO but no Vendor signature) → uses Vendor Part #					NoQA/QL4
			- Vendor packing list						
			- Remia K&C						
(48)	94CP004979	SS Flanges	N	N	N	Y (none)			
					↳ Vendor packing list is brief				Schneider
			↳ * 4 ea Blind, 4", 150#, SRF, 304 LSS,						OGC
			Center of Flanges to be Drilled out to						noQA/QL4
			allow 3" Schedule 40 pipe to pass through.						
			no sketch, design approved?						
(49)	94CP004374	Carbon Steel Flanges	N	N (none in PO)	Y	Y (none)			Schneider/OGC
		Nipples	↓	↓	↓	↓			
		others							noQA/QL4
				- Vendor packing list lost					
				- Remia K&C					
			Note: C of C indicated on PR but not PO.						
			None given						

atypical unspecified design change

PO/Req.#	Commodity	Spec. Desc. matches PO Desc.	Spec. Del. matches PO Del.	Comm. Rec. matches PO Desc.	Del. Rec. matches PO Desc.	Comm. Rec. matches Spec.	Del. Rec. matches Spec.	Comments
42 94CP004913	Various caulk sealer adhesives	?	?	Y	Y			
43 94CP004920	SS elbows	N	N	Y	Y (none)			Schneider/GCC
		Vendor packing list, Remia K & C						No QA/QC
44 94CP004933	Hoses 3" Carbon Steel Flange	Y (part)	Y	Y	Y			Ruhle/Oggy
		↳ left off heat tracing						No QA/QC
		Note Spec was transcribed except for Heat Tracing requirement. Language did include SS fittings (6" Sch 40, lap joint stub end fittings) for UNH ~~and~~ through could be read as not being specifically called out.						
		— ~~Spec~~ Proposals were accepted by Parsons (vendor showed hose fitting clamp but did not specify SS/CS/or galv.)						
		C of C included which ~~specified~~ iron clamps.						
		Remia K&C						
45 94CP004937	Carbon Steel 3" pipe	Y	N (no C of C)	N	N (none)			
	elbows	↓	↓	Y	Y			
	union	↓	↓	Y	Y			

Remia K&C No C of C

— Quotation specified, 216 W STD BLK ERW Pipe A53B

— PO specified Blk Steel, 3", beveled ends, seamless, ASTM A53, Grade B, Sch

— [illegible] 216 W STD BLK ERW PIPE A53B

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	PO/Req.#	Commodity	Spec. Desc. matches PO Desc.	Spec. Del. matches PO Del.	Comm. Rec. matches PO Desc.	Del. Rec. matches PO Desc.	Comm. Rec. matches Spec.	Del. Rec. matches Spec.	Comments
(38)	94CP004822	Weld Rod							Schneider
		Tungsten (2% thoriated)	N?	N?	Y	Y (none)			OGG
		ER316L							No QA
		1/16							QL4
		1/8							
		3/32							
				- Vendor Packing List					
				- Remia K&C					
(39)	94CP004854	SS Reducer	~~Y~~	~~Y~~	~~Y~~	~~Y~~ in file			Painter/OGG
				did require C of C					QL4
	PROGRAM		no receiving info in file (not required						No QA
			by Proc. procedures)						
(40)	94CP004905	Valve Connector Brass	N?	N?	N	Non			Riehle/OGG
					- PO specifies valve connector				No QA/QL4
					- Vendor packing list gives				
					Vendor part number and				
					brief description.				
(41)	94CP004908	Carbon Steel Valves							Riehle/OGG
		Various	Y	N (none required	N	N			No QA/QL4
		unions		by PO)					
		Nipples							

	PO/Req.#	Commodity	Spec. Desc. matches PO Desc.	Spec. Del. matches PO Del.	Comm. Rec. matches PO Desc.	Del. Rec. matches PO Desc.	Comm. Rec. matches Spec.	Del. Rec. matches Spec.	Comments
35	94CP004735	Various incl			~~Y~~				Sheppard/CCG
MISC		elec Heat Trace	?	?	Y	Y			
				- packing list					QL4
				- Remca K&C					no QA
			What are spec req.?				NOTE: QA Level not on PO		
~~34~~								no is C of C	
							typ	req for vendor	
36	94CP004777	Ice Vest	Catalog Item		~~Y~~	N/A			QL4
									no QA
MISC		NO QA	yet Receiving Inspection Report was completed						
		(PQE 380) to MIL STD 105E by QA							
		also Vendor provided C of C to Spec STEELEVEST							
								PN SA 1140-SS	
	Case where PO/PR did not require, but along								
	the way someone(?) did.								
37	94CP004807	Lifting lng			Y	N			
		(to be fabricated)							
		per sketch	SKETCH made by Const, approved by Don						
			Rosine of Parsons per initials on sketch						
			(support?)						
			backup						

Requires [illegible]

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PO/Req.#	Commodity	Spec. Desc. matches PO Desc.	Spec. Del. matches PO Del.	Comm. Rec. matches PO Desc.	Del. Rec. matches PO Desc.	Comm. Rec. matches Spec.	Del. Rec. matches Spec.	Comments
(32) 94CP004659	Instruments	Y	Y (on PO require Cert)	Y	Y	?	?	QL4
				↳ note: PR so = PO used Spec to define				
		Remia K&C only						
			No Vendor C of C					
(33) 94CP004670	Weld Rod 7018 5P Plus (6010)	Y	N	Y	Y			Riehle/Trujillo for McGuire NO QA QL4
			– Vendor packing list					
			– Remia K&C					
(34) 94CP004686	3" Backflow SS Preventer Backflow Preventor	No spec		Y	N			Schneider McGuire QL4 No QA
			– Spec does not address					
			– PO = 3" FLGD, Reduced Pressure backflow preventor 2-non rising stem, O,S & Y Gates Valves epoxy coating cast iron body, bronze seats, SS internal parts - meet performance req of ASSE 1013					
			– Packing list = 3" 825YD OSY Red Press ASSY					
			Remia K&C					

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	PO/Req.#	Commodity	Spec. Desc. matches PO Desc.	Spec. Del. matches PO Del.	Comm. Rec. matches PO Desc.	Del. Rec. matches PO Desc.	Comm. Rec. matches Spec.	Del. Rec. matches Spec.	Comments
(27)	94CP004414	Lumber	None		Y	Y	(	1	QC 4
(25)	94CP004444	Thermocouple Wire	N	N c/c	Y	N?			Shepard/QC 6
				- no packing list (Vendor) ?					QA marked N/A
				- Remia K&C only					
(29)	94CP004562	Annunciators	N	N	N	None			
				Packing list indicates Watertight Door/w thermocouples					
(30)	94CP004604	Handrail	No Spec	→	Y	Y	1	1	QC 4
		Scaffolding	?	?					
	94CP004616	Instrument							
		Opt Recorder	Y	Y (on PO)	N	N no cert	1	1	QC 6
					↳ Packing list is Vendor inventory number only				
					Remia K&C (inspect to Spec sheet)				None Tested
(31)	94CP004624	Magnetic Flowmeter (Ceramic Lined)	N?	N					Rubio/QC
			↳ Spec sheet did exist but was not referenced on PO.						
			However bid docs/bid evidence bidders knew spec req.						QC 4
									NO QA
			Evaluation of bid pkg by Parsons not evidenced, but notes by Buyer indicate their concurrence was given.						
			Only receiving insp to K&C.						

Program comment

Signature by Engr as to responsible bid evaluation. At present, Buyer is only judge? (Accurate?)

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PO/Req.#	Commodity	Spec. Desc. matches PO Desc.	Spec. Del. matches PO Del.	Comm. Rec. matches PO Desc.	Del. Rec. matches PO Desc.	Comm. Rec. matches Spec.	Del. Rec. matches Spec.	Comments
(23) 94CP004374	Angle Iron	No Spec		Y	Y			
	Flat Iron	↓		↓	↓			QL4
	Carbon Pipe 2"	Y	N (none	↓	N			Ruehle/OCC
		- packing list indicates			Schedule 40 Pipe (only)			
(24) 94CP004393	SS							
	flanges	N	N	Y	Y			No QA/QL4
	Reducers	↓	↓	↓	↓			
	Weld-o-lets	↓	↓	↓	↓			
		- Vendor pk list						Schroeder/OCC
		- Remia K&C						
(25) 94CP004394	PVC	N	N	Y	Y			Spec not used
	Plastic Pipe	↓	↓					
		- No Vendor packing list						No C of C
		- Remia K&C only						
(26) 94CP004397	SS	Y	N	Y	Y			
	Bolts	↓	↓	↓	↓			Schaefer/OCC
	Nuts							no QA
	Nitronic 60	↓	↓	↓	↓			QL4
	Certs were allowed for in bid	Certs were received (but are not in file)				in procurement		
		Indicates						

MSC

	PO/Req.#	Commodity	Spec. Desc. matches PO Desc.	Spec. Del. matches PO Del.	Comm. Rec. matches PO Desc.	Del. Rec. matches PO Desc.	Comm. Rec. matches Spec.	Del. Rec. matches Spec.	Comments
(19)	94CP004282	Carbon Steel			Y	Y			Painter/OGC
		flanges	N	N					
		ells							QL4
		Tee							
		Nipples							
		2" pipe			[illegible]	N			
		SS							
		flanges	N	N	Y	none			
			[illegible]	ordered	200 ft				
				Pipe	Seamless	2" A-53, Grade B			
				received	200ft				
				Blk pipe, seamless, pres. tube, A106					
				Speced	Seamless	Carbon Steel, ASTM A53,			
				Grade B. std wt, beveled ends					
(20)	94CP004357	Lumber	Not speced		N	None			Carpenter
		Plywood							OGC
		Nails							
			None		2"x4"x16 Lumber		Del #2 Southern Yellow Pine		
					4"x8"x3/4" plywood		BB Yellow Pine D+E Sealed		
(21)	94CP004368	Carbon	N	N	Y	Y			Schneider
		Flanges				none			Serry Wellge
		Nipples		ASTM					NO QA/QL4
		Couples		lift off					
		Sockolets							
		Ells					Vendor pkng list		

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(1)

PO/Req.#	Commodity	Spec. Desc. matches PO Desc.	Spec. Del. matches PO Del.	Comm. Rec. matches PO Desc.	Del. Rec. matches PO Desc.	Comm. Rec. matches Spec.	Del. Rec. matches Spec.	Comments
(15) 94CP004041	Liquid Tight Conduit	N? (Type F)	N	Y	Y (none)			Sheppard (Elid)
	Fuses	N/A	↓	↓	↓			OGG
	Boxes/Plugs	N/N	↓	↓	↓			No QA/QL 4
		Type F ≡ UL 60						
			?					
				— Vendor Packing List				
				— Remia K&C				
(16) 94CP004149	Carbon Flanges	N	N	Y	Y			~~Schneider~~ /OGG
			— Vendor Packing List					
			— Remia K&C					
(17) 94CP004220	Carbon Nipple	N	N	Y	Y			~~Back Order~~ to PO
	1 ea							Schneider/OGG
								NO QA/QL
								undefined
								(whiteout
								tape)
								over QA
(18) 94CP004265	304L SS	[illegible]	N	Y	Y (none)			- no do
	Flanges	N	↓	↓	↓			req.
	1½" pipe	N	↓	↓	↓			- No QA/QL 4
	2" pipe	N	↓	↓	↓			Pipefitter/OGG
	reducers weldolets	N	↓	↓	↓			
	Tees	N	↓	— vendor packing list				

PO/Req.#	Commodity	Spec. Desc. matches PO Desc.	Spec. Del. matches PO Del.	Comm. Rec. matches PO Desc.	Del. Rec. matches PO Desc.	Comm. Rec. matches Spec.	Del. Rec. matches Spec.	Comments
12 94CP003802	Fire Retardant Plastic	?	?	Y	Y (None)			No spec or paper req.
13 94CP004039	Elec. Connectors (Conduit)	?	?	\				Not addressed in Spec.
	Switches		N					-Elect
	Terminal Blocks	N ?						Ogg
	Mounting Rails	N ?						
	End Anchors	N ?						No QA/QL4
	Relay	N						
	#16 & #18 Stranded Wire	N?						
14 94CP004040	Liquid tight Conduit	N?	N?	Y	Y (none)			No paper required
	SO Cord	N?	N?					
	#12 Stranded Wire	N	N					Elect/OGG
	#14 " "	N?	N?					No QA/QL4

- Vendor packing list
- Remia K&C
- Vendor PO
- Remia K&C

Spec. req. violated (wire) or transcribed from Spec. not clear whether same!

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(5)

PO/Req.#	Commodity	Spec. Desc. matches PO Desc.	Spec. Del. matches PO Del.	Comm. Rec. matches PO Desc.	Del. Rec. matches PO Desc.	Comm. Rec. matches Spec.	Del. Rec. matches Spec.	Comments
(10) 94CP003797	Machine Bolts	N/A	N/A	Y	Y			only req
	Nuts/Washers	↓	↓	↓	↓			addressed on
	Expansion Anchors	↓	↓	↓	↓			is QL3
								insp for
								suspect
								bolts
								but no
								mention of
								liability
								to vendor
								QA review
								QL3-SH
(11) 94CP003799	Weld Rod	?		Y	Y			No
	3/32 7018 ✓	Y ?	N	↓	↓			paper
	1/8 ✓	↓	↓	↓	↓			for
	3/32 ✓	↓	↓	↓	↓			filler
	1/8 316L ✓	↓	↓	↓	↓			metals
	1/8" Fleet Weld	N	↓	↓	↓			Riehle/066
	SP Plus (6010)			↓	↓			No QA/No QC
								— Vendor Pack
								list
								— Remia K&C

MISC

— Vendor Packing list
— Remia K&C
— No QA insp in proc. files
— No CEA spec

PO/Req.#	Commodity	Spec. Desc. matches PO Desc.	Spec. Del. matches PO Del.	Comm. Rec. matches PO Desc.	Del. Rec. matches PO Desc.	Comm. Rec. matches Spec.	Del. Rec. matches Spec.	Comments
(8) 94CP003732	Elec.							
	Cord Connectors	N/A ?	→	Y	Y			Specs address some items, but PO does not copy spec. Other items, not addressed on spec. No paper required
	Ty-Rap			vendor packing lists				
	Conduit Hyps	N/A	→					
	Panels							
	Boxes	N	N					
								Ray Sheppard
								Jerry Ogg
								No QA
								QL4
(9) 94CP003796	600V 4 Wire			Y	Y			only addressed that they be used
	Disconnects							
	GFI's							- not addressed
	Circuit Breakers							"
								Sheppard/Ogg
								NO QA/QL4

Transformer Panel Board Spec ~~not addressed in spec~~

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(3)

PO/Req.#	Commodity	Spec. Desc. matches PO Desc.	Spec. Del. matches PO Del.	Comm. Rec. matches PO Desc.	Del. Rec. matches PO Desc.	Comm. Rec. matches Spec.	Del. Rec. matches Spec.	Comments
(5) 94CP003235	Steel	N/A	N/A	Y	Y			No spec
	(Angle iron							for steel
	4x4x1/4"							Painter
	Type A36							OGG
								QA - no
								QL 4
(6) 94CP003427	TIG 308	Y	N	Y	Y			No doc.
	ELC Bore				(none)			- vendor packing list K&C
	Filler Wire							Jerry Riehle
	(30#) 3/32"							Jerry OGG
	(20#) 1/16"							no QA
								QL 4
(7) 94CP003709	BLK STEEL							Mat des
	-Weld-o-Let	N ?	N ?	Y	Y			do not exactly
	-flanges	N ?	N ?					transcribe
	SS							spec - parameters
	reducers	N ?	N ?					leaving off
	flanges	N ?	N ?					ASTM, etc
	Butt Weld Tees	N ?	N ?					No doc. req. for ans
								seamless

PO/Req.#	Commodity	Spec. Desc. matches PO Desc.	Spec. Del. matches PO Del.	Comm. Rec. matches PO Desc.	Del. Rec. matches PO Desc.	Comm. Rec. matches Spec.	Del. Rec. matches Spec.	Comments
(3) 94CP002939	Pipe (304L SS)	Y	Y incl. handling & pkg.	Y	None	Y		- Exact ~~Disconnection~~ of Spec
	Flanges	Y	Y	Y		Y		PMDS words
	Reducers	Y	Y	Y		Y		D Painter
	Ball Valves	Y	Y	Y		Y		Jaggy/QL3
								QA - yes (SH)
								No C of C or CMTRs in file (but in turnover pkg.
(4) 94CP003234	Roller type hanger assembly	? NO	N	Y	Y (none)	N	N	- Desc. does not match spec. except that desc.
	1/2" Threaded rod	N	N	Y	Y	N	N	Maybe - comm. avail,
	1/2 beam clamps	N	N	Y	Y	N	N	Painter/066
								No QA - QL 7
								No doc. received
								K and C. +

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Const. Proc. Adds.

PO/Req.#	Commodity	Spec. Desc. matches PO Desc.	Spec. Del. matches PO Del.	Comm. Rec. matches PO Desc.	Del. Rec. matches PO Desc.	Comm. Rec. matches Spec.	Del. Rec. matches Spec.	Comments
94CP002382	Conduit	No	No	Yes	Yes (None)			Spec ref not included
~~60~~ (Electric)	Um strut	?	?	?	?			in Req.
								- Rec doc
94CP003[illegible]	various							Kuk & const
(Electric)	stranded wire							- Vendor Packing list
								Jeff Apple
	#1	Y	N - No DOC REQ	Y	Y			Jerry Ooo
	#6	Y	N					- no QA,
	#8	Y	N					QL4
	#10	N	N					
	~~#12~~							
	SO Cord	N	N NO DOC REQ					- no ref to NFPA/ANSI
								- no generic contract desc.
								- Electrician 066
								- NO QA QL4
								- no Received doc.

NO NO SPEC

6588

February 1, 1995

Field Change Requests

6588

CDY 1/10/85 (1)

Reviewed Field Change Request Package (FCR) supplied by the UNH Project manager to the UNH Design Review Team. Project 1585

Purpose: to determine (1) if the basis for approval/disapproval had been properly documented, i.e. was there justification ~~of~~ in file. (2) if there was a procedure for FCR review and approval and was it followed.

w/c with comments

Sign of Design Constr QA	Approved	Attached	Persons justification	Signature Design Org Constr QA	Approved	Attached
1	yes	no	no	26	yes	no
– 2 missing	~~yes~~	~~yes~~		27	yes	no
3	yes	~~3~~ no	no	28	yes w/c	~~28~~
4	yes	~~4~~ yes	yes	29	yes	~~29~~
5	~~yes~~	no	no	30	yes	~~30~~
6	yes	~~6~~ yes	yes	31	~~yes~~ no	~~31~~
7	yes	~~7~~ yes	yes	32	yes	no
8	yes	~~8~~ yes	no	(X) 33	yes	
9	yes	~~9~~ yes	yes	34	yes	
10	yes	~~10~~ yes	yes	35	yes	
11	yes	~~11~~ yes	yes	36	yes	
12	yes	~~12~~ yes	yes	~~37~~	no 18.	
13	yes	~~13~~ yes	yes	38	yes	
14	yes	no	no	39	yes	
15	yes	no	no	40	yes	
16	yes	~~16~~ yes	yes	41	yes	
17	yes	no	no	42	yes	
18	yes	no	no	43	yes	
19	yes	~~19~~ yes	yes	44	yes	
20	yes	~~20~~ yes	no	45	yes	
21	yes	~~21~~ yes	no	– 46 missing		
22	yes	~~22~~ yes	no	47	not proved	
23	yes	~~23~~ yes	yes	48	no	
24	yes	~~24~~ yes	yes	49	~~[illegible]~~ missing	
25	yes	~~25~~ yes	yes	50	yes w/c	

000162 (X) Form changed to RCI / FCR

6588 (3)

1/10/95

Signatures	Approved	Attached	Passing justification
51	yes	51 yes	no
52 QA missing	yes	52 yes	no
53	yes w/c	53 yes	yes
54	yes	54 yes	yes
55	yes	55 yes	yes
56	yes	56 yes	no
57 QA missing	yes	57 yes	no
58 QA missing	yes	58 yes	no
59 QA missing	yes	59 yes	no
60 QA missing	yes	60 yes	no
61 QA missing	yes	61 yes	no
62 QA missing	yes	62 yes	yes
63 QA missing	yes	63 yes	no
64 not processed			
(**) 65	yes	65 yes	yes
(**) 66	yes	no	no
(**) 67	yes	67 yes	yes
(**) 68	yes	68 yes	yes
(**) 69	yes	69 yes	yes
(**) 70	yes w/c	70 yes	yes
71 not processed			
72 not processed			
(**) 73	yes w/c	73 yes	yes

74 not processed
75 not processed
76 not processed
77 not processed
78 not processed

(**) Signatures changed from (QA) Design Org., FERALCO Construction-to-Design Organization, (FERALCO Engineering), FERALCO Construction

000163

(4

1/10/

TO 7 AC FCR, 78

Missing numbers = 2

Not processed 10 12

Balance 66

33 { Parsons justification attached

33 no justification attac

000164

6588 1/11/95
(1) Bu-1

Reviewed FCRs at Parsons
Contact: Bill Ubbes
Did not review controlled copies
Was told the following by the Project Manager:

1. FCRs are received by Parsons Project Manager who selects the reviewing discipline and requests review on a yellow routing card.
2. The Parsons Project Manager approves all FCR changes
3. Justification for the change, i.e. calculations if necessary are maintained on file by the reviewing discipline.
4. The change to double digitragon pumps was directed in a letter from Stan Frank / FERMCO to Tony Pryor / Parsons on October 21, 1994. (Received copy of letter). This change was handled by Parsons like an FCR. The catalog specification for the new pump was compared to the UNH Procurement for the original specified pump and were deemed adequate. This was confirmed in a letter Ubbes to Brittschneider dated December 20, 1994 (received copy of letter). The pump lift requirements for the UNH Procurement Spec. were requested from Ubbes and was produced.

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As built drawings incorporating FCR thru 55 were completed 12/15/95. Remaining FCRs ~~that~~ will be red lined if requested by FERMCO Contractual question.

5. No information was produced by Parsons to indicate that their files contained data to justify approval/disapproval decisions on the FCRs. Available analyses was attached to the FCR. It was agreed, in consultation with the Parsons UNIS Project manager that, generally, the analysis to support the FCR was attached to the FCR

6. Reviewed Parsons Procedure EPG-021 on Processing Field Change Requests. Was told that Procedure Item 7 for review of FCRs was a blue sheet review and occurred when the FCR was red lined or incorporated in a drawing. Parsons also stated that this procedure does not permit review of FCR from sketches. See item 5. From this, it can be concluded that FCR thru 55 did not receive a complete design check and interdiscipline coordination and ECN review until 12/15/95 and that the remaining FCRs have not received such a review.

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PARSONS
ERA PROJECT

ERA PROJECT PROCEDURES

Procedure No.:	ENG-021
Page:	1 of 8
Date of Issue:	Sept. 1993
Date of Revision:	Jan. 1994
Revision No.:	1
Approved By:	

Procedure Title: Processing Field Change Requests Pertaining to Title III of a FEMP Removal/Remediation Project

OBJECTIVE

The purpose of this procedure is to define the method of controlling field changes from drawings, specifications, equipment, or materials that may occur during FEMP removal/remediation projects.

APPROVALS

This procedure is approved by the ERA Project Director.

REQUIREMENTS AND GENERAL INFORMATION

1. This procedure applies to field changes which result from variances of material, equipment, construction methods, or any other deviations from approved "Certified for Construction" (CFC) drawings or specifications. This procedure applies only to those projects on which PARSONS has been authorized to perform Title III engineering support (see Exhibit 3).

2. Minor variances from the baseline CFC Package and/or supporting documents that adjust the original contract scope, cost, or schedule that affect one or more of the following, may be categorized as Field Change Requests (FCRs).
   a. FIT. A change in how a field connection is made (e.g., welded connections from/to flanges, rebar lap splices from/to couplings or weld splices, compression fittings from/to CAD-welded or bolted fittings).
   b. FORM. A change in material which could alter the quality of the work and/or dimensional changes in the element that visibly alter the character of the work (e.g., a change in pipe diameter, stainless steel to carbon steel).
   c. FUNCTION. A change in the end use or to the treatment process of the item (e.g., a positive displacement pump from/to a centrifugal pump).

3. All field changes covered in the responsibility section must be processed in writing prior to commencement of or proceeding with the work. The final approval of a field change rests with the FERMCO Construction Manager who will issue the authorization to the Subcontractor or the work supervisor if the work is being performed by "in plant" personnel.

4. Any alteration in the baseline design that does not alter cost, quality, and/or schedule but impacts other project features (e.g., changes in length of pipe, routing of conduit, or small changes in operational

000157

and/or equipment performance characteristics) that remain within allowable limits shall be tracke lined) and noted "as-built" on the contract drawings, and generally categorized as a "minor" ch

5. Changes to original contract documents or construction methods will vary in the degree of urgen shall be prioritized as follows:
   a. Routine - Work activity does not impact schedule. The required information will be pr within 15 working days after the request is received.
   b. Urgent - Work activity that is impacting the schedule. Processing will be expedited greatest extent practical and may be hand-carried through the review cycle.
   c. Emergency - Condition that is required to alleviate a clear and present danger to life or pro In such cases, a verbal order to proceed may be given. Documentation to substantiate the should be provided within 24 hours.

   In addition to those reasons previously noted, changes may come from a variety of other source as:
   a. Inspection deficiencies - work items that are installed in violation of applicable design c (non-conformance).
   b. Submittal deviations - any deviation, including "or equal" deviations, may result in an "as situation or a contract change.
   c. Clarification requests concerning elements of the applicable criteria may result in a change work scope.
   d. Change in the work scope -- adding or deleting portions of work, usually sponsored by department or facility owner.

6. Title III personnel derive their authority from, and are responsible to, the respective PARSONS Project Manager. Effective communication between the Title III personnel and the PARSONS I Engineering team, via the CRU Project Manager, is essential and shall be maintained duri implementation of the following actions.

7. All field design changes require a complete design check and interdiscipline coordination by all in design disciplines and an ECQC review. This review process is the same as the process for rev original design documents.

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Procedure Title: Processing Field Change Requests Pertaining to Title III of a FEMP Removal/Remediation Project

PROCEDURES

Person Responsible	Actions
Title III Manager	1. Receive notification of a field (design) change from the FERMCO Construction Manager and enter the notification in the log (Exhibit 1). If a sketch accompanies the notification, assign a field sketch number. Field sketch numbers shall incorporate the original CFC applicable discipline drawing number (e.g., 91X-5900-E-00025-FSK-33-0001). If the change is major, adding to the scope of work, a new drawing may be issued. Number of said drawing will be supplied by the PARSONS Drawing Coordinator or the discipline CADD Coordinator.
Title III Engineer	2. Determine, based on established criteria, the category of the proposed change and assign a priority for further processing. 3. Conduct a review to ascertain that all necessary information has been included and that a potential change order exists. This information includes, but is not limited to, the following: a. Description of the change that clearly details the work scope. b. Limitations to supplying specified requirements and any interdiscipline interfaces. c. Conditions that accurately reflect the proposed end result. d. List of contract documents affected by the change. e. List of deliverable item(s). f. Detailed description of events leading to the change (e.g., the design clarification request, submittal deviation, inspection deficiency, change in scope, or project notes). g. Reason for change as classified in the schedule of "root causes" (Exhibit 4). h. Any cost/schedule impact known. i. All known oral instructions confirmed in writing. 4. Issue written instructions to the discipline affected and report the change.

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Procedure Title: Processing Field Change Requests Pertaining to Title III of a FEMP Removal/Remediation Project

Person Responsible		Actions
Project Engineer or Engineering Coordinator	5.	Sequentially enter any potential field changes into the "Field Change" log (Exhibit 1). Establish a separate file for each potential field change. Keep the file in an open status until the potential change has resolved or a change order is issued by the FERMCO Construction Ma to the Subcontractor.
Lead Engineer and Project Engineer	6.	Review the proposed field change and identify the impact of the field ch to areas of responsibility. Design documents affected by the field chang shall be identified.
	7.	Determine if the field change affects other disciplines and coordinate reviews.
Lead Engineer	8.	Coordinate drawing changes if the field change results in a major additi the scope of work. If the field change results in a minor change, drawing be redlined, noting the field change for development of the "as-built" draw
Title III Engineer/ Project Engineer	9.	A major change can seriously impact the progress of the work and as su requires prompt resolution. If it is determined that the change will resul delay, the issuance of field sketches shall be considered. Field sketches be generated by the Subcontractor, the FERMCO Construction Manage PARSONS Title III Engineer, or the appropriate engineering discipline
PM/PE Title III Manager	10.	Field sketches generated by the FERMCO Construction Manager or the FERMCO Subcontractor shall be reviewed for conformity and, as appro incorporated into the final drawings as "as-built."

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Procedure Title: Processing Field Change Requests Pertaining to Title III of a FEMP Removal/Remediation Project

Person Responsible	Actions
Title III Engineer	11. When the work has been completed, verify that it conforms to the field change as approved.
Lead Engineer/ Project Engineer	12. All field design changes shall be reviewed in accordance with applicable ERA Project procedures. Reviews shall include intrachecking of documents, interdiscipline coordination reviews (ENG-008), and ECQC reviews (ENG-003, ENG-004, and ENG-005), as applicable.
Lead Project Engineer	13. Document that the field design change has been completed, and forward drawings and other pertinent information to the PARSONS project engineer for further action (i.e., processing to Document Control).

EXHIBITS

Exhibit 1 - Field Design Change Order Log
Exhibit 2 - Title III Activity Responsibility Matrix (from R. B. Campbell, March 30, 1993)
Exhibit 3 - Quality/Discipline Change Order Codes "Root Causes"

REFERENCES

Title III Engineering Support Services Program Plan
Procedure PRO-001, "Procedures Development Standard"
Procedure ENG-003, "Engineering and Compliance Quality Control"
Procedure ENG-004, "Drawings and Sketches"
Procedure ENG-005, "Preparation and Control of Specifications"
Procedure ENG-008, "Design Coordination and Interface Control"

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Procedure Title: Processing Field Change Requests Pertaining to Title III of a FEMP Removal/Remediation Project

Exhibit 1

Field Design Change Order Log

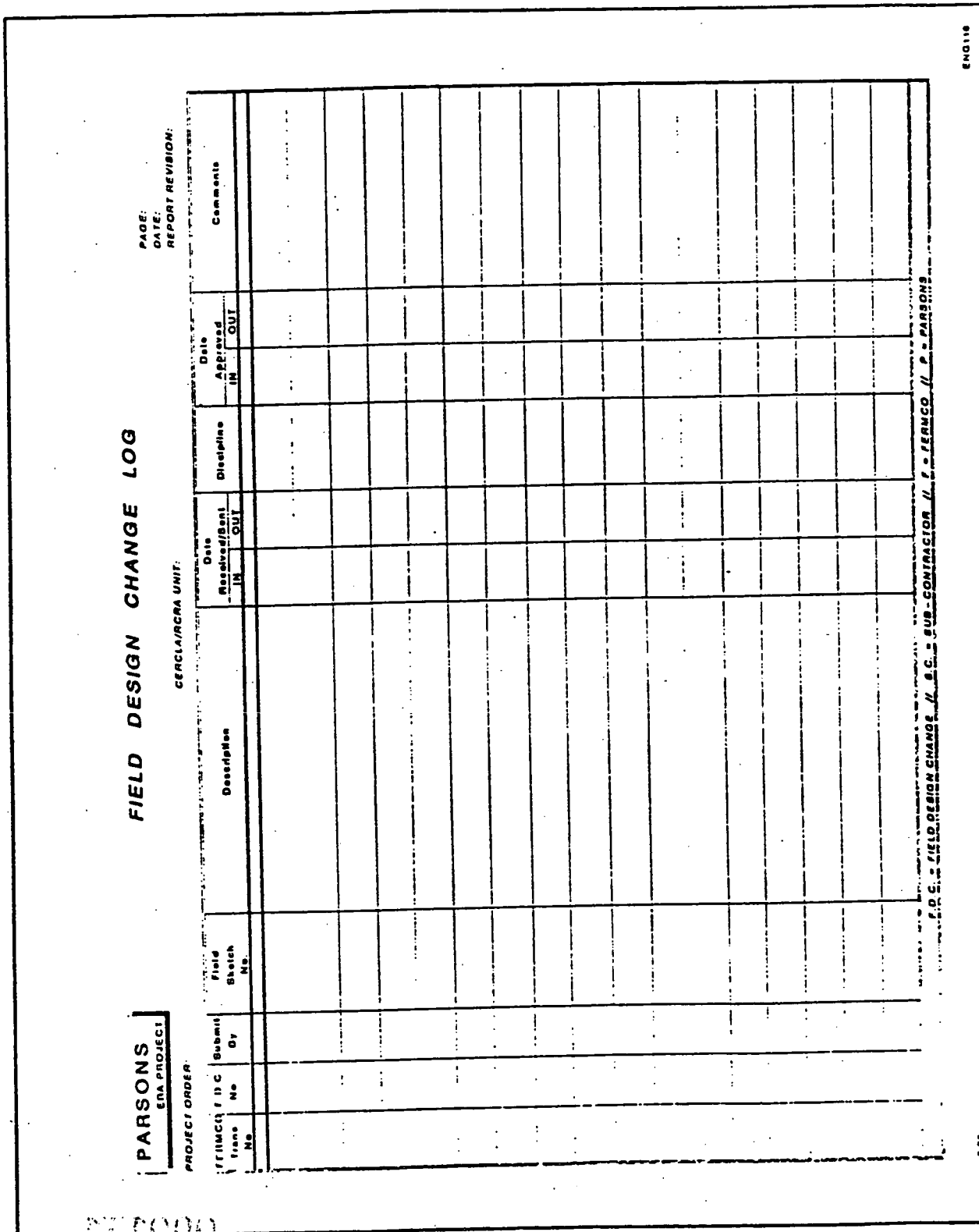

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Exhibit 2
Title III Activity Responsibility Matrix

Title III Activity
Responsibility Matrix
March 30, 1993

Activity	Primary Responsibility	Secondary Responsibility	Remarks
Award Construction Contract	F	—	
Client (DOE) Interface	F	—	
Pre-Construction Meeting	F	—	PARSONS may attend for information only
Shop Drawing/Sample Review/Approve	P	F	
Design Clarification Requests	F	P	
Design Change	P	F	
Field Change	F	P	
Construction Contract Administration	F	—	
Cost Estimates for Change Orders	F	—	PARSONS as requested
Construction Inspection	F	—	
Vendor Site Visits	F	P	
Quality Control	F	—	
Quality Assurance	F	—	
Final Inspection/Acceptance	F	P	
As-Builts (Red Lines)	F	—	
As-Builts (Originals)	P	—	
Archival Storage	F	—	
Start-Up	F	P	As required
Warrantee/Guarantee Period	F	—	

Legend: F - FERMCO
P - PARSONS

Exhibit 3

ERAFS1\SYS:RSAPPS\RSDATA\
PO-42\TITLE.III

Rev. No.: 1

Exhibit 3
Quality/Discipline Change Order Codes "Root Causes"

Quality/Discipline Change Order Codes
Root Causes

Quality Codes

CI - Clarification/Information
DE - Design Enhancement
DIA - Design Interface Apparent
DIH - Design Interface Hidden
DO - Design Omission
OC - Owner Change
FE - Field Error
ODE - Other Design Error
PE - Purchasing Error
TC - Temporary Construction
VE - Vendor Error
X - Unrelated to Quality

Discipline Codes

A - Architectural Finish
C - Civil
S - Structural
E - Electrical
I - Instrumentation
M - Mechanical
O - Other

Quality Code Definitions:

CI - Response to questions requiring further information on design intent.

DE - Value change developed after drawing approval and issuance that improved the design con

DIA - Dimensional or coordination interferences that should have been acknowledged and correcte to construction. Typically, these are interfaces between new items (e.g., underground obstru or existing equipment internals).

DO - Design element that should have been provided but was inadvertently left out.

FE - Change required because of improper direction in the field.

OC - Change required by the owner after drawing approval and issuance.

ODE - Design error not falling into one of the above categories and those changes required by a l planning that required extra efforts to accomplish.

PE - Change due to an error on the procurement document.

TC - Change required to support temporary field construction.

VE - Change required due to a fabrication or shipping error by a vendor.

X - Change unrelated to the quality of engineering or construction management (e.g., transfer of between two contractors), providing assistance to plant maintenance, lost time insurance wo

PARSONS
ERA PROJECT

ROUTING CARD 6588

DOC. No.:	SUBMITTAL:	TRANSMITTAL No.:	DATE:	
TITLE:			CRU No.:	P.O. No.:

REVIEW REQUEST, COMPLETE AND RETURN TO ENGINEERING COORDINATOR OR TO THE NEXT REVIEWER AS QUICKLY AS POSSIBLE.

BY _____ / _____ / _____
DUE DATE

TO REVIEWERS:

1. Check the attached document against issued specifications to insure that this document meets the intent of our work.
2. If comments are needed, mark the attached document in RED INK.
3. Date and Initial this card, in RED INK, as to the status.
4. Hand-carry the attached document and this card to the Engineering Coordinator or to the next reviewer.
5. Engineering Coordinator will return the completed document and card to Document Control.

ROUTING SEQUENCE	REVIEWING DISCIPLINE	DATE	STATUS 'A'	STATUS 'B'	STATUS 'C'
	PROCESS				
	MECHANICAL PROCESS				
	PIPING				
	STRUCTURAL				
	CIVIL				
	ELECTRICAL				
	INSTRUMENTATION				
	MATERIAL HANDLING				
	ARCHITECTURAL				
	ENVIRONMENTAL				
	HVAC				
	GEOTECHNICAL				
	HEALTH & SAFETY				
	NUCLEAR SYSTEM/SAFETY				
	QUALITY ASSURANCE				
	PROJECT ENGINEER				
	TITLE III MANAGER				
	CRU MANAGER				

STATUS 'A' = REVIEWED, NO EXCEPTIONS
STATUS 'B' = REVIEWED, EXCEPTIONS NOTED
STATUS 'C' = REVISE AND RESUBMIT

Package(s) to Document Control Date: Initials:

* ORIGINATING PROJECT DESIGN ENGINEER

SPECIAL INSTRUCTIONS:

6588

UNH NEUTRALIZATION PROJECT
INDEPENDENT DESIGN REVIEW REPORT

E-8 Stress Calculations

FERMCO PS-1
FERMCO PS-2
FERMCO PS-3

February 1, 1995

Fernald Environmental Restoration Management Corporation

000176

FLUOR DANIEL

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
US DEPARTMENT OF ENERGY

STRESS ANALYSIS FOR 3" STAINLESS STEEL UNH IN NITRIC ACID TRANSFER LINES

REPORT NO. FERMCO-PS-1

000177

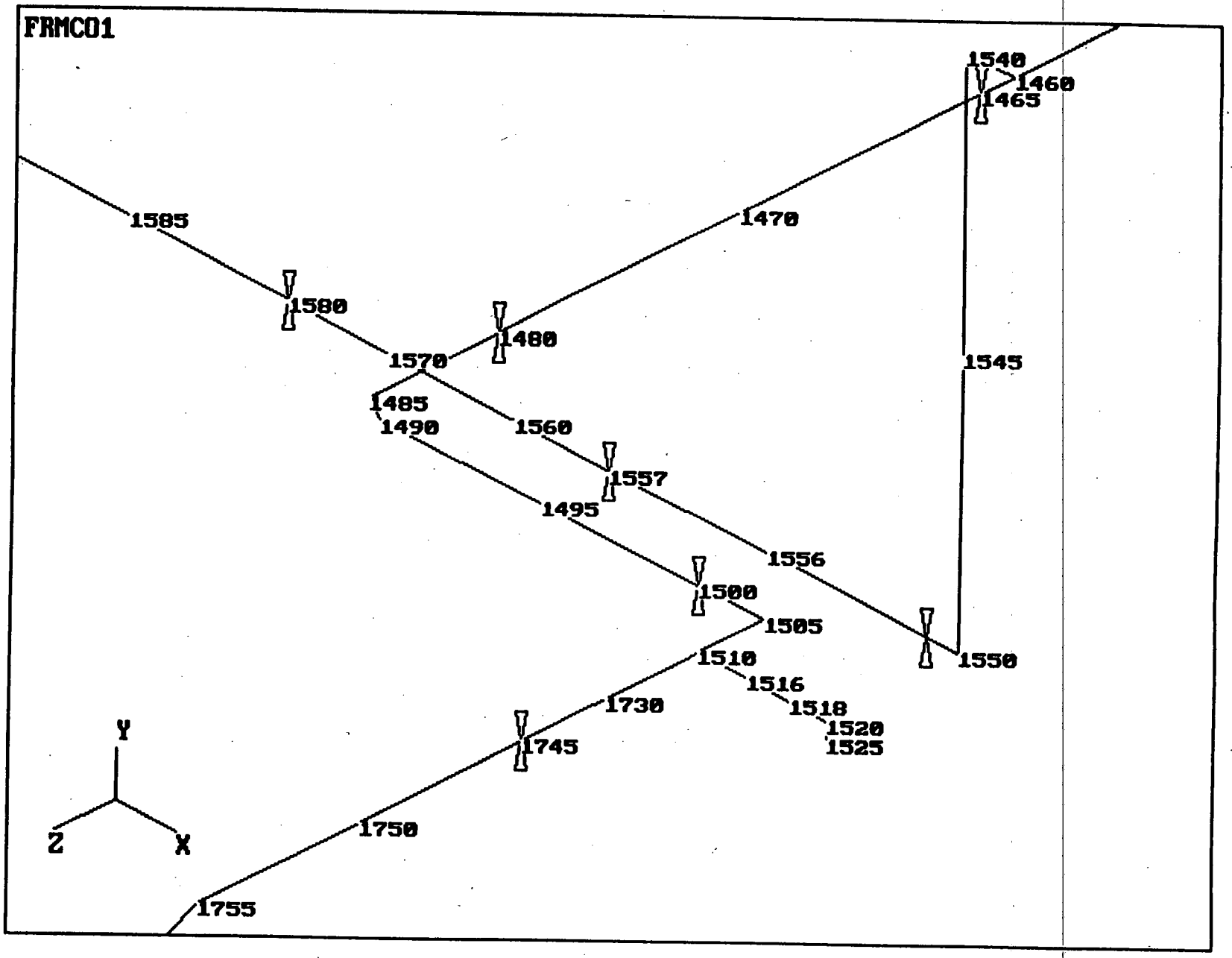
Analysis of 3" stainless steel piping between UNH transfer pumps and Tanks 25 and 26

The piping was analyzed for weight and thermal expansion loads. The temperatures used for thermal expansion analyses are 50°F, 150°F, and 250°F.

The as installed piping system does not fully meet the requirements of ANSI B31.3 Code. In certain portions of the piping system the stresses exceed the code allowables. The maximum code stresses in the piping for each load case is found on the "stress summary" page of the computer output (see page i of the computer output). In addition, a number of U-bolts experience thermal expansion loads above their rated capacity. The support loads are documented in the "restraint summary" portion of the computer output.

However, caution shall be exercised in the interpretation of the results. The calculation of the loads on the supports and stresses in the piping system are based on a mathematical model which assumed idealized conditions. For example, it is assumed that a tight U-bolt acts as rigid restraint in three directions. However, as the load on the U-bolt increases beyond its capacity, this assumption may no longer be valid. Under such conditions, the pipe may slide through the U-bolt or the U-bolt may yield locally (but not fail). Such occurrences, in our judgment, would allow the pipe to expand with less constraint than as modeled, resulting in lower than calculated piping stresses and pipe support loads.

In order to reduce the support loads and piping stresses, a number supports need to be modified. An analysis of the piping system with the recommended changes is documented in a separate report.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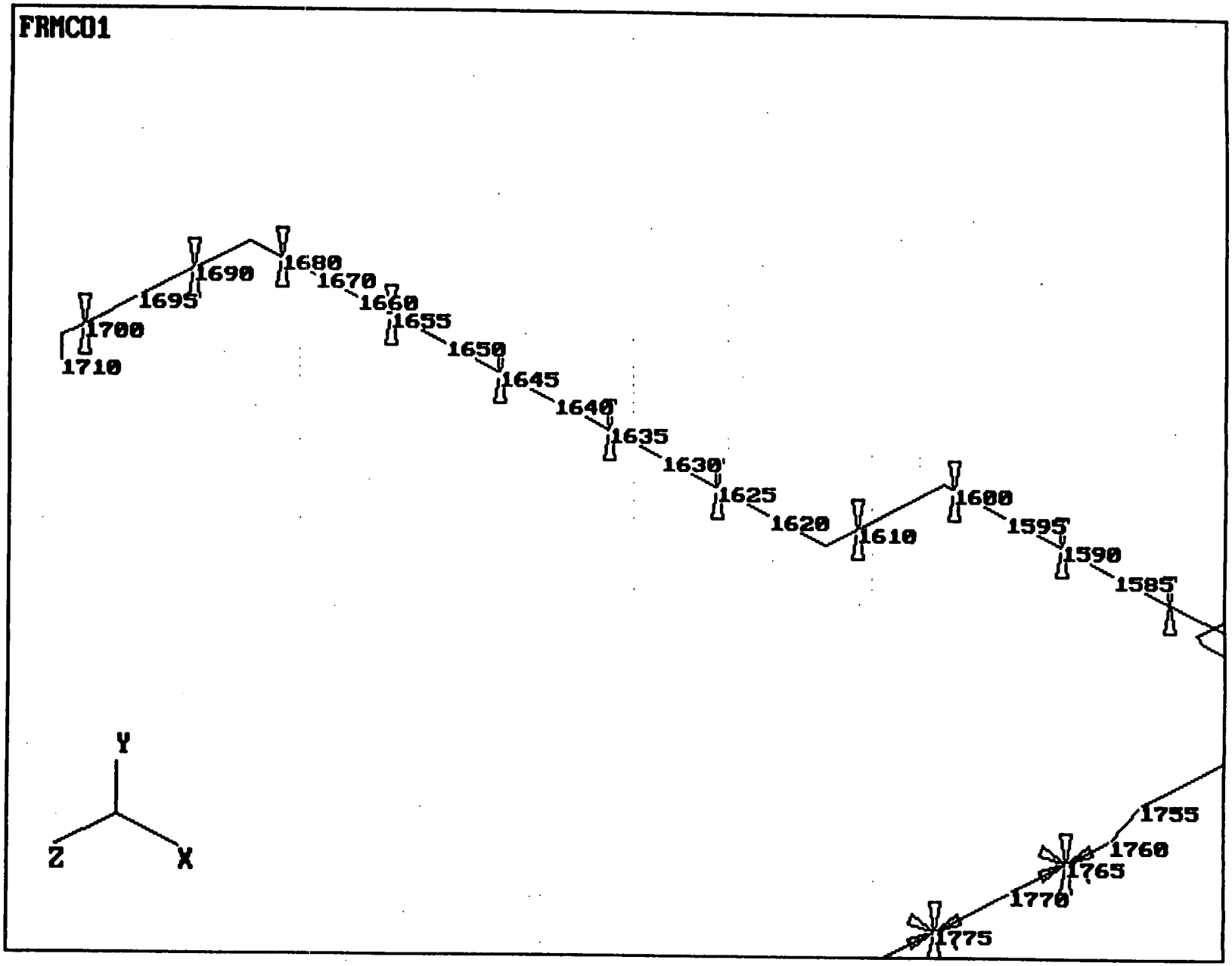
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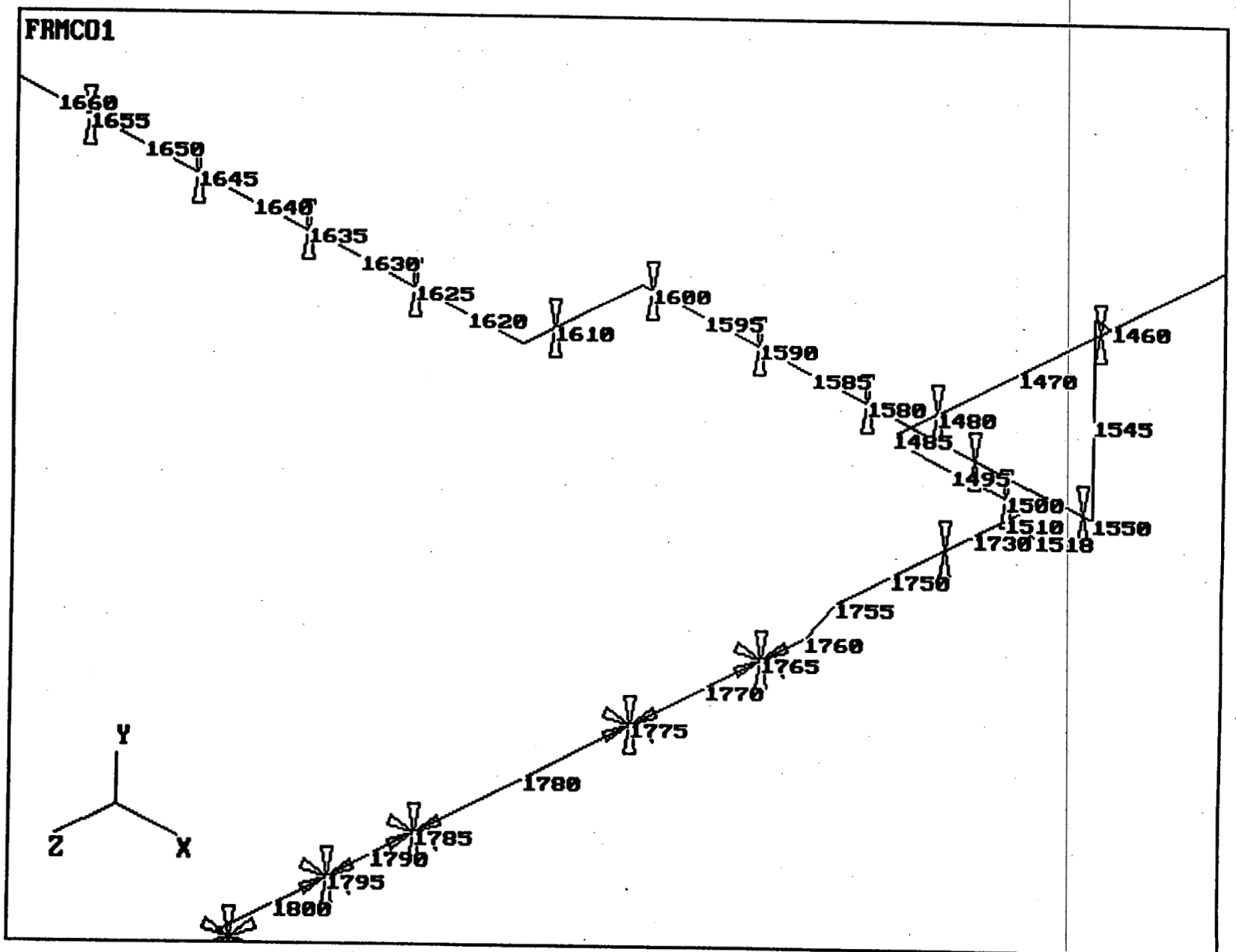
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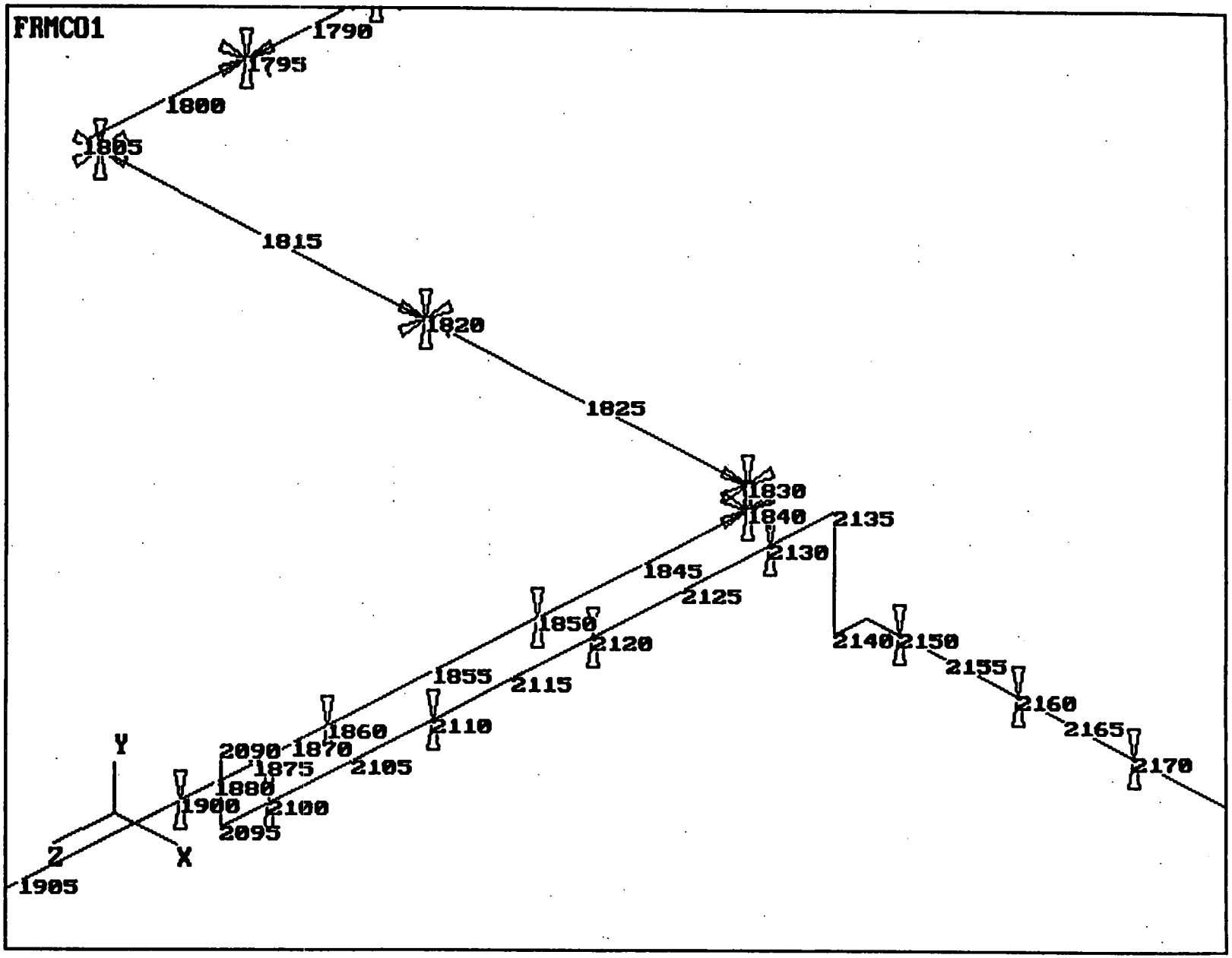
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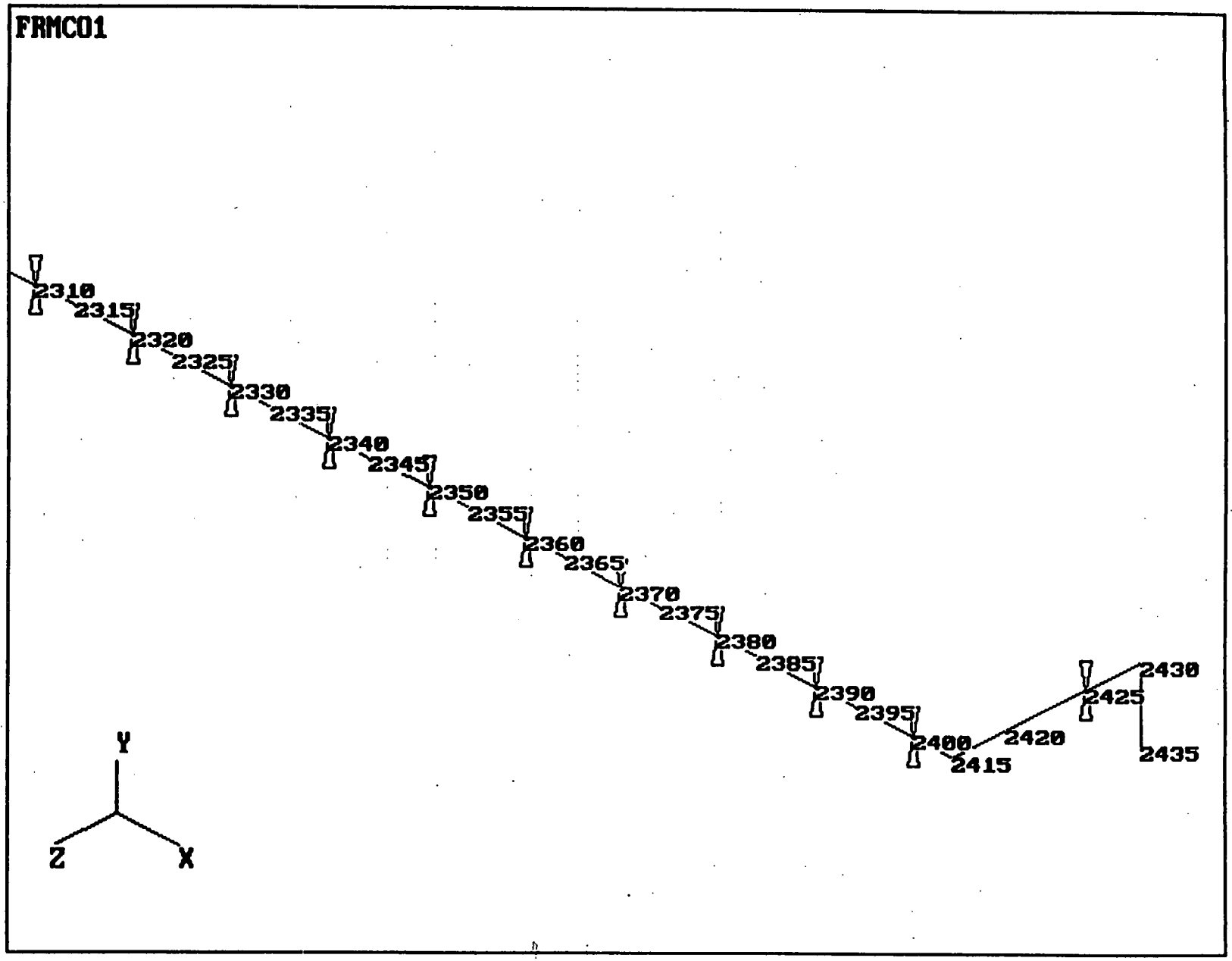
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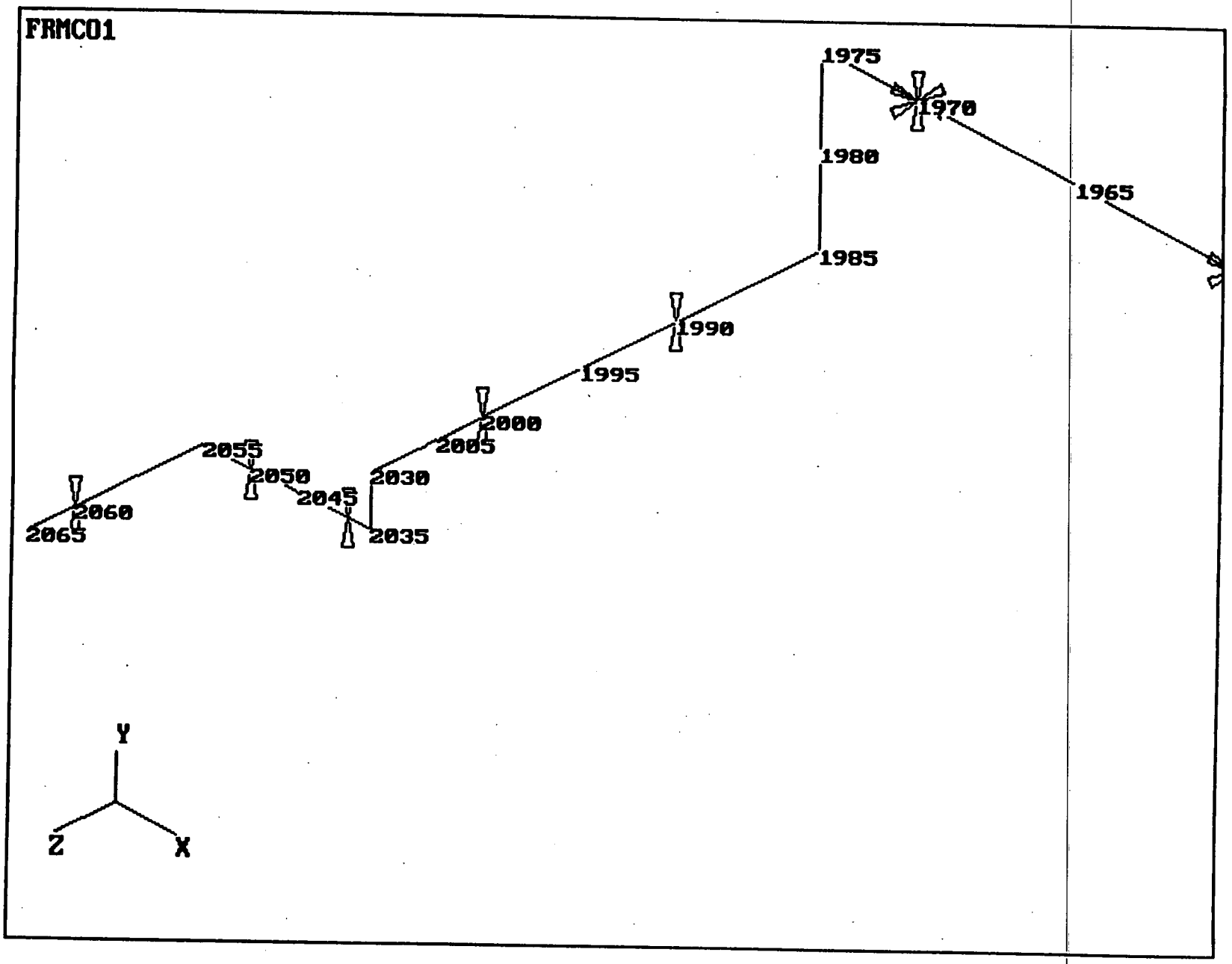
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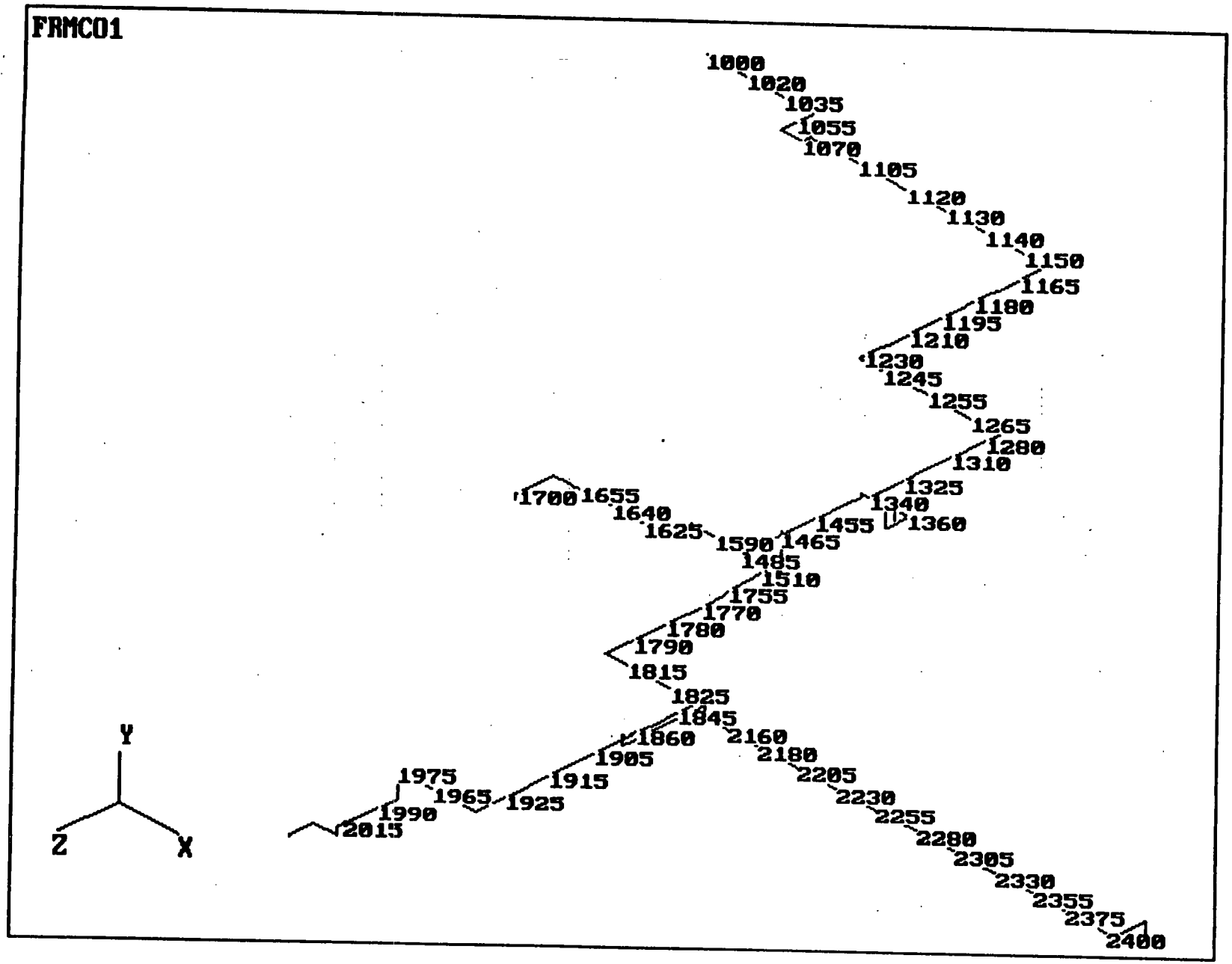
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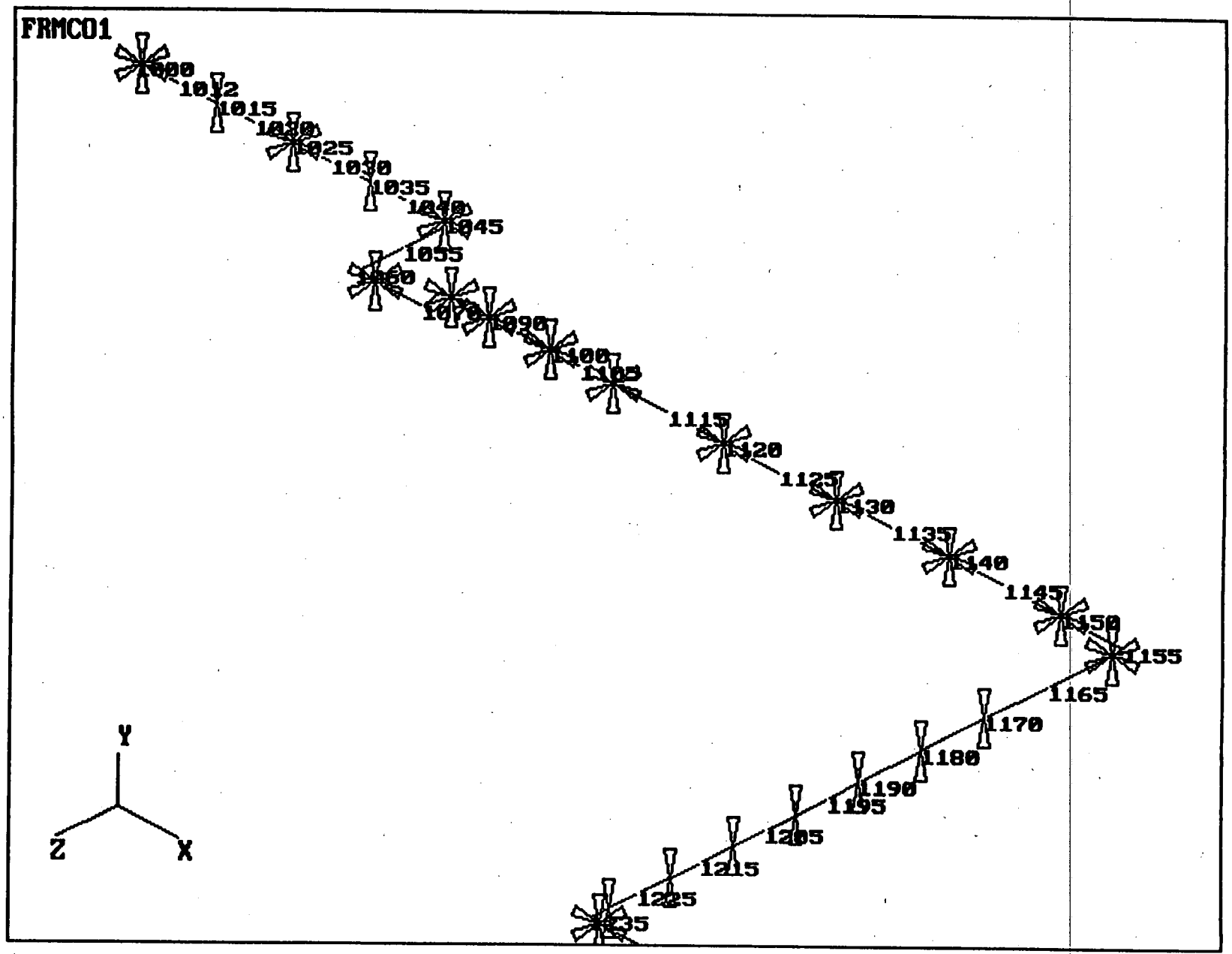

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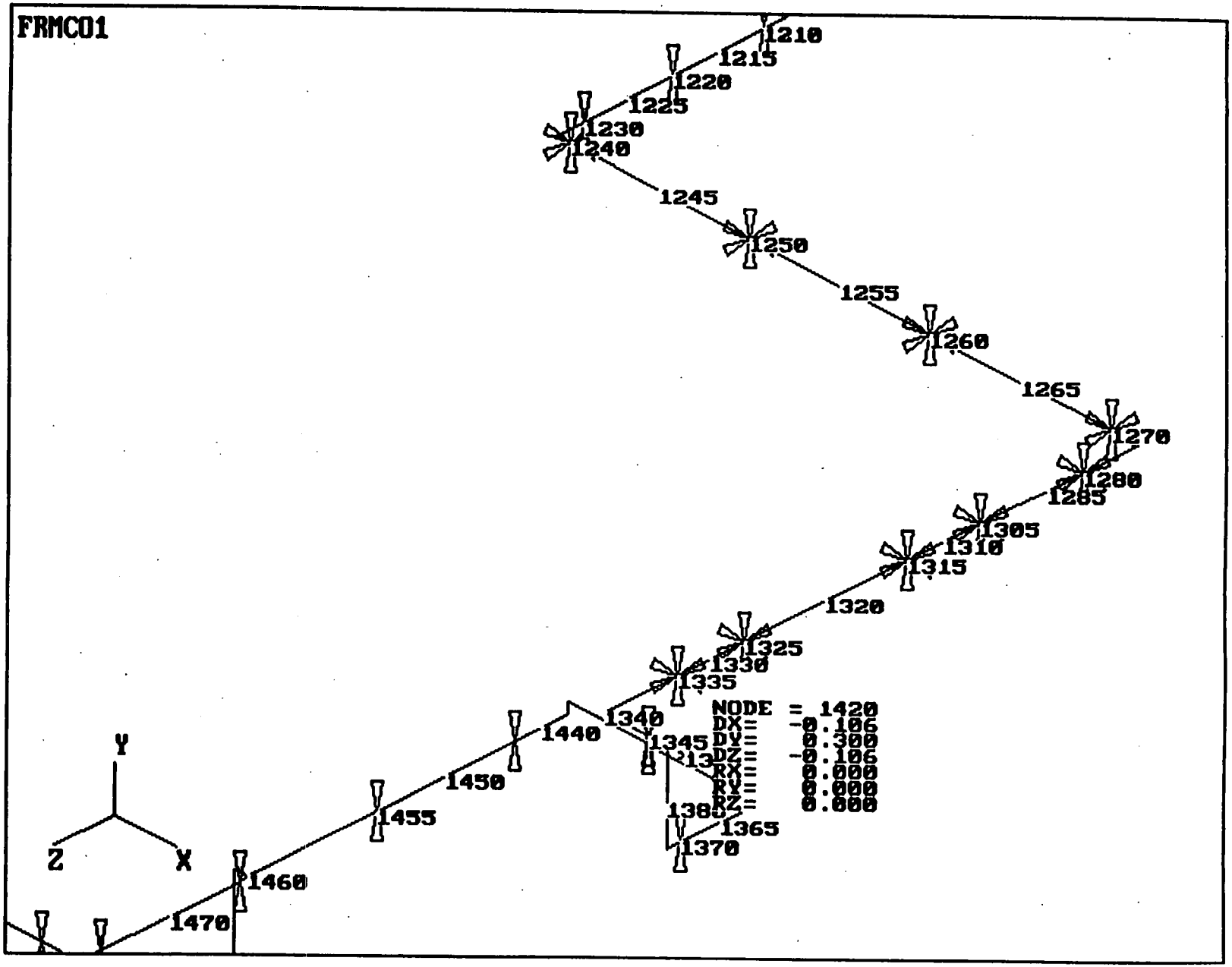
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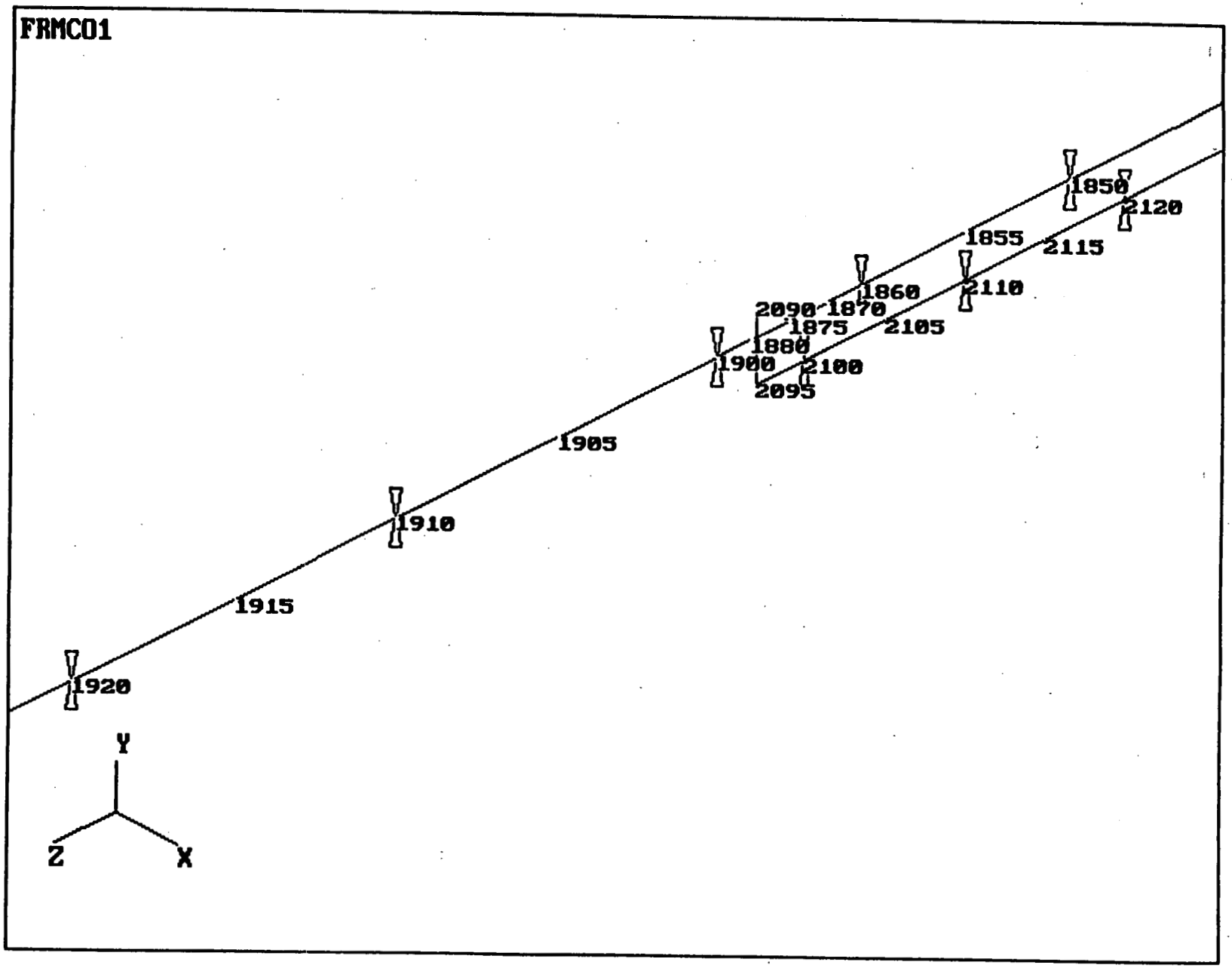
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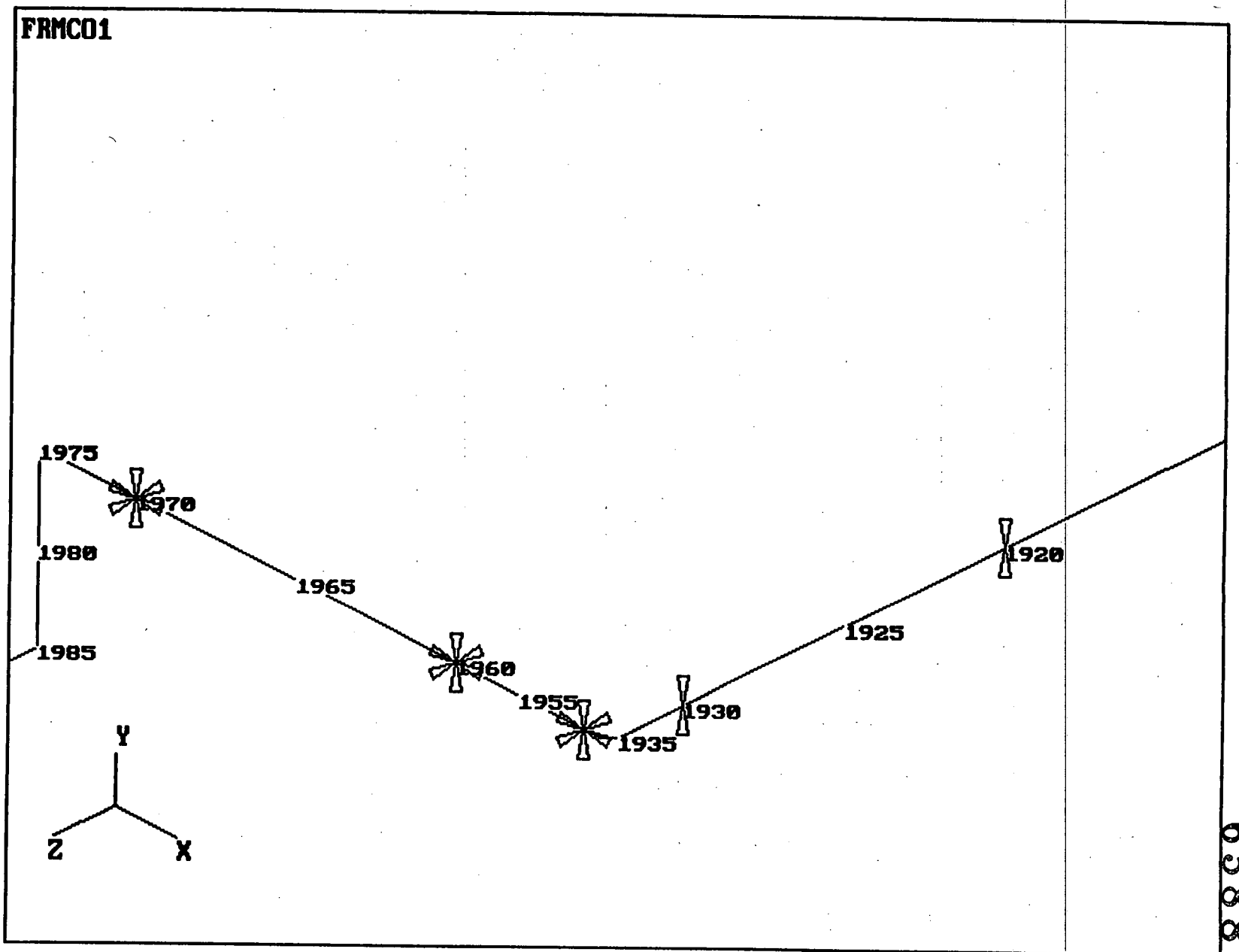
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LISTING OF STATIC LOAD CASES FOR THIS ANALYSIS

CASE --------TITLE---------

1 (OPE)W+DIS+T1+P1
2 (OPE)W+DIS+T2+P1
3 (OPE)W+DIS+T3+P1
4 (SUS)W+P1
5 (EXP)D5=D1-D4
6 (EXP)D6=D2-D4
7 (EXP)D7=D3-D4

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----------REPORT----------	----------LOAD CASE----------	-PAGE-
INPUT LISTING	- N/A -	1
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STRESS REPORT, Stresses on Elements	CASE 1 (OPE) W+DIS+T1+P1	59
STRESS SUMMARY	CASE 2 (OPE) W+DIS+T2+P1	76
STRESS REPORT, Stresses on Elements	CASE 2 (OPE) W+DIS+T2+P1	77
STRESS SUMMARY	CASE 3 (OPE) W+DIS+T3+P1	94
STRESS REPORT, Stresses on Elements	CASE 3 (OPE) W+DIS+T3+P1	95
STRESS SUMMARY	CASE 4 (SUS) W+P1	112
STRESS REPORT, Stresses on Elements	CASE 4 (SUS) W+P1	113
STRESS SUMMARY	CASE 5 (EXP) D5(EXP)=D1-D4	130
STRESS REPORT, Stresses on Elements	CASE 5 (EXP) D5(EXP)=D1-D4	131
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RESTRAINT SUMMARY	VARIOUS	184

Licensed To: FLUOR DANIEL ID: 13692

Job Description:

PROJECT:FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

CLIENT :UNITED STATES DEPARTMENT OF ENERGY

ANALYST:Jos Kaliyadan

NOTES :SL-3"-T-1001-ST

)ATA

1000 To 1005 DY= .375 ft.

= 3.500 in. Wall= .216 in. Insul= 1.500 in.
IL
: 50 F T2= 150 F T3= 250 F P1= 150.0000 lb./sq.in.
:= (6)AUSTENITIC STAINLESS E= 28,300,000 lb./sq.in. v = .292
sity= .2893 lb./cu.in. Insul= .0041 lb./cu.in.
iid= .03972222 lb./cu.in.
it "TO" end
lius= 4.500 in. (LONG) Bend Angle= 90.000
BLE STRESSES
.3 (1993) Sc= 16,700 lb./sq.in. Sh1= 16,700 lb./sq.in.
= 16,700 lb./sq.in. Sh3= 16,700 lb./sq.in.

1005 To 1010 DX= 1.000 ft.
INTS
e 1010 X
e 1010 Y
e 1010 Z

1010 To 1012 DX= 6.000 ft.

1012 To 1015 DX= 6.000 ft.
INTS
e 1015 Y

1015 To 1020 DX= 6.000 ft.

1020 To 1025 DX= 6.000 ft.
INTS
e 1025 Y
e 1025 Z
e 1025 X

1025 To 1030 DX= 6.000 ft.

1030 To 1035 DX= 6.000 ft.
INTS
e 1035 Y

1035 To 1040 DX= 6.000 ft.

1040 To 1045 DX= 6.000 ft.
INTS
e 1045 Y
e 1045 Z
e 1045 X

1045 To 1050 DX= 1.000 ft.
: "TO" end
us= 4.500 in. (LONG) Bend Angle= 90.000

PIPE DATA

From 1050 To 1055 DZ= 7.500 ft.

From 1055 To 1060 DZ= 7.500 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 1060 To 1065 DX= 3.000 ft.
RESTRAINTS
Node 1065 Y
Node 1065 Z
Node 1065 X

From 1065 To 1070 DX= 7.500 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 45.000

From 1070 To 1075 DX= 3.000 ft. DY= 3.000 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 45.000

From 1075 To 1080 DX= 1.500 ft.
RESTRAINTS
Node 1080 Y
Node 1080 Z
Node 1080 X

From 1080 To 1085 DX= 3.000 ft.

From 1085 To 1090 DX= 3.000 ft.
RESTRAINTS
Node 1090 Y
Node 1090 Z
Node 1090 X

From 1090 To 1095 DX= 5.000 ft.

From 1095 To 1100 DX= 5.000 ft.
RESTRAINTS
Node 1100 Y
Node 1100 Z
Node 1100 X

From 1100 To 1105 DX= 5.000 ft.

From 1105 To 1110 DX= 5.000 ft.
RESTRAINTS
Node 1110 Y
Node 1110 Z
Node 1110 X

PIPE DATA

From 1110 To 1115 DX= 9.000 ft.

From 1115 To 1120 DX= 9.000 ft.
RESTRAINTS
Node 1120 Y
Node 1120 X
Node 1120 Z

From 1120 To 1125 DX= 9.000 ft.

From 1125 To 1130 DX= 9.000 ft.
RESTRAINTS
Node 1130 Y
Node 1130 Z
Node 1130 X

From 1130 To 1135 DX= 9.000 ft.

From 1135 To 1140 DX= 9.000 ft.
RESTRAINTS
Node 1140 Y
Node 1140 Z
Node 1140 X

From 1140 To 1145 DX= 9.000 ft.

From 1145 To 1150 DX= 9.000 ft.
RESTRAINTS
Node 1150 Y
Node 1150 Z
Node 1150 X

From 1150 To 1155 DX= 10.000 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 1155 To 1160 DZ= 2.000 ft.
RESTRAINTS
Node 1160 Y
Node 1160 X
Node 1160 Z

From 1160 To 1165 DZ= 10.000 ft.

From 1165 To 1170 DZ= 10.000 ft.
RESTRAINTS
Node 1170 Y

From 1170 To 1175 DZ= 5.000 ft.

PIPE DATA

From 1175 To 1180 DZ= 5.000 ft.
RESTRAINTS
  Node 1180 Y

From 1180 To 1185 DZ= 5.000 ft.

From 1185 To 1190 DZ= 5.000 ft.
RESTRAINTS
  Node 1190 Y

From 1190 To 1195 DZ= 5.000 ft.

From 1195 To 1200 DZ= 5.000 ft.
RESTRAINTS
  Node 1200 Y

From 1200 To 1205 DZ= 5.000 ft.

From 1205 To 1210 DZ= 5.000 ft.
RESTRAINTS
  Node 1210 Y

From 1210 To 1215 DZ= 5.000 ft.

From 1215 To 1220 DZ= 5.000 ft.
RESTRAINTS
  Node 1220 Y

From 1220 To 1225 DZ= 5.000 ft.

From 1225 To 1230 DZ= 5.000 ft.
RESTRAINTS
  Node 1230 Y

From 1230 To 1235 DZ= 3.000 ft.
BEND at "TO" end
  Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 1235 To 1240 DX= 1.500 ft.
RESTRAINTS
  Node 1240 Y
  Node 1240 Z
  Node 1240 X

From 1240 To 1245 DX= 10.000 ft.

From 1245 To 1250 DX= 10.000 ft.
RESTRAINTS
  Node 1250 Y
  Node 1250 Z
  Node 1250 X

PIPE DATA

From 1250 To 1255 DX= 10.000 ft.

From 1255 To 1260 DX= 10.000 ft.
RESTRAINTS
Node 1260 Y
Node 1260 Z
Node 1260 X

From 1260 To 1265 DX= 10.000 ft.

From 1265 To 1270 DX= 10.000 ft.
RESTRAINTS
Node 1270 Y
Node 1270 X
Node 1270 Z

From 1270 To 1275 DX= 3.000 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 1275 To 1280 DZ= 6.000 ft.
RESTRAINTS
Node 1280 Y
Node 1280 X
Node 1280 Z

From 1280 To 1285 DZ= 4.000 ft.

From 1285 To 1290 DZ= .166 ft.
RIGID Weight= 24.00 lb.

From 1290 To 1295 DZ= 3.000 ft.

From 1295 To 1300 DZ= .166 ft.
RIGID Weight= 24.00 lb.

From 1300 To 1305 DZ= 4.000 ft.
RESTRAINTS
Node 1305 Y
Node 1305 X
Node 1305 Z

From 1305 To 1310 DZ= 4.000 ft.

From 1310 To 1315 DZ= 4.000 ft.
RESTRAINTS
Node 1315 Y
Node 1315 X
Node 1315 Z

PIPE DATA

From 1315 To 1320 DZ= 9.000 ft.

From 1320 To 1325 DZ= 9.000 ft.
RESTRAINTS
Node 1325 Y
Node 1325 X
Node 1325 Z

From 1325 To 1330 DZ= 3.750 ft.

From 1330 To 1335 DZ= 3.750 ft.
RESTRAINTS
Node 1335 Y
Node 1335 X
Node 1335 Z

From 1335 To 1340 DZ= 8.000 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 1340 To 1345 DX= 5.000 ft.
RESTRAINTS
Node 1345 Y

From 1345 To 1350 DX= 4.000 ft.

From 1350 To 1355 DX= 4.000 ft.
RESTRAINTS
Node 1355 Y

From 1355 To 1360 DX= 5.000 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 1360 To 1365 DZ= 5.000 ft.

From 1365 To 1370 DZ= 4.500 ft.
RESTRAINTS
Node 1370 Y

From 1370 To 1375 DZ= 1.500 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 1375 To 1380 DY= 4.000 ft.

From 1380 To 1385 DY= 5.000 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

sed To: FLUOR DANIEL ID: 13692

DATA

1385 To 1390 DZ= .500 ft.

1390 To 1395 DZ= .083 ft.
Weight= 24.00 lb.

1395 To 1400 DZ= .416 ft.
& TEE's
le 1400 Welding Tee

1400 To 1401 DX= 2.000 ft.
& TEE's
le 1401 Welding Tee

1401 To 1402 DZ= -.250 ft.

= 1.315 in. Wall= .179 in. Insul= 1.500 in.

1402 To 1403 DZ= -1.000 ft.
Weight= 10.00 lb.

1403 To 1404 DZ= -.500 ft.

1404 To 1405 DZ= -1.000 ft.
Weight= 10.00 lb.

1401 To 1406 DX= .833 ft.

: 3.500 in. Wall= .216 in. Insul= 1.500 in.

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406 To 1407 DX= .666 ft.
Weight= 60.00 lb.

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407 To 1408 DX= .666 ft.
Weight= 60.00 lb.

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408 To 1409 DX= .666 ft.
Weight= 60.00 lb.

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409 To 1410 DX= 1.166 ft.
"TO" end
ss= 4.500 in. (LONG) Bend Angle= 90.000

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410 To 1420 DY= -3.000 ft.
EMENTS
1420 DX= -.106 in. DY= .300 in. DZ= -.106 in. RX= .000
.000 RZ= .000

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00 To 1425 DX= -1.000 ft.
ITS
1425 Y

PIPE DATA

From 1425 To 1430 DX= -9.000 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 1430 To 1435 DY= -1.000 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 1435 To 1440 DZ= 3.000 ft.

From 1440 To 1445 DZ= 3.000 ft.
RESTRAINTS
Node 1445 Y

From 1445 To 1450 DZ= 7.500 ft.

From 1450 To 1455 DZ= 7.500 ft.
RESTRAINTS
Node 1455 Y

From 1455 To 1460 DZ= 14.000 ft.
SIF's & TEE's
Node 1460 Welding Tee

From 1460 To 1465 DZ= 1.000 ft.
RESTRAINTS
Node 1465 Y

From 1465 To 1470 DZ= 7.500 ft.

From 1470 To 1480 DZ= 7.500 ft.
RESTRAINTS
Node 1480 Y

From 1480 To 1485 DZ= 4.000 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 1485 To 1490 DX= .391 ft. DY= -.391 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 45.000

From 1490 To 1495 DX= 5.000 ft.

From 1495 To 1500 DX= 5.000 ft.
RESTRAINTS
Node 1500 Y

From 1500 To 1505 DX= 2.000 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

TA

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505 To 1510 DZ= 2.000 ft.

TEE's

1510 Welding Tee

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510 To 1515 DX= .833 ft.

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515 To 1516 DX= .666 ft.
Weight= 60.00 lb.

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516 To 1517 DX= .666 ft.
Weight= 60.00 lb.

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517 To 1518 DX= .666 ft.
Weight= 60.00 lb.

---

518 To 1520 DX= 1.166 ft.
"TO" end
us= 4.500 in. (LONG) Bend Angle= 90.000

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520 To 1525 DY= -.500 ft.
EMENTS
1525 DX= -.106 in. DY= .300 in. DZ= .106 in. RX= .000
.000 RZ= .000

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460 To 1530 DX= -.250 ft.

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530 To 1535 DX= -.166 ft.
Weight= 24.00 lb.

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535 To 1540 DX= -1.083 ft.
"TO" end
us= 4.500 in. (LONG) Bend Angle= 90.000

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540 To 1545 DY= -7.500 ft.

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545 To 1550 DY= -7.500 ft.
"TO" end
us= 4.500 in. (LONG) Bend Angle= 90.000

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550 To 1555 DX= -1.000 ft.
NTS
1555 Y

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555 To 1556 DX= -5.000 ft.

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556 To 1557 DX= -5.000 ft.
NTS
1557 Y

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557 To 1560 DX= -3.000 ft.

PIPE DATA

From 1560 To 1565 DX= -.125 ft.
RIGID Weight= 24.00 lb.

From 1565 To 1570 DX= -3.750 ft.

From 1570 To 1575 DX= -.125 ft.
RIGID Weight= 24.00 lb.

From 1575 To 1580 DX= -3.000 ft.
RESTRAINTS
Node 1580 Y

From 1580 To 1585 DX= -5.000 ft.

From 1585 To 1590 DX= -5.000 ft.
PIPE
Dia= 3.500 in. Wall= .216 in. Insul= 1.500 in.
RESTRAINTS
Node 1590 Y

From 1590 To 1595 DX= -5.000 ft.

From 1595 To 1600 DX= -5.000 ft.
RESTRAINTS
Node 1600 Y

From 1600 To 1605 DX= -1.000 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 1605 To 1610 DZ= 8.000 ft.
RESTRAINTS
Node 1610 Y

From 1610 To 1615 DZ= 3.000 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 1615 To 1620 DX= -5.000 ft.

From 1620 To 1625 DX= -5.000 ft.
RESTRAINTS
Node 1625 Y

From 1625 To 1630 DX= -5.000 ft.

From 1630 To 1635 DX= -5.000 ft.
RESTRAINTS
Node 1635 Y

DATA

1635 To 1640 DX= -5.000 ft.

1640 To 1645 DX= -5.000 ft.
AINTS
de 1645 Y

1645 To 1650 DX= -5.000 ft.

1650 To 1655 DX= -5.000 ft.
LINTS
de 1655 Y

1655 To 1660 DX= -3.000 ft.

1660 To 1665 DX= -.125 ft.
Weight= 24.00 lb.

1665 To 1670 DX= -3.750 ft.

1670 To 1675 DX= -.125 ft.
Weight= 24.00 lb.

1675 To 1680 DX= -3.000 ft.
INTS
le 1680 Y

1680 To 1685 DX= -3.000 ft.
t "TO" end
ius= 4.500 in. (LONG) Bend Angle= 90.000

1685 To 1690 DZ= 5.000 ft.
INTS
e 1690 Y

1690 To 1695 DZ= 5.000 ft.

1695 To 1700 DZ= 5.000 ft.
INTS
e 1700 Y

1700 To 1705 DZ= 2.000 ft.
t "TO" end
ius= 4.500 in. (LONG) Bend Angle= 90.000

1705 To 1710 DY= -2.000 ft.

1510 To 1720 DZ= .250 ft.

1720 To 1725 DZ= .125 ft.
Weight= 24.00 lb.

PIPE DATA

From 1725 To 1730 DZ= 2.500 ft.

From 1730 To 1735 DZ= .125 ft.
RIGID Weight= 24.00 lb.

From 1735 To 1740 DZ= .250 ft.

From 1740 To 1745 DZ= 2.250 ft.
RESTRAINTS
Node 1745 Y

From 1745 To 1750 DZ= 5.000 ft.

From 1750 To 1755 DZ= 5.000 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 45.003

From 1755 To 1760 DX= -.707 ft. DY= -2.000 ft. DZ= 2.121 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 45.003

From 1760 To 1765 DZ= 4.000 ft.
RESTRAINTS
Node 1765 Y
Node 1765 X
Node 1765 Z

From 1765 To 1770 DZ= 5.000 ft.

From 1770 To 1775 DZ= 7.000 ft.
RESTRAINTS
Node 1775 Y
Node 1775 X
Node 1775 Z

From 1775 To 1780 DZ= 10.000 ft.

From 1780 To 1785 DZ= 10.000 ft.
RESTRAINTS
Node 1785 Y
Node 1785 X
Node 1785 Z

From 1785 To 1790 DZ= 4.000 ft.

From 1790 To 1795 DZ= 4.000 ft.
RESTRAINTS
Node 1795 Y
Node 1795 X
Node 1795 Z

ATA

1795 To 1800 DZ= 5.000 ft.

1800 To 1805 DZ= 5.000 ft.
t "TO" end
ius= 4.500 in. (LONG) Bend Angle= 90.000

1805 To 1810 DX= 1.000 ft.
INTS
e 1810 Y
e 1810 X
e 1810 Z

1810 To 1815 DX= 10.000 ft.

1815 To 1820 DX= 10.000 ft.
INTS
e 1820 Y
e 1820 Z
e 1820 X

1820 To 1825 DX= 10.000 ft.

1825 To 1830 DX= 10.000 ft.
NTS
e 1830 Y
e 1830 Z
e 1830 X

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830 To 1835 DX= 1.500 ft.
"TO" end
us= 4.500 in. (LONG) Bend Angle= 90.000

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835 To 1840 DZ= 1.500 ft.
NTS
1840 Y
1840 X
1840 Z

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840 To 1845 DZ= 6.500 ft.

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845 To 1850 DZ= 6.500 ft.
NTS
1850 Y

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850 To 1855 DZ= 6.500 ft.

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855 To 1860 DZ= 6.500 ft.
NTS
1860 Y

PIPE DATA

From 1860 To 1865 DZ= 2.000 ft.

From 1865 To 1870 DZ= .125 ft.
RIGID Weight= 24.00 lb.

From 1870 To 1875 DZ= 2.375 ft.
SIF's & TEE's
Node 1875 Welding Tee

From 1875 To 1880 DZ= 2.375 ft.

From 1880 To 1885 DZ= .125 ft.
RIGID Weight= 24.00 lb.

From 1885 To 1900 DZ= 2.000 ft.
RESTRAINTS
Node 1900 Y

From 1900 To 1905 DZ= 10.000 ft.

From 1905 To 1910 DZ= 10.000 ft.
RESTRAINTS
Node 1910 Y

From 1910 To 1915 DZ= 10.000 ft.

From 1915 To 1920 DZ= 10.000 ft.
RESTRAINTS
Node 1920 Y

From 1920 To 1925 DZ= 10.000 ft.

From 1925 To 1930 DZ= 10.000 ft.
RESTRAINTS
Node 1930 Y

From 1930 To 1935 DZ= 4.000 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 45.000

From 1935 To 1945 DX= -.566 ft. DZ= .566 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 45.000

From 1945 To 1950 DX= -1.000 ft.
RESTRAINTS
Node 1950 Y
Node 1950 X
Node 1950 Z

PIPE DATA

From 1950 To 1955 DX= -4.000 ft.

From 1955 To 1960 DX= -4.000 ft.
RESTRAINTS
Node 1960 Y
Node 1960 Z
Node 1960 X

From 1960 To 1965 DX= -10.000 ft.

From 1965 To 1970 DX= -10.000 ft.
RESTRAINTS
Node 1970 Y
Node 1970 Z
Node 1970 X

From 1970 To 1975 DX= -6.000 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 1975 To 1980 DY= -5.000 ft.

From 1980 To 1985 DY= -5.000 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 1985 To 1990 DZ= 9.000 ft.
RESTRAINTS
Node 1990 Y

From 1990 To 1995 DZ= 6.000 ft.

From 1995 To 2000 DZ= 6.000 ft.
RESTRAINTS
Node 2000 Y

From 2000 To 2005 DZ= 2.875 ft.

From 2005 To 2010 DZ= .125 ft.
RIGID Weight= 24.00 lb.

From 2010 To 2015 DZ= .500 ft.
SIF's & TEE's
Node 2015 Welding Tee

From 2015 To 2020 DZ= .500 ft.

From 2020 To 2025 DZ= .125 ft.
RIGID Weight= 24.00 lb.

PIPE DATA

From 2025 To 2030 DZ= 2.875 ft.
BEND at "TO" end
  Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 2030 To 2035 DY= -3.000 ft.
BEND at "TO" end
  Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 2035 To 2040 DX= -1.500 ft.
RESTRAINTS
  Node 2040 Y

From 2040 To 2045 DX= -3.000 ft.

From 2045 To 2050 DX= -3.000 ft.
RESTRAINTS
  Node 2050 Y

From 2050 To 2055 DX= -3.000 ft.
BEND at "TO" end
  Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 2055 To 2060 DZ= 8.000 ft.
RESTRAINTS
  Node 2060 Y

From 2060 To 2065 DZ= 3.000 ft.
BEND at "TO" end
  Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 2065 To 2070 DY= -.375 ft.

From 1875 To 2080 DX= -.500 ft.

From 2080 To 2085 DX= -.125 ft.
RIGID Weight= 24.00 lb.

From 2085 To 2090 DX= -1.375 ft.
BEND at "TO" end
  Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 2090 To 2095 DY= -4.000 ft.
BEND at "TO" end
  Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 2095 To 2100 DZ= -3.000 ft.
RESTRAINTS
  Node 2100 Y

From 2100 To 2105 DZ= -5.000 ft.

PIPE DATA

From 2105 To 2110 DZ= -5.000 ft.
RESTRAINTS
Node 2110 Y

From 2110 To 2115 DZ= -5.000 ft.

From 2115 To 2120 DZ= -5.000 ft.
RESTRAINTS
Node 2120 Y

From 2120 To 2125 DZ= -5.500 ft.

From 2125 To 2130 DZ= -5.500 ft.
RESTRAINTS
Node 2130 Y

From 2130 To 2135 DZ= -4.000 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 2135 To 2140 DY= -6.000 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 2140 To 2145 DZ= -2.000 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 2145 To 2150 DX= 2.000 ft.
RESTRAINTS
Node 2150 Y

From 2150 To 2155 DX= 3.000 ft.

From 2155 To 2160 DX= 4.280 ft.
RESTRAINTS
Node 2160 Y

From 2160 To 2165 DX= 3.000 ft.

From 2165 To 2170 DX= 4.280 ft.
RESTRAINTS
Node 2170 Y

From 2170 To 2175 DX= 3.000 ft.

From 2175 To 2180 DX= 4.280 ft.
RESTRAINTS
Node 2180 Y

PIPE DATA

From 2180 To 2185 DX= 3.000 ft.

From 2185 To 2190 DX= 4.280 ft.

RESTRAINTS

Node 2190 Y

From 2190 To 2195 DX= 3.000 ft.

From 2195 To 2200 DX= 4.280 ft.

RESTRAINTS

Node 2200 Y

From 2200 To 2205 DX= 3.000 ft.

From 2205 To 2210 DX= 4.280 ft.

RESTRAINTS

Node 2210 Y

From 2210 To 2215 DX= 3.000 ft.

From 2215 To 2220 DX= 4.280 ft.

RESTRAINTS

Node 2220 Y

From 2220 To 2225 DX= 3.000 ft.

From 2225 To 2230 DX= 4.280 ft.

RESTRAINTS

Node 2230 Y

From 2230 To 2235 DX= 3.000 ft.

From 2235 To 2240 DX= 4.280 ft.

RESTRAINTS

Node 2240 Y

From 2240 To 2245 DX= 3.000 ft.

From 2245 To 2250 DX= 4.280 ft.

RESTRAINTS

Node 2250 Y

From 2250 To 2255 DX= 3.000 ft.

From 2255 To 2260 DX= 4.280 ft.

RESTRAINTS

Node 2260 Y

From 2260 To 2265 DX= 3.000 ft.

PIPE DATA

From 2265 To 2270 DX= 4.280 ft.

RESTRAINTS
Node 2270 Y

From 2270 To 2275 DX= 3.000 ft.

From 2275 To 2280 DX= 4.280 ft.

RESTRAINTS
Node 2280 Y

From 2280 To 2285 DX= 3.000 ft.

From 2285 To 2290 DX= 4.280 ft.

RESTRAINTS
Node 2290 Y

From 2290 To 2295 DX= 3.000 ft.

From 2295 To 2300 DX= 4.280 ft.

RESTRAINTS
Node 2300 Y

From 2300 To 2305 DX= 3.000 ft.

From 2305 To 2310 DX= 4.280 ft.

RESTRAINTS
Node 2310 Y

From 2310 To 2315 DX= 3.000 ft.

From 2315 To 2320 DX= 4.280 ft.

RESTRAINTS
Node 2320 Y

From 2320 To 2325 DX= 3.000 ft.

From 2325 To 2330 DX= 4.280 ft.

RESTRAINTS
Node 2330 Y

From 2330 To 2335 DX= 3.000 ft.

From 2335 To 2340 DX= 4.280 ft.

RESTRAINTS
Node 2340 Y

From 2340 To 2345 DX= 3.000 ft.

From 2345 To 2350 DX= 4.280 ft.

RESTRAINTS
Node 2350 Y

PIPE DATA

From 2350 To 2355 DX= 3.000 ft.

From 2355 To 2360 DX= 4.280 ft.
RESTRAINTS
Node 2360 Y

From 2360 To 2365 DX= 3.000 ft.

From 2365 To 2370 DX= 4.280 ft.
RESTRAINTS
Node 2370 Y

From 2370 To 2375 DX= 3.000 ft.

From 2375 To 2380 DX= 4.280 ft.
RESTRAINTS
Node 2380 Y

From 2380 To 2385 DX= 3.000 ft.

From 2385 To 2390 DX= 4.280 ft.
RESTRAINTS
Node 2390 Y

From 2390 To 2395 DX= 3.000 ft.

From 2395 To 2400 DX= 4.280 ft.
RESTRAINTS
Node 2400 Y

From 2400 To 2415 DX= 3.000 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 2415 To 2420 DZ= -4.000 ft.

From 2420 To 2425 DZ= -6.000 ft.
RESTRAINTS
Node 2425 Y

From 2425 To 2430 DZ= -4.000 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 2430 To 2435 DY= -5.000 ft.
PIPE
Dia= 3.500 in. Wall= .216 in. Insul= 1.500 in.
GENERAL
Mat= (6)AUSTENITIC STAINLESS E= 28,300,000 lb./sq.in. v = .292
Density= .2893 lb./cu.in.

MATERIAL Changes:

1000	1005	Mat= (6)AUSTENITIC STAINLESS	E= 28,300,000 lb./sq.in.	v = .292
		Density= .2893 lb./cu.in.		
2430	2435	Mat= (6)AUSTENITIC STAINLESS	E= 28,300,000 lb./sq.in.	v = .292
		Density= .2893 lb./cu.in.		

BEND ELEMENTS

1000	1005	Radius= 4.500 in. (LONG)	Bend Angle= 90.000
1045	1050	Radius= 4.500 in. (LONG)	Bend Angle= 90.000
1055	1060	Radius= 4.500 in. (LONG)	Bend Angle= 90.000
1065	1070	Radius= 4.500 in. (LONG)	Bend Angle= 45.000
1070	1075	Radius= 4.500 in. (LONG)	Bend Angle= 45.000
1150	1155	Radius= 4.500 in. (LONG)	Bend Angle= 90.000
1230	1235	Radius= 4.500 in. (LONG)	Bend Angle= 90.000
1270	1275	Radius= 4.500 in. (LONG)	Bend Angle= 90.000
1335	1340	Radius= 4.500 in. (LONG)	Bend Angle= 90.000
1355	1360	Radius= 4.500 in. (LONG)	Bend Angle= 90.000
1370	1375	Radius= 4.500 in. (LONG)	Bend Angle= 90.000
1380	1385	Radius= 4.500 in. (LONG)	Bend Angle= 90.000
1409	1410	Radius= 4.500 in. (LONG)	Bend Angle= 90.000
1425	1430	Radius= 4.500 in. (LONG)	Bend Angle= 90.000
1430	1435	Radius= 4.500 in. (LONG)	Bend Angle= 90.000
1480	1485	Radius= 4.500 in. (LONG)	Bend Angle= 90.000
1485	1490	Radius= 4.500 in. (LONG)	Bend Angle= 45.000
1500	1505	Radius= 4.500 in. (LONG)	Bend Angle= 90.000
1518	1520	Radius= 4.500 in. (LONG)	Bend Angle= 90.000
1535	1540	Radius= 4.500 in. (LONG)	Bend Angle= 90.000
1545	1550	Radius= 4.500 in. (LONG)	Bend Angle= 90.000
1600	1605	Radius= 4.500 in. (LONG)	Bend Angle= 90.000
1610	1615	Radius= 4.500 in. (LONG)	Bend Angle= 90.000
1680	1685	Radius= 4.500 in. (LONG)	Bend Angle= 90.000
1700	1705	Radius= 4.500 in. (LONG)	Bend Angle= 90.000
1750	1755	Radius= 4.500 in. (LONG)	Bend Angle= 45.003
1755	1760	Radius= 4.500 in. (LONG)	Bend Angle= 45.003
1800	1805	Radius= 4.500 in. (LONG)	Bend Angle= 90.000
1830	1835	Radius= 4.500 in. (LONG)	Bend Angle= 90.000
1930	1935	Radius= 4.500 in. (LONG)	Bend Angle= 45.000
1935	1945	Radius= 4.500 in. (LONG)	Bend Angle= 45.000
1970	1975	Radius= 4.500 in. (LONG)	Bend Angle= 90.000
1980	1985	Radius= 4.500 in. (LONG)	Bend Angle= 90.000
2025	2030	Radius= 4.500 in. (LONG)	Bend Angle= 90.000
2030	2035	Radius= 4.500 in. (LONG)	Bend Angle= 90.000
2050	2055	Radius= 4.500 in. (LONG)	Bend Angle= 90.000
2060	2065	Radius= 4.500 in. (LONG)	Bend Angle= 90.000
2085	2090	Radius= 4.500 in. (LONG)	Bend Angle= 90.000
2090	2095	Radius= 4.500 in. (LONG)	Bend Angle= 90.000
2130	2135	Radius= 4.500 in. (LONG)	Bend Angle= 90.000
2135	2140	Radius= 4.500 in. (LONG)	Bend Angle= 90.000
2140	2145	Radius= 4.500 in. (LONG)	Bend Angle= 90.000
2400	2415	Radius= 4.500 in. (LONG)	Bend Angle= 90.000
2425	2430	Radius= 4.500 in. (LONG)	Bend Angle= 90.000

RIGIDS

1285	1290	RIGID	Weight= 24.00 lb.
1295	1300	RIGID	Weight= 24.00 lb.
1390	1395	RIGID	Weight= 24.00 lb.
1402	1403	RIGID	Weight= 10.00 lb.
1404	1405	RIGID	Weight= 10.00 lb.
1406	1407	RIGID	Weight= 60.00 lb.
1407	1408	RIGID	Weight= 60.00 lb.
1408	1409	RIGID	Weight= 60.00 lb.
1515	1516	RIGID	Weight= 60.00 lb.
1516	1517	RIGID	Weight= 60.00 lb.
1517	1518	RIGID	Weight= 60.00 lb.
1530	1535	RIGID	Weight= 24.00 lb.
1560	1565	RIGID	Weight= 24.00 lb.
1570	1575	RIGID	Weight= 24.00 lb.
1660	1665	RIGID	Weight= 24.00 lb.
1670	1675	RIGID	Weight= 24.00 lb.
1720	1725	RIGID	Weight= 24.00 lb.
1730	1735	RIGID	Weight= 24.00 lb.
1865	1870	RIGID	Weight= 24.00 lb.
1880	1885	RIGID	Weight= 24.00 lb.
2005	2010	RIGID	Weight= 24.00 lb.
2020	2025	RIGID	Weight= 24.00 lb.
2080	2085	RIGID	Weight= 24.00 lb.

RESTRAINTS

NODE	TYPE	CNODE	STIF1	Len GAP STIF2	MU YIELD FORCE	Dir Vectors		
1010	X					1.000	.000	.000
1010	Y					.000	1.000	.000
1010	Z					.000	.000	1.000
1015	Y					.000	1.000	.000
1025	Y					.000	1.000	.000
1025	Z					.000	.000	1.000
1025	X					1.000	.000	.000
1035	Y					.000	1.000	.000
1045	Y					.000	1.000	.000
1045	Z					.000	.000	1.000
1045	X					1.000	.000	.000
1065	Y					.000	1.000	.000
1065	Z					.000	.000	1.000
1065	X					1.000	.000	.000
1080	Y					.000	1.000	.000
1080	Z					.000	.000	1.000
1080	X					1.000	.000	.000
1090	Y					.000	1.000	.000
1090	Z					.000	.000	1.000
1090	X					1.000	.000	.000
1100	Y					.000	1.000	.000
1100	Z					.000	.000	1.000
1100	X					1.000	.000	.000
1110	Y					.000	1.000	.000
1110	Z					.000	.000	1.000
1110	X					1.000	.000	.000
1120	Y					.000	1.000	.000
1120	X					1.000	.000	.000
1120	Z					.000	.000	1.000
1130	Y					.000	1.000	.000
1130	Z					.000	.000	1.000
1130	X					1.000	.000	.000
1140	Y					.000	1.000	.000
1140	Z					.000	.000	1.000
1140	X					1.000	.000	.000
1150	Y					.000	1.000	.000
1150	Z					.000	.000	1.000
1150	X					1.000	.000	.000
1160	Y					.000	1.000	.000
1160	X					1.000	.000	.000
1160	Z					.000	.000	1.000
1170	Y					.000	1.000	.000
1180	Y					.000	1.000	.000
1190	Y					.000	1.000	.000
1200	Y					.000	1.000	.000
1210	Y					.000	1.000	.000
1220	Y					.000	1.000	.000

RESTRAINTS

NODE	TYPE	CNODE	STIF1	Len GAP STIF2	MU YIELD FORCE	Dir Vectors		
1230	Y				.000	1.000	.000	
1240	Y				.000	1.000	.000	
1240	Z				.000	.000	1.000	
1240	X				1.000	.000	.000	
1250	Y				.000	1.000	.000	
1250	Z				.000	.000	1.000	
1250	X				1.000	.000	.000	
1260	Y				.000	1.000	.000	
1260	Z				.000	.000	1.000	
1260	X				1.000	.000	.000	
1270	Y				.000	1.000	.000	
1270	X				1.000	.000	.000	
1270	Z				.000	.000	1.000	
1280	Y				.000	1.000	.000	
1280	X				1.000	.000	.000	
1280	Z				.000	.000	1.000	
1305	Y				.000	1.000	.000	
1305	X				1.000	.000	.000	
1305	Z				.000	.000	1.000	
1315	Y				.000	1.000	.000	
1315	X				1.000	.000	.000	
1315	Z				.000	.000	1.000	
1325	Y				.000	1.000	.000	
1325	X				1.000	.000	.000	
1325	Z				.000	.000	1.000	
1335	Y				.000	1.000	.000	
1335	X				1.000	.000	.000	
1335	Z				.000	.000	1.000	
1345	Y				.000	1.000	.000	
1355	Y				.000	1.000	.000	
1370	Y				.000	1.000	.000	
1425	Y				.000	1.000	.000	
1445	Y				.000	1.000	.000	
1455	Y				.000	1.000	.000	
1465	Y				.000	1.000	.000	
1480	Y				.000	1.000	.000	
1500	Y				.000	1.000	.000	
1555	Y				.000	1.000	.000	
1557	Y				.000	1.000	.000	
1580	Y				.000	1.000	.000	
1590	Y				.000	1.000	.000	
1600	Y				.000	1.000	.000	
1610	Y				.000	1.000	.000	
1625	Y				.000	1.000	.000	
1635	Y				.000	1.000	.000	
1645	Y				.000	1.000	.000	
1655	Y				.000	1.000	.000	

RESTRAINTS

NODE	TYPE	CNODE	STIF1	Len GAP STIF2	MU YIELD FORCE	Dir Vectors		
1680	Y					.000	1.000	.000
1690	Y					.000	1.000	.000
1700	Y					.000	1.000	.000
1745	Y					.000	1.000	.000
1765	Y					.000	1.000	.000
1765	X					1.000	.000	.000
1765	Z					.000	.000	1.000
1775	Y					.000	1.000	.000
1775	X					1.000	.000	.000
1775	Z					.000	.000	1.000
1785	Y					.000	1.000	.000
1785	X					1.000	.000	.000
1785	Z					.000	.000	1.000
1795	Y					.000	1.000	.000
1795	X					1.000	.000	.000
1795	Z					.000	.000	1.000
1810	Y					.000	1.000	.000
1810	X					1.000	.000	.000
1810	Z					.000	.000	1.000
1820	Y					.000	1.000	.000
1820	Z					.000	.000	1.000
1820	X					1.000	.000	.000
1830	Y					.000	1.000	.000
1830	Z					.000	.000	1.000
1830	X					1.000	.000	.000
1840	Y					.000	1.000	.000
1840	X					1.000	.000	.000
1840	Z					.000	.000	1.000
1850	Y					.000	1.000	.000
1860	Y					.000	1.000	.000
1900	Y					.000	1.000	.000
1910	Y					.000	1.000	.000
1920	Y					.000	1.000	.000
1930	Y					.000	1.000	.000
1950	Y					.000	1.000	.000
1950	X					1.000	.000	.000
1950	Z					.000	.000	1.000
1960	Y					.000	1.000	.000
1960	Z					.000	.000	1.000
1960	X					1.000	.000	.000
1970	Y					.000	1.000	.000
1970	Z					.000	.000	1.000
1970	X					1.000	.000	.000
1990	Y					.000	1.000	.000
2000	Y					.000	1.000	.000
2040	Y					.000	1.000	.000
2050	Y					.000	1.000	.000

STRAINTS

NODE	TYPE	CNODE	STIF1	Len GAP STIF2	MU YIELD FORCE	Dir Vectors		
2060	Y					.000	1.000	.000
2100	Y					.000	1.000	.000
2110	Y					.000	1.000	.000
2120	Y					.000	1.000	.000
2130	Y					.000	1.000	.000
2150	Y					.000	1.000	.000
2160	Y					.000	1.000	.000
2170	Y					.000	1.000	.000
2180	Y					.000	1.000	.000
2190	Y					.000	1.000	.000
2200	Y					.000	1.000	.000
2210	Y					.000	1.000	.000
2220	Y					.000	1.000	.000
2230	Y					.000	1.000	.000
2240	Y					.000	1.000	.000
2250	Y					.000	1.000	.000
2260	Y					.000	1.000	.000
2270	Y					.000	1.000	.000
2280	Y					.000	1.000	.000
2290	Y					.000	1.000	.000
2300	Y					.000	1.000	.000
2310	Y					.000	1.000	.000
2320	Y					.000	1.000	.000
2330	Y					.000	1.000	.000
2340	Y					.000	1.000	.000
2350	Y					.000	1.000	.000
2360	Y					.000	1.000	.000
2370	Y					.000	1.000	.000
2380	Y					.000	1.000	.000
2390	Y					.000	1.000	.000
2400	Y					.000	1.000	.000
2425	Y					.000	1.000	.000

)ISPLACEMENTS

1410	1420	Node 1420	DX= -.106 in.	DY= .300 in.	DZ= -.106 in.	
		RX= .000	RY= .000	RZ= .000		
1520	1525	Node 1525	DX= -.106 in.	DY= .300 in.	DZ= .106 in.	
		RX= .000	RY= .000	RZ= .000		

LLOWABLE STRESS Changes
1000 1005 B31.3 (1993) Sc= 16,700 lb./sq.in. Sh1= 16,700 lb./sq.in.
Sh2= 16,700 lb./sq.in. Sh3= 16,700 lb./sq.in.

:IF's & TEE's

1395	1400	Node	1400	Welding Tee
1400	1401	Node	1401	Welding Tee
1455	1460	Node	1460	Welding Tee
1505	1510	Node	1510	Welding Tee
1870	1875	Node	1875	Welding Tee
2010	2015	Node	2015	Welding Tee

CONTROL AND LOCATION DATA

of Hanger Design Load Cases = 1 Actual Cold Load Flag = 0.0
t Range Spring Flag = 0.0 Default Hanger Table = 1

000224

INPUT UNITS USED...

UNITS= ENGLISH NOM/SCH INPUT= ON

LENGTH	inches	x	1.000	=	in.
FORCE	pounds	x	1.000	=	lb.
MASS(dynamics)	pounds	x	1.000	=	lbm
MOMENTS(INPUT)	inch-pounds	x	1.000	=	in.lb.
MOMENTS(OUTPUT)	inch-pounds	x	0.083	=	ft.lb.
STRESS	lbs./sq.in.	x	1.000	=	lb./sq.in.
TEMP. SCALE	degrees F.	x	1.000	=	F
PRESSURE	psig	x	1.000	=	lb./sq.in.
ELASTIC MODULUS	lbs./sq.in.	x	1.000	=	lb./sq.in.
PIPE DENSITY	lbs./cu.in.	x	1.000	=	lb./cu.in.
INSULATION DENS.	lbs./cu.in.	x	1.000	=	lb./cu.in.
FLUID DENSITY	lbs./cu.in.	x	1.000	=	lb./cu.in.
TRANSL. STIF	lbs./in.	x	1.000	=	lb./in.
ROTATIONAL STIF	in.lb./deg.	x	1.000	=	in.lb./deg
UNIFORM LOAD	lb./in.	x	1.000	=	lb./in.
G LOAD	g's	x	1.000	=	g's
WIND LOAD	lbs./sq.in.	x	144.000	=	lb./sq.ft.
ELEVATION	inches	x	0.083	=	ft.
COMPOUND LENGTH	inches	x	0.083	=	ft.
DIAMETER	inches	x	1.000	=	in.
WALL THICKNESS	inches	x	1.000	=	in.

LE PARAMETERS

EOMETRY_THRU_CNODES =	YES	
ED_BEND_ANGLE =	.5000000E+01	
ED_BEND_ANGLE =	.9500000E+02	
TH_ATTACHMENT_PERCENT =	.5000000E+01	
_TO_ADJACENT_BEND_PT =	.5000000E+01	
URE_TOLERANCE =	0.1000000E+01	in.
OWING_HORZ_TOLERANCE =	.1000000E-03	
URE_STIFFENING =	DEFAULT	
	NO	
_STRESS_ON_OD	NO	
ERANCE =	.5000000E-01	
CE =	NO	
ESWGT_STIF =	0.1000000E+13	lb./in.
G_TOL =	.1000000E+11	
L_SHAPE =	NO	
F =	0.5000000E+05	lb./in.
M_FORCE_VAR =	.2500000E+00	
LE_VAR =	.3000000E+02	
DE_MULT =	.1000000E+01	
ANCE =	.1000000E+01	
	.2000000E+01	
MERICAL_CHECK =	NO	
UMERICAL_CHECK =	NO	
RANS_RESTRAINT_STIFF=	0.1000000E+13	lb./in.
OT_RESTRAINT_STIFF=	0.1000000E+13	in.lb./deg
RING_HANGER_STIFFNESS =	NO	
ASS_ZPA =	EXTRACTED	
MILL_TOLERANCE =	.1250000E+02	
NTERSECTION =	B31.1(POST1980)	
9	NO	
D_SIF_FOR_RFT_AND_WLT	NO	
UCED_Z_FIX =	YES	
RANCH_FLEX	NO	
S_CASES_CORRODED =	NO	
ON_IN_SL_STRESS =	DEFAULT	
N_STRESS =	DEFAULT	
L_LOAD_FACTOR =	.0000000E+00	
ODE =	B31.3	
_CASE_SIF_FACTOR =	.1000000E+01	
RS_BEND_SIF =	NO	
IDER	NO	
YPE =	LASER_JET	
ORT =	LPT1	
ORMAL_FMT_STRING =	LaserJet_80/6	
OMPRESS_FMT_STRING =	LaserJet_132/6	
ESET_FMT_STRING =	LaserJetReset1	
RINTER_CHECKS =	NO	
TH =	US	
_PAGE =	.5700000E+02	

SETUP FILE PARAMETERS

PLOTTER_TYPE =	HPGL
STRCT_DBASE=	AISC89.BIN
VALVE_&_FLANGE=	GENERIC.VHD
EXPANSION_JT_DBASE=	PATHWAY.JHD
PIPING_SIZE_SPECIFICATION	ANSI
INTRO_EXIT_SCREENS	OFF
YES/NO/ARE_YOU_SURE_PROMPTS	OFF
OUTPUT_REPORTS_BY_LOAD_CASE	YES
DISPLACEMENT_NODAL_SORTING	YES
DYNAMIC_INPUT_EXAMPLE_TEXT	MAX
TIME_HIST_ANIMATE	YES
OUTPUT_TABLE_OF_CONTENTS	ON
INPUT_FUNCTION_KEYS_DISPLAYED	YES

N CONTROL PARAMETERS

l/Expjt Print Flag	.000
al/Weight Print Flag ..	.000
ion Option	.000
Closure Flag	.000
al Allowable Flag	1.000
rm Load Option	.000
al Bowing Delta Temp ..	.000 F
nt Temperature	70.000 F
ic Coefficient	.000
ptimizer	.000
Selection	.000
rdering	.000
ns	.000
e Determination	.000
Eqn Control	.000

COORDINATE REPORT

NODE	X (in.)	Y (in.)	Z (in.)
1000	.0000	.0000	.0000
1005	.0000	4.5000	.0000
1010	12.0000	4.5000	.0000
1012	84.0000	4.5000	.0000
1015	156.0000	4.5000	.0000
1020	228.0000	4.5000	.0000
1025	300.0000	4.5000	.0000
1030	372.0000	4.5000	.0000
1035	444.0000	4.5000	.0000
1040	516.0000	4.5000	.0000
1045	588.0000	4.5000	.0000
1050	600.0000	4.5000	.0000
1055	600.0000	4.5000	90.0000
1060	600.0000	4.5000	180.0000
1065	636.0000	4.5000	180.0000
1070	726.0000	4.5000	180.0000
1075	762.0000	40.5000	180.0000
1080	780.0000	40.5000	180.0000
1085	816.0000	40.5000	180.0000
1090	852.0000	40.5000	180.0000
1095	912.0000	40.5000	180.0000
1100	972.0000	40.5000	180.0000
1105	1032.0000	40.5000	180.0000
1110	1092.0000	40.5000	180.0000
1115	1200.0000	40.5000	180.0000
1120	1308.0000	40.5000	180.0000
1125	1416.0000	40.5000	180.0000
1130	1524.0000	40.5000	180.0000
1135	1632.0000	40.5000	180.0000
1140	1740.0000	40.5000	180.0000
1145	1848.0000	40.5000	180.0000
1150	1956.0000	40.5000	180.0000
1155	2076.0000	40.5000	180.0000
1160	2076.0000	40.5000	204.0000
1165	2076.0000	40.5000	324.0000
1170	2076.0000	40.5000	444.0000
1175	2076.0000	40.5000	504.0000
1180	2076.0000	40.5000	564.0000
1185	2076.0000	40.5000	624.0000
1190	2076.0000	40.5000	684.0000
1195	2076.0000	40.5000	744.0000
1200	2076.0000	40.5000	804.0000
1205	2076.0000	40.5000	864.0000
1210	2076.0000	40.5000	924.0000
1215	2076.0000	40.5000	984.0000
1220	2076.0000	40.5000	1044.0000
1225	2076.0000	40.5000	1104.0000
1230	2076.0000	40.5000	1164.0000

To: FLUOR DANIEL ID: 13692

E REPORT

/----------(in.)----------/

X	Y	Z
2076.0000	40.5000	1200.0000
2094.0000	40.5000	1200.0000
2214.0000	40.5000	1200.0000
2334.0000	40.5000	1200.0000
2454.0000	40.5000	1200.0000
2574.0000	40.5000	1200.0000
2694.0000	40.5000	1200.0000
2814.0000	40.5000	1200.0000
2850.0000	40.5000	1200.0000
2850.0000	40.5000	1272.0000
2850.0000	40.5000	1320.0000
2850.0000	40.5000	1322.0000
2850.0000	40.5000	1358.0000
2850.0000	40.5000	1360.0000
2850.0000	40.5000	1408.0000
2850.0000	40.5000	1456.0000
2850.0000	40.5000	1504.0000
2850.0000	40.5000	1612.0000
2850.0000	40.5000	1720.0000
2850.0000	40.5000	1765.0000
2850.0000	40.5000	1810.0000
2850.0000	40.5000	1906.0000
2910.0000	40.5000	1906.0000
2958.0000	40.5000	1906.0000
3006.0000	40.5000	1906.0000
3066.0000	40.5000	1906.0000
3066.0000	40.5000	1966.0000
3066.0000	40.5000	2020.0000
3066.0000	40.5000	2038.0000
3066.0000	88.5000	2038.0000
3066.0000	148.5000	2038.0000
3066.0000	148.5000	2044.0000
3066.0000	148.5000	2045.0000
3066.0000	148.5000	2050.0000
3090.0000	148.5000	2050.0000
3090.0000	148.5000	2047.0000
3090.0000	148.5000	2035.0000
3090.0000	148.5000	2029.0000
3090.0000	148.5000	2017.0000
3090.0000	148.5000	2050.0000
3100.0000	148.5000	2050.0000
3108.0000	148.5000	2050.0000
3116.0000	148.5000	2050.0000
3124.0000	148.5000	2050.0000
3138.0000	148.5000	2050.0000
3138.0000	112.5000	2050.0000
3066.0000	148.5000	2050.0000
3054.0000	148.5000	2050.0000

COORDINATE REPORT

/----------(in.)----------/

NODE	X	Y	Z
1430	2946.0000	148.5000	2050.0000
1435	2946.0000	136.5000	2050.0000
1440	2946.0000	136.5000	2086.0000
1445	2946.0000	136.5000	2122.0000
1450	2946.0000	136.5000	2212.0000
1455	2946.0000	136.5000	2302.0000
1460	2946.0000	136.5000	2470.0000
1465	2946.0000	136.5000	2482.0000
1470	2946.0000	136.5000	2572.0000
1480	2946.0000	136.5000	2662.0000
1485	2946.0000	136.5000	2710.0000
1490	2950.7000	131.8000	2710.0000
1495	3010.7000	131.8000	2710.0000
1500	3070.7000	131.8000	2710.0000
1505	3094.7000	131.8000	2710.0000
1510	3094.7000	131.8000	2734.0000
1515	3104.7000	131.8000	2734.0000
1516	3112.7000	131.8000	2734.0000
1517	3120.7000	131.8000	2734.0000
1518	3128.7000	131.8000	2734.0000
1520	3142.7000	131.8000	2734.0000
1525	3142.7000	125.8000	2734.0000
1460	2946.0000	136.5000	2470.0000
1530	2943.0000	136.5000	2470.0000
1535	2941.0000	136.5000	2470.0000
1540	2928.0000	136.5000	2470.0000
1545	2928.0000	46.5000	2470.0000
1550	2928.0000	-43.5000	2470.0000
1555	2916.0000	-43.5000	2470.0000
1556	2856.0000	-43.5000	2470.0000
1557	2796.0000	-43.5000	2470.0000
1560	2760.0000	-43.5000	2470.0000
1565	2758.5000	-43.5000	2470.0000
1570	2713.5000	-43.5000	2470.0000
1575	2712.0000	-43.5000	2470.0000
1580	2676.0000	-43.5000	2470.0000
1585	2616.0000	-43.5000	2470.0000
1590	2556.0000	-43.5000	2470.0000
1595	2496.0000	-43.5000	2470.0000
1600	2436.0000	-43.5000	2470.0000
1605	2424.0000	-43.5000	2470.0000
1610	2424.0000	-43.5000	2566.0000
1615	2424.0000	-43.5000	2602.0000
1620	2364.0000	-43.5000	2602.0000
1625	2304.0000	-43.5000	2602.0000
1630	2244.0000	-43.5000	2602.0000
1635	2184.0000	-43.5000	2602.0000
1640	2124.0000	-43.5000	2602.0000

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/----------(in.)----------/

X	Y	Z
2064.0000	-43.5000	2602.0000
2004.0000	-43.5000	2602.0000
1944.0000	-43.5000	2602.0000
1908.0000	-43.5000	2602.0000
1906.5000	-43.5000	2602.0000
1861.5000	-43.5000	2602.0000
1860.0000	-43.5000	2602.0000
1824.0000	-43.5000	2602.0000
1788.0000	-43.5000	2602.0000
1788.0000	-43.5000	2662.0000
1788.0000	-43.5000	2722.0000
1788.0000	-43.5000	2782.0000
1788.0000	-43.5000	2806.0000
1788.0000	-67.5000	2806.0000
3094.7000	131.8000	2734.0000
3094.7000	131.8000	2737.0000
3094.7000	131.8000	2738.5000
3094.7000	131.8000	2768.5000
3094.7000	131.8000	2770.0000
3094.7000	131.8000	2773.0000
3094.7000	131.8000	2800.0000
3094.7000	131.8000	2860.0000
3094.7000	131.8000	2920.0000
3086.2160	107.8000	2945.4520
3086.2160	107.8000	2993.4520
3086.2160	107.8000	3053.4520
3086.2160	107.8000	3137.4520
3086.2160	107.8000	3257.4520
3086.2160	107.8000	3377.4520
3086.2160	107.8000	3425.4520
3086.2160	107.8000	3473.4520
3086.2160	107.8000	3533.4520
3086.2160	107.8000	3593.4520
3098.2160	107.8000	3593.4520
3218.2160	107.8000	3593.4520
3338.2160	107.8000	3593.4520
3458.2160	107.8000	3593.4520
3578.2160	107.8000	3593.4520
3596.2160	107.8000	3593.4520
3596.2160	107.8000	3611.4520
3596.2160	107.8000	3689.4520
3596.2160	107.8000	3767.4520
3596.2160	107.8000	3845.4520
3596.2160	107.8000	3923.4520
3596.2160	107.8000	3947.4520
3596.2160	107.8000	3948.9520
3596.2160	107.8000	3977.4520
3596.2160	107.8000	4005.9520

COORDINATE REPORT

/--------------------(in.)---------------------/

NODE	X	Y	Z
1885	3596.2160	107.8000	4007.4520
1900	3596.2160	107.8000	4031.4520
1905	3596.2160	107.8000	4151.4520
1910	3596.2160	107.8000	4271.4520
1915	3596.2160	107.8000	4391.4520
1920	3596.2160	107.8000	4511.4520
1925	3596.2160	107.8000	4631.4520
1930	3596.2160	107.8000	4751.4520
1935	3596.2160	107.8000	4799.4520
1945	3589.4160	107.8000	4806.2520
1950	3577.4160	107.8000	4806.2520
1955	3529.4160	107.8000	4806.2520
1960	3481.4160	107.8000	4806.2520
1965	3361.4160	107.8000	4806.2520
1970	3241.4160	107.8000	4806.2520
1975	3169.4160	107.8000	4806.2520
1980	3169.4160	47.8000	4806.2520
1985	3169.4160	-12.2000	4806.2520
1990	3169.4160	-12.2000	4914.2520
1995	3169.4160	-12.2000	4986.2520
2000	3169.4160	-12.2000	5058.2520
2005	3169.4160	-12.2000	5092.7520
2010	3169.4160	-12.2000	5094.2520
2015	3169.4160	-12.2000	5100.2520
2020	3169.4160	-12.2000	5106.2520
2025	3169.4160	-12.2000	5107.7520
2030	3169.4160	-12.2000	5142.2520
2035	3169.4160	-48.2000	5142.2520
2040	3151.4160	-48.2000	5142.2520
2045	3115.4160	-48.2000	5142.2520
2050	3079.4160	-48.2000	5142.2520
2055	3043.4160	-48.2000	5142.2520
2060	3043.4160	-48.2000	5238.2520
2065	3043.4160	-48.2000	5274.2520
2070	3043.4160	-52.7000	5274.2520
1875	3596.2160	107.8000	3977.4520
2080	3590.2160	107.8000	3977.4520
2085	3588.7160	107.8000	3977.4520
2090	3572.2160	107.8000	3977.4520
2095	3572.2160	59.8000	3977.4520
2100	3572.2160	59.8000	3941.4520
2105	3572.2160	59.8000	3881.4520
2110	3572.2160	59.8000	3821.4520
2115	3572.2160	59.8000	3761.4520
2120	3572.2160	59.8000	3701.4520
2125	3572.2160	59.8000	3635.4520
2130	3572.2160	59.8000	3569.4520
2135	3572.2160	59.8000	3521.4520

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/----------(in.)----------/

X	Y	Z
3572.2160	-12.2000	3521.4520
3572.2160	-12.2000	3497.4520
3596.2160	-12.2000	3497.4520
3632.2160	-12.2000	3497.4520
3683.5760	-12.2000	3497.4520
3719.5760	-12.2000	3497.4520
3770.9360	-12.2000	3497.4520
3806.9360	-12.2000	3497.4520
3858.2960	-12.2000	3497.4520
3894.2960	-12.2000	3497.4520
3945.6560	-12.2000	3497.4520
3981.6560	-12.2000	3497.4520
4033.0170	-12.2000	3497.4520
4069.0170	-12.2000	3497.4520
4120.3760	-12.2000	3497.4520
4156.3760	-12.2000	3497.4520
4207.7360	-12.2000	3497.4520
4243.7360	-12.2000	3497.4520
4295.0960	-12.2000	3497.4520
4331.0960	-12.2000	3497.4520
4382.4560	-12.2000	3497.4520
4418.4560	-12.2000	3497.4520
4469.8160	-12.2000	3497.4520
4505.8160	-12.2000	3497.4520
4557.1760	-12.2000	3497.4520
4593.1760	-12.2000	3497.4520
4644.5360	-12.2000	3497.4520
4680.5360	-12.2000	3497.4520
4731.8960	-12.2000	3497.4520
4767.8960	-12.2000	3497.4520
4819.2550	-12.2000	3497.4520
4855.2550	-12.2000	3497.4520
4906.6150	-12.2000	3497.4520
4942.6150	-12.2000	3497.4520
4993.9750	-12.2000	3497.4520
5029.9750	-12.2000	3497.4520
5081.3350	-12.2000	3497.4520
5117.3350	-12.2000	3497.4520
5168.6950	-12.2000	3497.4520
5204.6950	-12.2000	3497.4520
5256.0550	-12.2000	3497.4520
5292.0550	-12.2000	3497.4520
5343.4150	-12.2000	3497.4520
5379.4150	-12.2000	3497.4520
5430.7740	-12.2000	3497.4520
5466.7740	-12.2000	3497.4520
5518.1340	-12.2000	3497.4520
5554.1340	-12.2000	3497.4520

COORDINATE REPORT

/--------------------(in.)----------------------/

NODE	X	Y	Z
2380	5605.4940	-12.2000	3497.4520
2385	5641.4940	-12.2000	3497.4520
2390	5692.8540	-12.2000	3497.4520
2395	5728.8540	-12.2000	3497.4520
2400	5780.2140	-12.2000	3497.4520
2415	5816.2140	-12.2000	3497.4520
2420	5816.2140	-12.2000	3449.4520
2425	5816.2140	-12.2000	3377.4520
2430	5816.2140	-12.2000	3329.4520
2435	5816.2140	-72.2000	3329.4520

---- BEND SIF & FLEXIBILITY VALUES

TYPE KEY:
0 - No Flanges SIFs IN/OUT of Plane
1 - 1 Flange Flexibilities IN/OUT of plane
2 - 2 Flanges

BEND	TYPE	SIFi	SIFo	Ki	Ko
1005.	0	1.76726	1.47272	4.55379	4.55379
1050.	0	1.76726	1.47272	4.55379	4.55379
1060.	0	1.76726	1.47272	4.55379	4.55379
1070.	0	1.76726	1.47272	4.55379	4.55379
1075.	0	1.76726	1.47272	4.55379	4.55379
1155.	0	1.76726	1.47272	4.55379	4.55379
1235.	0	1.76726	1.47272	4.55379	4.55379
1275.	0	1.76726	1.47272	4.55379	4.55379
1340.	0	1.76726	1.47272	4.55379	4.55379
1360.	0	1.76726	1.47272	4.55379	4.55379
1375.	0	1.76726	1.47272	4.55379	4.55379
1385.	0	1.76726	1.47272	4.55379	4.55379
1410.	0	1.76726	1.47272	4.55379	4.55379
1430.	0	1.76726	1.47272	4.55379	4.55379
1435.	0	1.76726	1.47272	4.55379	4.55379
1485.	0	1.76726	1.47272	4.55379	4.55379
1490.	0	1.76726	1.47272	4.55379	4.55379
1505.	0	1.76726	1.47272	4.55379	4.55379
1520.	0	1.76726	1.47272	4.55379	4.55379
1540.	0	1.76726	1.47272	4.55379	4.55379
1550.	0	1.76726	1.47272	4.55379	4.55379
1605.	0	1.76726	1.47272	4.55379	4.55379
1615.	0	1.76726	1.47272	4.55379	4.55379
1685.	0	1.76726	1.47272	4.55379	4.55379
1705.	0	1.76726	1.47272	4.55379	4.55379
1755.	0	1.76726	1.47272	4.55379	4.55379
1760.	0	1.76726	1.47272	4.55379	4.55379
1805.	0	1.76726	1.47272	4.55379	4.55379
1835.	0	1.76726	1.47272	4.55379	4.55379
1935.	0	1.76726	1.47272	4.55379	4.55379
1945.	0	1.76726	1.47272	4.55379	4.55379
1975.	0	1.76726	1.47272	4.55379	4.55379
1985.	0	1.76726	1.47272	4.55379	4.55379
2030.	0	1.76726	1.47272	4.55379	4.55379
2035.	0	1.76726	1.47272	4.55379	4.55379
2055.	0	1.76726	1.47272	4.55379	4.55379
2065.	0	1.76726	1.47272	4.55379	4.55379
2090.	0	1.76726	1.47272	4.55379	4.55379
2095.	0	1.76726	1.47272	4.55379	4.55379
2135.	0	1.76726	1.47272	4.55379	4.55379
2140.	0	1.76726	1.47272	4.55379	4.55379
2145.	0	1.76726	1.47272	4.55379	4.55379
2415.	0	1.76726	1.47272	4.55379	4.55379
2430.	0	1.76726	1.47272	4.55379	4.55379

----- INTERSECTION SIF VALUES

TYPE KEY:
1 - Reinforced Fabricated Tee
2 - Unreinforced Fabricated Tee
3 - Welding Tee
4 - Sweepolet
5 - Weldolet
6 - Extruded Welding Tee

TEE	TYPE	HEADER SIFo	HEADER SIFi	BRANCH THICK (in.)	BRANCH SIFo	BRANCH SIFi
1400	3	1.29585	1.22188	0.00000	1.29585	1.22188
1401	3	1.29585	1.22188	0.21600	1.29585	1.22188
1460	3	1.29585	1.22188	0.00000	1.29585	1.22188
1510	3	1.29585	1.22188	0.00000	1.29585	1.22188
1875	3	1.29585	1.22188	0.00000	1.29585	1.22188
2015	3	1.29585	1.22188	0.00000	1.29585	1.22188

PE PROPERTIES #1

	ALPHA1	ALPHA2	ALPHA3	PIPE WT	INSUL WT	FLUID WT
	/--THERMAL EXPANSION (in./in.) --//----- WEIGHTS (lb./ft.) -----/					
005.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
010.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
012.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
015.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
020.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
025.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
030.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
035.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
040.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
045.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
050.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
055.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
060.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
065.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
070.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
075.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
080.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
085.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
090.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
095.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
100.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
105.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
110.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
115.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
120.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
125.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
130.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
135.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
140.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
145.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
150.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
155.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
160.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
165.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
170.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
175.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
180.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
185.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
190.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
195.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
200.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
205.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
210.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
215.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
220.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
225.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
230.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
235.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
240.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238

----- PIPE PROPERTIES #1

1240.	1245.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1245.	1250.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1250.	1255.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1255.	1260.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1260.	1265.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1265.	1270.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1270.	1275.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1275.	1280.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1280.	1285.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1285.	1290.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1290.	1295.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1295.	1300.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1300.	1305.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1305.	1310.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1310.	1315.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1315.	1320.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1320.	1325.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1325.	1330.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1330.	1335.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1335.	1340.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1340.	1345.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1345.	1350.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1350.	1355.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1355.	1360.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1360.	1365.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1365.	1370.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1370.	1375.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1375.	1380.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1380.	1385.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1385.	1390.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1390.	1395.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1395.	1400.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1400.	1401.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1401.	1402.	-0.000181	0.000740	0.001693	2.2177	0.6527	0.3429
1402.	1403.	-0.000181	0.000740	0.001693	2.2177	0.6527	0.3429
1403.	1404.	-0.000181	0.000740	0.001693	2.2177	0.6527	0.3429
1404.	1405.	-0.000181	0.000740	0.001693	2.2177	0.6527	0.3429
1401.	1406.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1406.	1407.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1407.	1408.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1408.	1409.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1409.	1410.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1410.	1420.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1400.	1425.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1425.	1430.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1430.	1435.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1435.	1440.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1440.	1445.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1445.	1450.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1450.	1455.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1455.	1460.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238

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1465.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1470.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1480.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1485.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1490.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1495.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1500.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1505.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1510.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1515.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1516.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1517.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1518.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1520.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1525.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1530.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1535.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1540.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1545.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1550.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1555.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1556.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1557.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1560.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1565.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1570.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1575.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1580.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1585.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1590.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1595.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1600.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1605.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1610.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1615.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1620.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1625.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1630.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1635.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1640.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1645.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1650.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1655.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1660.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1665.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1670.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1675.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1680.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1685.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1690.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1695.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238

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----- PIPE PROPERTIES #1

1695.	1700.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1700.	1705.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1705.	1710.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1510.	1720.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1720.	1725.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1725.	1730.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1730.	1735.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1735.	1740.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1740.	1745.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1745.	1750.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1750.	1755.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1755.	1760.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1760.	1765.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1765.	1770.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1770.	1775.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1775.	1780.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1780.	1785.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1785.	1790.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1790.	1795.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1795.	1800.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1800.	1805.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1805.	1810.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1810.	1815.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1815.	1820.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1820.	1825.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1825.	1830.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1830.	1835.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1835.	1840.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1840.	1845.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1845.	1850.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1850.	1855.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1855.	1860.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1860.	1865.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1865.	1870.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1870.	1875.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1875.	1880.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1880.	1885.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1885.	1900.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1900.	1905.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1905.	1910.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1910.	1915.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1915.	1920.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1920.	1925.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1925.	1930.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1930.	1935.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1935.	1945.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1945.	1950.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1950.	1955.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1955.	1960.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1960.	1965.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1965.	1970.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238

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1975.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1980.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1985.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1990.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
1995.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2000.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2005.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2010.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2015.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2020.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2025.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2030.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2035.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2040.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2045.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2050.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2055.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2060.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2065.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2070.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2080.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2085.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2090.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2095.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2100.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2105.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2110.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2115.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2120.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2125.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2130.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2135.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2140.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2145.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2150.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2155.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2160.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2165.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2170.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2175.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2180.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2185.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2190.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2195.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2200.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2205.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2210.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2215.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2220.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2225.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2230.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238

----- PIPE PROPERTIES #1

2230.	2235.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2235.	2240.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2240.	2245.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2245.	2250.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2250.	2255.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2255.	2260.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2260.	2265.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2265.	2270.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2270.	2275.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2275.	2280.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2280.	2285.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2285.	2290.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2290.	2295.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2295.	2300.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2300.	2305.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2305.	2310.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2310.	2315.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2315.	2320.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2320.	2325.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2325.	2330.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2330.	2335.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2335.	2340.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2340.	2345.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2345.	2350.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2350.	2355.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2355.	2360.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2360.	2365.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2365.	2370.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2370.	2375.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2375.	2380.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2380.	2385.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2385.	2390.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2390.	2395.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2395.	2400.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2400.	2415.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2415.	2420.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2420.	2425.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2425.	2430.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238
2430.	2435.	-0.000181	0.000740	0.001693	7.7364	1.1592	3.5238

IPE PROPERTIES #2
il Bowing Alphas, Thickness Parameter, and
m Required Wall Thickness
Minimum wall thickness based on straight pipes only.
No considerations for area replacement of tees have been made.

)	TB ALPHA1	TB ALPHA2	TB ALPHA3	y PARM	MIN THK
	/--THERMAL BOWING EXP(in./in./F) --/				(in.)
005.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
010.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
012.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
015.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
020.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
025.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
030.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
035.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
040.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
045.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
050.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
055.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
060.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
065.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
070.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
075.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
080.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
085.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
090.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
095.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
100.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
105.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
110.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
115.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
120.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
125.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
130.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
135.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
140.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
45.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
50.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
55.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
60.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
65.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
70.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
75.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
80.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
85.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
90.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
95.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
00.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
05.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
10.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
15.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
20.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176

---- PIPE PROPERTIES #2
Thermal Bowing Alphas, Thickness Parameter, and
Minimum Required Wall Thickness
NOTE: Minimum wall thickness based on straight pipes only.
No considerations for area replacement of tees have been made.

1220.	1225.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1225.	1230.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1230.	1235.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1235.	1240.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1240.	1245.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1245.	1250.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
250.	1255.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
255.	1260.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
260.	1265.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
265.	1270.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
270.	1275.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
275.	1280.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
280.	1285.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
285.	1290.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
290.	1295.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
295.	1300.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
300.	1305.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
305.	1310.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
310.	1315.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
315.	1320.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
320.	1325.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
325.	1330.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
330.	1335.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
335.	1340.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
340.	1345.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
345.	1350.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
350.	1355.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
355.	1360.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
360.	1365.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
365.	1370.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
370.	1375.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
375.	1380.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
380.	1385.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
385.	1390.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
390.	1395.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
395.	1400.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
400.	1401.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
401.	1402.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0066
402.	1403.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
403.	1404.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0066
404.	1405.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
401.	1406.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
406.	1407.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
407.	1408.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
408.	1409.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
409.	1410.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
410.	1420.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
400.	1425.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
425.	1430.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176

1435.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1440.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176

----- PIPE PROPERTIES #2
Thermal Bowing Alphas, Thickness Parameter, and
Minimum Required Wall Thickness
NOTE: Minimum wall thickness based on straight pipes only.
No considerations for area replacement of tees have been made.

1440.	1445.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1445.	1450.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1450.	1455.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1455.	1460.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1460.	1465.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1465.	1470.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1470.	1480.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1480.	1485.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1485.	1490.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1490.	1495.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1495.	1500.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1500.	1505.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1505.	1510.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1510.	1515.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1515.	1516.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
1516.	1517.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
1517.	1518.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
1518.	1520.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1520.	1525.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1460.	1530.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1530.	1535.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
1535.	1540.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1540.	1545.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1545.	1550.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1550.	1555.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1555.	1556.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1556.	1557.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1557.	1560.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1560.	1565.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
1565.	1570.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1570.	1575.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
1575.	1580.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1580.	1585.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1585.	1590.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1590.	1595.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1595.	1600.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1600.	1605.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1605.	1610.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1610.	1615.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1615.	1620.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1620.	1625.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1625.	1630.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1630.	1635.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1635.	1640.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1640.	1645.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1645.	1650.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1650.	1655.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1655.	1660.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1660.	1665.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA

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1670.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1675.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA

----- PIPE PROPERTIES #2
Thermal Bowing Alphas, Thickness Parameter, and
Minimum Required Wall Thickness
NOTE: Minimum wall thickness based on straight pipes only.
No considerations for area replacement of tees have been made.

1675.	1680.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1680.	1685.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1685.	1690.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1690.	1695.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1695.	1700.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1700.	1705.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1705.	1710.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1510.	1720.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1720.	1725.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
1725.	1730.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1730.	1735.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
1735.	1740.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1740.	1745.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1745.	1750.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1750.	1755.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1755.	1760.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1760.	1765.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1765.	1770.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1770.	1775.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1775.	1780.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1780.	1785.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1785.	1790.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1790.	1795.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1795.	1800.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1800.	1805.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1805.	1810.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1810.	1815.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1815.	1820.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1820.	1825.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1825.	1830.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1830.	1835.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1835.	1840.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1840.	1845.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1845.	1850.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1850.	1855.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1855.	1860.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1860.	1865.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1865.	1870.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
1870.	1875.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1875.	1880.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1880.	1885.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
1885.	1900.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1900.	1905.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1905.	1910.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1910.	1915.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1915.	1920.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1920.	1925.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1925.	1930.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1930.	1935.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176

IPE PROPERTIES #2
il Bowing Alphas, Thickness Parameter, and
m Required Wall Thickness
Minimum wall thickness based on straight pipes only.
No considerations for area replacement of tees have been made.

955.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
960.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
965.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
970.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
975.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
980.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
985.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
990.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
995.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
000.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
005.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
010.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
015.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
020.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
025.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
030.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
035.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
040.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
045.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
050.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
055.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
060.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
065.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
070.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
080.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
085.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
090.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
095.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
100.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
105.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
110.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
115.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
120.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
125.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
130.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
135.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
140.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
145.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
150.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
155.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
160.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
165.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
170.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
175.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
180.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
185.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
190.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
195.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
200.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176

1935.	1945.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
1945.	1950.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176

PE PROPERTIES #2
l Bowing Alphas, Thickness Parameter, and
n Required Wall Thickness
Minimum wall thickness based on straight pipes only.
No considerations for area replacement of tees have been made.

115.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
120.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
125.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
130.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
135.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
140.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
145.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
150.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
155.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
160.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
165.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
170.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
175.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
180.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
185.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
190.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
195.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
200.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
205.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
210.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
215.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
220.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
225.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
230.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
235.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
240.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
245.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
250.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
255.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
260.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
265.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
270.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
275.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
280.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
285.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
290.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
295.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
300.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
305.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
310.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
315.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
320.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
325.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
330.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
335.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
340.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
345.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
350.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
355.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
360.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
365.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
370.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
375.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
380.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
385.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
390.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
395.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
400.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
415.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
420.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
425.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
430.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
435.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176

2200.	2205.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176
2205.	2210.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0176

SUMMARY
(OPE) W+DIS+T1+P1

**** NO CODE STRESS CHECK PROCESSED

PIPING CODE: B31.3 -1993, July 31, 1993 Addendum

HIGHEST STRESSES: (lb./sq.in.)

OPE STRESS %:	19066.	@NODE 1950	ALLOWABLE:	0.
BENDING STRESS:	13428.	@NODE 1950		
TORSIONAL STRESS:	1646.	@NODE 1520		
AXIAL STRESS:	5780.	@NODE 1285		
3D MAX INTENSITY:	19065.	@NODE 1950		

STRESS OPTIMIZATION PARAMETERS:

OPE STRESS PERCENTAGES SHOWN BELOW REPRESENT THE NUMBER OF NODES IN THE SYSTEM THAT WERE WITHIN THE PERCENTAGE GIVEN OF THE HIGHEST OPE STRESS IN THE SYSTEM.

AVG. OPE STRESS 2650.

	/BETWEEN/	/BELOW/
OPE STRESS 90-100%	0.19	99.81
OPE STRESS 80-90 %	0.00	99.81
OPE STRESS 70-80 %	0.19	99.63
OPE STRESS 60-70 %	0.56	99.07
OPE STRESS 50-60 %	0.56	98.51
OPE STRESS 25-50 %	19.14	79.37
OPE STRESS 0-25 %	79.37	

PIPE ELEMENTS ANALYZED: 269

SAMPLED POINTS: 538

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ed To: FLUOR DANIEL ID 13692
REPORT, Stresses on Elements
(OPE) W+DIS+T1+P1

Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS	%
498.	0.	0.	1065.	1295.	1.767	1.473	498.	0.	0.
498.	21.	0.	1065.	1295.	1.767	1.473	519.	0.	0.
498.	12.	0.	1065.	1295.	1.000	1.000	510.	0.	0.
498.	61.	0.	1065.	1295.	1.000	1.000	558.	0.	0.
5634.	61.	0.	1065.	5837.	1.000	1.000	5695.	0.	0.
5634.	871.	0.	1065.	6547.	1.000	1.000	6505.	0.	0.
5634.	871.	0.	1065.	6547.	1.000	1.000	6505.	0.	0.
5634.	1310.	0.	1065.	6932.	1.000	1.000	6944.	0.	0.
5634.	1310.	0.	1065.	6944.	1.000	1.000	6944.	0.	0.
5634.	441.	0.	1065.	6171.	1.000	1.000	6075.	0.	0.
5634.	441.	0.	1065.	6171.	1.000	1.000	6075.	0.	0.
5634.	920.	0.	1065.	6590.	1.000	1.000	6554.	0.	0.
5634.	920.	0.	1065.	6590.	1.000	1.000	6554.	0.	0.
5634.	478.	0.	1065.	6203.	1.000	1.000	6112.	0.	0.
5634.	478.	0.	1065.	6203.	1.000	1.000	6112.	0.	0.
5634.	1236.	0.	1065.	6867.	1.000	1.000	6870.	0.	0.
5634.	1236.	0.	1065.	6870.	1.000	1.000	6870.	0.	0.
5634.	759.	0.	1065.	6449.	1.000	1.000	6393.	0.	0.
5634.	759.	0.	1065.	6449.	1.000	1.000	6393.	0.	0.
5634.	360.	0.	1065.	6100.	1.000	1.000	5994.	0.	0.
501.	360.	0.	1065.	1295.	1.000	1.000	861.	0.	0.
517.	568.	155.	1065.	1381.	1.767	1.473	1165.	0.	0.
517.	347.	-155.	1065.	1341.	1.000	1.000	983.	0.	0.
517.	2383.	155.	1065.	2878.	1.000	1.000	2921.	0.	0.
517.	2383.	-155.	1065.	2917.	1.000	1.000	2921.	0.	0.
501.	895.	55.	1065.	1451.	1.767	1.473	1403.	0.	0.
501.	508.	-55.	1065.	1306.	1.000	1.000	1021.	0.	0.
501.	2024.	55.	1065.	2520.	1.000	1.000	2529.	0.	0.
562.	2024.	-55.	1065.	2588.	1.000	1.000	2589.	0.	0.
552.	1462.	114.	1065.	1998.	1.767	1.473	2032.	0.	0.
552.	828.	-114.	1065.	1442.	1.000	1.000	1411.	0.	0.
562.	1611.	71.	1065.	2128.	1.767	1.473	2179.	0.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)- STRESS	ALLOWABL STRESS
1075	562.	917.	-71.	1065.	1521.	1.000	1.000	1490.	0.
1080	562.	182.	71.	1065.	1304.	1.000	1.000	792.	0.
1080	5634.	182.	-71.	1065.	5945.	1.000	1.000	5864.	0.
1085	5634.	106.	71.	1065.	5878.	1.000	1.000	5811.	0.
1085	5634.	106.	-71.	1065.	5878.	1.000	1.000	5811.	0.
1090	5634.	686.	71.	1065.	6386.	1.000	1.000	6335.	0.
1090	5634.	686.	-71.	1065.	6387.	1.000	1.000	6335.	0.
1095	5634.	501.	71.	1065.	6224.	1.000	1.000	6155.	0.
1095	5634.	501.	-71.	1065.	6224.	1.000	1.000	6155.	0.
1100	5634.	474.	71.	1065.	6200.	1.000	1.000	6128.	0.
1100	5634.	474.	-71.	1065.	6201.	1.000	1.000	6128.	0.
1105	5634.	30.	71.	1065.	5811.	1.000	1.000	5778.	0.
1105	5634.	30.	-71.	1065.	5811.	1.000	1.000	5778.	0.
1110	5634.	1746.	71.	1065.	7315.	1.000	1.000	7386.	0.
1110	5634.	1746.	-71.	1065.	7381.	1.000	1.000	7386.	0.
1115	5634.	1375.	71.	1065.	6990.	1.000	1.000	7016.	0.
1115	5634.	1375.	-71.	1065.	7010.	1.000	1.000	7016.	0.
1120	5634.	2506.	71.	1065.	7981.	1.000	1.000	8144.	0.
1120	5634.	2506.	-71.	1065.	8141.	1.000	1.000	8144.	0.
1125	5634.	1131.	71.	1065.	6776.	1.000	1.000	6774.	0.
1125	5634.	1131.	-71.	1065.	6777.	1.000	1.000	6774.	0.
1130	5634.	2234.	71.	1065.	7743.	1.000	1.000	7873.	0.
1130	5634.	2234.	-71.	1065.	7869.	1.000	1.000	7873.	0.
1135	5634.	1103.	71.	1065.	6752.	1.000	1.000	6746.	0.
1135	5634.	1103.	-71.	1065.	6752.	1.000	1.000	6746.	0.
1140	5634.	2562.	71.	1065.	8031.	1.000	1.000	8200.	0.
1140	5634.	2562.	-71.	1065.	8198.	1.000	1.000	8200.	0.
1145	5634.	1461.	71.	1065.	7065.	1.000	1.000	7102.	0.
1145	5634.	1461.	-71.	1065.	7096.	1.000	1.000	7102.	0.
1150	5634.	1527.	71.	1065.	7124.	1.000	1.000	7168.	0.
1150	498.	1527.	-71.	1065.	2030.	1.000	1.000	2031.	0.
1155	503.	1266.	-63.	1065.	1769.	1.767	1.473	1775.	0.

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Licensed To: FLUOR DANIEL ID 13692
STRESS REPORT, Stresses on Elements
CASE 1 (OPE) W+DIS+T1+P1

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS	%
1155	503.	730.	63.	1065.	1344.	1.000	1.000	1244.	0.	0.
1160	503.	1110.	-63.	1065.	1635.	1.000	1.000	1620.	0.	0.
1160	838.	1110.	63.	1065.	1964.	1.000	1.000	1955.	0.	0.
1165	838.	2456.	-63.	1065.	3143.	1.000	1.000	3297.	0.	0.
1165	838.	2456.	63.	1065.	3296.	1.000	1.000	3297.	0.	0.
1170	838.	2929.	-63.	1065.	3557.	1.000	1.000	3770.	0.	0.
1170	838.	2929.	63.	1065.	3770.	1.000	1.000	3770.	0.	0.
1175	838.	451.	-63.	1065.	1410.	1.000	1.000	1307.	0.	0.
1175	838.	451.	63.	1065.	1388.	1.000	1.000	1307.	0.	0.
1180	838.	221.	-63.	1065.	1318.	1.000	1.000	1093.	0.	0.
1180	838.	221.	63.	1065.	1299.	1.000	1.000	1093.	0.	0.
1185	838.	661.	-63.	1065.	1579.	1.000	1.000	1512.	0.	0.
1185	838.	661.	63.	1065.	1572.	1.000	1.000	1512.	0.	0.
1190	838.	985.	-63.	1065.	1857.	1.000	1.000	1831.	0.	0.
1190	838.	985.	63.	1065.	1855.	1.000	1.000	1831.	0.	0.
1195	838.	674.	-63.	1065.	1589.	1.000	1.000	1524.	0.	0.
1195	838.	674.	63.	1065.	1583.	1.000	1.000	1524.	0.	0.
1200	838.	1033.	-63.	1065.	1899.	1.000	1.000	1879.	0.	0.
1200	838.	1033.	63.	1065.	1897.	1.000	1.000	1879.	0.	0.
1205	838.	988.	-63.	1065.	1860.	1.000	1.000	1834.	0.	0.
1205	838.	988.	63.	1065.	1858.	1.000	1.000	1834.	0.	0.
1210	838.	1209.	-63.	1065.	2052.	1.000	1.000	2053.	0.	0.
1210	838.	1209.	63.	1065.	2051.	1.000	1.000	2053.	0.	0.
1215	838.	1200.	-63.	1065.	2044.	1.000	1.000	2045.	0.	0.
1215	838.	1200.	63.	1065.	2043.	1.000	1.000	2045.	0.	0.
1220	838.	1756.	-63.	1065.	2530.	1.000	1.000	2598.	0.	0.
1220	838.	1756.	63.	1065.	2597.	1.000	1.000	2598.	0.	0.
1225	838.	1754.	-63.	1065.	2528.	1.000	1.000	2597.	0.	0.
1225	838.	1754.	63.	1065.	2595.	1.000	1.000	2597.	0.	0.
1230	838.	1848.	-63.	1065.	2610.	1.000	1.000	2690.	0.	0.
1230	838.	1848.	63.	1065.	2689.	1.000	1.000	2690.	0.	0.
1235	499.	666.	66.	1065.	1330.	1.767	1.473	1178.	0.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.) STRESS	ALLOWAB STRES
1235	499.	412.	-66.	1065.	1306.	1.000	1.000	933.	0
1240	499.	6289.	66.	1065.	6786.	1.000	1.000	6790.	0
1240	5634.	6289.	-66.	1065.	11924.	1.000	1.000	11925.	0
1245	5634.	3176.	66.	1065.	8568.	1.000	1.000	8813.	0
1245	5634.	3176.	-66.	1065.	8811.	1.000	1.000	8813.	0
1250	5634.	3695.	66.	1065.	9023.	1.000	1.000	9331.	0
1250	5634.	3695.	-66.	1065.	9330.	1.000	1.000	9331.	0
1255	5634.	1210.	66.	1065.	6845.	1.000	1.000	6851.	0
1255	5634.	1210.	-66.	1065.	6845.	1.000	1.000	6851.	0
1260	5634.	3274.	66.	1065.	8654.	1.000	1.000	8910.	0
1260	5634.	3274.	-66.	1065.	8909.	1.000	1.000	8910.	0
1265	5634.	2166.	66.	1065.	7684.	1.000	1.000	7804.	0
1265	5634.	2166.	-66.	1065.	7802.	1.000	1.000	7804.	0
1270	5634.	1178.	66.	1065.	6817.	1.000	1.000	6819.	0
1270	505.	1178.	-66.	1065.	1691.	1.000	1.000	1690.	0
1275	518.	804.	0.	1065.	1373.	1.767	1.473	1322.	0
1275	518.	455.	0.	1065.	1295.	1.000	1.000	974.	0
1280	518.	276.	0.	1065.	1295.	1.000	1.000	794.	0
1280	5780.	276.	0.	1065.	6172.	1.000	1.000	6056.	0
1285	5780.	1420.	0.	1065.	7174.	1.000	1.000	7199.	0
1290	5780.	1444.	0.	1065.	7224.	1.000	1.000	7224.	0
1295	5780.	1238.	0.	1065.	7015.	1.000	1.000	7018.	0
1300	5780.	1191.	0.	1065.	6974.	1.000	1.000	6971.	0
1305	5780.	986.	0.	1065.	6794.	1.000	1.000	6766.	0
1305	5634.	986.	0.	1065.	6648.	1.000	1.000	6620.	0
1310	5634.	731.	0.	1065.	6425.	1.000	1.000	6365.	0
1310	5634.	731.	0.	1065.	6425.	1.000	1.000	6365.	0
1315	5634.	1859.	0.	1065.	7414.	1.000	1.000	7493.	0
1315	5634.	1859.	0.	1065.	7493.	1.000	1.000	7493.	0
1320	5634.	1668.	0.	1065.	7246.	1.000	1.000	7302.	0
1320	5634.	1668.	0.	1065.	7302.	1.000	1.000	7302.	0
1325	5634.	1806.	0.	1065.	7367.	1.000	1.000	7440.	0

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ed To: FLUOR DANIEL ID 13692
REPORT, Stresses on Elements
(OPE) W+DIS+T1+P1

Stresses(lb./sq.in.)					STRESS INTENSIFICATION		--Stress(lb./sq.in.)--		
AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	IN-PLANE	OUT-PLANE	STRESS	ALLOWABLE STRESS	%
5634.	1806.	0.	1065.	7440.	1.000	1.000	7440.	0.	0.
5634.	933.	0.	1065.	6602.	1.000	1.000	6567.	0.	0.
5634.	933.	0.	1065.	6602.	1.000	1.000	6567.	0.	0.
5634.	1276.	0.	1065.	6903.	1.000	1.000	6910.	0.	0.
500.	1276.	0.	1065.	1776.	1.000	1.000	1776.	0.	0.
500.	506.	-107.	1065.	1332.	1.767	1.473	1050.	0.	0.
500.	288.	107.	1065.	1316.	1.000	1.000	860.	0.	0.
500.	1810.	-107.	1065.	2315.	1.000	1.000	2323.	0.	0.
500.	1810.	107.	1065.	2320.	1.000	1.000	2323.	0.	0.
500.	1250.	-107.	1065.	1765.	1.000	1.000	1768.	0.	0.
500.	1250.	107.	1065.	1763.	1.000	1.000	1768.	0.	0.
500.	2084.	-107.	1065.	2587.	1.000	1.000	2595.	0.	0.
500.	2084.	107.	1065.	2593.	1.000	1.000	2595.	0.	0.
500.	860.	333.	1065.	1646.	1.767	1.473	1588.	0.	0.
500.	521.	-333.	1065.	1506.	1.000	1.000	1346.	0.	0.
500.	888.	333.	1065.	1661.	1.000	1.000	1610.	0.	0.
500.	888.	-333.	1065.	1658.	1.000	1.000	1610.	0.	0.
500.	402.	333.	1065.	1475.	1.000	1.000	1278.	0.	0.
500.	402.	-333.	1065.	1474.	1.000	1.000	1278.	0.	0.
485.	1005.	-19.	1065.	1541.	1.767	1.473	1490.	0.	0.
485.	682.	19.	1065.	1301.	1.000	1.000	1168.	0.	0.
505.	847.	-19.	1065.	1400.	1.000	1.000	1353.	0.	0.
505.	847.	19.	1065.	1398.	1.000	1.000	1353.	0.	0.
500.	292.	517.	1065.	1594.	1.767	1.473	1574.	0.	0.
500.	168.	-517.	1065.	1562.	1.000	1.000	1547.	0.	0.
500.	105.	517.	1065.	1549.	1.000	1.000	1539.	0.	0.
500.	69.	-517.	1065.	1541.	1.000	1.000	1536.	0.	0.
500.	387.	517.	1065.	1620.	1.222	1.296	1603.	0.	0.
500.	2109.	-383.	1065.	2719.	1.222	1.296	2744.	0.	0.
500.	1989.	383.	1065.	2599.	1.222	1.296	2631.	0.	0.
169.	2626.	0.	401.	2794.	1.222	1.296	2794.	0.	0.
169.	2295.	0.	401.	2464.	1.000	1.000	2464.	0.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.) STRESS	ALLOWAB STRES
1403	169.	888.	0.	401.	1057.	1.000	1.000	1057.	0
1404	169.	429.	0.	401.	638.	1.000	1.000	598.	0
1401	500.	1989.	-512.	1065.	2691.	1.222	1.296	2736.	0
1406	500.	1251.	512.	1065.	2024.	1.000	1.000	2116.	0
1409	500.	864.	-512.	1065.	1801.	1.000	1.000	1839.	0
1410	380.	5378.	58.	1065.	5995.	1.767	1.473	5759.	0
1410	380.	3096.	-58.	1065.	3481.	1.000	1.000	3478.	0
1420	365.	3207.	58.	1065.	3839.	1.000	1.000	3574.	0
1400	497.	778.	-239.	1065.	1522.	1.222	1.296	1410.	0.
1425	497.	340.	239.	1065.	1393.	1.000	1.000	1083.	0.
1425	497.	340.	-239.	1065.	1393.	1.000	1.000	1083.	0.
1430	474.	697.	-9.	1065.	1296.	1.767	1.473	1171.	0.
1430	474.	473.	9.	1065.	1296.	1.000	1.000	947.	0.
1435	499.	534.	-22.	1065.	1297.	1.767	1.473	1035.	0.
1435	499.	302.	22.	1065.	1296.	1.000	1.000	804.	0.
1440	499.	1157.	-22.	1065.	1664.	1.000	1.000	1657.	0.
1440	499.	1157.	22.	1065.	1664.	1.000	1.000	1657.	0.
1445	499.	3554.	-22.	1065.	4051.	1.000	1.000	4053.	0.
1445	499.	3554.	22.	1065.	4053.	1.000	1.000	4053.	0.
1450	499.	47.	-22.	1065.	1296.	1.000	1.000	563.	0.
1450	499.	47.	22.	1065.	1296.	1.000	1.000	563.	0.
1455	499.	1262.	-22.	1065.	1759.	1.000	1.000	1761.	0.
1455	499.	1262.	22.	1065.	1761.	1.000	1.000	1761.	0.
1460	499.	714.	-22.	1065.	1306.	1.222	1.296	1214.	0.
1460	499.	642.	146.	1065.	1387.	1.222	1.296	1203.	0.
1465	499.	1650.	-146.	1065.	2166.	1.000	1.000	2174.	0.
1465	499.	1650.	146.	1065.	2168.	1.000	1.000	2174.	0.
1470	499.	262.	-146.	1065.	1331.	1.000	1.000	891.	0.
1470	499.	262.	146.	1065.	1331.	1.000	1.000	891.	0.
1480	499.	2831.	-146.	1065.	3340.	1.000	1.000	3344.	0.
1480	499.	2831.	146.	1065.	3342.	1.000	1.000	3344.	0.
1485	526.	801.	-66.	1065.	1408.	1.767	1.473	1338.	0.

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Licensed To: FLUOR DANIEL ID 13692
STRESS REPORT, Stresses on Elements
CASE 1 (OPE) W+DIS+T1+P1

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS	%
1485	526.	459.	66.	1065.	1307.	1.000	1.000	1003.	0.	0.
1490	498.	327.	-202.	1065.	1367.	1.767	1.473	1017.	0.	0.
1490	498.	220.	202.	1065.	1356.	1.000	1.000	957.	0.	0.
1495	498.	1892.	-202.	1065.	2423.	1.000	1.000	2432.	0.	0.
1495	498.	1892.	202.	1065.	2424.	1.000	1.000	2432.	0.	0.
1500	498.	1661.	-202.	1065.	2196.	1.000	1.000	2207.	0.	0.
1500	498.	1661.	202.	1065.	2196.	1.000	1.000	2207.	0.	0.
1505	499.	405.	569.	1065.	1669.	1.767	1.473	1707.	0.	0.
1505	499.	274.	-569.	1065.	1630.	1.000	1.000	1669.	0.	0.
1510	499.	565.	569.	1065.	1724.	1.222	1.296	1770.	0.	0.
1510	490.	2762.	593.	1065.	3461.	1.222	1.296	3496.	0.	0.
1515	490.	743.	-593.	1065.	1813.	1.000	1.000	1889.	0.	0.
1518	490.	3883.	593.	1065.	4531.	1.000	1.000	4550.	0.	0.
1520	321.	11479.	-1646.	1065.	12591.	1.767	1.473	12263.	0.	0.
1520	321.	6508.	1646.	1065.	7581.	1.000	1.000	7614.	0.	0.
1525	320.	6478.	-1646.	1065.	7874.	1.000	1.000	7587.	0.	0.
1460	498.	321.	29.	1065.	1297.	1.222	1.296	824.	0.	0.
1530	498.	108.	-29.	1065.	1296.	1.000	1.000	620.	0.	0.
1535	498.	31.	29.	1065.	1296.	1.000	1.000	563.	0.	0.
1540	515.	577.	0.	1065.	1295.	1.767	1.473	1091.	0.	0.
1540	515.	328.	0.	1065.	1295.	1.000	1.000	842.	0.	0.
1545	475.	328.	0.	1065.	1295.	1.000	1.000	803.	0.	0.
1545	475.	328.	0.	1065.	1295.	1.000	1.000	803.	0.	0.
1550	498.	94.	-29.	1065.	1296.	1.767	1.473	608.	0.	0.
1550	498.	53.	29.	1065.	1296.	1.000	1.000	576.	0.	0.
1555	498.	708.	-29.	1065.	1310.	1.000	1.000	1208.	0.	0.
1555	498.	708.	29.	1065.	1310.	1.000	1.000	1208.	0.	0.
1556	498.	264.	-29.	1065.	1297.	1.000	1.000	768.	0.	0.
1556	498.	264.	29.	1065.	1297.	1.000	1.000	768.	0.	0.
1557	498.	925.	-29.	1065.	1462.	1.000	1.000	1425.	0.	0.
1557	498.	925.	29.	1065.	1462.	1.000	1.000	1425.	0.	0.
1560	498.	472.	-29.	1065.	1298.	1.000	1.000	973.	0.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS	%
1565	498.	504.	29.	1065.	1298.	1.000	1.000	1004.	0.	0.
1570	498.	512.	-29.	1065.	1298.	1.000	1.000	1013.	0.	0.
1575	498.	481.	29.	1065.	1298.	1.000	1.000	982.	0.	0.
1580	498.	903.	-29.	1065.	1444.	1.000	1.000	1403.	0.	0.
1580	498.	903.	29.	1065.	1444.	1.000	1.000	1403.	0.	0.
1585	498.	242.	-29.	1065.	1297.	1.000	1.000	746.	0.	0.
1585	498.	242.	29.	1065.	1297.	1.000	1.000	746.	0.	0.
1590	498.	774.	-29.	1065.	1340.	1.000	1.000	1274.	0.	0.
1590	498.	774.	29.	1065.	1340.	1.000	1.000	1274.	0.	0.
1595	498.	533.	-29.	1065.	1299.	1.000	1.000	1034.	0.	0.
1595	498.	533.	29.	1065.	1299.	1.000	1.000	1034.	0.	0.
1600	498.	321.	-29.	1065.	1297.	1.000	1.000	823.	0.	0.
1600	498.	321.	29.	1065.	1297.	1.000	1.000	823.	0.	0.
1605	498.	11.	52.	1065.	1298.	1.767	1.473	603.	0.	0.
1605	498.	8.	-52.	1065.	1298.	1.000	1.000	602.	0.	0.
1610	498.	1321.	52.	1065.	1821.	1.000	1.000	1822.	0.	0.
1610	498.	1321.	-52.	1065.	1821.	1.000	1.000	1822.	0.	0.
1615	498.	26.	22.	1065.	1296.	1.767	1.473	549.	0.	0.
1615	498.	18.	-22.	1065.	1296.	1.000	1.000	546.	0.	0.
1620	498.	514.	22.	1065.	1297.	1.000	1.000	1013.	0.	0.
1620	498.	514.	-22.	1065.	1297.	1.000	1.000	1013.	0.	0.
1625	498.	1030.	22.	1065.	1552.	1.000	1.000	1529.	0.	0.
1625	498.	1030.	-22.	1065.	1552.	1.000	1.000	1529.	0.	0.
1630	498.	237.	22.	1065.	1296.	1.000	1.000	739.	0.	0.
1630	498.	237.	-22.	1065.	1296.	1.000	1.000	739.	0.	0.
1635	498.	657.	22.	1065.	1300.	1.000	1.000	1156.	0.	0.
1635	498.	657.	-22.	1065.	1300.	1.000	1.000	1156.	0.	0.
1640	498.	419.	22.	1065.	1297.	1.000	1.000	919.	0.	0.
1640	498.	419.	-22.	1065.	1297.	1.000	1.000	919.	0.	0.
1645	498.	667.	22.	1065.	1301.	1.000	1.000	1166.	0.	0.
1645	498.	667.	-22.	1065.	1301.	1.000	1.000	1166.	0.	0.
1650	498.	247.	22.	1065.	1296.	1.000	1.000	749.	0.	0.

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Stresses(lb./sq.in.)					STRESS INTENSIFICATION		--Stress(lb./sq.in.)--		
AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	IN-PLANE	OUT-PLANE	STRESS	ALLOWABLE STRESS	%
498.	247.	-22.	1065.	1296.	1.000	1.000	749.	0.	0.
498.	1000.	22.	1065.	1526.	1.000	1.000	1499.	0.	0.
498.	1000.	-22.	1065.	1526.	1.000	1.000	1499.	0.	0.
498.	499.	22.	1065.	1297.	1.000	1.000	999.	0.	0.
498.	535.	-22.	1065.	1297.	1.000	1.000	1034.	0.	0.
498.	670.	22.	1065.	1301.	1.000	1.000	1169.	0.	0.
498.	643.	-22.	1065.	1300.	1.000	1.000	1143.	0.	0.
498.	639.	22.	1065.	1299.	1.000	1.000	1138.	0.	0.
498.	639.	-22.	1065.	1299.	1.000	1.000	1138.	0.	0.
498.	112.	0.	1065.	1295.	1.767	1.473	609.	0.	0.
498.	76.	0.	1065.	1295.	1.000	1.000	574.	0.	0.
498.	547.	0.	1065.	1295.	1.000	1.000	1045.	0.	0.
498.	547.	0.	1065.	1295.	1.000	1.000	1045.	0.	0.
498.	562.	0.	1065.	1295.	1.000	1.000	1060.	0.	0.
498.	562.	0.	1065.	1295.	1.000	1.000	1060.	0.	0.
498.	490.	0.	1065.	1295.	1.000	1.000	988.	0.	0.
498.	490.	0.	1065.	1295.	1.000	1.000	988.	0.	0.
507.	0.	0.	1065.	1295.	1.767	1.473	507.	0.	0.
507.	0.	0.	1065.	1295.	1.000	1.000	507.	0.	0.
498.	0.	0.	1065.	1295.	1.000	1.000	498.	0.	0.
421.	2805.	204.	1065.	3251.	1.222	1.296	3255.	0.	0.
421.	2077.	-204.	1065.	2682.	1.000	1.000	2537.	0.	0.
421.	2014.	204.	1065.	2516.	1.000	1.000	2475.	0.	0.
421.	1216.	-204.	1065.	1837.	1.000	1.000	1703.	0.	0.
421.	1194.	204.	1065.	1831.	1.000	1.000	1682.	0.	0.
421.	1156.	-204.	1065.	1778.	1.000	1.000	1646.	0.	0.
421.	1156.	204.	1065.	1801.	1.000	1.000	1646.	0.	0.
421.	882.	-204.	1065.	1540.	1.000	1.000	1392.	0.	0.
421.	882.	204.	1065.	1602.	1.000	1.000	1392.	0.	0.
421.	1049.	-204.	1065.	1682.	1.000	1.000	1546.	0.	0.
421.	1049.	204.	1065.	1719.	1.000	1.000	1546.	0.	0.
424.	903.	12.	1065.	1513.	1.767	1.473	1327.	0.	0.

STRESS REPORT, Stresses on Elements
CASE 1 (OPE) W+DIS+T1+P1

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS
1755	424.	609.	-12.	1065.	1298.	1.000	1.000	1033.	0.
1760	421.	2411.	-146.	1065.	3000.	1.767	1.473	2849.	0.
1760	421.	1375.	146.	1065.	1955.	1.000	1.000	1826.	0.
1765	421.	1829.	-146.	1065.	2422.	1.000	1.000	2273.	0.
1765	5634.	1829.	146.	1065.	7469.	1.000	1.000	7487.	0.
1770	5634.	466.	-146.	1065.	6196.	1.000	1.000	6184.	0.
1770	5634.	466.	146.	1065.	6198.	1.000	1.000	6184.	0.
1775	5634.	2171.	-146.	1065.	7690.	1.000	1.000	7824.	0.
1775	5634.	2171.	146.	1065.	7810.	1.000	1.000	7824.	0.
1780	5634.	1992.	-146.	1065.	7533.	1.000	1.000	7648.	0.
1780	5634.	1992.	146.	1065.	7632.	1.000	1.000	7648.	0.
1785	5634.	2493.	-146.	1065.	7972.	1.000	1.000	8144.	0.
1785	5634.	2493.	146.	1065.	8132.	1.000	1.000	8144.	0.
1790	5634.	649.	-146.	1065.	6356.	1.000	1.000	6346.	0.
1790	5634.	649.	146.	1065.	6358.	1.000	1.000	6346.	0.
1795	5634.	528.	-146.	1065.	6250.	1.000	1.000	6237.	0.
1795	687.	528.	146.	1065.	1335.	1.000	1.000	1290.	0.
1800	687.	1092.	-146.	1065.	1825.	1.000	1.000	1817.	0.
1800	687.	1092.	146.	1065.	1812.	1.000	1.000	1817.	0.
1805	512.	1247.	101.	1065.	1772.	1.767	1.473	1776.	0.
1805	512.	750.	-101.	1065.	1382.	1.000	1.000	1289.	0.
1810	512.	1458.	101.	1065.	1952.	1.000	1.000	1984.	0.
1810	5634.	1458.	-101.	1065.	7095.	1.000	1.000	7106.	0.
1815	5634.	2075.	101.	1065.	7604.	1.000	1.000	7719.	0.
1815	5634.	2075.	-101.	1065.	7711.	1.000	1.000	7719.	0.
1820	5634.	3853.	101.	1065.	9162.	1.000	1.000	9492.	0.
1820	5634.	3853.	-101.	1065.	9489.	1.000	1.000	9492.	0.
1825	5634.	1828.	101.	1065.	7387.	1.000	1.000	7473.	0.
1825	5634.	1828.	-101.	1065.	7464.	1.000	1.000	7473.	0.
1830	5634.	1162.	101.	1065.	6804.	1.000	1.000	6814.	0.
1830	573.	1162.	-101.	1065.	1751.	1.000	1.000	1753.	0.
1835	533.	665.	-12.	1065.	1298.	1.767	1.473	1198.	0.

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IT	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS	%
	533.	378.	12.	1065.	1296.	1.000	1.000	911.	0.	0.
	533.	1218.	-12.	1065.	1750.	1.000	1.000	1751.	0.	0.
	1126.	1218.	12.	1065.	2344.	1.000	1.000	2345.	0.	0.
	1126.	1500.	-12.	1065.	2591.	1.000	1.000	2626.	0.	0.
	1126.	1500.	12.	1065.	2626.	1.000	1.000	2626.	0.	0.
	1126.	1926.	-12.	1065.	2965.	1.000	1.000	3052.	0.	0.
	1126.	1926.	12.	1065.	3052.	1.000	1.000	3052.	0.	0.
	1126.	678.	-12.	1065.	1871.	1.000	1.000	1805.	0.	0.
	1126.	678.	12.	1065.	1871.	1.000	1.000	1805.	0.	0.
	1126.	749.	-12.	1065.	1933.	1.000	1.000	1876.	0.	0.
	1126.	749.	12.	1065.	1933.	1.000	1.000	1876.	0.	0.
	1126.	158.	-12.	1065.	1415.	1.000	1.000	1286.	0.	0.
	1126.	156.	12.	1065.	1414.	1.000	1.000	1284.	0.	0.
	1126.	111.	-12.	1065.	1375.	1.222	1.296	1240.	0.	0.
	1126.	499.	21.	1065.	1714.	1.222	1.296	1627.	0.	0.
	1126.	685.	-21.	1065.	1878.	1.000	1.000	1813.	0.	0.
	1126.	765.	21.	1065.	1947.	1.000	1.000	1892.	0.	0.
	1126.	2381.	-21.	1065.	3363.	1.000	1.000	3507.	0.	0.
	1126.	2381.	21.	1065.	3507.	1.000	1.000	3507.	0.	0.
	1126.	1676.	-21.	1065.	2746.	1.000	1.000	2803.	0.	0.
	1126.	1676.	21.	1065.	2803.	1.000	1.000	2803.	0.	0.
	1126.	3035.	-21.	1065.	3937.	1.000	1.000	4162.	0.	0.
	1126.	3035.	21.	1065.	4162.	1.000	1.000	4162.	0.	0.
	1126.	1599.	-21.	1065.	2678.	1.000	1.000	2726.	0.	0.
	1126.	1599.	21.	1065.	2725.	1.000	1.000	2726.	0.	0.
	1126.	3229.	-21.	1065.	4107.	1.000	1.000	4356.	0.	0.
	1126.	3229.	21.	1065.	4356.	1.000	1.000	4356.	0.	0.
	1126.	2221.	-21.	1065.	3223.	1.000	1.000	3348.	0.	0.
	1126.	2221.	21.	1065.	3347.	1.000	1.000	3348.	0.	0.
	1126.	2860.	-21.	1065.	3783.	1.000	1.000	3986.	0.	0.
	1126.	2860.	21.	1065.	3986.	1.000	1.000	3986.	0.	0.
	944.	1395.	14.	1065.	2316.	1.767	1.473	2338.	0.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.) STRESS	ALLOWAB STRES
1935	944.	794.	-14.	1065.	1789.	1.000	1.000	1738.	0
1945	499.	9163.	149.	1065.	9663.	1.767	1.473	9667.	0
1945	499.	5188.	-149.	1065.	5695.	1.000	1.000	5696.	0
1950	499.	13428.	149.	1065.	13927.	1.000	1.000	13931.	0
1950	5634.	13428.	-149.	1065.	19065.	1.000	1.000	19066.	0
1955	5634.	5765.	149.	1065.	10839.	1.000	1.000	11406.	0
1955	5634.	5765.	-149.	1065.	11403.	1.000	1.000	11406.	0
1960	5634.	2297.	149.	1065.	7800.	1.000	1.000	7950.	0
1960	5634.	2297.	-149.	1065.	7937.	1.000	1.000	7950.	0
1965	5634.	1222.	149.	1065.	6858.	1.000	1.000	6891.	0
1965	5634.	1222.	-149.	1065.	6862.	1.000	1.000	6891.	0
1970	5634.	5835.	149.	1065.	10900.	1.000	1.000	11476.	0
1970	498.	5835.	-149.	1065.	6339.	1.000	1.000	6340.	0
1975	548.	1083.	0.	1065.	1648.	1.767	1.473	1631.	0
1975	548.	634.	0.	1065.	1295.	1.000	1.000	1183.	0
1980	523.	634.	0.	1065.	1295.	1.000	1.000	1157.	0
1980	523.	634.	0.	1065.	1295.	1.000	1.000	1157.	0
1985	498.	497.	-280.	1065.	1457.	1.767	1.473	1247.	0
1985	498.	281.	280.	1065.	1412.	1.000	1.000	1125.	0
1990	498.	3472.	-280.	1065.	4009.	1.000	1.000	4014.	0
1990	498.	3472.	280.	1065.	4009.	1.000	1.000	4014.	0
1995	498.	337.	-280.	1065.	1421.	1.000	1.000	1151.	0
1995	498.	337.	280.	1065.	1421.	1.000	1.000	1151.	0
2000	498.	314.	-280.	1065.	1417.	1.000	1.000	1140.	0
2000	498.	314.	280.	1065.	1417.	1.000	1.000	1140.	0
2005	498.	771.	-280.	1065.	1555.	1.000	1.000	1450.	0
2010	498.	792.	280.	1065.	1565.	1.000	1.000	1467.	0
2015	498.	1064.	-280.	1065.	1722.	1.296	1.296	1700.	0
2015	498.	1064.	280.	1065.	1722.	1.296	1.296	1700.	0
2020	498.	830.	-280.	1065.	1584.	1.000	1.000	1499.	0
2025	498.	818.	280.	1065.	1578.	1.000	1.000	1489.	0
2030	469.	830.	0.	1065.	1403.	1.767	1.473	1299.	0

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T	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS	%
	469.	562.	0.	1065.	1295.	1.000	1.000	1031.	0.	0.
	498.	545.	-24.	1065.	1298.	1.767	1.473	1045.	0.	0.
	498.	309.	24.	1065.	1296.	1.000	1.000	810.	0.	0.
	498.	522.	-24.	1065.	1298.	1.000	1.000	1022.	0.	0.
	498.	522.	24.	1065.	1298.	1.000	1.000	1022.	0.	0.
	498.	489.	-24.	1065.	1297.	1.000	1.000	989.	0.	0.
	498.	489.	24.	1065.	1297.	1.000	1.000	989.	0.	0.
	498.	1233.	-24.	1065.	1732.	1.000	1.000	1732.	0.	0.
	498.	1233.	24.	1065.	1732.	1.000	1.000	1732.	0.	0.
	498.	84.	0.	1065.	1295.	1.767	1.473	581.	0.	0.
	498.	57.	0.	1065.	1295.	1.000	1.000	554.	0.	0.
	498.	448.	0.	1065.	1295.	1.000	1.000	946.	0.	0.
	498.	448.	0.	1065.	1295.	1.000	1.000	946.	0.	0.
	498.	0.	0.	1065.	1295.	1.767	1.473	498.	0.	0.
	498.	0.	0.	1065.	1295.	1.000	1.000	498.	0.	0.
	498.	0.	0.	1065.	1295.	1.000	1.000	498.	0.	0.
	498.	23.	176.	1065.	1331.	1.222	1.296	851.	0.	0.
	498.	92.	-176.	1065.	1335.	1.000	1.000	862.	0.	0.
	498.	106.	176.	1065.	1335.	1.000	1.000	866.	0.	0.
	490.	529.	0.	1065.	1295.	1.767	1.473	1020.	0.	0.
	490.	357.	0.	1065.	1295.	1.000	1.000	848.	0.	0.
	498.	341.	29.	1065.	1297.	1.767	1.473	844.	0.	0.
	498.	193.	-29.	1065.	1297.	1.000	1.000	699.	0.	0.
	498.	1269.	29.	1065.	1768.	1.000	1.000	1768.	0.	0.
	498.	1269.	-29.	1065.	1768.	1.000	1.000	1768.	0.	0.
	498.	149.	29.	1065.	1296.	1.000	1.000	658.	0.	0.
	498.	149.	-29.	1065.	1296.	1.000	1.000	658.	0.	0.
	498.	593.	29.	1065.	1300.	1.000	1.000	1094.	0.	0.
	498.	593.	-29.	1065.	1300.	1.000	1.000	1094.	0.	0.
	498.	443.	29.	1065.	1298.	1.000	1.000	944.	0.	0.
	498.	443.	-29.	1065.	1298.	1.000	1.000	944.	0.	0.
	498.	682.	29.	1065.	1306.	1.000	1.000	1182.	0.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)- STRESS	ALLOWABL STRESS
2120	498.	682.	-29.	1065.	1306.	1.000	1.000	1182.	0.
2125	498.	248.	29.	1065.	1297.	1.000	1.000	752.	0.
2125	498.	248.	-29.	1065.	1297.	1.000	1.000	752.	0.
2130	498.	1437.	29.	1065.	1936.	1.000	1.000	1936.	0.
2130	498.	1437.	-29.	1065.	1936.	1.000	1.000	1936.	0.
2135	517.	917.	0.	1065.	1471.	1.767	1.473	1434.	0.
2135	517.	520.	0.	1065.	1295.	1.000	1.000	1037.	0.
2140	498.	788.	29.	1065.	1350.	1.767	1.473	1288.	0.
2140	498.	446.	-29.	1065.	1298.	1.000	1.000	947.	0.
2145	498.	279.	-3.	1065.	1295.	1.767	1.473	776.	0.
2145	498.	189.	3.	1065.	1295.	1.000	1.000	687.	0.
2150	498.	899.	-3.	1065.	1435.	1.000	1.000	1396.	0.
2150	498.	899.	3.	1065.	1435.	1.000	1.000	1396.	0.
2155	498.	74.	-3.	1065.	1295.	1.000	1.000	572.	0.
2155	498.	74.	3.	1065.	1295.	1.000	1.000	572.	0.
2160	498.	245.	-3.	1065.	1295.	1.000	1.000	742.	0.
2160	498.	245.	3.	1065.	1295.	1.000	1.000	742.	0.
2165	498.	239.	-3.	1065.	1295.	1.000	1.000	737.	0.
2165	498.	239.	3.	1065.	1295.	1.000	1.000	737.	0.
2170	498.	418.	-3.	1065.	1295.	1.000	1.000	916.	0.
2170	498.	418.	3.	1065.	1295.	1.000	1.000	916.	0.
2175	498.	156.	-3.	1065.	1295.	1.000	1.000	653.	0.
2175	498.	156.	3.	1065.	1295.	1.000	1.000	653.	0.
2180	498.	372.	-3.	1065.	1295.	1.000	1.000	870.	0.
2180	498.	372.	3.	1065.	1295.	1.000	1.000	870.	0.
2185	498.	178.	-3.	1065.	1295.	1.000	1.000	676.	0.
2185	498.	178.	3.	1065.	1295.	1.000	1.000	676.	0.
2190	498.	384.	-3.	1065.	1295.	1.000	1.000	882.	0.
2190	498.	384.	3.	1065.	1295.	1.000	1.000	882.	0.
2195	498.	172.	-3.	1065.	1295.	1.000	1.000	670.	0.
2195	498.	172.	3.	1065.	1295.	1.000	1.000	670.	0.
2200	498.	381.	-3.	1065.	1295.	1.000	1.000	879.	0.

Stresses(lb./sq.in.)					STRESS INTENSIFICATION		--Stress(lb./sq.in.)--		
AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	IN-PLANE	OUT-PLANE	STRESS	ALLOWABLE STRESS	%
498.	381.	3.	1065.	1295.	1.000	1.000	879.	0.	0.
498.	174.	-3.	1065.	1295.	1.000	1.000	671.	0.	0.
498.	174.	3.	1065.	1295.	1.000	1.000	671.	0.	0.
498.	382.	-3.	1065.	1295.	1.000	1.000	880.	0.	0.
498.	382.	3.	1065.	1295.	1.000	1.000	880.	0.	0.
498.	173.	-3.	1065.	1295.	1.000	1.000	671.	0.	0.
498.	173.	3.	1065.	1295.	1.000	1.000	671.	0.	0.
498.	382.	-3.	1065.	1295.	1.000	1.000	879.	0.	0.
498.	382.	3.	1065.	1295.	1.000	1.000	879.	0.	0.
498.	173.	-3.	1065.	1295.	1.000	1.000	671.	0.	0.
498.	173.	3.	1065.	1295.	1.000	1.000	671.	0.	0.
498.	382.	-3.	1065.	1295.	1.000	1.000	879.	0.	0.
498.	382.	3.	1065.	1295.	1.000	1.000	879.	0.	0.
498.	173.	-3.	1065.	1295.	1.000	1.000	671.	0.	0.
498.	173.	3.	1065.	1295.	1.000	1.000	671.	0.	0.
498.	382.	-3.	1065.	1295.	1.000	1.000	879.	0.	0.
498.	382.	3.	1065.	1295.	1.000	1.000	879.	0.	0.
498.	173.	-3.	1065.	1295.	1.000	1.000	671.	0.	0.
498.	173.	3.	1065.	1295.	1.000	1.000	671.	0.	0.
498.	382.	-3.	1065.	1295.	1.000	1.000	879.	0.	0.
498.	382.	3.	1065.	1295.	1.000	1.000	879.	0.	0.
498.	173.	-3.	1065.	1295.	1.000	1.000	671.	0.	0.
498.	173.	3.	1065.	1295.	1.000	1.000	671.	0.	0.
498.	382.	-3.	1065.	1295.	1.000	1.000	879.	0.	0.
498.	382.	3.	1065.	1295.	1.000	1.000	879.	0.	0.
498.	173.	-3.	1065.	1295.	1.000	1.000	671.	0.	0.
498.	173.	3.	1065.	1295.	1.000	1.000	671.	0.	0.
498.	382.	-3.	1065.	1295.	1.000	1.000	879.	0.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)- STRESS	ALLOWABL STRESS
2280	498.	382.	3.	1065.	1295.	1.000	1.000	879.	0.
2285	498.	173.	-3.	1065.	1295.	1.000	1.000	671.	0.
2285	498.	173.	3.	1065.	1295.	1.000	1.000	671.	0.
2290	498.	382.	-3.	1065.	1295.	1.000	1.000	879.	0.
2290	498.	382.	3.	1065.	1295.	1.000	1.000	879.	0.
2295	498.	173.	-3.	1065.	1295.	1.000	1.000	671.	0.
2295	498.	173.	3.	1065.	1295.	1.000	1.000	671.	0.
2300	498.	382.	-3.	1065.	1295.	1.000	1.000	879.	0.
2300	498.	382.	3.	1065.	1295.	1.000	1.000	879.	0.
2305	498.	173.	-3.	1065.	1295.	1.000	1.000	671.	0.
2305	498.	173.	3.	1065.	1295.	1.000	1.000	671.	0.
2310	498.	382.	-3.	1065.	1295.	1.000	1.000	879.	0.
2310	498.	382.	3.	1065.	1295.	1.000	1.000	879.	0.
2315	498.	173.	-3.	1065.	1295.	1.000	1.000	671.	0.
2315	498.	173.	3.	1065.	1295.	1.000	1.000	671.	0.
2320	498.	382.	-3.	1065.	1295.	1.000	1.000	879.	0.
2320	498.	382.	3.	1065.	1295.	1.000	1.000	879.	0.
2325	498.	173.	-3.	1065.	1295.	1.000	1.000	671.	0.
2325	498.	173.	3.	1065.	1295.	1.000	1.000	671.	0.
2330	498.	382.	-3.	1065.	1295.	1.000	1.000	879.	0.
2330	498.	382.	3.	1065.	1295.	1.000	1.000	879.	0.
2335	498.	173.	-3.	1065.	1295.	1.000	1.000	671.	0.
2335	498.	173.	3.	1065.	1295.	1.000	1.000	671.	0.
2340	498.	382.	-3.	1065.	1295.	1.000	1.000	880.	0.
2340	498.	382.	3.	1065.	1295.	1.000	1.000	880.	0.
2345	498.	173.	-3.	1065.	1295.	1.000	1.000	671.	0.
2345	498.	173.	3.	1065.	1295.	1.000	1.000	671.	0.
2350	498.	381.	-3.	1065.	1295.	1.000	1.000	879.	0.
2350	498.	381.	3.	1065.	1295.	1.000	1.000	879.	0.
2355	498.	172.	-3.	1065.	1295.	1.000	1.000	670.	0.
2355	498.	172.	3.	1065.	1295.	1.000	1.000	670.	0.
2360	498.	385.	-3.	1065.	1295.	1.000	1.000	882.	0.

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REPORT, Stresses on Elements
(OPE) W+DIS+T1+P1

Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS	%
498.	385.	3.	1065.	1295.	1.000	1.000	882.	0.	0.
498.	176.	-3.	1065.	1295.	1.000	1.000	674.	0.	0.
498.	176.	3.	1065.	1295.	1.000	1.000	674.	0.	0.
498.	371.	-3.	1065.	1295.	1.000	1.000	869.	0.	0.
498.	371.	3.	1065.	1295.	1.000	1.000	869.	0.	0.
498.	163.	-3.	1065.	1295.	1.000	1.000	661.	0.	0.
498.	163.	3.	1065.	1295.	1.000	1.000	661.	0.	0.
498.	421.	-3.	1065.	1295.	1.000	1.000	918.	0.	0.
498.	421.	3.	1065.	1295.	1.000	1.000	918.	0.	0.
498.	211.	-3.	1065.	1295.	1.000	1.000	709.	0.	0.
498.	211.	3.	1065.	1295.	1.000	1.000	709.	0.	0.
498.	235.	-3.	1065.	1295.	1.000	1.000	732.	0.	0.
498.	235.	3.	1065.	1295.	1.000	1.000	732.	0.	0.
498.	31.	-3.	1065.	1295.	1.000	1.000	530.	0.	0.
498.	31.	3.	1065.	1295.	1.000	1.000	530.	0.	0.
498.	935.	-3.	1065.	1468.	1.000	1.000	1433.	0.	0.
498.	935.	3.	1065.	1468.	1.000	1.000	1433.	0.	0.
498.	92.	0.	1065.	1295.	1.767	1.473	589.	0.	0.
498.	62.	0.	1065.	1295.	1.000	1.000	560.	0.	0.
498.	89.	0.	1065.	1295.	1.000	1.000	586.	0.	0.
498.	89.	0.	1065.	1295.	1.000	1.000	586.	0.	0.
498.	2364.	0.	1065.	2861.	1.000	1.000	2861.	0.	0.
498.	2364.	0.	1065.	2861.	1.000	1.000	2861.	0.	0.
523.	0.	0.	1065.	1295.	1.767	1.473	523.	0.	0.
523.	0.	0.	1065.	1295.	1.000	1.000	523.	0.	0.
498.	0.	0.	1065.	1295.	1.000	1.000	498.	0.	0.

STRESS SUMMARY
CASE 2 (OPE) W+DIS+T2+P1

**** NO CODE STRESS CHECK PROCESSED

PIPING CODE: B31.3 -1993, July 31, 1993 Addendum

HIGHEST STRESSES: (lb./sq.in.)

OPE STRESS %:	75162.	@NODE 1950	ALLOWABLE:	0.
BENDING STRESS:	54713.	@NODE 1950		
TORSIONAL STRESS:	5520.	@NODE 1520		
AXIAL STRESS:	21042.	@NODE 1285		
3D MAX INTENSITY:	75162.	@NODE 1950		

STRESS OPTIMIZATION PARAMETERS:

OPE STRESS PERCENTAGES SHOWN BELOW REPRESENT THE NUMBER OF NODES IN THE SYSTEM THAT WERE WITHIN THE PERCENTAGE GIVEN OF THE HIGHEST OPE STRESS IN THE SYSTEM.

AVG. OPE STRESS 6498.

	/BETWEEN/	/BELOW/
OPE STRESS 90-100%	0.19	99.81
OPE STRESS 80-90 %	0.00	99.81
OPE STRESS 70-80 %	0.19	99.63
OPE STRESS 60-70 %	0.19	99.44
OPE STRESS 50-60 %	0.56	98.88
OPE STRESS 25-50 %	18.59	80.30
OPE STRESS 0-25 %	80.30	

PIPE ELEMENTS ANALYZED: 269

SAMPLED POINTS: 538

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REPORT, Stresses on Elements
(OPE) W+DIS+T2+P1

Stresses(lb./sq.in.)					STRESS INTENSIFICATION		Stress(lb./sq.in.)		
AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	IN-PLANE	OUT-PLANE	STRESS	ALLOWABLE STRESS	%
498.	0.	0.	1065.	1295.	1.767	1.473	498.	0.	0.
498.	21.	0.	1065.	1295.	1.767	1.473	519.	0.	0.
498.	12.	0.	1065.	1295.	1.000	1.000	510.	0.	0.
498.	61.	0.	1065.	1295.	1.000	1.000	558.	0.	0.
-20448.	61.	0.	1065.	21646.	1.000	1.000	20509.	0.	0.
-20448.	875.	0.	1065.	22360.	1.000	1.000	21322.	0.	0.
-20448.	875.	0.	1065.	22360.	1.000	1.000	21322.	0.	0.
-20448.	1303.	0.	1065.	22746.	1.000	1.000	21751.	0.	0.
-20448.	1303.	0.	1065.	22736.	1.000	1.000	21751.	0.	0.
-20448.	436.	0.	1065.	21975.	1.000	1.000	20884.	0.	0.
-20448.	436.	0.	1065.	21975.	1.000	1.000	20884.	0.	0.
-20448.	955.	0.	1065.	22430.	1.000	1.000	21403.	0.	0.
-20448.	955.	0.	1065.	22430.	1.000	1.000	21403.	0.	0.
-20448.	520.	0.	1065.	22049.	1.000	1.000	20968.	0.	0.
-20448.	520.	0.	1065.	22049.	1.000	1.000	20968.	0.	0.
-20448.	1132.	0.	1065.	22585.	1.000	1.000	21580.	0.	0.
-20448.	1132.	0.	1065.	22585.	1.000	1.000	21580.	0.	0.
-20448.	661.	0.	1065.	22173.	1.000	1.000	21109.	0.	0.
-20448.	661.	0.	1065.	22173.	1.000	1.000	21109.	0.	0.
-20448.	879.	0.	1065.	22363.	1.000	1.000	21326.	0.	0.
480.	879.	0.	1065.	1436.	1.000	1.000	1358.	0.	0.
375.	2500.	-87.	1065.	3125.	1.767	1.473	2881.	0.	0.
375.	1420.	87.	1065.	2023.	1.000	1.000	1805.	0.	0.
375.	2030.	-87.	1065.	2656.	1.000	1.000	2412.	0.	0.
375.	2030.	87.	1065.	2554.	1.000	1.000	2412.	0.	0.
480.	3547.	490.	1065.	4179.	1.767	1.473	4160.	0.	0.
480.	2022.	-490.	1065.	2686.	1.000	1.000	2726.	0.	0.
480.	4028.	490.	1065.	4648.	1.000	1.000	4625.	0.	0.
303.	4028.	-490.	1065.	4440.	1.000	1.000	4448.	0.	0.
330.	8044.	114.	1065.	8712.	1.767	1.473	8377.	0.	0.
330.	4592.	-114.	1065.	4928.	1.000	1.000	4928.	0.	0.
303.	5111.	16.	1065.	5803.	1.767	1.473	5414.	0.	0.

STRESS REPORT, Stresses on Elements
CASE 2 (OPE) W+DIS+T2+P1

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)- STRESS	ALLOWABL STRESS
1075	303.	2898.	-16.	1065.	3383.	1.000	1.000	3201.	0.
1080	303.	2688.	16.	1065.	3381.	1.000	1.000	2991.	0.
1080	-20448.	2688.	-16.	1065.	23949.	1.000	1.000	23136.	0.
1085	-20448.	1021.	16.	1065.	22488.	1.000	1.000	21470.	0.
1085	-20448.	1021.	-16.	1065.	22488.	1.000	1.000	21470.	0.
1090	-20448.	215.	16.	1065.	21782.	1.000	1.000	20666.	0.
1090	-20448.	215.	-16.	1065.	21782.	1.000	1.000	20666.	0.
1095	-20448.	701.	16.	1065.	22207.	1.000	1.000	21149.	0.
1095	-20448.	701.	-16.	1065.	22207.	1.000	1.000	21149.	0.
1100	-20448.	615.	16.	1065.	22132.	1.000	1.000	21064.	0.
1100	-20448.	615.	-16.	1065.	22132.	1.000	1.000	21064.	0.
1105	-20448.	88.	16.	1065.	21670.	1.000	1.000	20541.	0.
1105	-20448.	88.	-16.	1065.	21670.	1.000	1.000	20541.	0.
1110	-20448.	1719.	16.	1065.	23162.	1.000	1.000	22167.	0.
1110	-20448.	1719.	-16.	1065.	23100.	1.000	1.000	22167.	0.
1115	-20448.	1385.	16.	1065.	22828.	1.000	1.000	21833.	0.
1115	-20448.	1385.	-16.	1065.	22807.	1.000	1.000	21833.	0.
1120	-20448.	2513.	16.	1065.	23956.	1.000	1.000	22961.	0.
1120	-20448.	2513.	-16.	1065.	23796.	1.000	1.000	22961.	0.
1125	-20448.	1129.	16.	1065.	22583.	1.000	1.000	21577.	0.
1125	-20448.	1129.	-16.	1065.	22583.	1.000	1.000	21577.	0.
1130	-20448.	2231.	16.	1065.	23674.	1.000	1.000	22679.	0.
1130	-20448.	2231.	-16.	1065.	23549.	1.000	1.000	22679.	0.
1135	-20448.	1104.	16.	1065.	22560.	1.000	1.000	21552.	0.
1135	-20448.	1104.	-16.	1065.	22560.	1.000	1.000	21552.	0.
1140	-20448.	2573.	16.	1065.	24016.	1.000	1.000	23021.	0.
1140	-20448.	2573.	-16.	1065.	23848.	1.000	1.000	23021.	0.
1145	-20448.	1484.	16.	1065.	22927.	1.000	1.000	21932.	0.
1145	-20448.	1484.	-16.	1065.	22894.	1.000	1.000	21932.	0.
1150	-20448.	1627.	16.	1065.	23070.	1.000	1.000	22075.	0.
1150	498.	1627.	-16.	1065.	2126.	1.000	1.000	2126.	0.
1155	476.	4943.	-64.	1065.	5464.	1.767	1.473	5420.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS	%
1155	476.	2798.	64.	1065.	3276.	1.000	1.000	3276.	0.	0.
1160	476.	2907.	-64.	1065.	3429.	1.000	1.000	3385.	0.	0.
1160	-891.	2907.	64.	1065.	4585.	1.000	1.000	3801.	0.	0.
1165	-891.	2949.	-64.	1065.	4837.	1.000	1.000	3843.	0.	0.
1165	-891.	2949.	64.	1065.	4623.	1.000	1.000	3843.	0.	0.
1170	-891.	2999.	-64.	1065.	4887.	1.000	1.000	3893.	0.	0.
1170	-891.	2999.	64.	1065.	4666.	1.000	1.000	3893.	0.	0.
1175	-891.	482.	-64.	1065.	2461.	1.000	1.000	1390.	0.	0.
1175	-891.	482.	64.	1065.	2461.	1.000	1.000	1390.	0.	0.
1180	-891.	728.	-64.	1065.	2677.	1.000	1.000	1631.	0.	0.
1180	-891.	728.	64.	1065.	2677.	1.000	1.000	1631.	0.	0.
1185	-891.	1429.	-64.	1065.	3318.	1.000	1.000	2326.	0.	0.
1185	-891.	1429.	64.	1065.	3290.	1.000	1.000	2326.	0.	0.
1190	-891.	2083.	-64.	1065.	3971.	1.000	1.000	2978.	0.	0.
1190	-891.	2083.	64.	1065.	3863.	1.000	1.000	2978.	0.	0.
1195	-891.	2495.	-64.	1065.	4384.	1.000	1.000	3390.	0.	0.
1195	-891.	2495.	64.	1065.	4225.	1.000	1.000	3390.	0.	0.
1200	-891.	3146.	-64.	1065.	5034.	1.000	1.000	4040.	0.	0.
1200	-891.	3146.	64.	1065.	4795.	1.000	1.000	4040.	0.	0.
1205	-891.	3676.	-64.	1065.	5564.	1.000	1.000	4570.	0.	0.
1205	-891.	3676.	64.	1065.	5260.	1.000	1.000	4570.	0.	0.
1210	-891.	4284.	-64.	1065.	6172.	1.000	1.000	5177.	0.	0.
1210	-891.	4284.	64.	1065.	5792.	1.000	1.000	5177.	0.	0.
1215	-891.	4830.	-64.	1065.	6718.	1.000	1.000	5723.	0.	0.
1215	-891.	4830.	64.	1065.	6271.	1.000	1.000	5723.	0.	0.
1220	-891.	5534.	-64.	1065.	7421.	1.000	1.000	6426.	0.	0.
1220	-891.	5534.	64.	1065.	6888.	1.000	1.000	6426.	0.	0.
1225	-891.	6075.	-64.	1065.	7963.	1.000	1.000	6968.	0.	0.
1225	-891.	6075.	64.	1065.	7363.	1.000	1.000	6968.	0.	0.
1230	-891.	6648.	-64.	1065.	8535.	1.000	1.000	7540.	0.	0.
1230	-891.	6648.	64.	1065.	7864.	1.000	1.000	7540.	0.	0.
1235	490.	2064.	66.	1065.	2572.	1.767	1.473	2558.	0.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	STRESS INTENSIFICATION OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS
1235	490.	1180.	-66.	1065.	1698.	1.000	1.000	1677.	0.
1240	490.	25393.	66.	1065.	25899.	1.000	1.000	25884.	0.
1240	-20448.	25393.	-66.	1065.	45841.	1.000	1.000	45841.	0.
1245	-20448.	9510.	66.	1065.	30953.	1.000	1.000	29958.	0.
1245	-20448.	9510.	-66.	1065.	29958.	1.000	1.000	29958.	0.
1250	-20448.	7629.	66.	1065.	29072.	1.000	1.000	28078.	0.
1250	-20448.	7629.	-66.	1065.	28281.	1.000	1.000	28078.	0.
1255	-20448.	2577.	66.	1065.	24020.	1.000	1.000	23028.	0.
1255	-20448.	2577.	-66.	1065.	23852.	1.000	1.000	23028.	0.
1260	-20448.	3900.	66.	1065.	25344.	1.000	1.000	24350.	0.
1260	-20448.	3900.	-66.	1065.	25012.	1.000	1.000	24350.	0.
1265	-20448.	2167.	66.	1065.	23611.	1.000	1.000	22619.	0.
1265	-20448.	2167.	-66.	1065.	23493.	1.000	1.000	22619.	0.
1270	-20448.	2184.	66.	1065.	23628.	1.000	1.000	22636.	0.
1270	468.	2184.	-66.	1065.	2656.	1.000	1.000	2656.	0.
1275	414.	3267.	-7.	1065.	3849.	1.767	1.473	3681.	0.
1275	414.	1849.	7.	1065.	2352.	1.000	1.000	2262.	0.
1280	414.	737.	-7.	1065.	1377.	1.000	1.000	1150.	0.
1280	-21042.	737.	7.	1065.	22832.	1.000	1.000	21778.	0.
1285	-21042.	1462.	-7.	1065.	23499.	1.000	1.000	22504.	0.
1290	-21042.	1483.	7.	1065.	23487.	1.000	1.000	22524.	0.
1295	-21042.	1242.	-7.	1065.	23278.	1.000	1.000	22283.	0.
1300	-21042.	1193.	7.	1065.	23233.	1.000	1.000	22235.	0.
1305	-21042.	1007.	-7.	1065.	23070.	1.000	1.000	22049.	0.
1305	-20448.	1007.	7.	1065.	22476.	1.000	1.000	21455.	0.
1310	-20448.	730.	-7.	1065.	22232.	1.000	1.000	21178.	0.
1310	-20448.	730.	7.	1065.	22232.	1.000	1.000	21178.	0.
1315	-20448.	1850.	-7.	1065.	23293.	1.000	1.000	22298.	0.
1315	-20448.	1850.	7.	1065.	23215.	1.000	1.000	22298.	0.
1320	-20448.	1659.	-7.	1065.	23102.	1.000	1.000	22107.	0.
1320	-20448.	1659.	7.	1065.	23047.	1.000	1.000	22107.	0.
1325	-20448.	1836.	-7.	1065.	23279.	1.000	1.000	22284.	0.

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Stresses(lb./sq.in.)					STRESS INTENSIFICATION		Stress(lb./sq.in.)		
AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	IN-PLANE	OUT-PLANE	STRESS	ALLOWABLE STRESS	%
-20448.	1836.	7.	1065.	23202.	1.000	1.000	22284.	0.	0.
-20448.	874.	-7.	1065.	22359.	1.000	1.000	21322.	0.	0.
-20448.	874.	7.	1065.	22359.	1.000	1.000	21322.	0.	0.
-20448.	1166.	-7.	1065.	22615.	1.000	1.000	21614.	0.	0.
490.	1166.	7.	1065.	1677.	1.000	1.000	1656.	0.	0.
493.	1573.	-103.	1065.	2086.	1.767	1.473	2080.	0.	0.
493.	891.	103.	1065.	1478.	1.000	1.000	1408.	0.	0.
493.	1967.	-103.	1065.	2477.	1.000	1.000	2470.	0.	0.
493.	1967.	103.	1065.	2468.	1.000	1.000	2470.	0.	0.
493.	600.	-103.	1065.	1342.	1.000	1.000	1127.	0.	0.
493.	600.	103.	1065.	1344.	1.000	1.000	1127.	0.	0.
493.	851.	-103.	1065.	1444.	1.000	1.000	1368.	0.	0.
493.	851.	103.	1065.	1450.	1.000	1.000	1368.	0.	0.
490.	2025.	379.	1065.	2641.	1.767	1.473	2652.	0.	0.
490.	1153.	-379.	1065.	1860.	1.000	1.000	1869.	0.	0.
490.	952.	379.	1065.	1729.	1.000	1.000	1706.	0.	0.
490.	952.	-379.	1065.	1738.	1.000	1.000	1706.	0.	0.
490.	3027.	379.	1065.	3612.	1.000	1.000	3610.	0.	0.
490.	3027.	-379.	1065.	3597.	1.000	1.000	3610.	0.	0.
338.	1779.	-197.	1065.	2467.	1.767	1.473	2160.	0.	0.
338.	1085.	197.	1065.	1815.	1.000	1.000	1492.	0.	0.
359.	613.	-197.	1065.	1383.	1.000	1.000	1087.	0.	0.
359.	613.	197.	1065.	1483.	1.000	1.000	1087.	0.	0.
490.	960.	67.	1065.	1501.	1.767	1.473	1459.	0.	0.
490.	580.	-67.	1065.	1318.	1.000	1.000	1085.	0.	0.
490.	752.	67.	1065.	1356.	1.000	1.000	1254.	0.	0.
490.	870.	-67.	1065.	1441.	1.000	1.000	1371.	0.	0.
490.	1887.	67.	1065.	2395.	1.222	1.296	2381.	0.	0.
492.	1134.	263.	1065.	1761.	1.222	1.296	1742.	0.	0.
492.	1445.	-263.	1065.	2018.	1.222	1.296	2030.	0.	0.
169.	2626.	0.	401.	2794.	1.222	1.296	2794.	0.	0.
169.	2295.	0.	401.	2464.	1.000	1.000	2464.	0.	0.

STRESS REPORT, Stresses on Elements
CASE 2 (OPE) W+DIS+T2+P1

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) STRESS	ALLOWABL STRESS
1403	169.	888.	0.	401.	1057.	1.000	1.000	1057.	0.
1404	169.	429.	0.	401.	638.	1.000	1.000	598.	0.
1401	492.	1445.	135.	1065.	1956.	1.222	1.296	1962.	0.
1406	492.	1203.	-135.	1065.	1729.	1.000	1.000	1725.	0.
1409	492.	1821.	135.	1065.	2329.	1.000	1.000	2333.	0.
1410	395.	5344.	-700.	1065.	6107.	1.767	1.473	5919.	0.
1410	395.	3027.	700.	1065.	3697.	1.000	1.000	3730.	0.
1420	380.	2799.	-700.	1065.	3690.	1.000	1.000	3510.	0.
1400	497.	1530.	-448.	1065.	2216.	1.222	1.296	2270.	0.
1425	497.	1527.	448.	1065.	2215.	1.000	1.000	2268.	0.
1425	497.	1527.	-448.	1065.	2214.	1.000	1.000	2268.	0.
1430	467.	1712.	-351.	1065.	2347.	1.767	1.473	2317.	0.
1430	467.	1107.	351.	1065.	1827.	1.000	1.000	1778.	0.
1435	485.	1885.	-271.	1065.	2456.	1.767	1.473	2447.	0.
1435	485.	1134.	271.	1065.	1773.	1.000	1.000	1742.	0.
1440	485.	1061.	-271.	1065.	1704.	1.000	1.000	1677.	0.
1440	485.	1061.	271.	1065.	1723.	1.000	1.000	1677.	0.
1445	485.	3586.	-271.	1065.	4132.	1.000	1.000	4112.	0.
1445	485.	3586.	271.	1065.	4107.	1.000	1.000	4112.	0.
1450	485.	537.	-271.	1065.	1456.	1.000	1.000	1248.	0.
1450	485.	537.	271.	1065.	1465.	1.000	1.000	1248.	0.
1455	485.	1100.	-271.	1065.	1729.	1.000	1.000	1711.	0.
1455	485.	1100.	271.	1065.	1749.	1.000	1.000	1711.	0.
1460	485.	1884.	-271.	1065.	2455.	1.222	1.296	2446.	0.
1460	485.	1868.	-314.	1065.	2436.	1.222	1.296	2456.	0.
1465	485.	1058.	314.	1065.	1735.	1.000	1.000	1716.	0.
1465	485.	1058.	-314.	1065.	1753.	1.000	1.000	1716.	0.
1470	485.	617.	314.	1065.	1517.	1.000	1.000	1366.	0.
1470	485.	617.	-314.	1065.	1528.	1.000	1.000	1366.	0.
1480	485.	2605.	314.	1065.	3178.	1.000	1.000	3165.	0.
1480	485.	2605.	-314.	1065.	3153.	1.000	1.000	3165.	0.
1485	521.	1186.	-28.	1065.	1712.	1.767	1.473	1708.	0.

NT	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS	%
	521.	792.	28.	1065.	1366.	1.000	1.000	1315.	0.	0.
	499.	1602.	-109.	1065.	2110.	1.767	1.473	2115.	0.	0.
	499.	911.	109.	1065.	1492.	1.000	1.000	1436.	0.	0.
	499.	2422.	-109.	1065.	2926.	1.000	1.000	2930.	0.	0.
	499.	2422.	109.	1065.	2928.	1.000	1.000	2930.	0.	0.
	499.	2472.	-109.	1065.	2976.	1.000	1.000	2980.	0.	0.
	499.	2472.	109.	1065.	2978.	1.000	1.000	2980.	0.	0.
	485.	4411.	773.	1065.	5158.	1.767	1.473	5159.	0.	0.
	485.	2499.	-773.	1065.	3361.	1.000	1.000	3423.	0.	0.
	485.	3073.	773.	1065.	3903.	1.222	1.296	3925.	0.	0.
	472.	9293.	1307.	1065.	10109.	1.222	1.296	10126.	0.	0.
	472.	3583.	-1307.	1065.	4868.	1.000	1.000	4907.	0.	0.
	472.	6704.	1307.	1065.	7637.	1.000	1.000	7667.	0.	0.
	311.	11933.	-5520.	1065.	16765.	1.767	1.473	16568.	0.	0.
	311.	6770.	5520.	1065.	13116.	1.000	1.000	13262.	0.	0.
	311.	6668.	-5520.	1065.	13265.	1.000	1.000	13209.	0.	0.
	498.	1518.	6.	1065.	2015.	1.222	1.296	2015.	0.	0.
	498.	902.	-6.	1065.	1438.	1.000	1.000	1399.	0.	0.
	498.	706.	6.	1065.	1296.	1.000	1.000	1204.	0.	0.
	409.	1260.	0.	1065.	1846.	1.767	1.473	1669.	0.	0.
	409.	713.	0.	1065.	1361.	1.000	1.000	1122.	0.	0.
	369.	713.	0.	1065.	1401.	1.000	1.000	1082.	0.	0.
	369.	713.	0.	1065.	1401.	1.000	1.000	1082.	0.	0.
	498.	3008.	-6.	1065.	3505.	1.767	1.473	3505.	0.	0.
	498.	1702.	6.	1065.	2200.	1.000	1.000	2200.	0.	0.
	498.	3379.	-6.	1065.	3877.	1.000	1.000	3877.	0.	0.
	498.	3379.	6.	1065.	3877.	1.000	1.000	3877.	0.	0.
	498.	713.	-6.	1065.	1297.	1.000	1.000	1211.	0.	0.
	498.	713.	6.	1065.	1297.	1.000	1.000	1211.	0.	0.
	498.	208.	-6.	1065.	1295.	1.000	1.000	706.	0.	0.
	498.	208.	6.	1065.	1295.	1.000	1.000	706.	0.	0.
	498.	919.	-6.	1065.	1453.	1.000	1.000	1416.	0.	0.

STRESS REPORT, Stresses on Elements
CASE 2 (OPE) W+DIS+T2+P1

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS
1565	498.	939.	6.	1065.	1470.	1.000	1.000	1436.	0.
1570	498.	608.	-6.	1065.	1295.	1.000	1.000	1106.	0.
1575	498.	566.	6.	1065.	1295.	1.000	1.000	1064.	0.
1580	498.	1090.	-6.	1065.	1603.	1.000	1.000	1587.	0.
1580	498.	1090.	6.	1065.	1603.	1.000	1.000	1587.	0.
1585	498.	172.	-6.	1065.	1295.	1.000	1.000	670.	0.
1585	498.	172.	6.	1065.	1295.	1.000	1.000	670.	0.
1590	498.	728.	-6.	1065.	1298.	1.000	1.000	1226.	0.
1590	498.	728.	6.	1065.	1298.	1.000	1.000	1226.	0.
1595	498.	556.	-6.	1065.	1295.	1.000	1.000	1054.	0.
1595	498.	556.	6.	1065.	1295.	1.000	1.000	1054.	0.
1600	498.	321.	-6.	1065.	1295.	1.000	1.000	819.	0.
1600	498.	321.	6.	1065.	1295.	1.000	1.000	819.	0.
1605	498.	74.	55.	1065.	1299.	1.767	1.473	631.	0.
1605	498.	50.	-55.	1065.	1299.	1.000	1.000	619.	0.
1610	498.	1324.	55.	1065.	1825.	1.000	1.000	1826.	0.
1610	498.	1324.	-55.	1065.	1825.	1.000	1.000	1826.	0.
1615	498.	17.	22.	1065.	1296.	1.767	1.473	545.	0.
1615	498.	12.	-22.	1065.	1296.	1.000	1.000	543.	0.
1620	498.	512.	22.	1065.	1297.	1.000	1.000	1012.	0.
1620	498.	512.	-22.	1065.	1297.	1.000	1.000	1012.	0.
1625	498.	1027.	22.	1065.	1549.	1.000	1.000	1525.	0.
1625	498.	1027.	-22.	1065.	1549.	1.000	1.000	1525.	0.
1630	498.	238.	22.	1065.	1296.	1.000	1.000	740.	0.
1630	498.	238.	-22.	1065.	1296.	1.000	1.000	740.	0.
1635	498.	658.	22.	1065.	1300.	1.000	1.000	1157.	0.
1635	498.	658.	-22.	1065.	1300.	1.000	1.000	1157.	0.
1640	498.	419.	22.	1065.	1297.	1.000	1.000	918.	0.
1640	498.	419.	-22.	1065.	1297.	1.000	1.000	918.	0.
1645	498.	666.	22.	1065.	1301.	1.000	1.000	1165.	0.
1645	498.	666.	-22.	1065.	1301.	1.000	1.000	1165.	0.
1650	498.	247.	22.	1065.	1296.	1.000	1.000	749.	0.

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STRESS REPORT, Stresses on Elements
CASE 2 (OPE) W+DIS+T2+P1

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS	%
1650	498.	247.	-22.	1065.	1296.	1.000	1.000	749.	0.	0.
1655	498.	1000.	22.	1065.	1526.	1.000	1.000	1498.	0.	0.
1655	498.	1000.	-22.	1065.	1526.	1.000	1.000	1498.	0.	0.
1660	498.	499.	22.	1065.	1297.	1.000	1.000	999.	0.	0.
1665	498.	535.	-22.	1065.	1297.	1.000	1.000	1034.	0.	0.
1670	498.	670.	22.	1065.	1301.	1.000	1.000	1169.	0.	0.
1675	498.	643.	-22.	1065.	1299.	1.000	1.000	1142.	0.	0.
1680	498.	639.	22.	1065.	1299.	1.000	1.000	1138.	0.	0.
1680	498.	639.	-22.	1065.	1299.	1.000	1.000	1138.	0.	0.
1685	498.	111.	0.	1065.	1295.	1.767	1.473	609.	0.	0.
1685	498.	75.	0.	1065.	1295.	1.000	1.000	573.	0.	0.
1690	498.	547.	0.	1065.	1295.	1.000	1.000	1045.	0.	0.
1690	498.	547.	0.	1065.	1295.	1.000	1.000	1045.	0.	0.
1695	498.	562.	0.	1065.	1295.	1.000	1.000	1059.	0.	0.
1695	498.	562.	0.	1065.	1295.	1.000	1.000	1059.	0.	0.
1700	498.	490.	0.	1065.	1295.	1.000	1.000	988.	0.	0.
1700	498.	490.	0.	1065.	1295.	1.000	1.000	988.	0.	0.
1705	507.	0.	0.	1065.	1295.	1.767	1.473	507.	0.	0.
1705	507.	0.	0.	1065.	1295.	1.000	1.000	507.	0.	0.
1710	498.	0.	0.	1065.	1295.	1.000	1.000	498.	0.	0.
1510	188.	6739.	134.	1065.	6933.	1.222	1.296	6933.	0.	0.
1720	188.	5218.	-134.	1065.	6030.	1.000	1.000	5413.	0.	0.
1725	188.	5112.	134.	1065.	5442.	1.000	1.000	5308.	0.	0.
1730	188.	3663.	-134.	1065.	4478.	1.000	1.000	3862.	0.	0.
1735	188.	3621.	134.	1065.	4136.	1.000	1.000	3819.	0.	0.
1740	188.	3540.	-134.	1065.	4355.	1.000	1.000	3738.	0.	0.
1740	188.	3540.	134.	1065.	4064.	1.000	1.000	3738.	0.	0.
1745	188.	3115.	-134.	1065.	3931.	1.000	1.000	3315.	0.	0.
1745	188.	3115.	134.	1065.	3693.	1.000	1.000	3315.	0.	0.
1750	188.	561.	-134.	1065.	1468.	1.000	1.000	810.	0.	0.
1750	188.	561.	134.	1065.	1512.	1.000	1.000	810.	0.	0.
1755	232.	5831.	47.	1065.	6595.	1.767	1.473	6063.	0.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) STRESS	ALLOWABL STRESS
1755	232.	3310.	-47.	1065.	3816.	1.000	1.000	3543.	0.
1760	188.	6832.	-171.	1065.	7647.	1.767	1.473	7029.	0.
1760	188.	3875.	171.	1065.	4361.	1.000	1.000	4078.	0.
1765	188.	1705.	-171.	1065.	2535.	1.000	1.000	1928.	0.
1765	-20448.	1705.	171.	1065.	23089.	1.000	1.000	22187.	0.
1770	-20448.	520.	-171.	1065.	22051.	1.000	1.000	21070.	0.
1770	-20448.	520.	171.	1065.	22050.	1.000	1.000	21070.	0.
1775	-20448.	2228.	-171.	1065.	23674.	1.000	1.000	22702.	0.
1775	-20448.	2228.	171.	1065.	23547.	1.000	1.000	22702.	0.
1780	-20448.	1981.	-171.	1065.	23427.	1.000	1.000	22458.	0.
1780	-20448.	1981.	171.	1065.	23331.	1.000	1.000	22458.	0.
1785	-20448.	2483.	-171.	1065.	23928.	1.000	1.000	22954.	0.
1785	-20448.	2483.	171.	1065.	23771.	1.000	1.000	22954.	0.
1790	-20448.	1079.	-171.	1065.	22541.	1.000	1.000	21580.	0.
1790	-20448.	1079.	171.	1065.	22540.	1.000	1.000	21580.	0.
1795	-20448.	2055.	-171.	1065.	23501.	1.000	1.000	22531.	0.
1795	-274.	2055.	171.	1065.	3233.	1.000	1.000	2358.	0.
1800	-274.	2594.	-171.	1065.	3879.	1.000	1.000	2891.	0.
1800	-274.	2594.	171.	1065.	3703.	1.000	1.000	2891.	0.
1805	440.	4331.	97.	1065.	4890.	1.767	1.473	4775.	0.
1805	440.	2466.	-97.	1065.	2913.	1.000	1.000	2914.	0.
1810	440.	5134.	97.	1065.	5693.	1.000	1.000	5578.	0.
1810	-20448.	5134.	-97.	1065.	26094.	1.000	1.000	25586.	0.
1815	-20448.	2768.	97.	1065.	24212.	1.000	1.000	23223.	0.
1815	-20448.	2768.	-97.	1065.	24020.	1.000	1.000	23223.	0.
1820	-20448.	4020.	97.	1065.	25463.	1.000	1.000	24472.	0.
1820	-20448.	4020.	-97.	1065.	25117.	1.000	1.000	24472.	0.
1825	-20448.	1917.	97.	1065.	23361.	1.000	1.000	22375.	0.
1825	-20448.	1917.	-97.	1065.	23274.	1.000	1.000	22375.	0.
1830	-20448.	1212.	97.	1065.	22656.	1.000	1.000	21675.	0.
1830	189.	1212.	-97.	1065.	2029.	1.000	1.000	1416.	0.
1835	354.	2690.	-72.	1065.	3334.	1.767	1.473	3048.	0.

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ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)-- ALLOWABLE STRESS	% STRESS
1835	354.	1522.	72.	1065.	2130.	1.000	1.000	1883.	0. 0.
1840	354.	3930.	-72.	1065.	4573.	1.000	1.000	4287.	0. 0.
1840	-2067.	3930.	72.	1065.	6658.	1.000	1.000	5999.	0. 0.
1845	-2067.	3362.	-72.	1065.	6425.	1.000	1.000	5432.	0. 0.
1845	-2067.	3362.	72.	1065.	6160.	1.000	1.000	5432.	0. 0.
1850	-2067.	3002.	-72.	1065.	6065.	1.000	1.000	5072.	0. 0.
1850	-2067.	3002.	72.	1065.	5844.	1.000	1.000	5072.	0. 0.
1855	-2067.	1725.	-72.	1065.	4789.	1.000	1.000	3798.	0. 0.
1855	-2067.	1725.	72.	1065.	4725.	1.000	1.000	3798.	0. 0.
1860	-2067.	1078.	-72.	1065.	4158.	1.000	1.000	3154.	0. 0.
1860	-2067.	1078.	72.	1065.	4158.	1.000	1.000	3154.	0. 0.
1865	-2067.	647.	-72.	1065.	3781.	1.000	1.000	2729.	0. 0.
1870	-2067.	631.	72.	1065.	3767.	1.000	1.000	2714.	0. 0.
1875	-2067.	546.	-72.	1065.	3693.	1.222	1.296	2631.	0. 0.
1875	-2067.	508.	-8.	1065.	3657.	1.222	1.296	2575.	0. 0.
1880	-2067.	741.	8.	1065.	3861.	1.000	1.000	2807.	0. 0.
1885	-2067.	812.	-8.	1065.	3924.	1.000	1.000	2879.	0. 0.
1900	-2067.	2329.	8.	1065.	5391.	1.000	1.000	4396.	0. 0.
1900	-2067.	2329.	-8.	1065.	5254.	1.000	1.000	4396.	0. 0.
1905	-2067.	2121.	8.	1065.	5183.	1.000	1.000	4188.	0. 0.
1905	-2067.	2121.	-8.	1065.	5071.	1.000	1.000	4188.	0. 0.
1910	-2067.	3877.	8.	1065.	6938.	1.000	1.000	5943.	0. 0.
1910	-2067.	3877.	-8.	1065.	6610.	1.000	1.000	5943.	0. 0.
1915	-2067.	3853.	8.	1065.	6915.	1.000	1.000	5920.	0. 0.
1915	-2067.	3853.	-8.	1065.	6590.	1.000	1.000	5920.	0. 0.
1920	-2067.	5635.	8.	1065.	8697.	1.000	1.000	7701.	0. 0.
1920	-2067.	5635.	-8.	1065.	8151.	1.000	1.000	7701.	0. 0.
1925	-2067.	6153.	8.	1065.	9215.	1.000	1.000	8220.	0. 0.
1925	-2067.	6153.	-8.	1065.	8605.	1.000	1.000	8220.	0. 0.
1930	-2067.	7435.	8.	1065.	10497.	1.000	1.000	9502.	0. 0.
1930	-2067.	7435.	-8.	1065.	9729.	1.000	1.000	9502.	0. 0.
1935	-1321.	5619.	50.	1065.	7936.	1.767	1.473	6941.	0. 0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)- STRESS	ALLOWABL STRESS
1935	-1321.	3181.	-50.	1065.	5254.	1.000	1.000	4503.	0.
1945	490.	37320.	176.	1065.	37827.	1.767	1.473	37812.	0.
1945	490.	21118.	-176.	1065.	21611.	1.000	1.000	21611.	0.
1950	490.	54713.	176.	1065.	55219.	1.000	1.000	55204.	0.
1950	-20448.	54713.	-176.	1065.	75162.	1.000	1.000	75162.	0.
1955	-20448.	23470.	176.	1065.	44914.	1.000	1.000	43920.	0.
1955	-20448.	23470.	-176.	1065.	43919.	1.000	1.000	43920.	0.
1960	-20448.	7897.	176.	1065.	29342.	1.000	1.000	28353.	0.
1960	-20448.	7897.	-176.	1065.	28516.	1.000	1.000	28353.	0.
1965	-20448.	3983.	176.	1065.	25429.	1.000	1.000	24447.	0.
1965	-20448.	3983.	-176.	1065.	25086.	1.000	1.000	24447.	0.
1970	-20448.	5505.	176.	1065.	26950.	1.000	1.000	25964.	0.
1970	498.	5505.	-176.	1065.	6012.	1.000	1.000	6013.	0.
1975	544.	1055.	0.	1065.	1619.	1.767	1.473	1599.	0.
1975	544.	628.	0.	1065.	1295.	1.000	1.000	1172.	0.
1980	519.	628.	0.	1065.	1295.	1.000	1.000	1147.	0.
1980	519.	628.	0.	1065.	1295.	1.000	1.000	1147.	0.
1985	498.	554.	-260.	1065.	1456.	1.767	1.473	1257.	0.
1985	498.	313.	260.	1065.	1403.	1.000	1.000	1104.	0.
1990	498.	3973.	-260.	1065.	4501.	1.000	1.000	4505.	0.
1990	498.	3973.	260.	1065.	4501.	1.000	1.000	4505.	0.
1995	498.	379.	-260.	1065.	1414.	1.000	1.000	1140.	0.
1995	498.	379.	260.	1065.	1414.	1.000	1.000	1140.	0.
2000	498.	104.	-260.	1065.	1376.	1.000	1.000	1027.	0.
2000	498.	104.	260.	1065.	1376.	1.000	1.000	1027.	0.
2005	498.	986.	-260.	1065.	1655.	1.000	1.000	1612.	0.
2010	498.	998.	260.	1065.	1663.	1.000	1.000	1622.	0.
2015	498.	1286.	-260.	1065.	1865.	1.296	1.296	1884.	0.
2015	498.	1286.	260.	1065.	1865.	1.296	1.296	1884.	0.
2020	498.	965.	-260.	1065.	1643.	1.000	1.000	1593.	0.
2025	498.	945.	260.	1065.	1630.	1.000	1.000	1576.	0.
2030	464.	797.	0.	1065.	1379.	1.767	1.473	1261.	0.

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ed To: FLUOR DANIEL ID 13692
REPORT, Stresses on Elements
(OPE) W+DIS+T2+P1

Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) ALLOWABLE STRESS	% STRESS
464.	534.	0.	1065.	1295.	1.000	1.000	999.	0. 0.
498.	426.	-63.	1065.	1306.	1.767	1.473	942.	0. 0.
498.	241.	63.	1065.	1302.	1.000	1.000	770.	0. 0.
498.	669.	-63.	1065.	1328.	1.000	1.000	1178.	0. 0.
498.	669.	63.	1065.	1328.	1.000	1.000	1178.	0. 0.
498.	577.	-63.	1065.	1314.	1.000	1.000	1088.	0. 0.
498.	577.	63.	1065.	1314.	1.000	1.000	1088.	0. 0.
498.	1262.	-63.	1065.	1764.	1.000	1.000	1766.	0. 0.
498.	1262.	63.	1065.	1764.	1.000	1.000	1766.	0. 0.
498.	24.	0.	1065.	1295.	1.767	1.473	522.	0. 0.
498.	17.	0.	1065.	1295.	1.000	1.000	514.	0. 0.
498.	448.	0.	1065.	1295.	1.000	1.000	946.	0. 0.
498.	448.	0.	1065.	1295.	1.000	1.000	946.	0. 0.
498.	0.	0.	1065.	1295.	1.767	1.473	498.	0. 0.
498.	0.	0.	1065.	1295.	1.000	1.000	498.	0. 0.
498.	0.	0.	1065.	1295.	1.000	1.000	498.	0. 0.
498.	207.	230.	1065.	1371.	1.222	1.296	1003.	0. 0.
498.	203.	-230.	1065.	1370.	1.000	1.000	1001.	0. 0.
498.	200.	230.	1065.	1370.	1.000	1.000	1000.	0. 0.
482.	681.	0.	1065.	1295.	1.767	1.473	1163.	0. 0.
482.	462.	0.	1065.	1295.	1.000	1.000	944.	0. 0.
498.	446.	-14.	1065.	1296.	1.767	1.473	944.	0. 0.
498.	252.	14.	1065.	1296.	1.000	1.000	751.	0. 0.
498.	1556.	-14.	1065.	2054.	1.000	1.000	2054.	0. 0.
498.	1556.	14.	1065.	2054.	1.000	1.000	2054.	0. 0.
498.	65.	-14.	1065.	1295.	1.000	1.000	568.	0. 0.
498.	65.	14.	1065.	1295.	1.000	1.000	568.	0. 0.
498.	475.	-14.	1065.	1296.	1.000	1.000	974.	0. 0.
498.	475.	14.	1065.	1296.	1.000	1.000	974.	0. 0.
498.	409.	-14.	1065.	1296.	1.000	1.000	907.	0. 0.
498.	409.	14.	1065.	1296.	1.000	1.000	907.	0. 0.
498.	868.	-14.	1065.	1410.	1.000	1.000	1366.	0. 0.

STRESS REPORT, Stresses on Elements
CASE 2 (OPE) W+DIS+T2+P1

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)- STRESS	ALLOWABL STRESS
2120	498.	868.	14.	1065.	1410.	1.000	1.000	1366.	0.
2125	498.	458.	-14.	1065.	1296.	1.000	1.000	956.	0.
2125	498.	458.	14.	1065.	1296.	1.000	1.000	956.	0.
2130	498.	831.	-14.	1065.	1378.	1.000	1.000	1329.	0.
2130	498.	831.	14.	1065.	1378.	1.000	1.000	1329.	0.
2135	510.	1244.	0.	1065.	1751.	1.767	1.473	1754.	0.
2135	510.	704.	0.	1065.	1295.	1.000	1.000	1214.	0.
2140	498.	1049.	-14.	1065.	1568.	1.767	1.473	1547.	0.
2140	498.	594.	14.	1065.	1296.	1.000	1.000	1092.	0.
2145	498.	208.	-14.	1065.	1296.	1.767	1.473	708.	0.
2145	498.	142.	14.	1065.	1296.	1.000	1.000	642.	0.
2150	498.	1021.	-14.	1065.	1544.	1.000	1.000	1519.	0.
2150	498.	1021.	14.	1065.	1544.	1.000	1.000	1519.	0.
2155	498.	133.	-14.	1065.	1296.	1.000	1.000	634.	0.
2155	498.	133.	14.	1065.	1296.	1.000	1.000	634.	0.
2160	498.	212.	-14.	1065.	1296.	1.000	1.000	712.	0.
2160	498.	212.	14.	1065.	1296.	1.000	1.000	712.	0.
2165	498.	254.	-14.	1065.	1296.	1.000	1.000	754.	0.
2165	498.	254.	14.	1065.	1296.	1.000	1.000	754.	0.
2170	498.	427.	-14.	1065.	1296.	1.000	1.000	925.	0.
2170	498.	427.	14.	1065.	1296.	1.000	1.000	925.	0.
2175	498.	152.	-14.	1065.	1296.	1.000	1.000	652.	0.
2175	498.	152.	14.	1065.	1296.	1.000	1.000	652.	0.
2180	498.	370.	-14.	1065.	1296.	1.000	1.000	869.	0.
2180	498.	370.	14.	1065.	1296.	1.000	1.000	869.	0.
2185	498.	179.	-14.	1065.	1296.	1.000	1.000	679.	0.
2185	498.	179.	14.	1065.	1296.	1.000	1.000	679.	0.
2190	498.	385.	-14.	1065.	1296.	1.000	1.000	884.	0.
2190	498.	385.	14.	1065.	1296.	1.000	1.000	884.	0.
2195	498.	172.	-14.	1065.	1296.	1.000	1.000	672.	0.
2195	498.	172.	14.	1065.	1296.	1.000	1.000	672.	0.
2200	498.	381.	-14.	1065.	1296.	1.000	1.000	880.	0.

EXHIBIT
000286

IT	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS	%
	498.	381.	14.	1065.	1296.	1.000	1.000	880.	0.	0.
	498.	174.	-14.	1065.	1296.	1.000	1.000	674.	0.	0.
	498.	174.	14.	1065.	1296.	1.000	1.000	674.	0.	0.
	498.	382.	-14.	1065.	1296.	1.000	1.000	881.	0.	0.
	498.	382.	14.	1065.	1296.	1.000	1.000	881.	0.	0.
	498.	173.	-14.	1065.	1296.	1.000	1.000	673.	0.	0.
	498.	173.	14.	1065.	1296.	1.000	1.000	673.	0.	0.
	498.	382.	-14.	1065.	1296.	1.000	1.000	880.	0.	0.
	498.	382.	14.	1065.	1296.	1.000	1.000	880.	0.	0.
	498.	173.	-14.	1065.	1296.	1.000	1.000	673.	0.	0.
	498.	173.	14.	1065.	1296.	1.000	1.000	673.	0.	0.
	498.	382.	-14.	1065.	1296.	1.000	1.000	880.	0.	0.
	498.	382.	14.	1065.	1296.	1.000	1.000	880.	0.	0.
	498.	173.	-14.	1065.	1296.	1.000	1.000	673.	0.	0.
	498.	173.	14.	1065.	1296.	1.000	1.000	673.	0.	0.
	498.	382.	-14.	1065.	1296.	1.000	1.000	880.	0.	0.
	498.	382.	14.	1065.	1296.	1.000	1.000	880.	0.	0.
	498.	173.	-14.	1065.	1296.	1.000	1.000	673.	0.	0.
	498.	173.	14.	1065.	1296.	1.000	1.000	673.	0.	0.
	498.	382.	-14.	1065.	1296.	1.000	1.000	880.	0.	0.
	498.	382.	14.	1065.	1296.	1.000	1.000	880.	0.	0.
	498.	173.	-14.	1065.	1296.	1.000	1.000	673.	0.	0.
	498.	173.	14.	1065.	1296.	1.000	1.000	673.	0.	0.
	498.	382.	-14.	1065.	1296.	1.000	1.000	880.	0.	0.
	498.	382.	14.	1065.	1296.	1.000	1.000	880.	0.	0.
	498.	173.	-14.	1065.	1296.	1.000	1.000	673.	0.	0.
	498.	173.	14.	1065.	1296.	1.000	1.000	673.	0.	0.
	498.	382.	-14.	1065.	1296.	1.000	1.000	880.	0.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS
2280	498.	382.	14.	1065.	1296.	1.000	1.000	880.	0.
2285	498.	173.	-14.	1065.	1296.	1.000	1.000	673.	0.
2285	498.	173.	14.	1065.	1296.	1.000	1.000	673.	0.
2290	498.	382.	-14.	1065.	1296.	1.000	1.000	880.	0.
2290	498.	382.	14.	1065.	1296.	1.000	1.000	880.	0.
2295	498.	173.	-14.	1065.	1296.	1.000	1.000	673.	0.
2295	498.	173.	14.	1065.	1296.	1.000	1.000	673.	0.
2300	498.	382.	-14.	1065.	1296.	1.000	1.000	880.	0.
2300	498.	382.	14.	1065.	1296.	1.000	1.000	880.	0.
2305	498.	173.	-14.	1065.	1296.	1.000	1.000	673.	0.
2305	498.	173.	14.	1065.	1296.	1.000	1.000	673.	0.
2310	498.	382.	-14.	1065.	1296.	1.000	1.000	880.	0.
2310	498.	382.	14.	1065.	1296.	1.000	1.000	880.	0.
2315	498.	173.	-14.	1065.	1296.	1.000	1.000	673.	0.
2315	498.	173.	14.	1065.	1296.	1.000	1.000	673.	0.
2320	498.	382.	-14.	1065.	1296.	1.000	1.000	880.	0.
2320	498.	382.	14.	1065.	1296.	1.000	1.000	880.	0.
2325	498.	173.	-14.	1065.	1296.	1.000	1.000	673.	0.
2325	498.	173.	14.	1065.	1296.	1.000	1.000	673.	0.
2330	498.	382.	-14.	1065.	1296.	1.000	1.000	880.	0.
2330	498.	382.	14.	1065.	1296.	1.000	1.000	880.	0.
2335	498.	173.	-14.	1065.	1296.	1.000	1.000	673.	0.
2335	498.	173.	14.	1065.	1296.	1.000	1.000	673.	0.
2340	498.	382.	-14.	1065.	1296.	1.000	1.000	881.	0.
2340	498.	382.	14.	1065.	1296.	1.000	1.000	881.	0.
2345	498.	173.	-14.	1065.	1296.	1.000	1.000	673.	0.
2345	498.	173.	14.	1065.	1296.	1.000	1.000	673.	0.
2350	498.	381.	-14.	1065.	1296.	1.000	1.000	880.	0.
2350	498.	381.	14.	1065.	1296.	1.000	1.000	880.	0.
2355	498.	172.	-14.	1065.	1296.	1.000	1.000	672.	0.
2355	498.	172.	14.	1065.	1296.	1.000	1.000	672.	0.
2360	498.	385.	-14.	1065.	1296.	1.000	1.000	883.	0.

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Licensed To: FLUOR DANIEL ID 13692
STRESS REPORT, Stresses on Elements
CASE 2 (OPE) W+DIS+T2+P1

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS	%
2360	498.	385.	14.	1065.	1296.	1.000	1.000	883.	0.	0.
2365	498.	176.	-14.	1065.	1296.	1.000	1.000	676.	0.	0.
2365	498.	176.	14.	1065.	1296.	1.000	1.000	676.	0.	0.
2370	498.	371.	-14.	1065.	1296.	1.000	1.000	870.	0.	0.
2370	498.	371.	14.	1065.	1296.	1.000	1.000	870.	0.	0.
2375	498.	163.	-14.	1065.	1296.	1.000	1.000	663.	0.	0.
2375	498.	163.	14.	1065.	1296.	1.000	1.000	663.	0.	0.
2380	498.	421.	-14.	1065.	1296.	1.000	1.000	920.	0.	0.
2380	498.	421.	14.	1065.	1296.	1.000	1.000	920.	0.	0.
2385	498.	211.	-14.	1065.	1296.	1.000	1.000	711.	0.	0.
2385	498.	211.	14.	1065.	1296.	1.000	1.000	711.	0.	0.
2390	498.	233.	-14.	1065.	1296.	1.000	1.000	732.	0.	0.
2390	498.	233.	14.	1065.	1296.	1.000	1.000	732.	0.	0.
2395	498.	30.	-14.	1065.	1295.	1.000	1.000	539.	0.	0.
2395	498.	30.	14.	1065.	1295.	1.000	1.000	539.	0.	0.
2400	498.	942.	-14.	1065.	1474.	1.000	1.000	1440.	0.	0.
2400	498.	942.	14.	1065.	1474.	1.000	1.000	1440.	0.	0.
2415	498.	60.	0.	1065.	1295.	1.767	1.473	557.	0.	0.
2415	498.	41.	0.	1065.	1295.	1.000	1.000	538.	0.	0.
2420	498.	75.	0.	1065.	1295.	1.000	1.000	573.	0.	0.
2420	498.	75.	0.	1065.	1295.	1.000	1.000	573.	0.	0.
2425	498.	2364.	0.	1065.	2861.	1.000	1.000	2861.	0.	0.
2425	498.	2364.	0.	1065.	2861.	1.000	1.000	2861.	0.	0.
2430	523.	0.	0.	1065.	1295.	1.767	1.473	523.	0.	0.
2430	523.	0.	0.	1065.	1295.	1.000	1.000	523.	0.	0.
2435	498.	0.	0.	1065.	1295.	1.000	1.000	498.	0.	0.

STRESS SUMMARY
CASE 3 (OPE) W+DIS+T3+P1

**** NO CODE STRESS CHECK PROCESSED

PIPING CODE: B31.3 -1993, July 31, 1993 Addendum

HIGHEST STRESSES: (lb./sq.in.)

OPE STRESS %:	172553.	@NODE 1950	ALLOWABLE:	0.
BENDING STRESS:	125140.	@NODE 1950		
TORSIONAL STRESS:	9526.	@NODE 1520		
AXIAL STRESS:	48769.	@NODE 1285		
3D MAX INTENSITY:	172552.	@NODE 1950		

STRESS OPTIMIZATION PARAMETERS:

OPE STRESS PERCENTAGES SHOWN BELOW REPRESENT THE NUMBER OF NODES IN THE SYSTEM THAT WERE WITHIN THE PERCENTAGE GIVEN OF THE HIGHEST OPE STRESS IN THE SYSTEM.

AVG. OPE STRESS 13678.

	/BETWEEN/	/BELOW/
OPE STRESS 90-100%	0.19	99.81
OPE STRESS 80-90 %	0.00	99.81
OPE STRESS 70-80 %	0.19	99.63
OPE STRESS 60-70 %	0.19	99.44
OPE STRESS 50-60 %	0.37	99.07
OPE STRESS 25-50 %	18.77	80.30
OPE STRESS 0-25 %	80.30	

PIPE ELEMENTS ANALYZED: 269

SAMPLED POINTS: 538

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REPORT, Stresses on Elements
(OPE) W+DIS+T3+P1

T	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS	%
	498.	0.	0.	1065.	1295.	1.767	1.473	498.	0.	0.
	498.	21.	0.	1065.	1295.	1.767	1.473	519.	0.	0.
	498.	12.	0.	1065.	1295.	1.000	1.000	510.	0.	0.
	498.	61.	0.	1065.	1295.	1.000	1.000	558.	0.	0.
	-47411.	61.	0.	1065.	48610.	1.000	1.000	47472.	0.	0.
	-47411.	880.	0.	1065.	49328.	1.000	1.000	48291.	0.	0.
	-47411.	880.	0.	1065.	49328.	1.000	1.000	48291.	0.	0.
	-47411.	1299.	0.	1065.	49705.	1.000	1.000	48710.	0.	0.
	-47411.	1299.	0.	1065.	49695.	1.000	1.000	48710.	0.	0.
	-47411.	446.	0.	1065.	48948.	1.000	1.000	47858.	0.	0.
	-47411.	446.	0.	1065.	48948.	1.000	1.000	47858.	0.	0.
	-47411.	1003.	0.	1065.	49436.	1.000	1.000	48414.	0.	0.
	-47411.	1003.	0.	1065.	49436.	1.000	1.000	48414.	0.	0.
	-47411.	565.	0.	1065.	49052.	1.000	1.000	47977.	0.	0.
	-47411.	565.	0.	1065.	49052.	1.000	1.000	47977.	0.	0.
	-47411.	1052.	0.	1065.	49479.	1.000	1.000	48463.	0.	0.
	-47411.	1052.	0.	1065.	49479.	1.000	1.000	48463.	0.	0.
	-47411.	722.	0.	1065.	49190.	1.000	1.000	48134.	0.	0.
	-47411.	722.	0.	1065.	49190.	1.000	1.000	48134.	0.	0.
	-47411.	1480.	0.	1065.	49887.	1.000	1.000	48892.	0.	0.
	457.	1480.	0.	1065.	1986.	1.000	1.000	1937.	0.	0.
	228.	5517.	-336.	1065.	6321.	1.767	1.473	5786.	0.	0.
	228.	3124.	336.	1065.	3692.	1.000	1.000	3423.	0.	0.
	228.	2029.	-336.	1065.	2877.	1.000	1.000	2366.	0.	0.
	228.	2029.	336.	1065.	2756.	1.000	1.000	2366.	0.	0.
	457.	8138.	939.	1065.	8877.	1.767	1.473	8809.	0.	0.
	457.	4635.	-939.	1065.	5428.	1.000	1.000	5458.	0.	0.
	457.	7267.	939.	1065.	8028.	1.000	1.000	7963.	0.	0.
	35.	7267.	-939.	1065.	7588.	1.000	1.000	7541.	0.	0.
	101.	17859.	114.	1065.	18754.	1.767	1.473	17962.	0.	0.
	101.	10187.	-114.	1065.	10291.	1.000	1.000	10291.	0.	0.
	35.	12010.	-41.	1065.	12971.	1.767	1.473	12045.	0.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) STRESS	ALLOWABLE STRESS
1075	35.	6802.	41.	1065.	7073.	1.000	1.000	6837.	0.
1080	35.	5493.	-41.	1065.	6454.	1.000	1.000	5528.	0.
1080	-47411.	5493.	41.	1065.	53372.	1.000	1.000	52905.	0.
1085	-47411.	2140.	-41.	1065.	50547.	1.000	1.000	49553.	0.
1085	-47411.	2140.	41.	1065.	50432.	1.000	1.000	49553.	0.
1090	-47411.	490.	-41.	1065.	48986.	1.000	1.000	47908.	0.
1090	-47411.	490.	41.	1065.	48986.	1.000	1.000	47908.	0.
1095	-47411.	909.	-41.	1065.	49353.	1.000	1.000	48324.	0.
1095	-47411.	909.	41.	1065.	49353.	1.000	1.000	48324.	0.
1100	-47411.	762.	-41.	1065.	49224.	1.000	1.000	48178.	0.
1100	-47411.	762.	41.	1065.	49224.	1.000	1.000	48178.	0.
1105	-47411.	148.	-41.	1065.	48686.	1.000	1.000	47580.	0.
1105	-47411.	148.	41.	1065.	48686.	1.000	1.000	47580.	0.
1110	-47411.	1690.	-41.	1065.	50097.	1.000	1.000	49104.	0.
1110	-47411.	1690.	41.	1065.	50038.	1.000	1.000	49104.	0.
1115	-47411.	1395.	-41.	1065.	49802.	1.000	1.000	48809.	0.
1115	-47411.	1395.	41.	1065.	49780.	1.000	1.000	48809.	0.
1120	-47411.	2521.	-41.	1065.	50928.	1.000	1.000	49934.	0.
1120	-47411.	2521.	41.	1065.	50766.	1.000	1.000	49934.	0.
1125	-47411.	1127.	-41.	1065.	49545.	1.000	1.000	48542.	0.
1125	-47411.	1127.	41.	1065.	49544.	1.000	1.000	48542.	0.
1130	-47411.	2230.	-41.	1065.	50636.	1.000	1.000	49643.	0.
1130	-47411.	2230.	41.	1065.	50511.	1.000	1.000	49643.	0.
1135	-47411.	1110.	-41.	1065.	49530.	1.000	1.000	48524.	0.
1135	-47411.	1110.	41.	1065.	49530.	1.000	1.000	48524.	0.
1140	-47411.	2600.	-41.	1065.	51007.	1.000	1.000	50013.	0.
1140	-47411.	2600.	41.	1065.	50836.	1.000	1.000	50013.	0.
1145	-47411.	1562.	-41.	1065.	49969.	1.000	1.000	48976.	0.
1145	-47411.	1562.	41.	1065.	49926.	1.000	1.000	48976.	0.
1150	-47411.	2060.	-41.	1065.	50467.	1.000	1.000	49473.	0.
1150	498.	2060.	41.	1065.	2560.	1.000	1.000	2560.	0.
1155	447.	11295.	-65.	1065.	11844.	1.767	1.473	11743.	0.

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STRESS REPORT, Stresses on Elements
CASE 3 (OPE) W+DIS+T3+P1

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)-- ALLOWABLE STRESS	% STRESS
1155	447.	6391.	65.	1065.	6840.	1.000	1.000	6840.	0. 0.
1160	447.	6447.	-65.	1065.	6996.	1.000	1.000	6896.	0. 0.
1160	-2679.	6447.	65.	1065.	9477.	1.000	1.000	9128.	0. 0.
1165	-2679.	4485.	-65.	1065.	8161.	1.000	1.000	7167.	0. 0.
1165	-2679.	4485.	65.	1065.	7757.	1.000	1.000	7167.	0. 0.
1170	-2679.	3178.	-65.	1065.	6854.	1.000	1.000	5860.	0. 0.
1170	-2679.	3178.	65.	1065.	6611.	1.000	1.000	5860.	0. 0.
1175	-2679.	563.	-65.	1065.	4320.	1.000	1.000	3257.	0. 0.
1175	-2679.	563.	65.	1065.	4319.	1.000	1.000	3257.	0. 0.
1180	-2679.	1645.	-65.	1065.	5322.	1.000	1.000	4330.	0. 0.
1180	-2679.	1645.	65.	1065.	5268.	1.000	1.000	4330.	0. 0.
1185	-2679.	3041.	-65.	1065.	6717.	1.000	1.000	5723.	0. 0.
1185	-2679.	3041.	65.	1065.	6491.	1.000	1.000	5723.	0. 0.
1190	-2679.	4414.	-65.	1065.	8090.	1.000	1.000	7095.	0. 0.
1190	-2679.	4414.	65.	1065.	7694.	1.000	1.000	7095.	0. 0.
1195	-2679.	5676.	-65.	1065.	9352.	1.000	1.000	8357.	0. 0.
1195	-2679.	5676.	65.	1065.	8801.	1.000	1.000	8357.	0. 0.
1200	-2679.	7047.	-65.	1065.	10722.	1.000	1.000	9728.	0. 0.
1200	-2679.	7047.	65.	1065.	10002.	1.000	1.000	9728.	0. 0.
1205	-2679.	8364.	-65.	1065.	12040.	1.000	1.000	11045.	0. 0.
1205	-2679.	8364.	65.	1065.	11157.	1.000	1.000	11045.	0. 0.
1210	-2679.	9716.	-65.	1065.	13391.	1.000	1.000	12396.	0. 0.
1210	-2679.	9716.	65.	1065.	12396.	1.000	1.000	12396.	0. 0.
1215	-2679.	11041.	-65.	1065.	14716.	1.000	1.000	13721.	0. 0.
1215	-2679.	11041.	65.	1065.	13721.	1.000	1.000	13721.	0. 0.
1220	-2679.	12435.	-65.	1065.	16110.	1.000	1.000	15115.	0. 0.
1220	-2679.	12435.	65.	1065.	15115.	1.000	1.000	15115.	0. 0.
1225	-2679.	13757.	-65.	1065.	17432.	1.000	1.000	16437.	0. 0.
1225	-2679.	13757.	65.	1065.	16437.	1.000	1.000	16437.	0. 0.
1230	-2679.	15093.	-65.	1065.	18768.	1.000	1.000	17773.	0. 0.
1230	-2679.	15093.	65.	1065.	17773.	1.000	1.000	17773.	0. 0.
1235	480.	4630.	66.	1065.	5146.	1.767	1.473	5112.	0. 0.

STRESS REPORT, Stresses on Elements
CASE 3 (OPE) W+DIS+T3+P1

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)- STRESS	ALLOWABL STRESS
1235	480.	2625.	-66.	1065.	3108.	1.000	1.000	3109.	0.
1240	480.	58052.	66.	1065.	58567.	1.000	1.000	58532.	0.
1240	-47411.	58052.	-66.	1065.	105464.	1.000	1.000	105464.	0.
1245	-47411.	21265.	66.	1065.	69672.	1.000	1.000	68677.	0.
1245	-47411.	21265.	-66.	1065.	68676.	1.000	1.000	68677.	0.
1250	-47411.	16087.	66.	1065.	64494.	1.000	1.000	63498.	0.
1250	-47411.	16087.	-66.	1065.	63498.	1.000	1.000	63498.	0.
1255	-47411.	5472.	66.	1065.	53879.	1.000	1.000	52885.	0.
1255	-47411.	5472.	-66.	1065.	53354.	1.000	1.000	52885.	0.
1260	-47411.	5960.	66.	1065.	54366.	1.000	1.000	53372.	0.
1260	-47411.	5960.	-66.	1065.	53781.	1.000	1.000	53372.	0.
1265	-47411.	2185.	66.	1065.	50592.	1.000	1.000	49600.	0.
1265	-47411.	2185.	-66.	1065.	50472.	1.000	1.000	49600.	0.
1270	-47411.	4464.	66.	1065.	52870.	1.000	1.000	51877.	0.
1270	431.	4464.	-66.	1065.	4896.	1.000	1.000	4896.	0.
1275	305.	7471.	-15.	1065.	8161.	1.767	1.473	7777.	0.
1275	305.	4228.	15.	1065.	4546.	1.000	1.000	4533.	0.
1280	305.	1622.	-15.	1065.	2312.	1.000	1.000	1927.	0.
1280	-48769.	1622.	15.	1065.	51336.	1.000	1.000	50392.	0.
1285	-48769.	1654.	-15.	1065.	51418.	1.000	1.000	50423.	0.
1290	-48769.	1659.	15.	1065.	51369.	1.000	1.000	50429.	0.
1295	-48769.	1265.	-15.	1065.	51030.	1.000	1.000	50035.	0.
1300	-48769.	1213.	15.	1065.	50978.	1.000	1.000	49982.	0.
1305	-48769.	1097.	-15.	1065.	50876.	1.000	1.000	49866.	0.
1305	-47411.	1097.	15.	1065.	49518.	1.000	1.000	48508.	0.
1310	-47411.	742.	-15.	1065.	49207.	1.000	1.000	48154.	0.
1310	-47411.	742.	15.	1065.	49207.	1.000	1.000	48154.	0.
1315	-47411.	1843.	-15.	1065.	50250.	1.000	1.000	49255.	0.
1315	-47411.	1843.	15.	1065.	50172.	1.000	1.000	49255.	0.
1320	-47411.	1649.	-15.	1065.	50056.	1.000	1.000	49061.	0.
1320	-47411.	1649.	15.	1065.	50002.	1.000	1.000	49061.	0.
1325	-47411.	1870.	-15.	1065.	50277.	1.000	1.000	49282.	0.

T	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS	%
	-47411.	1870.	15.	1065.	50196.	1.000	1.000	49282.	0.	0.
	-47411.	839.	-15.	1065.	49292.	1.000	1.000	48251.	0.	0.
	-47411.	839.	15.	1065.	49292.	1.000	1.000	48251.	0.	0.
	-47411.	1182.	-15.	1065.	49593.	1.000	1.000	48594.	0.	0.
	480.	1182.	15.	1065.	1702.	1.000	1.000	1663.	0.	0.
	486.	3708.	-98.	1065.	4222.	1.767	1.473	4199.	0.	0.
	486.	2099.	98.	1065.	2593.	1.000	1.000	2594.	0.	0.
	486.	2223.	-98.	1065.	2739.	1.000	1.000	2717.	0.	0.
	486.	2223.	98.	1065.	2716.	1.000	1.000	2717.	0.	0.
	486.	302.	-98.	1065.	1313.	1.000	1.000	847.	0.	0.
	486.	302.	98.	1065.	1314.	1.000	1.000	847.	0.	0.
	486.	1643.	-98.	1065.	2161.	1.000	1.000	2140.	0.	0.
	486.	1643.	98.	1065.	2138.	1.000	1.000	2140.	0.	0.
	480.	4787.	426.	1065.	5371.	1.767	1.473	5342.	0.	0.
	480.	2710.	-426.	1065.	3301.	1.000	1.000	3320.	0.	0.
	480.	2667.	426.	1065.	3295.	1.000	1.000	3280.	0.	0.
	480.	2667.	-426.	1065.	3260.	1.000	1.000	3280.	0.	0.
	480.	5751.	426.	1065.	6324.	1.000	1.000	6294.	0.	0.
	480.	5751.	-426.	1065.	6289.	1.000	1.000	6294.	0.	0.
	187.	3056.	-381.	1065.	3939.	1.767	1.473	3336.	0.	0.
	187.	1782.	381.	1065.	2606.	1.000	1.000	2125.	0.	0.
	207.	611.	-381.	1065.	1618.	1.000	1.000	1184.	0.	0.
	207.	611.	381.	1065.	1731.	1.000	1.000	1184.	0.	0.
	480.	1669.	-398.	1065.	2325.	1.767	1.473	2329.	0.	0.
	480.	1020.	398.	1065.	1800.	1.000	1.000	1773.	0.	0.
	480.	1422.	-398.	1065.	2095.	1.000	1.000	2110.	0.	0.
	480.	1715.	398.	1065.	2334.	1.000	1.000	2370.	0.	0.
	480.	4198.	-398.	1065.	4781.	1.222	1.296	4753.	0.	0.
	484.	3285.	931.	1065.	4204.	1.222	1.296	4261.	0.	0.
	484.	3082.	-931.	1065.	4047.	1.222	1.296	4085.	0.	0.
	169.	2626.	0.	401.	2794.	1.222	1.296	2794.	0.	0.
	169.	2295.	0.	401.	2464.	1.000	1.000	2464.	0.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.) STRESS	ALLOWABL STRES
1403	169.	888.	0.	401.	1057.	1.000	1.000	1057.	0
1404	169.	429.	0.	401.	638.	1.000	1.000	598.	0
1401	484.	3082.	803.	1065.	3911.	1.222	1.296	3959.	0
1406	484.	2596.	-803.	1065.	3497.	1.000	1.000	3537.	0
1409	484.	3282.	803.	1065.	4094.	1.000	1.000	4138.	0
1410	410.	5968.	-1485.	1065.	7194.	1.767	1.473	7076.	0
1410	410.	3484.	1485.	1065.	4898.	1.000	1.000	4989.	0
1420	396.	2839.	-1485.	1065.	4544.	1.000	1.000	4504.	0
1400	496.	3463.	-665.	1065.	4177.	1.222	1.296	4206.	0
1425	496.	3447.	665.	1065.	4164.	1.000	1.000	4191.	0
1425	496.	3447.	-665.	1065.	4161.	1.000	1.000	4191.	0
1430	460.	2862.	-704.	1065.	3677.	1.767	1.473	3650.	0
1430	460.	1816.	704.	1065.	2677.	1.000	1.000	2759.	0
1435	471.	3369.	-529.	1065.	4035.	1.767	1.473	4002.	0
1435	471.	2057.	529.	1065.	2741.	1.000	1.000	2785.	0
1440	471.	1426.	-529.	1065.	2219.	1.000	1.000	2247.	0
1440	471.	1426.	529.	1065.	2172.	1.000	1.000	2247.	0
1445	471.	3731.	-529.	1065.	4385.	1.000	1.000	4349.	0
1445	471.	3731.	529.	1065.	4333.	1.000	1.000	4349.	0
1450	471.	1126.	-529.	1065.	1960.	1.000	1.000	2016.	0
1450	471.	1126.	529.	1065.	1977.	1.000	1.000	2016.	0
1455	471.	1193.	-529.	1065.	2018.	1.000	1.000	2066.	0
1455	471.	1193.	529.	1065.	2018.	1.000	1.000	2066.	0
1460	471.	3157.	-529.	1065.	3831.	1.222	1.296	3801.	0
1460	471.	3200.	-790.	1065.	3996.	1.222	1.296	4039.	0
1465	471.	690.	790.	1065.	1992.	1.000	1.000	2194.	0
1465	471.	690.	-790.	1065.	1979.	1.000	1.000	2194.	0
1470	471.	1100.	790.	1065.	2266.	1.000	1.000	2396.	0
1470	471.	1100.	-790.	1065.	2228.	1.000	1.000	2396.	0
1480	471.	2387.	790.	1065.	3312.	1.000	1.000	3333.	0
1480	471.	2387.	-790.	1065.	3265.	1.000	1.000	3333.	0
1485	516.	2468.	12.	1065.	2948.	1.767	1.473	2984.	0

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STRESS REPORT, Stresses on Elements
CASE 3 (OPE) W+DIS+T3+P1

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS	%
1485	516.	1676.	-12.	1065.	2192.	1.000	1.000	2192.	0.	0.
1490	499.	3139.	-14.	1065.	3636.	1.767	1.473	3639.	0.	0.
1490	499.	1778.	14.	1065.	2277.	1.000	1.000	2277.	0.	0.
1495	499.	3223.	-14.	1065.	3719.	1.000	1.000	3722.	0.	0.
1495	499.	3223.	14.	1065.	3722.	1.000	1.000	3722.	0.	0.
1500	499.	4305.	-14.	1065.	4801.	1.000	1.000	4805.	0.	0.
1500	499.	4305.	14.	1065.	4805.	1.000	1.000	4805.	0.	0.
1505	471.	8900.	983.	1065.	9627.	1.767	1.473	9585.	0.	0.
1505	471.	5037.	-983.	1065.	5848.	1.000	1.000	5878.	0.	0.
1510	471.	6268.	983.	1065.	7071.	1.222	1.296	7040.	0.	0.
1510	453.	16544.	2046.	1065.	17482.	1.222	1.296	17495.	0.	0.
1515	453.	6652.	-2046.	1065.	8277.	1.000	1.000	8263.	0.	0.
1518	453.	10304.	2046.	1065.	11509.	1.000	1.000	11540.	0.	0.
1520	301.	12405.	-9526.	1065.	23120.	1.767	1.473	23035.	0.	0.
1520	301.	7043.	9526.	1065.	20418.	1.000	1.000	20613.	0.	0.
1525	300.	6877.	-9526.	1065.	20501.	1.000	1.000	20555.	0.	0.
1460	498.	3418.	-17.	1065.	3916.	1.222	1.296	3916.	0.	0.
1530	498.	1946.	17.	1065.	2443.	1.000	1.000	2444.	0.	0.
1535	498.	1468.	-17.	1065.	1966.	1.000	1.000	1966.	0.	0.
1540	300.	3151.	0.	1065.	3847.	1.767	1.473	3451.	0.	0.
1540	300.	1783.	0.	1065.	2408.	1.000	1.000	2083.	0.	0.
1545	260.	1783.	0.	1065.	2518.	1.000	1.000	2044.	0.	0.
1545	260.	1783.	0.	1065.	2448.	1.000	1.000	2044.	0.	0.
1550	498.	6020.	17.	1065.	6518.	1.767	1.473	6518.	0.	0.
1550	498.	3407.	-17.	1065.	3904.	1.000	1.000	3904.	0.	0.
1555	498.	6141.	17.	1065.	6639.	1.000	1.000	6639.	0.	0.
1555	498.	6141.	-17.	1065.	6639.	1.000	1.000	6639.	0.	0.
1556	498.	1723.	17.	1065.	2221.	1.000	1.000	2221.	0.	0.
1556	498.	1723.	-17.	1065.	2221.	1.000	1.000	2221.	0.	0.
1557	498.	534.	17.	1065.	1296.	1.000	1.000	1033.	0.	0.
1557	498.	534.	-17.	1065.	1296.	1.000	1.000	1033.	0.	0.
1560	498.	1380.	17.	1065.	1878.	1.000	1.000	1878.	0.	0.

STRESS REPORT, Stresses on Elements
CASE 3 (OPE) W+DIS+T3+P1

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	STRESS INTENSIFICATION OUT-PLANE	--Stress(lb./sq.in.)- STRESS	ALLOWABL STRESS
1565	498.	1388.	-17.	1065.	1886.	1.000	1.000	1886.	0.
1570	498.	707.	17.	1065.	1302.	1.000	1.000	1205.	0.
1575	498.	653.	-17.	1065.	1298.	1.000	1.000	1152.	0.
1580	498.	1283.	17.	1065.	1780.	1.000	1.000	1781.	0.
1580	498.	1283.	-17.	1065.	1780.	1.000	1.000	1781.	0.
1585	498.	99.	17.	1065.	1296.	1.000	1.000	602.	0.
1585	498.	99.	-17.	1065.	1296.	1.000	1.000	602.	0.
1590	498.	680.	17.	1065.	1299.	1.000	1.000	1178.	0.
1590	498.	680.	-17.	1065.	1299.	1.000	1.000	1178.	0.
1595	498.	580.	17.	1065.	1297.	1.000	1.000	1079.	0.
1595	498.	580.	-17.	1065.	1297.	1.000	1.000	1079.	0.
1600	498.	321.	17.	1065.	1296.	1.000	1.000	820.	0.
1600	498.	321.	-17.	1065.	1296.	1.000	1.000	820.	0.
1605	498.	139.	59.	1065.	1300.	1.767	1.473	679.	0.
1605	498.	94.	-59.	1065.	1300.	1.000	1.000	648.	0.
1610	498.	1327.	59.	1065.	1829.	1.000	1.000	1830.	0.
1610	498.	1327.	-59.	1065.	1829.	1.000	1.000	1830.	0.
1615	498.	9.	22.	1065.	1296.	1.767	1.473	542.	0.
1615	498.	6.	-22.	1065.	1296.	1.000	1.000	542.	0.
1620	498.	511.	22.	1065.	1297.	1.000	1.000	1010.	0.
1620	498.	511.	-22.	1065.	1297.	1.000	1.000	1010.	0.
1625	498.	1023.	22.	1065.	1546.	1.000	1.000	1521.	0.
1625	498.	1023.	-22.	1065.	1546.	1.000	1.000	1521.	0.
1630	498.	240.	22.	1065.	1296.	1.000	1.000	741.	0.
1630	498.	240.	-22.	1065.	1296.	1.000	1.000	741.	0.
1635	498.	659.	22.	1065.	1300.	1.000	1.000	1158.	0.
1635	498.	659.	-22.	1065.	1300.	1.000	1.000	1158.	0.
1640	498.	418.	22.	1065.	1296.	1.000	1.000	918.	0.
1640	498.	418.	-22.	1065.	1296.	1.000	1.000	918.	0.
1645	498.	666.	22.	1065.	1301.	1.000	1.000	1165.	0.
1645	498.	666.	-22.	1065.	1301.	1.000	1.000	1165.	0.
1650	498.	247.	22.	1065.	1296.	1.000	1.000	749.	0.

NT	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS	%
	498.	247.	-22.	1065.	1296.	1.000	1.000	749.	0.	0.
	498.	1000.	22.	1065.	1526.	1.000	1.000	1498.	0.	0.
	498.	1000.	-22.	1065.	1526.	1.000	1.000	1498.	0.	0.
	498.	499.	22.	1065.	1297.	1.000	1.000	999.	0.	0.
	498.	535.	-22.	1065.	1297.	1.000	1.000	1034.	0.	0.
	498.	670.	22.	1065.	1301.	1.000	1.000	1169.	0.	0.
	498.	643.	-22.	1065.	1299.	1.000	1.000	1142.	0.	0.
	498.	640.	22.	1065.	1299.	1.000	1.000	1139.	0.	0.
	498.	640.	-22.	1065.	1299.	1.000	1.000	1139.	0.	0.
	498.	111.	0.	1065.	1295.	1.767	1.473	608.	0.	0.
	498.	75.	0.	1065.	1295.	1.000	1.000	573.	0.	0.
	498.	547.	0.	1065.	1295.	1.000	1.000	1045.	0.	0.
	498.	547.	0.	1065.	1295.	1.000	1.000	1045.	0.	0.
	498.	562.	0.	1065.	1295.	1.000	1.000	1059.	0.	0.
	498.	562.	0.	1065.	1295.	1.000	1.000	1059.	0.	0.
	498.	490.	0.	1065.	1295.	1.000	1.000	988.	0.	0.
	498.	490.	0.	1065.	1295.	1.000	1.000	988.	0.	0.
	507.	0.	0.	1065.	1295.	1.767	1.473	507.	0.	0.
	507.	0.	0.	1065.	1295.	1.000	1.000	507.	0.	0.
	498.	0.	0.	1065.	1295.	1.000	1.000	498.	0.	0.
	-51.	11026.	61.	1065.	11078.	1.222	1.296	11078.	0.	0.
	-51.	8618.	-61.	1065.	9665.	1.000	1.000	8670.	0.	0.
	-51.	8464.	61.	1065.	8616.	1.000	1.000	8516.	0.	0.
	-51.	6300.	-61.	1065.	7348.	1.000	1.000	6353.	0.	0.
	-51.	6240.	61.	1065.	6667.	1.000	1.000	6292.	0.	0.
	-51.	6127.	-61.	1065.	7175.	1.000	1.000	6180.	0.	0.
	-51.	6127.	61.	1065.	6568.	1.000	1.000	6180.	0.	0.
	-51.	5835.	-61.	1065.	6883.	1.000	1.000	5888.	0.	0.
	-51.	5835.	61.	1065.	6312.	1.000	1.000	5888.	0.	0.
	-51.	873.	-61.	1065.	1965.	1.000	1.000	933.	0.	0.
	-51.	873.	61.	1065.	1966.	1.000	1.000	933.	0.	0.
	33.	11982.	83.	1065.	12946.	1.767	1.473	12016.	0.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	STRESS INTENSIFICATION OUT-PLANE	Stress(lb./sq.in.) STRESS	ALLOWABLE STRESS
1755	33.	6783.	-83.	1065.	7059.	1.000	1.000	6818.	0.
1760	-51.	11415.	-196.	1065.	12468.	1.767	1.473	11473.	0.
1760	-51.	6469.	196.	1065.	6872.	1.000	1.000	6532.	0.
1765	-51.	1738.	-196.	1065.	2813.	1.000	1.000	1834.	0.
1765	-47411.	1738.	196.	1065.	50081.	1.000	1.000	49194.	0.
1770	-47411.	721.	-196.	1065.	49190.	1.000	1.000	48232.	0.
1770	-47411.	721.	196.	1065.	49189.	1.000	1.000	48232.	0.
1775	-47411.	2288.	-196.	1065.	50696.	1.000	1.000	49733.	0.
1775	-47411.	2288.	196.	1065.	50563.	1.000	1.000	49733.	0.
1780	-47411.	1985.	-196.	1065.	50393.	1.000	1.000	49435.	0.
1780	-47411.	1985.	196.	1065.	50297.	1.000	1.000	49435.	0.
1785	-47411.	2532.	-196.	1065.	50940.	1.000	1.000	49974.	0.
1785	-47411.	2532.	196.	1065.	50777.	1.000	1.000	49974.	0.
1790	-47411.	2109.	-196.	1065.	50517.	1.000	1.000	49556.	0.
1790	-47411.	2109.	196.	1065.	50406.	1.000	1.000	49556.	0.
1795	-47411.	4703.	-196.	1065.	53111.	1.000	1.000	52131.	0.
1795	-1268.	4703.	196.	1065.	6542.	1.000	1.000	5988.	0.
1800	-1268.	5622.	-196.	1065.	7896.	1.000	1.000	6905.	0.
1800	-1268.	5622.	196.	1065.	7347.	1.000	1.000	6905.	0.
1805	365.	9796.	93.	1065.	10427.	1.767	1.473	10163.	0.
1805	365.	5551.	-93.	1065.	5920.	1.000	1.000	5920.	0.
1810	365.	11629.	93.	1065.	12260.	1.000	1.000	11996.	0.
1810	-47411.	11629.	-93.	1065.	59041.	1.000	1.000	59042.	0.
1815	-47411.	4791.	93.	1065.	53198.	1.000	1.000	52206.	0.
1815	-47411.	4791.	-93.	1065.	52756.	1.000	1.000	52206.	0.
1820	-47411.	4767.	93.	1065.	53174.	1.000	1.000	52182.	0.
1820	-47411.	4767.	-93.	1065.	52735.	1.000	1.000	52182.	0.
1825	-47411.	2313.	93.	1065.	50720.	1.000	1.000	49732.	0.
1825	-47411.	2313.	-93.	1065.	50584.	1.000	1.000	49732.	0.
1830	-47411.	1263.	93.	1065.	49670.	1.000	1.000	48688.	0.
1830	-209.	1263.	-93.	1065.	2467.	1.000	1.000	1486.	0.
1835	170.	6150.	-133.	1065.	6981.	1.767	1.473	6326.	0.

	Stresses(lb./sq.in.)					STRESS INTENSIFICATION		--Stress(lb./sq.in.)--		
T	AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	IN-PLANE	OUT-PLANE	STRESS	ALLOWABLE STRESS	%
	170.	3480.	133.	1065.	4031.	1.000	1.000	3661.	0.	0.
	170.	8868.	-133.	1065.	9697.	1.000	1.000	9042.	0.	0.
	-5367.	8868.	133.	1065.	14287.	1.000	1.000	14240.	0.	0.
	-5367.	7237.	-133.	1065.	13602.	1.000	1.000	12609.	0.	0.
	-5367.	7237.	133.	1065.	12857.	1.000	1.000	12609.	0.	0.
	-5367.	5727.	-133.	1065.	12093.	1.000	1.000	11101.	0.	0.
	-5367.	5727.	133.	1065.	11534.	1.000	1.000	11101.	0.	0.
	-5367.	3762.	-133.	1065.	10128.	1.000	1.000	9139.	0.	0.
	-5367.	3762.	133.	1065.	9812.	1.000	1.000	9139.	0.	0.
	-5367.	2070.	-133.	1065.	8437.	1.000	1.000	7454.	0.	0.
	-5367.	2070.	133.	1065.	8329.	1.000	1.000	7454.	0.	0.
	-5367.	1478.	-133.	1065.	7845.	1.000	1.000	6870.	0.	0.
	-5367.	1445.	133.	1065.	7782.	1.000	1.000	6837.	0.	0.
	-5367.	1218.	-133.	1065.	7585.	1.222	1.296	6614.	0.	0.
	-5367.	992.	-38.	1065.	7383.	1.222	1.296	6363.	0.	0.
	-5367.	811.	38.	1065.	7224.	1.000	1.000	6182.	0.	0.
	-5367.	869.	-38.	1065.	7275.	1.000	1.000	6240.	0.	0.
	-5367.	2296.	38.	1065.	8659.	1.000	1.000	7664.	0.	0.
	-5367.	2296.	-38.	1065.	8525.	1.000	1.000	7664.	0.	0.
	-5367.	3448.	38.	1065.	9810.	1.000	1.000	8816.	0.	0.
	-5367.	3448.	-38.	1065.	9535.	1.000	1.000	8816.	0.	0.
	-5367.	6393.	38.	1065.	12756.	1.000	1.000	11761.	0.	0.
	-5367.	6393.	-38.	1065.	12117.	1.000	1.000	11761.	0.	0.
	-5367.	8380.	38.	1065.	14743.	1.000	1.000	13748.	0.	0.
	-5367.	8380.	-38.	1065.	13859.	1.000	1.000	13748.	0.	0.
	-5367.	11312.	38.	1065.	17675.	1.000	1.000	16680.	0.	0.
	-5367.	11312.	-38.	1065.	16679.	1.000	1.000	16680.	0.	0.
	-5367.	13646.	38.	1065.	20008.	1.000	1.000	19013.	0.	0.
	-5367.	13646.	-38.	1065.	19013.	1.000	1.000	19013.	0.	0.
	-5367.	16342.	38.	1065.	22705.	1.000	1.000	21710.	0.	0.
	-5367.	16342.	-38.	1065.	21710.	1.000	1.000	21710.	0.	0.
	-3662.	12845.	88.	1065.	17503.	1.767	1.473	16508.	0.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS
1935	-3662.	7269.	-88.	1065.	11179.	1.000	1.000	10932.	0.
1945	481.	85360.	205.	1065.	85876.	1.767	1.473	85842.	0.
1945	481.	48301.	-205.	1065.	48783.	1.000	1.000	48783.	0.
1950	481.	125140.	205.	1065.	125656.	1.000	1.000	125622.	0.
1950	-47411.	125140.	-205.	1065.	172552.	1.000	1.000	172553.	0.
1955	-47411.	53680.	205.	1065.	102088.	1.000	1.000	101093.	0.
1955	-47411.	53680.	-205.	1065.	101092.	1.000	1.000	101093.	0.
1960	-47411.	17844.	205.	1065.	66252.	1.000	1.000	65260.	0.
1960	-47411.	17844.	-205.	1065.	65256.	1.000	1.000	65260.	0.
1965	-47411.	8944.	205.	1065.	57352.	1.000	1.000	56365.	0.
1965	-47411.	8944.	-205.	1065.	56398.	1.000	1.000	56365.	0.
1970	-47411.	5163.	205.	1065.	53572.	1.000	1.000	52591.	0.
1970	498.	5163.	-205.	1065.	5676.	1.000	1.000	5677.	0.
1975	540.	1037.	0.	1065.	1599.	1.767	1.473	1577.	0.
1975	540.	629.	0.	1065.	1295.	1.000	1.000	1169.	0.
1980	515.	629.	0.	1065.	1295.	1.000	1.000	1143.	0.
1980	515.	629.	0.	1065.	1295.	1.000	1.000	1143.	0.
1985	498.	612.	-239.	1065.	1456.	1.767	1.473	1273.	0.
1985	498.	346.	239.	1065.	1394.	1.000	1.000	1087.	0.
1990	498.	4492.	-239.	1065.	5012.	1.000	1.000	5014.	0.
1990	498.	4492.	239.	1065.	5012.	1.000	1.000	5014.	0.
1995	498.	422.	-239.	1065.	1407.	1.000	1.000	1134.	0.
1995	498.	422.	239.	1065.	1407.	1.000	1.000	1134.	0.
2000	498.	536.	-239.	1065.	1434.	1.000	1.000	1216.	0.
2000	498.	536.	239.	1065.	1434.	1.000	1.000	1216.	0.
2005	498.	1208.	-239.	1065.	1794.	1.000	1.000	1796.	0.
2010	498.	1211.	239.	1065.	1796.	1.000	1.000	1799.	0.
2015	498.	1514.	-239.	1065.	2068.	1.296	1.296	2085.	0.
2015	498.	1514.	239.	1065.	2068.	1.296	1.296	2085.	0.
2020	498.	1105.	-239.	1065.	1719.	1.000	1.000	1701.	0.
2025	498.	1075.	239.	1065.	1699.	1.000	1.000	1674.	0.
2030	460.	791.	0.	1065.	1379.	1.767	1.473	1251.	0.

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Licensed To: FLUOR DANIEL ID 13692
STRESS REPORT, Stresses on Elements
CASE 3 (OPE) W+DIS+T3+P1

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS	%
2030	460.	520.	0.	1065.	1295.	1.000	1.000	979.	0.	0.
2035	498.	303.	-103.	1065.	1315.	1.767	1.473	864.	0.	0.
2035	498.	172.	103.	1065.	1311.	1.000	1.000	765.	0.	0.
2040	498.	821.	-103.	1065.	1428.	1.000	1.000	1344.	0.	0.
2040	498.	821.	103.	1065.	1428.	1.000	1.000	1344.	0.	0.
2045	498.	667.	-103.	1065.	1359.	1.000	1.000	1196.	0.	0.
2045	498.	667.	103.	1065.	1359.	1.000	1.000	1196.	0.	0.
2050	498.	1292.	-103.	1065.	1802.	1.000	1.000	1806.	0.	0.
2050	498.	1292.	103.	1065.	1802.	1.000	1.000	1806.	0.	0.
2055	498.	136.	0.	1065.	1295.	1.767	1.473	634.	0.	0.
2055	498.	92.	0.	1065.	1295.	1.000	1.000	590.	0.	0.
2060	498.	448.	0.	1065.	1295.	1.000	1.000	946.	0.	0.
2060	498.	448.	0.	1065.	1295.	1.000	1.000	946.	0.	0.
2065	498.	0.	0.	1065.	1295.	1.767	1.473	498.	0.	0.
2065	498.	0.	0.	1065.	1295.	1.000	1.000	498.	0.	0.
2070	498.	0.	0.	1065.	1295.	1.000	1.000	498.	0.	0.
1875	498.	443.	287.	1065.	1448.	1.222	1.296	1222.	0.	0.
2080	498.	318.	-287.	1065.	1422.	1.000	1.000	1153.	0.	0.
2085	498.	298.	287.	1065.	1419.	1.000	1.000	1144.	0.	0.
2090	473.	870.	0.	1065.	1434.	1.767	1.473	1343.	0.	0.
2090	473.	585.	0.	1065.	1295.	1.000	1.000	1058.	0.	0.
2095	498.	553.	-59.	1065.	1310.	1.767	1.473	1063.	0.	0.
2095	498.	313.	59.	1065.	1302.	1.000	1.000	832.	0.	0.
2100	498.	1853.	-59.	1065.	2354.	1.000	1.000	2355.	0.	0.
2100	498.	1853.	59.	1065.	2354.	1.000	1.000	2355.	0.	0.
2105	498.	23.	-59.	1065.	1299.	1.000	1.000	618.	0.	0.
2105	498.	23.	59.	1065.	1299.	1.000	1.000	618.	0.	0.
2110	498.	354.	-59.	1065.	1303.	1.000	1.000	870.	0.	0.
2110	498.	354.	59.	1065.	1303.	1.000	1.000	870.	0.	0.
2115	498.	373.	-59.	1065.	1303.	1.000	1.000	889.	0.	0.
2115	498.	373.	59.	1065.	1303.	1.000	1.000	889.	0.	0.
2120	498.	1061.	-59.	1065.	1587.	1.000	1.000	1565.	0.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)- STRESS	ALLOWABL STRESS
2120	498.	1061.	59.	1065.	1587.	1.000	1.000	1565.	0.
2125	498.	675.	-59.	1065.	1326.	1.000	1.000	1183.	0.
2125	498.	675.	59.	1065.	1326.	1.000	1.000	1183.	0.
2130	498.	204.	-59.	1065.	1301.	1.000	1.000	734.	0.
2130	498.	204.	59.	1065.	1301.	1.000	1.000	734.	0.
2135	503.	1595.	0.	1065.	2087.	1.767	1.473	2098.	0.
2135	503.	905.	0.	1065.	1446.	1.000	1.000	1408.	0.
2140	498.	1319.	-59.	1065.	1821.	1.767	1.473	1822.	0.
2140	498.	746.	59.	1065.	1350.	1.000	1.000	1253.	0.
2145	498.	136.	-26.	1065.	1296.	1.767	1.473	643.	0.
2145	498.	92.	26.	1065.	1296.	1.000	1.000	603.	0.
2150	498.	1148.	-26.	1065.	1655.	1.000	1.000	1647.	0.
2150	498.	1148.	26.	1065.	1655.	1.000	1.000	1647.	0.
2155	498.	194.	-26.	1065.	1296.	1.000	1.000	698.	0.
2155	498.	194.	26.	1065.	1296.	1.000	1.000	698.	0.
2160	498.	178.	-26.	1065.	1296.	1.000	1.000	683.	0.
2160	498.	178.	26.	1065.	1296.	1.000	1.000	683.	0.
2165	498.	271.	-26.	1065.	1296.	1.000	1.000	773.	0.
2165	498.	271.	26.	1065.	1296.	1.000	1.000	773.	0.
2170	498.	436.	-26.	1065.	1297.	1.000	1.000	936.	0.
2170	498.	436.	26.	1065.	1297.	1.000	1.000	936.	0.
2175	498.	147.	-26.	1065.	1296.	1.000	1.000	654.	0.
2175	498.	147.	26.	1065.	1296.	1.000	1.000	654.	0.
2180	498.	367.	-26.	1065.	1297.	1.000	1.000	869.	0.
2180	498.	367.	26.	1065.	1297.	1.000	1.000	869.	0.
2185	498.	180.	-26.	1065.	1296.	1.000	1.000	685.	0.
2185	498.	180.	26.	1065.	1296.	1.000	1.000	685.	0.
2190	498.	386.	-26.	1065.	1297.	1.000	1.000	887.	0.
2190	498.	386.	26.	1065.	1297.	1.000	1.000	887.	0.
2195	498.	171.	-26.	1065.	1296.	1.000	1.000	677.	0.
2195	498.	171.	26.	1065.	1296.	1.000	1.000	677.	0.
2200	498.	381.	-26.	1065.	1297.	1.000	1.000	882.	0.

NT	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS	%
	498.	381.	26.	1065.	1297.	1.000	1.000	882.	0.	0.
	498.	174.	-26.	1065.	1296.	1.000	1.000	679.	0.	0.
	498.	174.	26.	1065.	1296.	1.000	1.000	679.	0.	0.
	498.	382.	-26.	1065.	1297.	1.000	1.000	883.	0.	0.
	498.	382.	26.	1065.	1297.	1.000	1.000	883.	0.	0.
	498.	173.	-26.	1065.	1296.	1.000	1.000	678.	0.	0.
	498.	173.	26.	1065.	1296.	1.000	1.000	678.	0.	0.
	498.	382.	-26.	1065.	1297.	1.000	1.000	883.	0.	0.
	498.	382.	26.	1065.	1297.	1.000	1.000	883.	0.	0.
	498.	173.	-26.	1065.	1296.	1.000	1.000	678.	0.	0.
	498.	173.	26.	1065.	1296.	1.000	1.000	678.	0.	0.
	498.	382.	-26.	1065.	1297.	1.000	1.000	883.	0.	0.
	498.	382.	26.	1065.	1297.	1.000	1.000	883.	0.	0.
	498.	173.	-26.	1065.	1296.	1.000	1.000	678.	0.	0.
	498.	173.	26.	1065.	1296.	1.000	1.000	678.	0.	0.
	498.	382.	-26.	1065.	1297.	1.000	1.000	883.	0.	0.
	498.	382.	26.	1065.	1297.	1.000	1.000	883.	0.	0.
	498.	173.	-26.	1065.	1296.	1.000	1.000	678.	0.	0.
	498.	173.	26.	1065.	1296.	1.000	1.000	678.	0.	0.
	498.	382.	-26.	1065.	1297.	1.000	1.000	883.	0.	0.
	498.	382.	26.	1065.	1297.	1.000	1.000	883.	0.	0.
	498.	173.	-26.	1065.	1296.	1.000	1.000	678.	0.	0.
	498.	173.	26.	1065.	1296.	1.000	1.000	678.	0.	0.
	498.	382.	-26.	1065.	1297.	1.000	1.000	883.	0.	0.
	498.	382.	26.	1065.	1297.	1.000	1.000	883.	0.	0.
	498.	173.	-26.	1065.	1296.	1.000	1.000	678.	0.	0.
	498.	173.	26.	1065.	1296.	1.000	1.000	678.	0.	0.
	498.	382.	-26.	1065.	1297.	1.000	1.000	883.	0.	0.
	498.	382.	26.	1065.	1297.	1.000	1.000	883.	0.	0.
	498.	173.	-26.	1065.	1296.	1.000	1.000	678.	0.	0.
	498.	173.	26.	1065.	1296.	1.000	1.000	678.	0.	0.
	498.	382.	-26.	1065.	1297.	1.000	1.000	883.	0.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	IN IN-P	ATION PLANE	--Stress(lb./sq.in.)- STRESS	ALLOWABL STRESS
2280	498.	382.	26.	1065.	1297.	1	.000	883.	0.
2285	498.	173.	-26.	1065.	1296.		.000	678.	0.
2285	498.	173.	26.	1065.	1296.		.000	678.	0.
2290	498.	382.	-26.	1065.	1297.		.000	883.	0.
2290	498.	382.	26.	1065.	1297.		.000	883.	0.
2295	498.	173.	-26.	1065.	1296.		.000	678.	0.
2295	498.	173.	26.	1065.	1296.		.000	678.	0.
2300	498.	382.	-26.	1065.	1297.	1.	.000	883.	0.
2300	498.	382.	26.	1065.	1297.	1.	.000	883.	0.
2305	498.	173.	-26.	1065.	1296.	1	.000	678.	0.
2305	498.	173.	26.	1065.	1296.	1	.000	678.	0.
2310	498.	382.	-26.	1065.	1297.	1.	.000	883.	0.
2310	498.	382.	26.	1065.	1297.		.000	883.	0.
2315	498.	173.	-26.	1065.	1296.	1	.000	678.	0.
2315	498.	173.	26.	1065.	1296.	1.	1.000	678.	0.
2320	498.	382.	-26.	1065.	1297.	1.	1.000	883.	0.
2320	498.	382.	26.	1065.	1297.	1.0	1.000	883.	0.
2325	498.	173.	-26.	1065.	1296.	1.0	1.000	678.	0.
2325	498.	173.	26.	1065.	1296.	1.0	.000	678.	0.
2330	498.	382.	-26.	1065.	1297.	1.00	1.000	883.	0.
2330	498.	382.	26.	1065.	1297.	1.00	1.000	883.	0.
2335	498.	173.	-26.	1065.	1296.	1.00	1.000	678.	0.
2335	498.	173.	26.	1065.	1296.	1.00	1.000	678.	0.
2340	498.	382.	-26.	1065.	1297.	1.00	1.000	883.	0.
2340	498.	382.	26.	1065.	1297.	1.00	1.000	883.	0.
2345	498.	173.	-26.	1065.	1296.	1.00	1.000	679.	0.
2345	498.	173.	26.	1065.	1296.	1.000	1.000	679.	0.
2350	498.	381.	-26.	1065.	1297.	1.000	1.000	882.	0.
2350	498.	381.	26.	1065.	1297.	1.000	1.000	882.	0.
2355	498.	172.	-26.	1065.	1296.	1.000	1.000	678.	0.
2355	498.	172.	26.	1065.	1296.	1.000	1.000	678.	0.
2360	498.	385.	-26.	1065.	1297.	1.000	1.000	886.	0.

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REPORT, Stresses on Elements
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Stresses(lb./sq.in.)					STRESS INTENSIFICATION		Stress(lb./sq.in.)		
AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	IN-PLANE	OUT-PLANE	STRESS	ALLOWABLE STRESS	%
498.	385.	26.	1065.	1297.	1.000	1.000	886.	0.	0.
498.	176.	-26.	1065.	1296.	1.000	1.000	681.	0.	0.
498.	176.	26.	1065.	1296.	1.000	1.000	681.	0.	0.
498.	371.	-26.	1065.	1297.	1.000	1.000	872.	0.	0.
498.	371.	26.	1065.	1297.	1.000	1.000	872.	0.	0.
498.	163.	-26.	1065.	1296.	1.000	1.000	669.	0.	0.
498.	163.	26.	1065.	1296.	1.000	1.000	669.	0.	0.
498.	422.	-26.	1065.	1297.	1.000	1.000	923.	0.	0.
498.	422.	26.	1065.	1297.	1.000	1.000	923.	0.	0.
498.	212.	-26.	1065.	1296.	1.000	1.000	716.	0.	0.
498.	212.	26.	1065.	1296.	1.000	1.000	716.	0.	0.
498.	231.	-26.	1065.	1296.	1.000	1.000	735.	0.	0.
498.	231.	26.	1065.	1296.	1.000	1.000	735.	0.	0.
498.	28.	-26.	1065.	1296.	1.000	1.000	557.	0.	0.
498.	28.	26.	1065.	1296.	1.000	1.000	557.	0.	0.
498.	949.	-26.	1065.	1482.	1.000	1.000	1448.	0.	0.
498.	949.	26.	1065.	1482.	1.000	1.000	1448.	0.	0.
498.	27.	0.	1065.	1295.	1.767	1.473	524.	0.	0.
498.	18.	0.	1065.	1295.	1.000	1.000	516.	0.	0.
498.	61.	0.	1065.	1295.	1.000	1.000	559.	0.	0.
498.	61.	0.	1065.	1295.	1.000	1.000	559.	0.	0.
498.	2364.	0.	1065.	2861.	1.000	1.000	2861.	0.	0.
498.	2364.	0.	1065.	2861.	1.000	1.000	2861.	0.	0.
523.	0.	0.	1065.	1295.	1.767	1.473	523.	0.	0.
523.	0.	0.	1065.	1295.	1.000	1.000	523.	0.	0.
498.	0.	0.	1065.	1295.	1.000	1.000	498.	0.	0.

STRESS SUMMARY
CASE 4 (SUS) W+P1

**** CODE STRESS CHECK PASSED

PIPING CODE: B31.3 -1993, July 31, 1993 Addendum

HIGHEST STRESSES: (lb./sq.in.)

CODE STRESS %:	6267.	@NODE 1970	ALLOWABLE:	16700.
BENDING STRESS:	5770.	@NODE 1970		
TORSIONAL STRESS:	342.	@NODE 1520		
AXIAL STRESS:	548.	@NODE 1975		
3D MAX INTENSITY:	6275.	@NODE 1970		

STRESS OPTIMIZATION PARAMETERS:

CODE STRESS PERCENTAGES SHOWN BELOW REPRESENT THE NUMBER OF NODES IN THE SYSTEM THAT WERE WITHIN THE PERCENTAGE GIVEN OF THE HIGHEST CODE STRESS IN THE SYSTEM.

AVG. CODE STRESS 1299.

	/BETWEEN/	/BELOW/
CODE STRESS 90-100%	0.37	99.63
CODE STRESS 80-90 %	0.00	99.63
CODE STRESS 70-80 %	0.37	99.26
CODE STRESS 60-70 %	0.74	98.51
CODE STRESS 50-60 %	1.49	97.03
CODE STRESS 25-50 %	23.05	73.98
CODE STRESS 0-25 %	73.98	

PIPE ELEMENTS ANALYZED: 269

SAMPLED POINTS: 538

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Stresses(lb./sq.in.)					STRESS INTENSIFICATION		Stress(lb./sq.in.)		
AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	IN-PLANE	OUT-PLANE	CODE STRESS	ALLOWABLE STRESS	%
498.	0.	0.	1065.	1295.	1.767	1.473	498.	16700.	3.
498.	21.	0.	1065.	1295.	1.767	1.473	519.	16700.	3.
498.	12.	0.	1065.	1295.	1.000	1.000	510.	16700.	3.
498.	61.	0.	1065.	1295.	1.000	1.000	558.	16700.	3.
498.	61.	0.	1065.	1295.	1.000	1.000	558.	16700.	3.
498.	871.	0.	1065.	1411.	1.000	1.000	1369.	16700.	8.
498.	871.	0.	1065.	1411.	1.000	1.000	1369.	16700.	8.
498.	1308.	0.	1065.	1806.	1.000	1.000	1806.	16700.	11.
498.	1308.	0.	1065.	1806.	1.000	1.000	1806.	16700.	11.
498.	439.	0.	1065.	1295.	1.000	1.000	937.	16700.	6.
498.	439.	0.	1065.	1295.	1.000	1.000	937.	16700.	6.
498.	926.	0.	1065.	1459.	1.000	1.000	1424.	16700.	9.
498.	926.	0.	1065.	1459.	1.000	1.000	1424.	16700.	9.
498.	486.	0.	1065.	1295.	1.000	1.000	984.	16700.	6.
498.	486.	0.	1065.	1295.	1.000	1.000	984.	16700.	6.
498.	1213.	0.	1065.	1711.	1.000	1.000	1711.	16700.	10.
498.	1213.	0.	1065.	1711.	1.000	1.000	1711.	16700.	10.
498.	729.	0.	1065.	1295.	1.000	1.000	1227.	16700.	7.
498.	729.	0.	1065.	1295.	1.000	1.000	1227.	16700.	7.
498.	446.	0.	1065.	1295.	1.000	1.000	944.	16700.	6.
497.	446.	0.	1065.	1295.	1.000	1.000	944.	16700.	6.
489.	363.	108.	1065.	1320.	1.767	1.473	852.	16700.	5.
489.	242.	-108.	1065.	1315.	1.000	1.000	731.	16700.	4.
489.	2292.	108.	1065.	2806.	1.000	1.000	2781.	16700.	17.
489.	2292.	-108.	1065.	2789.	1.000	1.000	2781.	16700.	17.
497.	59.	140.	1065.	1320.	1.767	1.473	556.	16700.	3.
497.	38.	-140.	1065.	1319.	1.000	1.000	536.	16700.	3.
497.	2162.	140.	1065.	2675.	1.000	1.000	2660.	16700.	16.
511.	2162.	-140.	1065.	2688.	1.000	1.000	2673.	16700.	16.
508.	447.	114.	1065.	1331.	1.767	1.473	955.	16700.	6.
508.	268.	-114.	1065.	1318.	1.000	1.000	776.	16700.	5.
511.	416.	60.	1065.	1305.	1.767	1.473	927.	16700.	6.

STRESS REPORT, Stresses on Elements
CASE 4 (SUS) W+P1

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS
1075	511.	263.	-60.	1065.	1302.	1.000	1.000	774.	16700.
1080	511.	532.	60.	1065.	1310.	1.000	1.000	1042.	16700.
1080	498.	532.	-60.	1065.	1309.	1.000	1.000	1029.	16700.
1085	498.	169.	60.	1065.	1301.	1.000	1.000	667.	16700.
1085	498.	169.	-60.	1065.	1301.	1.000	1.000	667.	16700.
1090	498.	583.	60.	1065.	1313.	1.000	1.000	1081.	16700.
1090	498.	583.	-60.	1065.	1313.	1.000	1.000	1081.	16700.
1095	498.	540.	60.	1065.	1310.	1.000	1.000	1038.	16700.
1095	498.	540.	-60.	1065.	1310.	1.000	1.000	1038.	16700.
1100	498.	502.	60.	1065.	1308.	1.000	1.000	999.	16700.
1100	498.	502.	-60.	1065.	1308.	1.000	1.000	999.	16700.
1105	498.	41.	60.	1065.	1300.	1.000	1.000	539.	16700.
1105	498.	41.	-60.	1065.	1300.	1.000	1.000	539.	16700.
1110	498.	1741.	60.	1065.	2241.	1.000	1.000	2238.	16700.
1110	498.	1741.	-60.	1065.	2241.	1.000	1.000	2238.	16700.
1115	498.	1377.	60.	1065.	1878.	1.000	1.000	1875.	16700.
1115	498.	1377.	-60.	1065.	1878.	1.000	1.000	1875.	16700.
1120	498.	2507.	60.	1065.	3007.	1.000	1.000	3005.	16700.
1120	498.	2507.	-60.	1065.	3007.	1.000	1.000	3005.	16700.
1125	498.	1131.	60.	1065.	1646.	1.000	1.000	1628.	16700.
1125	498.	1131.	-60.	1065.	1646.	1.000	1.000	1628.	16700.
1130	498.	2233.	60.	1065.	2734.	1.000	1.000	2731.	16700.
1130	498.	2233.	-60.	1065.	2734.	1.000	1.000	2731.	16700.
1135	498.	1103.	60.	1065.	1623.	1.000	1.000	1600.	16700.
1135	498.	1103.	-60.	1065.	1623.	1.000	1.000	1600.	16700.
1140	498.	2563.	60.	1065.	3063.	1.000	1.000	3061.	16700.
1140	498.	2563.	-60.	1065.	3063.	1.000	1.000	3061.	16700.
1145	498.	1461.	60.	1065.	1962.	1.000	1.000	1959.	16700.
1145	498.	1461.	-60.	1065.	1962.	1.000	1.000	1959.	16700.
1150	498.	1516.	60.	1065.	2018.	1.000	1.000	2014.	16700.
1150	498.	1516.	-60.	1065.	2018.	1.000	1.000	2014.	16700.
1155	498.	338.	-63.	1065.	1304.	1.767	1.473	836.	16700.

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REPORT, Stresses on Elements
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Stresses(lb./sq.in.)					STRESS INTENSIFICATION		Stress(lb./sq.in.)		
AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	IN-PLANE	OUT-PLANE	CODE STRESS	ALLOWABLE STRESS	%
498.	230.	63.	1065.	1302.	1.000	1.000	727.	16700.	4.
498.	850.	-63.	1065.	1418.	1.000	1.000	1348.	16700.	8.
498.	850.	63.	1065.	1418.	1.000	1.000	1348.	16700.	8.
498.	2430.	-63.	1065.	2930.	1.000	1.000	2927.	16700.	18.
498.	2430.	63.	1065.	2930.	1.000	1.000	2927.	16700.	18.
498.	2934.	-63.	1065.	3434.	1.000	1.000	3432.	16700.	21.
498.	2934.	63.	1065.	3434.	1.000	1.000	3432.	16700.	21.
498.	453.	-63.	1065.	1307.	1.000	1.000	950.	16700.	6.
498.	453.	63.	1065.	1307.	1.000	1.000	950.	16700.	6.
498.	132.	-63.	1065.	1301.	1.000	1.000	630.	16700.	4.
498.	132.	63.	1065.	1301.	1.000	1.000	630.	16700.	4.
498.	580.	-63.	1065.	1314.	1.000	1.000	1077.	16700.	6.
498.	580.	63.	1065.	1314.	1.000	1.000	1077.	16700.	6.
498.	870.	-63.	1065.	1432.	1.000	1.000	1367.	16700.	8.
498.	870.	63.	1065.	1432.	1.000	1.000	1367.	16700.	8.
498.	291.	-63.	1065.	1303.	1.000	1.000	789.	16700.	5.
498.	291.	63.	1065.	1303.	1.000	1.000	789.	16700.	5.
498.	709.	-63.	1065.	1339.	1.000	1.000	1207.	16700.	7.
498.	709.	63.	1065.	1339.	1.000	1.000	1207.	16700.	7.
498.	418.	-63.	1065.	1306.	1.000	1.000	915.	16700.	5.
498.	418.	63.	1065.	1306.	1.000	1.000	915.	16700.	5.
498.	617.	-63.	1065.	1319.	1.000	1.000	1114.	16700.	7.
498.	617.	63.	1065.	1319.	1.000	1.000	1114.	16700.	7.
498.	198.	-63.	1065.	1302.	1.000	1.000	696.	16700.	4.
498.	198.	63.	1065.	1302.	1.000	1.000	696.	16700.	4.
498.	1149.	-63.	1065.	1663.	1.000	1.000	1646.	16700.	10.
498.	1149.	63.	1065.	1663.	1.000	1.000	1646.	16700.	10.
498.	955.	-63.	1065.	1499.	1.000	1.000	1452.	16700.	9.
498.	955.	63.	1065.	1499.	1.000	1.000	1452.	16700.	9.
498.	897.	-63.	1065.	1453.	1.000	1.000	1394.	16700.	8.
498.	897.	63.	1065.	1453.	1.000	1.000	1394.	16700.	8.
498.	447.	66.	1065.	1308.	1.767	1.473	944.	16700.	6.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABL STRES
1235	498.	303.	-66.	1065.	1304.	1.000	1.000	801.	16700.
1240	498.	910.	66.	1065.	1465.	1.000	1.000	1408.	16700.
1240	498.	910.	-66.	1065.	1465.	1.000	1.000	1408.	16700.
1245	498.	2223.	66.	1065.	2724.	1.000	1.000	2721.	16700.
1245	498.	2223.	-66.	1065.	2724.	1.000	1.000	2721.	16700.
1250	498.	3287.	66.	1065.	3787.	1.000	1.000	3785.	16700.
1250	498.	3287.	-66.	1065.	3787.	1.000	1.000	3785.	16700.
1255	498.	1065.	66.	1065.	1592.	1.000	1.000	1562.	16700.
1255	498.	1065.	-66.	1065.	1592.	1.000	1.000	1562.	16700.
1260	498.	3228.	66.	1065.	3728.	1.000	1.000	3726.	16700.
1260	498.	3228.	-66.	1065.	3728.	1.000	1.000	3726.	16700.
1265	498.	2164.	66.	1065.	2665.	1.000	1.000	2662.	16700.
1265	498.	2164.	-66.	1065.	2665.	1.000	1.000	2662.	16700.
1270	498.	1087.	66.	1065.	1611.	1.000	1.000	1585.	16700.
1270	498.	1087.	-66.	1065.	1611.	1.000	1.000	1585.	16700.
1275	498.	67.	-4.	1065.	1295.	1.767	1.473	565.	16700.
1275	498.	46.	4.	1065.	1295.	1.000	1.000	543.	16700.
1280	498.	219.	-4.	1065.	1295.	1.000	1.000	717.	16700.
1280	498.	219.	4.	1065.	1295.	1.000	1.000	717.	16700.
1285	498.	1415.	-4.	1065.	1912.	1.000	1.000	1912.	16700.
1290	498.	1440.	4.	1065.	1937.	1.000	1.000	1937.	16700.
1295	498.	1237.	-4.	1065.	1735.	1.000	1.000	1735.	16700.
1300	498.	1190.	4.	1065.	1691.	1.000	1.000	1687.	16700.
1305	498.	984.	-4.	1065.	1510.	1.000	1.000	1482.	16700.
1305	498.	984.	4.	1065.	1510.	1.000	1.000	1482.	16700.
1310	498.	729.	-4.	1065.	1296.	1.000	1.000	1226.	16700.
1310	498.	729.	4.	1065.	1296.	1.000	1.000	1226.	16700.
1315	498.	1856.	-4.	1065.	2354.	1.000	1.000	2354.	16700.
1315	498.	1856.	4.	1065.	2354.	1.000	1.000	2354.	16700.
1320	498.	1665.	-4.	1065.	2163.	1.000	1.000	2163.	16700.
1320	498.	1665.	4.	1065.	2163.	1.000	1.000	2163.	16700.
1325	498.	1815.	-4.	1065.	2313.	1.000	1.000	2313.	16700.

T	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
	498.	1815.	4.	1065.	2313.	1.000	1.000	2313.	16700.	14.
	498.	910.	-4.	1065.	1445.	1.000	1.000	1407.	16700.	8.
	498.	910.	4.	1065.	1445.	1.000	1.000	1407.	16700.	8.
	498.	1221.	-4.	1065.	1718.	1.000	1.000	1718.	16700.	10.
	497.	1221.	4.	1065.	1718.	1.000	1.000	1717.	16700.	10.
	497.	158.	-130.	1065.	1319.	1.767	1.473	655.	16700.	4.
	497.	97.	130.	1065.	1317.	1.000	1.000	593.	16700.	4.
	497.	1821.	-130.	1065.	2334.	1.000	1.000	2318.	16700.	14.
	497.	1821.	130.	1065.	2332.	1.000	1.000	2318.	16700.	14.
	497.	1026.	-130.	1065.	1590.	1.000	1.000	1523.	16700.	9.
	497.	1026.	130.	1065.	1592.	1.000	1.000	1523.	16700.	9.
	497.	1615.	-130.	1065.	2130.	1.000	1.000	2112.	16700.	13.
	497.	1615.	130.	1065.	2128.	1.000	1.000	2112.	16700.	13.
	497.	520.	148.	1065.	1361.	1.767	1.473	1017.	16700.	6.
	497.	344.	-148.	1065.	1339.	1.000	1.000	841.	16700.	5.
	497.	96.	148.	1065.	1324.	1.000	1.000	593.	16700.	4.
	497.	96.	-148.	1065.	1324.	1.000	1.000	593.	16700.	4.
	497.	1930.	148.	1065.	2447.	1.000	1.000	2427.	16700.	15.
	497.	1930.	-148.	1065.	2445.	1.000	1.000	2427.	16700.	15.
	414.	497.	18.	1065.	1296.	1.767	1.473	911.	16700.	5.
	414.	324.	-18.	1065.	1296.	1.000	1.000	738.	16700.	4.
	434.	258.	18.	1065.	1296.	1.000	1.000	692.	16700.	4.
	434.	258.	-18.	1065.	1296.	1.000	1.000	692.	16700.	4.
	497.	455.	81.	1065.	1314.	1.767	1.473	952.	16700.	6.
	497.	259.	-81.	1065.	1307.	1.000	1.000	756.	16700.	5.
	497.	325.	81.	1065.	1309.	1.000	1.000	822.	16700.	5.
	497.	362.	-81.	1065.	1310.	1.000	1.000	858.	16700.	5.
	497.	651.	81.	1065.	1337.	1.222	1.296	1148.	16700.	7.
	497.	1500.	39.	1065.	1998.	1.222	1.296	1997.	16700.	12.
	497.	770.	-39.	1065.	1346.	1.222	1.296	1267.	16700.	8.
	169.	2626.	0.	401.	2794.	1.222	1.296	2794.	16700.	17.
	169.	2295.	0.	401.	2464.	1.000	1.000	2464.	16700.	15.

STRESS REPORT, Stresses on Elements
CASE 4 (SUS) W+P1

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in. CODE STRESS	ALLOWABL STRES
1403	169.	888.	0.	401.	1057.	1.000	1.000	1057.	16700.
1404	169.	429.	0.	401.	638.	1.000	1.000	598.	16700.
1401	497.	770.	-89.	1065.	1389.	1.222	1.296	1267.	16700.
1406	497.	1069.	89.	1065.	1603.	1.000	1.000	1565.	16700.
1409	497.	811.	-89.	1065.	1412.	1.000	1.000	1308.	16700.
1410	439.	402.	-39.	1065.	1298.	1.767	1.473	841.	16700.
1410	439.	248.	39.	1065.	1298.	1.000	1.000	686.	16700.
1420	424.	214.	-39.	1065.	1297.	1.000	1.000	638.	16700.
1400	498.	1707.	-211.	1065.	2245.	1.222	1.296	2205.	16700.
1425	498.	1997.	211.	1065.	2530.	1.000	1.000	2494.	16700.
1425	498.	1997.	-211.	1065.	2530.	1.000	1.000	2494.	16700.
1430	486.	645.	-17.	1065.	1298.	1.767	1.473	1131.	16700.
1430	486.	434.	17.	1065.	1296.	1.000	1.000	920.	16700.
1435	497.	608.	-45.	1065.	1308.	1.767	1.473	1105.	16700.
1435	497.	345.	45.	1065.	1300.	1.000	1.000	842.	16700.
1440	497.	607.	-45.	1065.	1307.	1.000	1.000	1104.	16700.
1440	497.	607.	45.	1065.	1308.	1.000	1.000	1104.	16700.
1445	497.	2420.	-45.	1065.	2920.	1.000	1.000	2917.	16700.
1445	497.	2420.	45.	1065.	2919.	1.000	1.000	2917.	16700.
1450	497.	494.	-45.	1065.	1302.	1.000	1.000	991.	16700.
1450	497.	494.	45.	1065.	1302.	1.000	1.000	991.	16700.
1455	497.	1456.	-45.	1065.	1956.	1.000	1.000	1953.	16700.
1455	497.	1456.	45.	1065.	1955.	1.000	1.000	1953.	16700.
1460	497.	1135.	-45.	1065.	1646.	1.222	1.296	1632.	16700.
1460	497.	1092.	17.	1065.	1606.	1.222	1.296	1590.	16700.
1465	497.	1703.	-17.	1065.	2201.	1.000	1.000	2200.	16700.
1465	497.	1703.	17.	1065.	2200.	1.000	1.000	2200.	16700.
1470	497.	649.	-17.	1065.	1298.	1.000	1.000	1146.	16700.
1470	497.	649.	17.	1065.	1298.	1.000	1.000	1146.	16700.
1480	497.	1862.	-17.	1065.	2360.	1.000	1.000	2359.	16700.
1480	497.	1862.	17.	1065.	2359.	1.000	1.000	2359.	16700.
1485	512.	188.	-41.	1065.	1298.	1.767	1.473	699.	16700.

Stresses(lb./sq.in.)					STRESS INTENSIFICATION		Stress(lb./sq.in.)		
AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	IN-PLANE	OUT-PLANE	CODE STRESS	ALLOWABLE STRESS	%
512.	110.	41.	1065.	1297.	1.000	1.000	622.	16700.	4.
498.	237.	-64.	1065.	1302.	1.767	1.473	735.	16700.	4.
498.	134.	64.	1065.	1301.	1.000	1.000	632.	16700.	4.
498.	469.	-64.	1065.	1308.	1.000	1.000	966.	16700.	6.
498.	469.	64.	1065.	1308.	1.000	1.000	966.	16700.	6.
498.	1322.	-64.	1065.	1824.	1.000	1.000	1820.	16700.	11.
498.	1322.	64.	1065.	1824.	1.000	1.000	1820.	16700.	11.
497.	581.	81.	1065.	1325.	1.767	1.473	1079.	16700.	6.
497.	388.	-81.	1065.	1311.	1.000	1.000	885.	16700.	5.
497.	1681.	81.	1065.	2185.	1.222	1.296	2178.	16700.	13.
496.	774.	119.	1065.	1417.	1.222	1.296	1270.	16700.	8.
496.	880.	-119.	1065.	1477.	1.000	1.000	1375.	16700.	8.
496.	645.	119.	1065.	1367.	1.000	1.000	1141.	16700.	7.
437.	824.	-342.	1065.	1602.	1.767	1.473	1261.	16700.	8.
437.	471.	342.	1065.	1520.	1.000	1.000	909.	16700.	5.
437.	459.	-342.	1065.	1478.	1.000	1.000	896.	16700.	5.
498.	73.	16.	1065.	1296.	1.222	1.296	571.	16700.	3.
498.	117.	-16.	1065.	1296.	1.000	1.000	615.	16700.	4.
498.	141.	16.	1065.	1296.	1.000	1.000	639.	16700.	4.
494.	272.	0.	1065.	1295.	1.767	1.473	767.	16700.	5.
494.	155.	0.	1065.	1295.	1.000	1.000	649.	16700.	4.
454.	155.	0.	1065.	1295.	1.000	1.000	610.	16700.	4.
454.	155.	0.	1065.	1295.	1.000	1.000	610.	16700.	4.
498.	606.	-16.	1065.	1297.	1.767	1.473	1103.	16700.	7.
498.	343.	16.	1065.	1296.	1.000	1.000	840.	16700.	5.
498.	1195.	-16.	1065.	1696.	1.000	1.000	1693.	16700.	10.
498.	1195.	16.	1065.	1696.	1.000	1.000	1693.	16700.	10.
498.	86.	-16.	1065.	1296.	1.000	1.000	583.	16700.	3.
498.	86.	16.	1065.	1296.	1.000	1.000	583.	16700.	3.
498.	794.	-16.	1065.	1348.	1.000	1.000	1292.	16700.	8.
498.	794.	16.	1065.	1348.	1.000	1.000	1292.	16700.	8.
498.	554.	-16.	1065.	1296.	1.000	1.000	1051.	16700.	6.

STRESS REPORT, Stresses on Elements
CASE 4 (SUS) W+P1

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
1565	498.	583.	16.	1065.	1297.	1.000	1.000	1081.	16700.	6.
1570	498.	529.	-16.	1065.	1296.	1.000	1.000	1027.	16700.	6.
1575	498.	497.	16.	1065.	1296.	1.000	1.000	994.	16700.	6.
1580	498.	937.	-16.	1065.	1470.	1.000	1.000	1435.	16700.	9.
1580	498.	937.	16.	1065.	1470.	1.000	1.000	1435.	16700.	9.
1585	498.	229.	-16.	1065.	1296.	1.000	1.000	727.	16700.	4.
1585	498.	229.	16.	1065.	1296.	1.000	1.000	727.	16700.	4.
1590	498.	766.	-16.	1065.	1326.	1.000	1.000	1264.	16700.	8.
1590	498.	766.	16.	1065.	1326.	1.000	1.000	1264.	16700.	8.
1595	498.	538.	-16.	1065.	1296.	1.000	1.000	1035.	16700.	6.
1595	498.	538.	16.	1065.	1296.	1.000	1.000	1035.	16700.	6.
1600	498.	320.	-16.	1065.	1296.	1.000	1.000	817.	16700.	5.
1600	498.	320.	16.	1065.	1296.	1.000	1.000	817.	16700.	5.
1605	498.	46.	53.	1065.	1299.	1.767	1.473	544.	16700.	3.
1605	498.	31.	-53.	1065.	1299.	1.000	1.000	529.	16700.	3.
1610	498.	1322.	53.	1065.	1823.	1.000	1.000	1820.	16700.	11.
1610	498.	1322.	-53.	1065.	1823.	1.000	1.000	1820.	16700.	11.
1615	498.	23.	22.	1065.	1296.	1.767	1.473	521.	16700.	3.
1615	498.	16.	-22.	1065.	1296.	1.000	1.000	513.	16700.	3.
1620	498.	514.	22.	1065.	1297.	1.000	1.000	1011.	16700.	6.
1620	498.	514.	-22.	1065.	1297.	1.000	1.000	1011.	16700.	6.
1625	498.	1028.	22.	1065.	1550.	1.000	1.000	1526.	16700.	9.
1625	498.	1028.	-22.	1065.	1550.	1.000	1.000	1526.	16700.	9.
1630	498.	238.	22.	1065.	1296.	1.000	1.000	735.	16700.	4.
1630	498.	238.	-22.	1065.	1296.	1.000	1.000	735.	16700.	4.
1635	498.	657.	22.	1065.	1300.	1.000	1.000	1155.	16700.	7.
1635	498.	657.	-22.	1065.	1300.	1.000	1.000	1155.	16700.	7.
1640	498.	419.	22.	1065.	1297.	1.000	1.000	916.	16700.	5.
1640	498.	419.	-22.	1065.	1297.	1.000	1.000	916.	16700.	5.
1645	498.	666.	22.	1065.	1301.	1.000	1.000	1164.	16700.	7.
1645	498.	666.	-22.	1065.	1301.	1.000	1.000	1164.	16700.	7.
1650	498.	247.	22.	1065.	1296.	1.000	1.000	745.	16700.	4.

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Stresses(lb./sq.in.)					STRESS INTENSIFICATION		Stress(lb./sq.in.)		
AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	IN-PLANE	OUT-PLANE	CODE STRESS	ALLOWABLE STRESS	%
498.	247.	-22.	1065.	1296.	1.000	1.000	745.	16700.	4.
498.	1000.	22.	1065.	1526.	1.000	1.000	1498.	16700.	9.
498.	1000.	-22.	1065.	1526.	1.000	1.000	1498.	16700.	9.
498.	499.	22.	1065.	1297.	1.000	1.000	997.	16700.	6.
498.	535.	-22.	1065.	1297.	1.000	1.000	1032.	16700.	6.
498.	670.	22.	1065.	1301.	1.000	1.000	1167.	16700.	7.
498.	643.	-22.	1065.	1299.	1.000	1.000	1141.	16700.	7.
498.	639.	22.	1065.	1299.	1.000	1.000	1137.	16700.	7.
498.	639.	-22.	1065.	1299.	1.000	1.000	1137.	16700.	7.
498.	111.	0.	1065.	1295.	1.767	1.473	609.	16700.	4.
498.	76.	0.	1065.	1295.	1.000	1.000	573.	16700.	3.
498.	547.	0.	1065.	1295.	1.000	1.000	1045.	16700.	6.
498.	547.	0.	1065.	1295.	1.000	1.000	1045.	16700.	6.
498.	562.	0.	1065.	1295.	1.000	1.000	1060.	16700.	6.
498.	562.	0.	1065.	1295.	1.000	1.000	1060.	16700.	6.
498.	490.	0.	1065.	1295.	1.000	1.000	988.	16700.	6.
498.	490.	0.	1065.	1295.	1.000	1.000	988.	16700.	6.
507.	0.	0.	1065.	1295.	1.767	1.473	507.	16700.	3.
507.	0.	0.	1065.	1295.	1.000	1.000	507.	16700.	3.
498.	0.	0.	1065.	1295.	1.000	1.000	498.	16700.	3.
478.	1441.	113.	1065.	1945.	1.222	1.296	1919.	16700.	11.
478.	1092.	-113.	1065.	1636.	1.000	1.000	1570.	16700.	9.
478.	1067.	113.	1065.	1631.	1.000	1.000	1546.	16700.	9.
478.	283.	-113.	1065.	1317.	1.000	1.000	761.	16700.	5.
478.	283.	113.	1065.	1319.	1.000	1.000	761.	16700.	5.
478.	349.	-113.	1065.	1320.	1.000	1.000	828.	16700.	5.
478.	349.	113.	1065.	1323.	1.000	1.000	828.	16700.	5.
478.	2012.	-113.	1065.	2539.	1.000	1.000	2490.	16700.	15.
478.	2012.	113.	1065.	2500.	1.000	1.000	2490.	16700.	15.
478.	507.	-113.	1065.	1333.	1.000	1.000	985.	16700.	6.
478.	507.	113.	1065.	1338.	1.000	1.000	985.	16700.	6.
477.	1519.	60.	1065.	2041.	1.767	1.473	1996.	16700.	12.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS
1755	477.	893.	-60.	1065.	1467.	1.000	1.000	1369.	16700.
1760	478.	1398.	-47.	1065.	1918.	1.767	1.473	1877.	16700.
1760	478.	803.	47.	1065.	1389.	1.000	1.000	1281.	16700.
1765	478.	1442.	-47.	1065.	1961.	1.000	1.000	1920.	16700.
1765	498.	1442.	47.	1065.	1942.	1.000	1.000	1940.	16700.
1770	498.	266.	-47.	1065.	1299.	1.000	1.000	764.	16700.
1770	498.	266.	47.	1065.	1299.	1.000	1.000	764.	16700.
1775	498.	2244.	-47.	1065.	2743.	1.000	1.000	2742.	16700.
1775	498.	2244.	47.	1065.	2743.	1.000	1.000	2742.	16700.
1780	498.	1967.	-47.	1065.	2466.	1.000	1.000	2465.	16700.
1780	498.	1967.	47.	1065.	2466.	1.000	1.000	2465.	16700.
1785	498.	2466.	-47.	1065.	2965.	1.000	1.000	2964.	16700.
1785	498.	2466.	47.	1065.	2965.	1.000	1.000	2964.	16700.
1790	498.	596.	-47.	1065.	1308.	1.000	1.000	1093.	16700.
1790	498.	596.	47.	1065.	1308.	1.000	1.000	1093.	16700.
1795	498.	108.	-47.	1065.	1298.	1.000	1.000	606.	16700.
1795	498.	108.	47.	1065.	1298.	1.000	1.000	606.	16700.
1800	498.	925.	-47.	1065.	1468.	1.000	1.000	1422.	16700.
1800	498.	925.	47.	1065.	1468.	1.000	1.000	1422.	16700.
1805	498.	382.	102.	1065.	1319.	1.767	1.473	880.	16700.
1805	498.	260.	-102.	1065.	1314.	1.000	1.000	757.	16700.
1810	498.	564.	102.	1065.	1337.	1.000	1.000	1062.	16700.
1810	498.	564.	-102.	1065.	1337.	1.000	1.000	1062.	16700.
1815	498.	2095.	102.	1065.	2600.	1.000	1.000	2592.	16700.
1815	498.	2095.	-102.	1065.	2600.	1.000	1.000	2592.	16700.
1820	498.	3891.	102.	1065.	4393.	1.000	1.000	4388.	16700.
1820	498.	3891.	-102.	1065.	4393.	1.000	1.000	4388.	16700.
1825	498.	1798.	102.	1065.	2305.	1.000	1.000	2296.	16700.
1825	498.	1798.	-102.	1065.	2305.	1.000	1.000	2296.	16700.
1830	498.	1157.	102.	1065.	1683.	1.000	1.000	1655.	16700.
1830	498.	1157.	-102.	1065.	1683.	1.000	1.000	1655.	16700.
1835	498.	72.	-23.	1065.	1296.	1.767	1.473	570.	16700.

ENT S	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
5	498.	49.	23.	1065.	1296.	1.000	1.000	547.	16700.	3.
0	498.	735.	-23.	1065.	1314.	1.000	1.000	1232.	16700.	7.
0	498.	735.	23.	1065.	1314.	1.000	1.000	1232.	16700.	7.
5	498.	1277.	-23.	1065.	1775.	1.000	1.000	1775.	16700.	11.
5	498.	1277.	23.	1065.	1775.	1.000	1.000	1775.	16700.	11.
0	498.	1833.	-23.	1065.	2331.	1.000	1.000	2330.	16700.	14.
0	498.	1833.	23.	1065.	2331.	1.000	1.000	2330.	16700.	14.
5	498.	558.	-23.	1065.	1298.	1.000	1.000	1056.	16700.	6.
5	498.	558.	23.	1065.	1298.	1.000	1.000	1056.	16700.	6.
0	498.	703.	-23.	1065.	1305.	1.000	1.000	1200.	16700.	7.
0	498.	703.	23.	1065.	1305.	1.000	1.000	1200.	16700.	7.
5	498.	13.	-23.	1065.	1296.	1.000	1.000	511.	16700.	3.
0	498.	8.	23.	1065.	1296.	1.000	1.000	506.	16700.	3.
5	498.	40.	-23.	1065.	1296.	1.222	1.296	537.	16700.	3.
5	498.	444.	15.	1065.	1296.	1.222	1.296	942.	16700.	6.
0	498.	695.	-15.	1065.	1299.	1.000	1.000	1193.	16700.	7.
5	498.	773.	15.	1065.	1330.	1.000	1.000	1271.	16700.	8.
0	498.	2369.	-15.	1065.	2867.	1.000	1.000	2867.	16700.	17.
0	498.	2369.	15.	1065.	2867.	1.000	1.000	2867.	16700.	17.
5	498.	1649.	-15.	1065.	2146.	1.000	1.000	2146.	16700.	13.
5	498.	1649.	15.	1065.	2146.	1.000	1.000	2146.	16700.	13.
0	498.	2978.	-15.	1065.	3475.	1.000	1.000	3475.	16700.	21.
0	498.	2978.	15.	1065.	3475.	1.000	1.000	3475.	16700.	21.
5	498.	1329.	-15.	1065.	1827.	1.000	1.000	1827.	16700.	11.
5	498.	1329.	15.	1065.	1827.	1.000	1.000	1827.	16700.	11.
0	498.	3008.	-15.	1065.	3506.	1.000	1.000	3506.	16700.	21.
0	498.	3008.	15.	1065.	3506.	1.000	1.000	3506.	16700.	21.
5	498.	1679.	-15.	1065.	2177.	1.000	1.000	2177.	16700.	13.
5	498.	1679.	15.	1065.	2177.	1.000	1.000	2177.	16700.	13.
0	498.	2278.	-15.	1065.	2776.	1.000	1.000	2775.	16700.	17.
0	498.	2278.	15.	1065.	2776.	1.000	1.000	2775.	16700.	17.
5	498.	220.	21.	1065.	1296.	1.767	1.473	717.	16700.	4.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS
1935	498.	149.	-21.	1065.	1296.	1.000	1.000	647.	16700.
1945	498.	445.	154.	1065.	1353.	1.767	1.473	943.	16700.
1945	498.	302.	-154.	1065.	1338.	1.000	1.000	800.	16700.
1950	498.	558.	154.	1065.	1373.	1.000	1.000	1056.	16700.
1950	498.	558.	-154.	1065.	1373.	1.000	1.000	1056.	16700.
1955	498.	319.	154.	1065.	1340.	1.000	1.000	816.	16700.
1955	498.	319.	-154.	1065.	1340.	1.000	1.000	816.	16700.
1960	498.	1304.	154.	1065.	1828.	1.000	1.000	1801.	16700.
1960	498.	1304.	-154.	1065.	1828.	1.000	1.000	1801.	16700.
1965	498.	785.	154.	1065.	1452.	1.000	1.000	1283.	16700.
1965	498.	785.	-154.	1065.	1452.	1.000	1.000	1283.	16700.
1970	498.	5770.	154.	1065.	6275.	1.000	1.000	6267.	16700.
1970	498.	5770.	-154.	1065.	6275.	1.000	1.000	6267.	16700.
1975	548.	1077.	0.	1065.	1641.	1.767	1.473	1624.	16700.
1975	548.	633.	0.	1065.	1295.	1.000	1.000	1180.	16700.
1980	522.	633.	0.	1065.	1295.	1.000	1.000	1154.	16700.
1980	522.	633.	0.	1065.	1295.	1.000	1.000	1154.	16700.
1985	498.	508.	-276.	1065.	1456.	1.767	1.473	1006.	16700.
1985	498.	288.	276.	1065.	1410.	1.000	1.000	785.	16700.
1990	498.	3571.	-276.	1065.	4105.	1.000	1.000	4068.	16700.
1990	498.	3571.	276.	1065.	4105.	1.000	1.000	4068.	16700.
1995	498.	345.	-276.	1065.	1420.	1.000	1.000	843.	16700.
1995	498.	345.	276.	1065.	1420.	1.000	1.000	843.	16700.
2000	498.	232.	-276.	1065.	1402.	1.000	1.000	730.	16700.
2000	498.	232.	276.	1065.	1402.	1.000	1.000	730.	16700.
2005	498.	813.	-276.	1065.	1572.	1.000	1.000	1311.	16700.
2010	498.	832.	276.	1065.	1582.	1.000	1.000	1330.	16700.
2015	498.	1108.	-276.	1065.	1748.	1.296	1.296	1606.	16700.
2015	498.	1108.	276.	1065.	1748.	1.296	1.296	1606.	16700.
2020	498.	856.	-276.	1065.	1594.	1.000	1.000	1354.	16700.
2025	498.	843.	276.	1065.	1587.	1.000	1.000	1341.	16700.
2030	468.	821.	0.	1065.	1397.	1.767	1.473	1289.	16700.

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Stresses(lb./sq.in.)					STRESS		Stress(lb./sq.in.)		
AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	INTENSIFICATION IN-PLANE	OUT-PLANE	CODE STRESS	ALLOWABLE STRESS	%
468.	556.	0.	1065.	1295.	1.000	1.000	1024.	16700.	6.
498.	522.	-32.	1065.	1299.	1.767	1.473	1020.	16700.	6.
498.	295.	32.	1065.	1297.	1.000	1.000	793.	16700.	5.
498.	551.	-32.	1065.	1300.	1.000	1.000	1048.	16700.	6.
498.	551.	32.	1065.	1300.	1.000	1.000	1048.	16700.	6.
498.	506.	-32.	1065.	1299.	1.000	1.000	1004.	16700.	6.
498.	506.	32.	1065.	1299.	1.000	1.000	1004.	16700.	6.
498.	1239.	-32.	1065.	1738.	1.000	1.000	1737.	16700.	10.
498.	1239.	32.	1065.	1738.	1.000	1.000	1737.	16700.	10.
498.	62.	0.	1065.	1295.	1.767	1.473	560.	16700.	3.
498.	42.	0.	1065.	1295.	1.000	1.000	540.	16700.	3.
498.	448.	0.	1065.	1295.	1.000	1.000	946.	16700.	6.
498.	448.	0.	1065.	1295.	1.000	1.000	946.	16700.	6.
498.	0.	0.	1065.	1295.	1.767	1.473	498.	16700.	3.
498.	0.	0.	1065.	1295.	1.000	1.000	498.	16700.	3.
498.	0.	0.	1065.	1295.	1.000	1.000	498.	16700.	3.
498.	21.	187.	1065.	1335.	1.222	1.296	518.	16700.	3.
498.	113.	-187.	1065.	1340.	1.000	1.000	611.	16700.	4.
498.	124.	187.	1065.	1341.	1.000	1.000	621.	16700.	4.
489.	555.	0.	1065.	1295.	1.767	1.473	1043.	16700.	6.
489.	376.	0.	1065.	1295.	1.000	1.000	864.	16700.	5.
498.	361.	21.	1065.	1296.	1.767	1.473	859.	16700.	5.
498.	204.	-21.	1065.	1296.	1.000	1.000	702.	16700.	4.
498.	1324.	21.	1065.	1822.	1.000	1.000	1822.	16700.	11.
498.	1324.	-21.	1065.	1822.	1.000	1.000	1822.	16700.	11.
498.	133.	21.	1065.	1296.	1.000	1.000	631.	16700.	4.
498.	133.	-21.	1065.	1296.	1.000	1.000	631.	16700.	4.
498.	570.	21.	1065.	1297.	1.000	1.000	1068.	16700.	6.
498.	570.	-21.	1065.	1297.	1.000	1.000	1068.	16700.	6.
498.	436.	21.	1065.	1296.	1.000	1.000	934.	16700.	6.
498.	436.	-21.	1065.	1296.	1.000	1.000	934.	16700.	6.
498.	719.	21.	1065.	1307.	1.000	1.000	1216.	16700.	7.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX SO STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in. CODE STRESS	ALLOWABL STRES
2120	498.	719.	-21.	1065.	1307.	1.000	1.000	1216.	16700.
2125	498.	289.	21.	1065.	1296.	1.000	1.000	787.	16700.
2125	498.	289.	-21.	1065.	1296.	1.000	1.000	787.	16700.
2130	498.	1318.	21.	1065.	1816.	1.000	1.000	1816.	16700.
2130	498.	1318.	-21.	1065.	1816.	1.000	1.000	1816.	16700.
2135	515.	980.	0.	1065.	1525.	1.767	1.473	1496.	16700.
2135	515.	555.	0.	1065.	1295.	1.000	1.000	1071.	16700.
2140	498.	839.	21.	1065.	1387.	1.767	1.473	1337.	16700.
2140	498.	475.	-21.	1065.	1297.	1.000	1.000	973.	16700.
2145	498.	265.	-5.	1065.	1295.	1.767	1.473	762.	16700.
2145	498.	180.	5.	1065.	1295.	1.000	1.000	677.	16700.
2150	498.	923.	-5.	1065.	1457.	1.000	1.000	1420.	16700.
2150	498.	923.	5.	1065.	1457.	1.000	1.000	1420.	16700.
2155	498.	86.	-5.	1065.	1295.	1.000	1.000	583.	16700.
2155	498.	86.	5.	1065.	1295.	1.000	1.000	583.	16700.
2160	498.	238.	-5.	1065.	1295.	1.000	1.000	736.	16700.
2160	498.	238.	5.	1065.	1295.	1.000	1.000	736.	16700.
2165	498.	242.	-5.	1065.	1295.	1.000	1.000	740.	16700.
2165	498.	242.	5.	1065.	1295.	1.000	1.000	740.	16700.
2170	498.	420.	-5.	1065.	1295.	1.000	1.000	917.	16700.
2170	498.	420.	5.	1065.	1295.	1.000	1.000	917.	16700.
2175	498.	155.	-5.	1065.	1295.	1.000	1.000	653.	16700.
2175	498.	155.	5.	1065.	1295.	1.000	1.000	653.	16700.
2180	498.	372.	-5.	1065.	1295.	1.000	1.000	869.	16700.
2180	498.	372.	5.	1065.	1295.	1.000	1.000	869.	16700.
2185	498.	178.	-5.	1065.	1295.	1.000	1.000	676.	16700.
2185	498.	178.	5.	1065.	1295.	1.000	1.000	676.	16700.
2190	498.	384.	-5.	1065.	1295.	1.000	1.000	882.	16700.
2190	498.	384.	5.	1065.	1295.	1.000	1.000	882.	16700.
2195	498.	172.	-5.	1065.	1295.	1.000	1.000	670.	16700.
2195	498.	172.	5.	1065.	1295.	1.000	1.000	670.	16700.
2200	498.	381.	-5.	1065.	1295.	1.000	1.000	879.	16700.

MENT ES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
00	498.	381.	5.	1065.	1295.	1.000	1.000	879.	16700.	5.
05	498.	174.	-5.	1065.	1295.	1.000	1.000	671.	16700.	4.
05	498.	174.	5.	1065.	1295.	1.000	1.000	671.	16700.	4.
10	498.	382.	-5.	1065.	1295.	1.000	1.000	880.	16700.	5.
10	498.	382.	5.	1065.	1295.	1.000	1.000	880.	16700.	5.
15	498.	173.	-5.	1065.	1295.	1.000	1.000	671.	16700.	4.
15	498.	173.	5.	1065.	1295.	1.000	1.000	671.	16700.	4.
20	498.	382.	-5.	1065.	1295.	1.000	1.000	879.	16700.	5.
20	498.	382.	5.	1065.	1295.	1.000	1.000	879.	16700.	5.
25	498.	173.	-5.	1065.	1295.	1.000	1.000	671.	16700.	4.
15	498.	173.	5.	1065.	1295.	1.000	1.000	671.	16700.	4.
10	498.	382.	-5.	1065.	1295.	1.000	1.000	879.	16700.	5.
10	498.	382.	5.	1065.	1295.	1.000	1.000	879.	16700.	5.
15	498.	173.	-5.	1065.	1295.	1.000	1.000	671.	16700.	4.
15	498.	173.	5.	1065.	1295.	1.000	1.000	671.	16700.	4.
10	498.	382.	-5.	1065.	1295.	1.000	1.000	879.	16700.	5.
10	498.	382.	5.	1065.	1295.	1.000	1.000	879.	16700.	5.
15	498.	173.	-5.	1065.	1295.	1.000	1.000	671.	16700.	4.
15	498.	173.	5.	1065.	1295.	1.000	1.000	671.	16700.	4.
10	498.	382.	-5.	1065.	1295.	1.000	1.000	879.	16700.	5.
10	498.	382.	5.	1065.	1295.	1.000	1.000	879.	16700.	5.
15	498.	173.	-5.	1065.	1295.	1.000	1.000	671.	16700.	4.
15	498.	173.	5.	1065.	1295.	1.000	1.000	671.	16700.	4.
10	498.	382.	-5.	1065.	1295.	1.000	1.000	879.	16700.	5.
10	498.	382.	5.	1065.	1295.	1.000	1.000	879.	16700.	5.
15	498.	173.	-5.	1065.	1295.	1.000	1.000	671.	16700.	4.
15	498.	173.	5.	1065.	1295.	1.000	1.000	671.	16700.	4.
10	498.	382.	-5.	1065.	1295.	1.000	1.000	879.	16700.	5.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS
2280	498.	382.	5.	1065.	1295.	1.000	1.000	879.	16700.
2285	498.	173.	-5.	1065.	1295.	1.000	1.000	671.	16700.
2285	498.	173.	5.	1065.	1295.	1.000	1.000	671.	16700.
2290	498.	382.	-5.	1065.	1295.	1.000	1.000	879.	16700.
2290	498.	382.	5.	1065.	1295.	1.000	1.000	879.	16700.
2295	498.	173.	-5.	1065.	1295.	1.000	1.000	671.	16700.
2295	498.	173.	5.	1065.	1295.	1.000	1.000	671.	16700.
2300	498.	382.	-5.	1065.	1295.	1.000	1.000	879.	16700.
2300	498.	382.	5.	1065.	1295.	1.000	1.000	879.	16700.
2305	498.	173.	-5.	1065.	1295.	1.000	1.000	671.	16700.
2305	498.	173.	5.	1065.	1295.	1.000	1.000	671.	16700.
2310	498.	382.	-5.	1065.	1295.	1.000	1.000	879.	16700.
2310	498.	382.	5.	1065.	1295.	1.000	1.000	879.	16700.
2315	498.	173.	-5.	1065.	1295.	1.000	1.000	671.	16700.
2315	498.	173.	5.	1065.	1295.	1.000	1.000	671.	16700.
2320	498.	382.	-5.	1065.	1295.	1.000	1.000	879.	16700.
2320	498.	382.	5.	1065.	1295.	1.000	1.000	879.	16700.
2325	498.	173.	-5.	1065.	1295.	1.000	1.000	671.	16700.
2325	498.	173.	5.	1065.	1295.	1.000	1.000	671.	16700.
2330	498.	382.	-5.	1065.	1295.	1.000	1.000	879.	16700.
2330	498.	382.	5.	1065.	1295.	1.000	1.000	879.	16700.
2335	498.	173.	-5.	1065.	1295.	1.000	1.000	671.	16700.
2335	498.	173.	5.	1065.	1295.	1.000	1.000	671.	16700.
2340	498.	382.	-5.	1065.	1295.	1.000	1.000	880.	16700.
2340	498.	382.	5.	1065.	1295.	1.000	1.000	880.	16700.
2345	498.	173.	-5.	1065.	1295.	1.000	1.000	671.	16700.
2345	498.	173.	5.	1065.	1295.	1.000	1.000	671.	16700.
2350	498.	381.	-5.	1065.	1295.	1.000	1.000	879.	16700.
2350	498.	381.	5.	1065.	1295.	1.000	1.000	879.	16700.
2355	498.	172.	-5.	1065.	1295.	1.000	1.000	670.	16700.
2355	498.	172.	5.	1065.	1295.	1.000	1.000	670.	16700.
2360	498.	385.	-5.	1065.	1295.	1.000	1.000	882.	16700.

IT	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
	498.	385.	5.	1065.	1295.	1.000	1.000	882.	16700.	5.
	498.	176.	-5.	1065.	1295.	1.000	1.000	673.	16700.	4.
	498.	176.	5.	1065.	1295.	1.000	1.000	673.	16700.	4.
	498.	371.	-5.	1065.	1295.	1.000	1.000	869.	16700.	5.
	498.	371.	5.	1065.	1295.	1.000	1.000	869.	16700.	5.
	498.	163.	-5.	1065.	1295.	1.000	1.000	661.	16700.	4.
	498.	163.	5.	1065.	1295.	1.000	1.000	661.	16700.	4.
	498.	421.	-5.	1065.	1295.	1.000	1.000	918.	16700.	5.
	498.	421.	5.	1065.	1295.	1.000	1.000	918.	16700.	5.
	498.	211.	-5.	1065.	1295.	1.000	1.000	709.	16700.	4.
	498.	211.	5.	1065.	1295.	1.000	1.000	709.	16700.	4.
	498.	234.	-5.	1065.	1295.	1.000	1.000	732.	16700.	4.
	498.	234.	5.	1065.	1295.	1.000	1.000	732.	16700.	4.
	498.	31.	-5.	1065.	1295.	1.000	1.000	529.	16700.	3.
	498.	31.	5.	1065.	1295.	1.000	1.000	529.	16700.	3.
	498.	937.	-5.	1065.	1469.	1.000	1.000	1434.	16700.	9.
	498.	937.	5.	1065.	1469.	1.000	1.000	1434.	16700.	9.
	498.	85.	0.	1065.	1295.	1.767	1.473	583.	16700.	3.
	498.	58.	0.	1065.	1295.	1.000	1.000	556.	16700.	3.
	498.	86.	0.	1065.	1295.	1.000	1.000	584.	16700.	3.
	498.	86.	0.	1065.	1295.	1.000	1.000	584.	16700.	3.
	498.	2364.	0.	1065.	2861.	1.000	1.000	2861.	16700.	17.
	498.	2364.	0.	1065.	2861.	1.000	1.000	2861.	16700.	17.
	523.	0.	0.	1065.	1295.	1.767	1.473	523.	16700.	3.
	523.	0.	0.	1065.	1295.	1.000	1.000	523.	16700.	3.
	498.	0.	0.	1065.	1295.	1.000	1.000	498.	16700.	3.

STRESS SUMMARY
CASE 5 (EXP) D5(EXP)=D1-D4

**** CODE STRESS CHECK PASSED

PIPING CODE: B31.3 -1993, July 31, 1993 Addendum

HIGHEST STRESSES: (lb./sq.in.)

CODE STRESS %:	13417.	@NODE 1950	ALLOWABLE:	40694.
BENDING STRESS:	13416.	@NODE 1950		
TORSIONAL STRESS:	1304.	@NODE 1520		
AXIAL STRESS:	5282.	@NODE 1285		
3D MAX INTENSITY:	18553.	@NODE 1950		

STRESS OPTIMIZATION PARAMETERS:

CODE STRESS PERCENTAGES SHOWN BELOW REPRESENT THE NUMBER OF NODES IN THE SYSTEM THAT WERE WITHIN THE PERCENTAGE GIVEN OF THE HIGHEST CODE STRESS IN THE SYSTEM.

AVG. CODE STRESS 527.

	/BETWEEN/	/BELOW/
CODE STRESS 90-100%	0.37	99.63
CODE STRESS 80-90 %	0.19	99.44
CODE STRESS 70-80 %	0.00	99.44
CODE STRESS 60-70 %	0.19	99.26
CODE STRESS 50-60 %	0.00	99.26
CODE STRESS 25-50 %	2.04	97.21
CODE STRESS 0-25 %	97.21	

PIPE ELEMENTS ANALYZED: 269

SAMPLED POINTS: 538

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ed To: FLUOR DANIEL ID 13692
REPORT, Stresses on Elements
(EXP) D5(EXP)=D1-D4

Stresses(lb./sq.in.)					STRESS INTENSIFICATION		Stress(lb./sq.in.)		
AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	IN-PLANE	OUT-PLANE	CODE STRESS	ALLOWABLE STRESS	%
0.	0.	0.	0.	0.	1.767	1.473	0.	41252.	0.
0.	0.	0.	0.	0.	1.767	1.473	0.	41231.	0.
0.	0.	0.	0.	0.	1.000	1.000	0.	41240.	0.
0.	0.	0.	0.	0.	1.000	1.000	0.	41192.	0.
5136.	0.	0.	0.	5136.	1.000	1.000	0.	41192.	0.
5136.	5.	0.	0.	5142.	1.000	1.000	5.	40381.	0.
5136.	5.	0.	0.	5142.	1.000	1.000	5.	40381.	0.
5136.	10.	0.	0.	5147.	1.000	1.000	10.	39944.	0.
5136.	10.	0.	0.	5147.	1.000	1.000	10.	39944.	0.
5136.	16.	0.	0.	5152.	1.000	1.000	16.	40813.	0.
5136.	16.	0.	0.	5152.	1.000	1.000	16.	40813.	0.
5136.	22.	0.	0.	5158.	1.000	1.000	22.	40326.	0.
5136.	22.	0.	0.	5158.	1.000	1.000	22.	40326.	0.
5136.	10.	0.	0.	5146.	1.000	1.000	10.	40766.	0.
5136.	10.	0.	0.	5146.	1.000	1.000	10.	40766.	0.
5136.	38.	0.	0.	5175.	1.000	1.000	38.	40039.	0.
5136.	38.	0.	0.	5175.	1.000	1.000	38.	40039.	0.
5136.	65.	0.	0.	5201.	1.000	1.000	65.	40523.	0.
5136.	65.	0.	0.	5201.	1.000	1.000	65.	40523.	0.
5136.	118.	0.	0.	5254.	1.000	1.000	118.	40806.	0.
4.	118.	0.	0.	122.	1.000	1.000	118.	40806.	0.
28.	577.	48.	0.	613.	1.767	1.473	585.	40898.	1.
28.	327.	-48.	0.	367.	1.000	1.000	340.	41019.	1.
28.	172.	48.	0.	222.	1.000	1.000	197.	38969.	1.
28.	172.	-48.	0.	222.	1.000	1.000	197.	38969.	1.
4.	874.	-86.	0.	895.	1.767	1.473	891.	41194.	2.
4.	498.	86.	0.	531.	1.000	1.000	527.	41214.	1.
4.	666.	-86.	0.	692.	1.000	1.000	688.	39090.	2.
51.	666.	86.	0.	737.	1.000	1.000	688.	39077.	2.
44.	1870.	0.	0.	1914.	1.767	1.473	1870.	40795.	5.
44.	1066.	0.	0.	1109.	1.000	1.000	1066.	40974.	3.
51.	1315.	11.	0.	1367.	1.767	1.473	1316.	40823.	3.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.i CODE STRESS	ALLOWA STR
1075	51.	744.	-11.	0.	796.	1.000	1.000	745.	4097
1080	51.	535.	11.	0.	586.	1.000	1.000	535.	4070
1080	5136.	535.	-11.	0.	5671.	1.000	1.000	535.	4072
1085	5136.	213.	11.	0.	5350.	1.000	1.000	215.	4108
1085	5136.	213.	-11.	0.	5350.	1.000	1.000	215.	4108
1090	5136.	108.	11.	0.	5244.	1.000	1.000	110.	4066
1090	5136.	108.	-11.	0.	5244.	1.000	1.000	110.	4066
1095	5136.	40.	11.	0.	5176.	1.000	1.000	45.	4071
1095	5136.	40.	-11.	0.	5176.	1.000	1.000	45.	4071
1100	5136.	28.	11.	0.	5165.	1.000	1.000	35.	4075
1100	5136.	28.	-11.	0.	5165.	1.000	1.000	35.	4075
1105	5136.	11.	11.	0.	5148.	1.000	1.000	24.	4121
1105	5136.	11.	-11.	0.	5148.	1.000	1.000	24.	4121
1110	5136.	5.	11.	0.	5142.	1.000	1.000	22.	3951
1110	5136.	5.	-11.	0.	5142.	1.000	1.000	22.	3951
1115	5136.	2.	11.	0.	5139.	1.000	1.000	22.	3987
1115	5136.	2.	-11.	0.	5139.	1.000	1.000	22.	3987
1120	5136.	3.	11.	0.	5140.	1.000	1.000	22.	3874
1120	5136.	3.	-11.	0.	5140.	1.000	1.000	22.	3874
1125	5136.	4.	11.	0.	5141.	1.000	1.000	22.	4012
1125	5136.	4.	-11.	0.	5141.	1.000	1.000	22.	4012
1130	5136.	11.	11.	0.	5147.	1.000	1.000	24.	3901
1130	5136.	11.	-11.	0.	5147.	1.000	1.000	24.	3901
1135	5136.	15.	11.	0.	5152.	1.000	1.000	26.	4015
1135	5136.	15.	-11.	0.	5152.	1.000	1.000	26.	4015
1140	5136.	41.	11.	0.	5177.	1.000	1.000	46.	3868
1140	5136.	41.	-11.	0.	5177.	1.000	1.000	46.	3868
1145	5136.	56.	11.	0.	5193.	1.000	1.000	60.	3979
1145	5136.	56.	-11.	0.	5193.	1.000	1.000	60.	3979
1150	5136.	153.	11.	0.	5290.	1.000	1.000	155.	3973
1150	0.	153.	-11.	0.	155.	1.000	1.000	155.	3973
1155	5.	1211.	0.	0.	1217.	1.767	1.473	1211.	4091

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d To: FLUOR DANIEL ID 13692
REPORT, Stresses on Elements
(EXP) D5(EXP)=01-D4

Stresses(lb./sq.in.)					STRESS		Stress(lb./sq.in.)		
AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	INTENSIFICATION IN-PLANE	OUT-PLANE	CODE STRESS	ALLOWABLE STRESS	%
5.	686.	0.	0.	691.	1.000	1.000	686.	41022.	2.
5.	688.	0.	0.	693.	1.000	1.000	688.	40402.	2.
341.	688.	0.	0.	1029.	1.000	1.000	688.	40402.	2.
341.	400.	0.	0.	740.	1.000	1.000	400.	38822.	1.
341.	400.	0.	0.	740.	1.000	1.000	400.	38822.	1.
341.	112.	0.	0.	453.	1.000	1.000	112.	38318.	0.
341.	112.	0.	0.	453.	1.000	1.000	112.	38318.	0.
341.	32.	0.	0.	373.	1.000	1.000	32.	40800.	0.
341.	32.	0.	0.	373.	1.000	1.000	32.	40800.	0.
341.	176.	0.	0.	517.	1.000	1.000	176.	41120.	0.
341.	176.	0.	0.	517.	1.000	1.000	176.	41120.	0.
341.	320.	0.	0.	661.	1.000	1.000	320.	40672.	1.
341.	320.	0.	0.	661.	1.000	1.000	320.	40672.	1.
341.	464.	0.	0.	804.	1.000	1.000	464.	40383.	1.
341.	464.	0.	0.	804.	1.000	1.000	464.	40383.	1.
341.	608.	0.	0.	948.	1.000	1.000	608.	40961.	1.
341.	608.	0.	0.	948.	1.000	1.000	608.	40961.	1.
341.	752.	0.	0.	1092.	1.000	1.000	752.	40543.	2.
341.	752.	0.	0.	1092.	1.000	1.000	752.	40543.	2.
341.	896.	0.	0.	1236.	1.000	1.000	896.	40834.	2.
341.	896.	0.	0.	1236.	1.000	1.000	896.	40834.	2.
341.	1040.	0.	0.	1380.	1.000	1.000	1040.	40636.	3.
341.	1040.	0.	0.	1380.	1.000	1.000	1040.	40636.	3.
341.	1184.	0.	0.	1524.	1.000	1.000	1184.	41054.	3.
341.	1184.	0.	0.	1524.	1.000	1.000	1184.	41054.	3.
341.	1327.	0.	0.	1668.	1.000	1.000	1327.	40104.	3.
341.	1327.	0.	0.	1668.	1.000	1.000	1327.	40104.	3.
341.	1471.	0.	0.	1812.	1.000	1.000	1471.	40298.	4.
341.	1471.	0.	0.	1812.	1.000	1.000	1471.	40298.	4.
341.	1615.	0.	0.	1956.	1.000	1.000	1615.	40356.	4.
341.	1615.	0.	0.	1956.	1.000	1.000	1615.	40356.	4.
2.	494.	0.	0.	496.	1.767	1.473	494.	40806.	1.

STRESS REPORT, Stresses on Elements
CASE 5 (EXP) D5(EXP)=D1-D4

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in CODE STRESS	ALLOWAB STRE
1235	2.	280.	0.	0.	281.	1.000	1.000	280.	40949
1240	2.	6223.	0.	0.	6225.	1.000	1.000	6223.	40342
1240	5136.	6223.	0.	0.	11360.	1.000	1.000	6223.	40342
1245	5136.	2267.	0.	0.	7404.	1.000	1.000	2267.	39029
1245	5136.	2267.	0.	0.	7404.	1.000	1.000	2267.	39029
1250	5136.	1688.	0.	0.	6825.	1.000	1.000	1688.	37965
1250	5136.	1688.	0.	0.	6825.	1.000	1.000	1688.	37965
1255	5136.	575.	0.	0.	5712.	1.000	1.000	575.	40188
1255	5136.	575.	0.	0.	5712.	1.000	1.000	575.	40188
1260	5136.	537.	0.	0.	5674.	1.000	1.000	537.	38024
1260	5136.	537.	0.	0.	5674.	1.000	1.000	537.	38024
1265	5136.	37.	0.	0.	5173.	1.000	1.000	37.	39088
1265	5136.	37.	0.	0.	5173.	1.000	1.000	37.	39088
1270	5136.	464.	0.	0.	5600.	1.000	1.000	464.	40165
1270	7.	464.	0.	0.	471.	1.000	1.000	464.	40165
1275	21.	801.	3.	0.	821.	1.767	1.473	801.	41185
1275	21.	453.	-3.	0.	474.	1.000	1.000	453.	41206
1280	21.	171.	3.	0.	192.	1.000	1.000	172.	41033
1280	5282.	171.	-3.	0.	5453.	1.000	1.000	172.	41033
1285	5282.	93.	3.	0.	5375.	1.000	1.000	94.	39838
1290	5282.	90.	-3.	0.	5372.	1.000	1.000	90.	39813
1295	5282.	32.	3.	0.	5314.	1.000	1.000	32.	40015
1300	5282.	28.	-3.	0.	5310.	1.000	1.000	29.	40062
1305	5282.	50.	3.	0.	5332.	1.000	1.000	50.	40268
1305	5136.	50.	-3.	0.	5186.	1.000	1.000	50.	40268
1310	5136.	23.	3.	0.	5159.	1.000	1.000	24.	40524
1310	5136.	23.	-3.	0.	5159.	1.000	1.000	24.	40524
1315	5136.	5.	3.	0.	5142.	1.000	1.000	8.	39396
1315	5136.	5.	-3.	0.	5142.	1.000	1.000	8.	39396
1320	5136.	8.	3.	0.	5144.	1.000	1.000	10.	39587
1320	5136.	8.	-3.	0.	5144.	1.000	1.000	10.	39587
1325	5136.	13.	3.	0.	5150.	1.000	1.000	15.	39437

Stresses(lb./sq.in.)					STRESS		Stress(lb./sq.in.)		
AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	INTENSIFICATION IN-PLANE	OUT-PLANE	CODE STRESS	ALLOWABLE STRESS	%
5136.	13.	-3.	0.	5150.	1.000	1.000	15.	39437.	0.
5136.	40.	3.	0.	5177.	1.000	1.000	41.	40342.	0.
5136.	40.	-3.	0.	5177.	1.000	1.000	41.	40342.	0.
5136.	94.	3.	0.	5230.	1.000	1.000	94.	40032.	0.
3.	94.	-3.	0.	97.	1.000	1.000	94.	40032.	0.
4.	621.	22.	0.	627.	1.767	1.473	623.	41095.	2.
4.	352.	-22.	0.	358.	1.000	1.000	354.	41156.	1.
4.	119.	22.	0.	130.	1.000	1.000	127.	39432.	0.
4.	119.	-22.	0.	130.	1.000	1.000	127.	39432.	0.
4.	238.	22.	0.	246.	1.000	1.000	242.	40227.	1.
4.	238.	-22.	0.	246.	1.000	1.000	242.	40227.	1.
4.	541.	22.	0.	546.	1.000	1.000	543.	39638.	1.
4.	541.	-22.	0.	546.	1.000	1.000	543.	39638.	1.
3.	916.	185.	0.	991.	1.767	1.473	988.	40733.	2.
3.	518.	-185.	0.	639.	1.000	1.000	637.	40909.	2.
3.	826.	185.	0.	908.	1.000	1.000	905.	41157.	2.
3.	826.	-185.	0.	908.	1.000	1.000	905.	41157.	2.
3.	1529.	185.	0.	1576.	1.000	1.000	1573.	39323.	4.
3.	1529.	-185.	0.	1576.	1.000	1.000	1573.	39323.	4.
72.	610.	-37.	0.	686.	1.767	1.473	615.	40839.	2.
72.	407.	37.	0.	484.	1.000	1.000	414.	41012.	1.
72.	596.	-37.	0.	672.	1.000	1.000	601.	41058.	1.
72.	596.	37.	0.	672.	1.000	1.000	601.	41058.	1.
3.	219.	435.	0.	899.	1.767	1.473	898.	40798.	2.
3.	135.	-435.	0.	882.	1.000	1.000	881.	40994.	2.
3.	256.	435.	0.	908.	1.000	1.000	908.	40928.	2.
3.	344.	-435.	0.	937.	1.000	1.000	936.	40892.	2.
3.	1035.	435.	0.	1355.	1.222	1.296	1352.	40602.	3.
3.	3607.	-422.	0.	3708.	1.222	1.296	3705.	39753.	9.
3.	1264.	422.	0.	1523.	1.222	1.296	1520.	40483.	4.
0.	0.	0.	0.	0.	1.222	1.296	0.	38955.	0.
0.	0.	0.	0.	0.	1.000	1.000	0.	39286.	0.

STRESS REPORT, Stresses on Elements
CASE 5 (EXP) D5(EXP)=D1-D4

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in. CODE STRESS	ALLOWABL STRES
1403	0.	0.	0.	0.	0.	1.000	1.000	0.	40693.
1404	0.	0.	0.	0.	0.	1.000	1.000	0.	41152.
1401	3.	1264.	-422.	0.	1523.	1.222	1.296	1520.	40483.
1406	3.	326.	422.	0.	907.	1.000	1.000	906.	40184.
1409	3.	1674.	-422.	0.	1878.	1.000	1.000	1876.	40442.
1410	-59.	5014.	97.	0.	5077.	1.767	1.473	5018.	40909.
1410	-59.	2876.	-97.	0.	2942.	1.000	1.000	2883.	41064.
1420	-59.	3028.	97.	0.	3093.	1.000	1.000	3034.	41112.
1400	0.	2468.	-28.	0.	2469.	1.222	1.296	2468.	39545.
1425	0.	1710.	28.	0.	1711.	1.000	1.000	1711.	39256.
1425	0.	1710.	-28.	0.	1711.	1.000	1.000	1711.	39256.
1430	-13.	111.	8.	0.	125.	1.767	1.473	112.	40619.
1430	-13.	68.	-8.	0.	82.	1.000	1.000	70.	40830.
1435	2.	77.	24.	0.	91.	1.767	1.473	90.	40644.
1435	2.	44.	-24.	0.	66.	1.000	1.000	65.	40908.
1440	2.	552.	24.	0.	555.	1.000	1.000	554.	40646.
1440	2.	552.	-24.	0.	555.	1.000	1.000	554.	40646.
1445	2.	1135.	24.	0.	1137.	1.000	1.000	1136.	38832.
1445	2.	1135.	-24.	0.	1137.	1.000	1.000	1136.	38832.
1450	2.	474.	24.	0.	477.	1.000	1.000	476.	40759.
1450	2.	474.	-24.	0.	477.	1.000	1.000	476.	40759.
1455	2.	216.	24.	0.	223.	1.000	1.000	221.	39797.
1455	2.	216.	-24.	0.	223.	1.000	1.000	221.	39797.
1460	2.	474.	24.	0.	477.	1.222	1.296	476.	40118.
1460	2.	504.	129.	0.	567.	1.222	1.296	566.	40160.
1465	2.	157.	-129.	0.	302.	1.000	1.000	301.	39550.
1465	2.	157.	129.	0.	302.	1.000	1.000	301.	39550.
1470	2.	484.	-129.	0.	549.	1.000	1.000	548.	40604.
1470	2.	484.	129.	0.	549.	1.000	1.000	548.	40604.
1480	2.	982.	-129.	0.	1017.	1.000	1.000	1015.	39391.
1480	2.	982.	129.	0.	1017.	1.000	1.000	1015.	39391.
1485	14.	661.	-25.	0.	678.	1.767	1.473	663.	41050.

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STRESS REPORT, Stresses on Elements
CASE 5 (EXP) D5(EXP)=01-D4

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
1485	14.	387.	25.	0.	404.	1.000	1.000	390.	41128.	1.
1490	0.	336.	-138.	0.	434.	1.767	1.473	434.	41015.	1.
1490	0.	220.	138.	0.	353.	1.000	1.000	353.	41118.	1.
1495	0.	1424.	-138.	0.	1451.	1.000	1.000	1450.	40784.	4.
1495	0.	1424.	138.	0.	1451.	1.000	1.000	1450.	40784.	4.
1500	0.	2980.	-138.	0.	2992.	1.000	1.000	2992.	39930.	7.
1500	0.	2980.	138.	0.	2992.	1.000	1.000	2992.	39930.	7.
1505	2.	205.	488.	0.	998.	1.767	1.473	997.	40671.	2.
1505	2.	129.	-488.	0.	985.	1.000	1.000	984.	40864.	2.
1510	2.	2241.	488.	0.	2446.	1.222	1.296	2444.	39572.	6.
1510	-6.	1994.	473.	0.	2213.	1.222	1.296	2208.	40480.	5.
1515	-6.	460.	-473.	0.	1055.	1.000	1.000	1052.	40374.	3.
1518	-6.	4233.	473.	0.	4343.	1.000	1.000	4338.	40609.	11.
1520	-116.	10664.	-1304.	0.	11091.	1.767	1.473	10979.	40489.	27.
1520	-116.	6043.	1304.	0.	6689.	1.000	1.000	6582.	40841.	16.
1525	-116.	6022.	-1304.	0.	6669.	1.000	1.000	6563.	40854.	16.
1460	0.	394.	13.	0.	395.	1.222	1.296	395.	41179.	1.
1530	0.	225.	-13.	0.	226.	1.000	1.000	226.	41135.	1.
1535	0.	172.	13.	0.	174.	1.000	1.000	174.	41111.	0.
1540	20.	304.	0.	0.	325.	1.767	1.473	304.	40983.	1.
1540	20.	173.	0.	0.	193.	1.000	1.000	173.	41100.	0.
1545	20.	173.	0.	0.	193.	1.000	1.000	173.	41140.	0.
1545	20.	173.	0.	0.	193.	1.000	1.000	173.	41140.	0.
1550	0.	512.	-13.	0.	513.	1.767	1.473	513.	40646.	1.
1550	0.	290.	13.	0.	291.	1.000	1.000	291.	40910.	1.
1555	0.	488.	-13.	0.	488.	1.000	1.000	488.	40057.	1.
1555	0.	488.	13.	0.	488.	1.000	1.000	488.	40057.	1.
1556	0.	178.	-13.	0.	180.	1.000	1.000	180.	41166.	0.
1556	0.	178.	13.	0.	180.	1.000	1.000	180.	41166.	0.
1557	0.	131.	-13.	0.	133.	1.000	1.000	133.	40458.	0.
1557	0.	131.	13.	0.	133.	1.000	1.000	133.	40458.	0.
1560	0.	81.	-13.	0.	85.	1.000	1.000	85.	40698.	0.

STRESS REPORT, Stresses on Elements
CASE 5 (EXP) D5(EXP)=01-04

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in CODE STRESS	ALLOWAB STRE
1565	0.	79.	13.	0.	83.	1.000	1.000	83.	40669
1570	0.	18.	-13.	0.	31.	1.000	1.000	31.	40723
1575	0.	16.	13.	0.	29.	1.000	1.000	29.	40756
1580	0.	34.	-13.	0.	42.	1.000	1.000	42.	40315
1580	0.	34.	13.	0.	42.	1.000	1.000	42.	40315
1585	0.	13.	-13.	0.	28.	1.000	1.000	28.	41023
1585	0.	13.	13.	0.	28.	1.000	1.000	28.	41023.
1590	0.	8.	-13.	0.	26.	1.000	1.000	26.	40486.
1590	0.	8.	13.	0.	26.	1.000	1.000	26.	40486.
1595	0.	5.	-13.	0.	25.	1.000	1.000	25.	40714.
1595	0.	5.	13.	0.	25.	1.000	1.000	25.	40714.
1600	0.	1.	-13.	0.	25.	1.000	1.000	25.	40933.
1600	0.	1.	13.	0.	25.	1.000	1.000	25.	40933.
1605	0.	35.	-1.	0.	35.	1.767	1.473	35.	41206.
1605	0.	24.	1.	0.	24.	1.000	1.000	24.	41221.
1610	0.	2.	-1.	0.	3.	1.000	1.000	3.	39930.
1610	0.	2.	1.	0.	3.	1.000	1.000	3.	39930.
1615	0.	3.	0.	0.	3.	1.767	1.473	3.	41229.
1615	0.	2.	0.	0.	2.	1.000	1.000	2.	41237.
1620	0.	0.	0.	0.	0.	1.000	1.000	0.	40739.
1620	0.	0.	0.	0.	0.	1.000	1.000	0.	40739.
1625	0.	2.	0.	0.	2.	1.000	1.000	2.	40224.
1625	0.	2.	0.	0.	2.	1.000	1.000	2.	40224.
1630	0.	1.	0.	0.	1.	1.000	1.000	1.	41014.
1630	0.	1.	0.	0.	1.	1.000	1.000	1.	41014.
1635	0.	0.	0.	0.	1.	1.000	1.000	1.	40595.
1635	0.	0.	0.	0.	1.	1.000	1.000	1.	40595.
1640	0.	0.	0.	0.	0.	1.000	1.000	0.	40834.
1640	0.	0.	0.	0.	0.	1.000	1.000	0.	40834.
1645	0.	0.	0.	0.	0.	1.000	1.000	0.	40586.
1645	0.	0.	0.	0.	0.	1.000	1.000	0.	40586.
1650	0.	0.	0.	0.	0.	1.000	1.000	0.	41005.

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REPORT, Stresses on Elements
(EXP) D5(EXP)=D1-D4

Stresses(lb./sq.in.)					STRESS		Stress(lb./sq.in.)		
AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	INTENSIFICATION IN-PLANE	OUT-PLANE	CODE STRESS	ALLOWABLE STRESS	%
0.	0.	0.	0.	0.	1.000	1.000	0.	41005.	0.
0.	0.	0.	0.	0.	1.000	1.000	0.	40252.	0.
0.	0.	0.	0.	0.	1.000	1.000	0.	40252.	0.
0.	0.	0.	0.	0.	1.000	1.000	0.	40753.	0.
0.	0.	0.	0.	0.	1.000	1.000	0.	40718.	0.
0.	0.	0.	0.	0.	1.000	1.000	0.	40582.	0.
0.	0.	0.	0.	0.	1.000	1.000	0.	40609.	0.
0.	0.	0.	0.	0.	1.000	1.000	0.	40613.	0.
0.	0.	0.	0.	0.	1.000	1.000	0.	40613.	0.
0.	0.	0.	0.	0.	1.767	1.473	0.	41141.	0.
0.	0.	0.	0.	0.	1.000	1.000	0.	41177.	0.
0.	0.	0.	0.	0.	1.000	1.000	0.	40705.	0.
0.	0.	0.	0.	0.	1.000	1.000	0.	40705.	0.
0.	0.	0.	0.	0.	1.000	1.000	0.	40690.	0.
0.	0.	0.	0.	0.	1.000	1.000	0.	40690.	0.
0.	0.	0.	0.	0.	1.000	1.000	0.	40762.	0.
0.	0.	0.	0.	0.	1.000	1.000	0.	40762.	0.
0.	0.	0.	0.	0.	1.767	1.473	0.	41243.	0.
0.	0.	0.	0.	0.	1.000	1.000	0.	41243.	0.
0.	0.	0.	0.	0.	1.000	1.000	0.	41252.	0.
-58.	3739.	92.	0.	3802.	1.222	1.296	3744.	39831.	9.
-58.	2719.	-92.	0.	2782.	1.000	1.000	2725.	40180.	7.
-58.	2623.	92.	0.	2687.	1.000	1.000	2629.	40204.	7.
-58.	958.	-92.	0.	1032.	1.000	1.000	975.	40988.	2.
-58.	913.	92.	0.	987.	1.000	1.000	931.	40989.	2.
-58.	850.	-92.	0.	926.	1.000	1.000	870.	40922.	2.
-58.	850.	92.	0.	926.	1.000	1.000	870.	40922.	2.
-58.	1838.	-92.	0.	1905.	1.000	1.000	1848.	39260.	5.
-58.	1838.	92.	0.	1905.	1.000	1.000	1848.	39260.	5.
-58.	549.	-92.	0.	634.	1.000	1.000	579.	40765.	1.
-58.	549.	92.	0.	634.	1.000	1.000	579.	40765.	1.
-53.	1208.	-48.	0.	1264.	1.767	1.473	1212.	39754.	3.

STRESS REPORT, Stresses on Elements
CASE 5 (EXP) D5(EXP)=01-D4

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in CODE STRESS	ALLOWAE STRE
1755	-53.	690.	48.	0.	748.	1.000	1.000	696.	40381
1760	-58.	1021.	-99.	0.	1097.	1.767	1.473	1040.	39873
1760	-58.	579.	99.	0.	667.	1.000	1.000	612.	40469
1765	-58.	426.	-99.	0.	523.	1.000	1.000	470.	39830
1765	5136.	426.	99.	0.	5566.	1.000	1.000	470.	39810
1770	5136.	206.	-99.	0.	5346.	1.000	1.000	286.	40986
1770	5136.	206.	99.	0.	5346.	1.000	1.000	286.	40986
1775	5136.	105.	-99.	0.	5245.	1.000	1.000	225.	39008
1775	5136.	105.	99.	0.	5245.	1.000	1.000	225.	39008
1780	5136.	28.	-99.	0.	5169.	1.000	1.000	201.	39285
1780	5136.	28.	99.	0.	5169.	1.000	1.000	201.	39285
1785	5136.	102.	-99.	0.	5242.	1.000	1.000	223.	38786
1785	5136.	102.	99.	0.	5242.	1.000	1.000	223.	38786
1790	5136.	207.	-99.	0.	5347.	1.000	1.000	287.	40656
1790	5136.	207.	99.	0.	5347.	1.000	1.000	287.	40656
1795	5136.	511.	-99.	0.	5651.	1.000	1.000	548.	41144
1795	189.	511.	99.	0.	728.	1.000	1.000	548.	41144
1800	189.	593.	-99.	0.	807.	1.000	1.000	625.	40328
1800	189.	593.	99.	0.	807.	1.000	1.000	625.	40328
1805	14.	1089.	-1.	0.	1103.	1.767	1.473	1089.	40870
1805	14.	626.	1.	0.	640.	1.000	1.000	626.	40992
1810	14.	1259.	-1.	0.	1273.	1.000	1.000	1259.	40688
1810	5136.	1259.	1.	0.	6395.	1.000	1.000	1259.	40688
1815	5136.	473.	-1.	0.	5609.	1.000	1.000	473.	39158
1815	5136.	473.	1.	0.	5609.	1.000	1.000	473.	39158
1820	5136.	314.	-1.	0.	5450.	1.000	1.000	314.	37362
1820	5136.	314.	1.	0.	5450.	1.000	1.000	314.	37362
1825	5136.	158.	-1.	0.	5294.	1.000	1.000	158.	39454
1825	5136.	158.	1.	0.	5294.	1.000	1.000	158.	39454
1830	5136.	6.	-1.	0.	5143.	1.000	1.000	6.	40095
1830	76.	6.	1.	0.	82.	1.000	1.000	6.	40095
1835	35.	660.	11.	0.	695.	1.767	1.473	660.	41180

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To: FLUOR DANIEL ID 13692
PORT, Stresses on Elements
(P) D5(EXP)=01-04

Stresses(lb./sq.in.)					STRESS		Stress(lb./sq.in.)		
AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	INTENSIFICATION IN-PLANE	OUT-PLANE	CODE STRESS	ALLOWABLE STRESS	%
35.	373.	-11.	0.	409.	1.000	1.000	374.	41203.	1.
35.	949.	11.	0.	984.	1.000	1.000	949.	40518.	2.
629.	949.	-11.	0.	1578.	1.000	1.000	949.	40518.	2.
629.	765.	11.	0.	1394.	1.000	1.000	765.	39975.	2.
629.	765.	-11.	0.	1394.	1.000	1.000	765.	39975.	2.
629.	581.	11.	0.	1210.	1.000	1.000	582.	39420.	1.
629.	581.	-11.	0.	1210.	1.000	1.000	582.	39420.	1.
629.	398.	11.	0.	1027.	1.000	1.000	398.	40694.	1.
629.	398.	-11.	0.	1027.	1.000	1.000	398.	40694.	1.
629.	215.	11.	0.	844.	1.000	1.000	216.	40550.	1.
629.	215.	-11.	0.	844.	1.000	1.000	216.	40550.	1.
629.	158.	11.	0.	788.	1.000	1.000	160.	41239.	0.
629.	155.	-11.	0.	784.	1.000	1.000	157.	41244.	0.
629.	128.	11.	0.	757.	1.222	1.296	129.	41213.	0.
629.	115.	6.	0.	744.	1.222	1.296	115.	40808.	0.
629.	22.	-6.	0.	651.	1.000	1.000	25.	40557.	0.
629.	19.	6.	0.	648.	1.000	1.000	22.	40479.	0.
629.	42.	-6.	0.	670.	1.000	1.000	43.	38883.	0.
629.	42.	6.	0.	670.	1.000	1.000	43.	38883.	0.
629.	322.	-6.	0.	951.	1.000	1.000	323.	39604.	1.
629.	322.	6.	0.	951.	1.000	1.000	323.	39604.	1.
629.	605.	-6.	0.	1234.	1.000	1.000	605.	38275.	2.
629.	605.	6.	0.	1234.	1.000	1.000	605.	38275.	2.
629.	887.	-6.	0.	1516.	1.000	1.000	887.	39923.	2.
629.	887.	6.	0.	1516.	1.000	1.000	887.	39923.	2.
629.	1170.	-6.	0.	1798.	1.000	1.000	1170.	38244.	3.
629.	1170.	6.	0.	1798.	1.000	1.000	1170.	38244.	3.
629.	1452.	-6.	0.	2081.	1.000	1.000	1452.	39573.	4.
629.	1452.	6.	0.	2081.	1.000	1.000	1452.	39573.	4.
629.	1734.	-6.	0.	2363.	1.000	1.000	1734.	38974.	4.
629.	1734.	6.	0.	2363.	1.000	1.000	1734.	38974.	4.
446.	1377.	-7.	0.	1823.	1.767	1.473	1377.	41032.	3.

STRESS REPORT, Stresses on Elements
CASE 5 (EXP) D5(EXP)=D1-D4

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in. CODE STRESS	ALLOWABL STRES
1935	446.	779.	7.	0.	1225.	1.000	1.000	779.	41103.
1945	2.	9152.	-5.	0.	9153.	1.767	1.473	9152.	40807.
1945	2.	5178.	5.	0.	5180.	1.000	1.000	5178.	40950.
1950	2.	13416.	-5.	0.	13418.	1.000	1.000	13417.	40694.
1950	5136.	13416.	5.	0.	18553.	1.000	1.000	13417.	40694.
1955	5136.	5755.	-5.	0.	10892.	1.000	1.000	5755.	40934.
1955	5136.	5755.	5.	0.	10892.	1.000	1.000	5755.	40934.
1960	5136.	1906.	-5.	0.	7043.	1.000	1.000	1906.	39948.
1960	5136.	1906.	5.	0.	7043.	1.000	1.000	1906.	39948.
1965	5136.	953.	-5.	0.	6090.	1.000	1.000	953.	40467.
1965	5136.	953.	5.	0.	6090.	1.000	1.000	953.	40467.
1970	5136.	65.	-5.	0.	5201.	1.000	1.000	66.	35483.
1970	0.	65.	5.	0.	66.	1.000	1.000	66.	35483.
1975	1.	21.	0.	0.	22.	1.767	1.473	21.	40126.
1975	1.	14.	0.	0.	14.	1.000	1.000	14.	40570.
1980	1.	14.	0.	0.	14.	1.000	1.000	14.	40596.
1980	1.	14.	0.	0.	14.	1.000	1.000	14.	40596.
1985	0.	11.	-4.	0.	14.	1.767	1.473	14.	40744.
1985	0.	6.	4.	0.	10.	1.000	1.000	10.	40965.
1990	0.	99.	-4.	0.	99.	1.000	1.000	99.	37682.
1990	0.	99.	4.	0.	99.	1.000	1.000	99.	37682.
1995	0.	8.	-4.	0.	11.	1.000	1.000	11.	40907.
1995	0.	8.	4.	0.	11.	1.000	1.000	11.	40907.
2000	0.	82.	-4.	0.	83.	1.000	1.000	83.	41020.
2000	0.	82.	4.	0.	83.	1.000	1.000	83.	41020.
2005	0.	42.	-4.	0.	43.	1.000	1.000	43.	40439.
2010	0.	41.	4.	0.	41.	1.000	1.000	41.	40420.
2015	0.	44.	-4.	0.	44.	1.296	1.296	44.	40144.
2015	0.	44.	4.	0.	44.	1.296	1.296	44.	40144.
2020	0.	27.	-4.	0.	28.	1.000	1.000	28.	40396.
2025	0.	25.	4.	0.	26.	1.000	1.000	26.	40409.
2030	1.	29.	0.	0.	30.	1.767	1.473	29.	40461.

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Licensed To: FLUOR DANIEL ID 13692
STRESS REPORT, Stresses on Elements
CASE 5 (EXP) D5(EXP)=D1-D4

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
2030	1.	17.	0.	0.	18.	1.000	1.000	17.	40726.	0.
2035	0.	23.	8.	0.	28.	1.767	1.473	28.	40730.	0.
2035	0.	13.	-8.	0.	20.	1.000	1.000	20.	40957.	0.
2040	0.	29.	8.	0.	33.	1.000	1.000	33.	40702.	0.
2040	0.	29.	-8.	0.	33.	1.000	1.000	33.	40702.	0.
2045	0.	17.	8.	0.	23.	1.000	1.000	23.	40746.	0.
2045	0.	17.	-8.	0.	23.	1.000	1.000	23.	40746.	0.
2050	0.	6.	8.	0.	16.	1.000	1.000	16.	40013.	0.
2050	0.	6.	-8.	0.	16.	1.000	1.000	16.	40013.	0.
2055	0.	21.	0.	0.	21.	1.767	1.473	21.	41190.	0.
2055	0.	14.	0.	0.	14.	1.000	1.000	14.	41210.	0.
2060	0.	0.	0.	0.	0.	1.000	1.000	0.	40804.	0.
2060	0.	0.	0.	0.	0.	1.000	1.000	0.	40804.	0.
2065	0.	0.	0.	0.	0.	1.767	1.473	0.	41252.	0.
2065	0.	0.	0.	0.	0.	1.000	1.000	0.	41252.	0.
2070	0.	0.	0.	0.	0.	1.000	1.000	0.	41252.	0.
1875	0.	43.	-10.	0.	48.	1.222	1.296	48.	41232.	0.
2080	0.	21.	10.	0.	29.	1.000	1.000	29.	41139.	0.
2085	0.	18.	-10.	0.	27.	1.000	1.000	27.	41128.	0.
2090	2.	43.	0.	0.	45.	1.767	1.473	43.	40706.	0.
2090	2.	27.	0.	0.	29.	1.000	1.000	27.	40886.	0.
2095	0.	20.	9.	0.	26.	1.767	1.473	26.	40891.	0.
2095	0.	11.	-9.	0.	21.	1.000	1.000	21.	41048.	0.
2100	0.	55.	9.	0.	58.	1.000	1.000	58.	39928.	0.
2100	0.	55.	-9.	0.	58.	1.000	1.000	58.	39928.	0.
2105	0.	16.	9.	0.	24.	1.000	1.000	24.	41119.	0.
2105	0.	16.	-9.	0.	24.	1.000	1.000	24.	41119.	0.
2110	0.	23.	9.	0.	29.	1.000	1.000	29.	40682.	0.
2110	0.	23.	-9.	0.	29.	1.000	1.000	29.	40682.	0.
2115	0.	7.	9.	0.	19.	1.000	1.000	19.	40816.	0.
2115	0.	7.	-9.	0.	19.	1.000	1.000	19.	40816.	0.
2120	0.	37.	9.	0.	40.	1.000	1.000	40.	40534.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in. CODE STRESS	ALLOWABL STRES
2120	0.	37.	-9.	0.	40.	1.000	1.000	40.	40534.
2125	0.	41.	9.	0.	45.	1.000	1.000	45.	40963.
2125	0.	41.	-9.	0.	45.	1.000	1.000	45.	40963.
2130	0.	119.	9.	0.	121.	1.000	1.000	121.	39934.
2130	0.	119.	-9.	0.	121.	1.000	1.000	121.	39934.
2135	1.	70.	0.	0.	71.	1.767	1.473	70.	40254.
2135	1.	41.	0.	0.	42.	1.000	1.000	41.	40679.
2140	0.	51.	9.	0.	54.	1.767	1.473	54.	40413.
2140	0.	29.	-9.	0.	34.	1.000	1.000	34.	40777.
2145	0.	14.	2.	0.	15.	1.767	1.473	15.	40988.
2145	0.	9.	-2.	0.	10.	1.000	1.000	10.	41072.
2150	0.	24.	2.	0.	24.	1.000	1.000	24.	40330.
2150	0.	24.	-2.	0.	24.	1.000	1.000	24.	40330.
2155	0.	12.	2.	0.	12.	1.000	1.000	12.	41166.
2155	0.	12.	-2.	0.	12.	1.000	1.000	12.	41166.
2160	0.	6.	2.	0.	8.	1.000	1.000	8.	41014.
2160	0.	6.	-2.	0.	8.	1.000	1.000	8.	41014.
2165	0.	3.	2.	0.	5.	1.000	1.000	5.	41010.
2165	0.	3.	-2.	0.	5.	1.000	1.000	5.	41010.
2170	0.	2.	2.	0.	5.	1.000	1.000	5.	40832.
2170	0.	2.	-2.	0.	5.	1.000	1.000	5.	40832.
2175	0.	1.	2.	0.	5.	1.000	1.000	5.	41097.
2175	0.	1.	-2.	0.	5.	1.000	1.000	5.	41097.
2180	0.	0.	2.	0.	4.	1.000	1.000	4.	40880.
2180	0.	0.	-2.	0.	4.	1.000	1.000	4.	40880.
2185	0.	0.	2.	0.	4.	1.000	1.000	4.	41074.
2185	0.	0.	-2.	0.	4.	1.000	1.000	4.	41074.
2190	0.	0.	2.	0.	4.	1.000	1.000	4.	40868.
2190	0.	0.	-2.	0.	4.	1.000	1.000	4.	40868.
2195	0.	0.	2.	0.	4.	1.000	1.000	4.	41080.
2195	0.	0.	-2.	0.	4.	1.000	1.000	4.	41080.
2200	0.	0.	2.	0.	4.	1.000	1.000	4.	40871.

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d To: FLUOR DANIEL ID 13692
REPORT, Stresses on Elements
(EXP) D5(EXP)=D1-D4

Stresses(lb./sq.in.)				STRESS			Stress(lb./sq.in.)		
AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	INTENSIFICATION IN-PLANE	INTENSIFICATION OUT-PLANE	CODE STRESS	ALLOWABLE STRESS	%
0.	0.	-2.	0.	4.	1.000	1.000	4.	40871.	0.
0.	0.	2.	0.	4.	1.000	1.000	4.	41079.	0.
0.	0.	-2.	0.	4.	1.000	1.000	4.	41079.	0.
0.	0.	2.	0.	4.	1.000	1.000	4.	40870.	0.
0.	0.	-2.	0.	4.	1.000	1.000	4.	40870.	0.
0.	0.	2.	0.	4.	1.000	1.000	4.	41079.	0.
0.	0.	-2.	0.	4.	1.000	1.000	4.	41079.	0.
0.	0.	2.	0.	4.	1.000	1.000	4.	40870.	0.
0.	0.	-2.	0.	4.	1.000	1.000	4.	40870.	0.
0.	0.	2.	0.	4.	1.000	1.000	4.	41079.	0.
0.	0.	-2.	0.	4.	1.000	1.000	4.	41079.	0.
0.	0.	2.	0.	4.	1.000	1.000	4.	40870.	0.
0.	0.	-2.	0.	4.	1.000	1.000	4.	40870.	0.
0.	0.	2.	0.	4.	1.000	1.000	4.	41079.	0.
0.	0.	-2.	0.	4.	1.000	1.000	4.	41079.	0.
0.	0.	2.	0.	4.	1.000	1.000	4.	40870.	0.
0.	0.	-2.	0.	4.	1.000	1.000	4.	40870.	0.
0.	0.	2.	0.	4.	1.000	1.000	4.	41079.	0.
0.	0.	-2.	0.	4.	1.000	1.000	4.	41079.	0.
0.	0.	2.	0.	4.	1.000	1.000	4.	40870.	0.
0.	0.	-2.	0.	4.	1.000	1.000	4.	40870.	0.
0.	0.	2.	0.	4.	1.000	1.000	4.	41079.	0.
0.	0.	-2.	0.	4.	1.000	1.000	4.	41079.	0.
0.	0.	2.	0.	4.	1.000	1.000	4.	40870.	0.
0.	0.	-2.	0.	4.	1.000	1.000	4.	40870.	0.
0.	0.	2.	0.	4.	1.000	1.000	4.	41079.	0.
0.	0.	-2.	0.	4.	1.000	1.000	4.	41079.	0.
0.	0.	2.	0.	4.	1.000	1.000	4.	40870.	0.
0.	0.	-2.	0.	4.	1.000	1.000	4.	40870.	0.
0.	0.	2.	0.	4.	1.000	1.000	4.	41079.	0.
0.	0.	-2.	0.	4.	1.000	1.000	4.	41079.	0.
0.	0.	2.	0.	4.	1.000	1.000	4.	40870.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in CODE STRESS	ALLOWAB STRE
2280	0.	0.	-2.	0.	4.	1.000	1.000	4.	40870
2285	0.	0.	2.	0.	4.	1.000	1.000	4.	41079
2285	0.	0.	-2.	0.	4.	1.000	1.000	4.	41079
2290	0.	0.	2.	0.	4.	1.000	1.000	4.	40870
2290	0.	0.	-2.	0.	4.	1.000	1.000	4.	40870
2295	0.	0.	2.	0.	4.	1.000	1.000	4.	41079
2295	0.	0.	-2.	0.	4.	1.000	1.000	4.	41079
2300	0.	0.	2.	0.	4.	1.000	1.000	4.	40870
2300	0.	0.	-2.	0.	4.	1.000	1.000	4.	40870
2305	0.	0.	2.	0.	4.	1.000	1.000	4.	41079
2305	0.	0.	-2.	0.	4.	1.000	1.000	4.	41079
2310	0.	0.	2.	0.	4.	1.000	1.000	4.	40870
2310	0.	0.	-2.	0.	4.	1.000	1.000	4.	40870
2315	0.	0.	2.	0.	4.	1.000	1.000	4.	41079
2315	0.	0.	-2.	0.	4.	1.000	1.000	4.	41079
2320	0.	0.	2.	0.	4.	1.000	1.000	4.	40870
2320	0.	0.	-2.	0.	4.	1.000	1.000	4.	40870
2325	0.	0.	2.	0.	4.	1.000	1.000	4.	41079
2325	0.	0.	-2.	0.	4.	1.000	1.000	4.	41079
2330	0.	0.	2.	0.	4.	1.000	1.000	4.	40870
2330	0.	0.	-2.	0.	4.	1.000	1.000	4.	40870
2335	0.	0.	2.	0.	4.	1.000	1.000	4.	41079
2335	0.	0.	-2.	0.	4.	1.000	1.000	4.	41079
2340	0.	0.	2.	0.	4.	1.000	1.000	4.	40870
2340	0.	0.	-2.	0.	4.	1.000	1.000	4.	40870
2345	0.	0.	2.	0.	4.	1.000	1.000	4.	41079
2345	0.	0.	-2.	0.	4.	1.000	1.000	4.	41079
2350	0.	0.	2.	0.	4.	1.000	1.000	4.	40871
2350	0.	0.	-2.	0.	4.	1.000	1.000	4.	40871
2355	0.	0.	2.	0.	4.	1.000	1.000	4.	41080
2355	0.	0.	-2.	0.	4.	1.000	1.000	4.	41080
2360	0.	0.	2.	0.	4.	1.000	1.000	4.	40868

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d To: FLUOR DANIEL ID 13692
REPORT, Stresses on Elements
(EXP) D5(EXP)=D1-D4

Stresses(lb./sq.in.)					STRESS		Stress(lb./sq.in.)		
AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	INTENSIFICATION IN-PLANE	OUT-PLANE	CODE STRESS	ALLOWABLE STRESS	%
0.	0.	-2.	0.	4.	1.000	1.000	4.	40868.	0.
0.	0.	2.	0.	4.	1.000	1.000	4.	41076.	0.
0.	0.	-2.	0.	4.	1.000	1.000	4.	41076.	0.
0.	0.	2.	0.	4.	1.000	1.000	4.	40881.	0.
0.	0.	-2.	0.	4.	1.000	1.000	4.	40881.	0.
0.	0.	2.	0.	4.	1.000	1.000	4.	41089.	0.
0.	0.	-2.	0.	4.	1.000	1.000	4.	41089.	0.
0.	0.	2.	0.	4.	1.000	1.000	4.	40832.	0.
0.	0.	-2.	0.	4.	1.000	1.000	4.	40832.	0.
0.	0.	2.	0.	4.	1.000	1.000	4.	41041.	0.
0.	0.	-2.	0.	4.	1.000	1.000	4.	41041.	0.
0.	0.	2.	0.	4.	1.000	1.000	4.	41018.	0.
0.	0.	-2.	0.	4.	1.000	1.000	4.	41018.	0.
0.	0.	2.	0.	4.	1.000	1.000	4.	41221.	0.
0.	0.	-2.	0.	4.	1.000	1.000	4.	41221.	0.
0.	1.	2.	0.	5.	1.000	1.000	5.	40316.	0.
0.	1.	-2.	0.	5.	1.000	1.000	5.	40316.	0.
0.	6.	0.	0.	6.	1.767	1.473	6.	41167.	0.
0.	4.	0.	0.	4.	1.000	1.000	4.	41194.	0.
0.	3.	0.	0.	3.	1.000	1.000	3.	41166.	0.
0.	3.	0.	0.	3.	1.000	1.000	3.	41166.	0.
0.	0.	0.	0.	0.	1.000	1.000	0.	38888.	0.
0.	0.	0.	0.	0.	1.000	1.000	0.	38888.	0.
0.	0.	0.	0.	0.	1.767	1.473	0.	41226.	0.
0.	0.	0.	0.	0.	1.000	1.000	0.	41226.	0.
0.	0.	0.	0.	0.	1.000	1.000	0.	41252.	0.

STRESS SUMMARY
CASE 6 (EXP) D6(EXP)=D2-D4

**** CODE STRESS CHECK FAILED

PIPING CODE: B31.3 -1993, July 31, 1993 Addendum

HIGHEST STRESSES: (lb./sq.in.)

CODE STRESS %:	54710.	@NODE 1950	ALLOWABLE:	40694.
BENDING STRESS:	54710.	@NODE 1950		
TORSIONAL STRESS:	5179.	@NODE 1520		
AXIAL STRESS:	21539.	@NODE 1285		
3D MAX INTENSITY:	75656.	@NODE 1950		

STRESS OPTIMIZATION PARAMETERS:

CODE STRESS PERCENTAGES SHOWN BELOW REPRESENT THE NUMBER OF NODES IN THE SYSTEM THAT WERE WITHIN THE PERCENTAGE GIVEN OF THE HIGHEST CODE STRESS IN THE SYSTEM.

AVG. CODE STRESS 1617.

	/BETWEEN/	/BELOW/
CODE STRESS 90-100%	0.37	99.63
CODE STRESS 80-90 %	0.00	99.63
CODE STRESS 70-80 %	0.00	99.63
CODE STRESS 60-70 %	0.19	99.44
CODE STRESS 50-60 %	0.00	99.44
CODE STRESS 25-50 %	1.12	98.33
CODE STRESS 0-25 %	98.33	

PIPE ELEMENTS ANALYZED: 269

SAMPLED POINTS: 538

SRXXX
000344

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i To: FLUOR DANIEL ID 13692
EPORT, Stresses on Elements
EXP) D6(EXP)=D2-D4

Stresses(lb./sq.in.)					STRESS		Stress(lb./sq.in.)		
AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	INTENSIFICATION IN-PLANE	OUT-PLANE	CODE STRESS	ALLOWABLE STRESS	%
0.	0.	0.	0.	0.	1.767	1.473	0.	41252.	0.
0.	0.	0.	0.	0.	1.767	1.473	0.	41231.	0.
0.	0.	0.	0.	0.	1.000	1.000	0.	41240.	0.
0.	0.	0.	0.	0.	1.000	1.000	0.	41192.	0.
-20945.	0.	0.	0.	20945.	1.000	1.000	0.	41192.	0.
-20945.	21.	0.	0.	20967.	1.000	1.000	21.	40381.	0.
-20945.	21.	0.	0.	20967.	1.000	1.000	21.	40381.	0.
-20945.	43.	0.	0.	20988.	1.000	1.000	43.	39944.	0.
-20945.	43.	0.	0.	20988.	1.000	1.000	43.	39944.	0.
-20945.	64.	0.	0.	21010.	1.000	1.000	64.	40813.	0.
-20945.	64.	0.	0.	21010.	1.000	1.000	64.	40813.	0.
-20945.	88.	0.	0.	21034.	1.000	1.000	88.	40326.	0.
-20945.	88.	0.	0.	21034.	1.000	1.000	88.	40326.	0.
-20945.	40.	0.	0.	20985.	1.000	1.000	40.	40766.	0.
-20945.	40.	0.	0.	20985.	1.000	1.000	40.	40766.	0.
-20945.	156.	0.	0.	21102.	1.000	1.000	156.	40039.	0.
-20945.	156.	0.	0.	21102.	1.000	1.000	156.	40039.	0.
-20945.	264.	0.	0.	21210.	1.000	1.000	264.	40523.	1.
-20945.	264.	0.	0.	21210.	1.000	1.000	264.	40523.	1.
-20945.	481.	0.	0.	21427.	1.000	1.000	481.	40806.	1.
-18.	481.	0.	0.	499.	1.000	1.000	481.	40806.	1.
-114.	2354.	-194.	0.	2498.	1.767	1.473	2386.	40898.	6.
-114.	1332.	194.	0.	1497.	1.000	1.000	1387.	41019.	3.
-114.	703.	-194.	0.	905.	1.000	1.000	803.	38969.	2.
-114.	703.	194.	0.	905.	1.000	1.000	803.	38969.	2.
-18.	3566.	349.	0.	3651.	1.767	1.473	3634.	41194.	9.
-18.	2030.	-349.	0.	2164.	1.000	1.000	2147.	41214.	5.
-18.	2716.	349.	0.	2821.	1.000	1.000	2804.	39090.	7.
-208.	2716.	-349.	0.	3006.	1.000	1.000	2804.	39077.	7.
-178.	7625.	0.	0.	7803.	1.767	1.473	7625.	40795.	19.
-178.	4346.	0.	0.	4524.	1.000	1.000	4346.	40974.	11.
-208.	5364.	-44.	0.	5573.	1.767	1.473	5364.	40823.	13.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS
1075	-208.	3036.	44.	0.	3245.	1.000	1.000	3037.	40976.
1080	-208.	2181.	-44.	0.	2391.	1.000	1.000	2183.	40708.
1080	-20945.	2181.	44.	0.	23127.	1.000	1.000	2183.	40721.
1085	-20945.	870.	-44.	0.	21816.	1.000	1.000	875.	41083.
1085	-20945.	870.	44.	0.	21816.	1.000	1.000	875.	41083.
1090	-20945.	440.	-44.	0.	21386.	1.000	1.000	449.	40669.
1090	-20945.	440.	44.	0.	21386.	1.000	1.000	449.	40669.
1095	-20945.	163.	-44.	0.	21108.	1.000	1.000	185.	40712.
1095	-20945.	163.	44.	0.	21108.	1.000	1.000	185.	40712.
1100	-20945.	115.	-44.	0.	21061.	1.000	1.000	145.	40751.
1100	-20945.	115.	44.	0.	21061.	1.000	1.000	145.	40751.
1105	-20945.	47.	-44.	0.	20992.	1.000	1.000	100.	41211.
1105	-20945.	47.	44.	0.	20992.	1.000	1.000	100.	41211.
1110	-20945.	22.	-44.	0.	20968.	1.000	1.000	91.	39512.
1110	-20945.	22.	44.	0.	20968.	1.000	1.000	91.	39512.
1115	-20945.	10.	-44.	0.	20956.	1.000	1.000	88.	39875.
1115	-20945.	10.	44.	0.	20956.	1.000	1.000	88.	39875.
1120	-20945.	12.	-44.	0.	20958.	1.000	1.000	89.	38745.
1120	-20945.	12.	44.	0.	20958.	1.000	1.000	89.	38745.
1125	-20945.	17.	-44.	0.	20962.	1.000	1.000	89.	40122.
1125	-20945.	17.	44.	0.	20962.	1.000	1.000	89.	40122.
1130	-20945.	44.	-44.	0.	20990.	1.000	1.000	98.	39019.
1130	-20945.	44.	44.	0.	20990.	1.000	1.000	98.	39019.
1135	-20945.	61.	-44.	0.	21007.	1.000	1.000	107.	40150.
1135	-20945.	61.	44.	0.	21007.	1.000	1.000	107.	40150.
1140	-20945.	167.	-44.	0.	21113.	1.000	1.000	189.	38689.
1140	-20945.	167.	44.	0.	21113.	1.000	1.000	189.	38689.
1145	-20945.	229.	-44.	0.	21174.	1.000	1.000	245.	39791.
1145	-20945.	229.	44.	0.	21174.	1.000	1.000	245.	39791.
1150	-20945.	624.	-44.	0.	21570.	1.000	1.000	631.	39736.
1150	0.	624.	44.	0.	631.	1.000	1.000	631.	39736.
1155	-22.	4940.	-1.	0.	4962.	1.767	1.473	4940.	40914.

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REPORT, Stresses on Elements
(EXP) D6(EXP)=D2-D4

Stresses(lb./sq.in.)					STRESS		Stress(lb./sq.in.)		
AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	INTENSIFICATION IN-PLANE	OUT-PLANE	CODE STRESS	ALLOWABLE STRESS	%
-22.	2796.	1.	0.	2818.	1.000	1.000	2796.	41022.	7.
-22.	2805.	-1.	0.	2827.	1.000	1.000	2805.	40402.	7.
-1389.	2805.	1.	0.	4194.	1.000	1.000	2805.	40402.	7.
-1389.	1630.	-1.	0.	3019.	1.000	1.000	1630.	38822.	4.
-1389.	1630.	1.	0.	3019.	1.000	1.000	1630.	38822.	4.
-1389.	457.	-1.	0.	1846.	1.000	1.000	457.	38318.	1.
-1389.	457.	1.	0.	1846.	1.000	1.000	457.	38318.	1.
-1389.	131.	-1.	0.	1520.	1.000	1.000	131.	40800.	0.
-1389.	131.	1.	0.	1520.	1.000	1.000	131.	40800.	0.
-1389.	718.	-1.	0.	2107.	1.000	1.000	718.	41120.	2.
-1389.	718.	1.	0.	2107.	1.000	1.000	718.	41120.	2.
-1389.	1305.	-1.	0.	2694.	1.000	1.000	1305.	40672.	3.
-1389.	1305.	1.	0.	2694.	1.000	1.000	1305.	40672.	3.
-1389.	1891.	-1.	0.	3280.	1.000	1.000	1891.	40383.	5.
-1389.	1891.	1.	0.	3280.	1.000	1.000	1891.	40383.	5.
-1389.	2478.	-1.	0.	3867.	1.000	1.000	2478.	40961.	6.
-1389.	2478.	1.	0.	3867.	1.000	1.000	2478.	40961.	6.
-1389.	3065.	-1.	0.	4454.	1.000	1.000	3065.	40543.	8.
-1389.	3065.	1.	0.	4454.	1.000	1.000	3065.	40543.	8.
-1389.	3652.	-1.	0.	5041.	1.000	1.000	3652.	40834.	9.
-1389.	3652.	1.	0.	5041.	1.000	1.000	3652.	40834.	9.
-1389.	4239.	-1.	0.	5628.	1.000	1.000	4239.	40636.	10.
-1389.	4239.	1.	0.	5628.	1.000	1.000	4239.	40636.	10.
-1389.	4826.	-1.	0.	6215.	1.000	1.000	4826.	41054.	12.
-1389.	4826.	1.	0.	6215.	1.000	1.000	4826.	41054.	12.
-1389.	5413.	-1.	0.	6802.	1.000	1.000	5413.	40104.	13.
-1389.	5413.	1.	0.	6802.	1.000	1.000	5413.	40104.	13.
-1389.	6000.	-1.	0.	7389.	1.000	1.000	6000.	40298.	15.
-1389.	6000.	1.	0.	7389.	1.000	1.000	6000.	40298.	15.
-1389.	6587.	-1.	0.	7976.	1.000	1.000	6587.	40356.	16.
-1389.	6587.	1.	0.	7976.	1.000	1.000	6587.	40356.	16.
-8.	2014.	0.	0.	2022.	1.767	1.473	2014.	40806.	5.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS
1235	-8.	1140.	0.	0.	1147.	1.000	1.000	1140.	40949.
1240	-8.	25377.	0.	0.	25384.	1.000	1.000	25377.	40342.
1240	-20945.	25377.	0.	0.	46322.	1.000	1.000	25377.	40342.
1245	-20945.	9246.	0.	0.	30192.	1.000	1.000	9246.	39029.
1245	-20945.	9246.	0.	0.	30192.	1.000	1.000	9246.	39029.
1250	-20945.	6885.	0.	0.	27830.	1.000	1.000	6885.	37965.
1250	-20945.	6885.	0.	0.	27830.	1.000	1.000	6885.	37965.
1255	-20945.	2347.	0.	0.	23292.	1.000	1.000	2347.	40188.
1255	-20945.	2347.	0.	0.	23292.	1.000	1.000	2347.	40188.
1260	-20945.	2191.	0.	0.	23137.	1.000	1.000	2191.	38024.
1260	-20945.	2191.	0.	0.	23137.	1.000	1.000	2191.	38024.
1265	-20945.	150.	0.	0.	21096.	1.000	1.000	150.	39088.
1265	-20945.	150.	0.	0.	21096.	1.000	1.000	150.	39088.
1270	-20945.	1891.	0.	0.	22836.	1.000	1.000	1891.	40165.
1270	-29.	1891.	0.	0.	1920.	1.000	1.000	1891.	40165.
1275	-84.	3266.	-4.	0.	3350.	1.767	1.473	3266.	41185.
1275	-84.	1848.	4.	0.	1932.	1.000	1.000	1848.	41206.
1280	-84.	702.	-4.	0.	786.	1.000	1.000	702.	41033.
1280	-21539.	702.	4.	0.	22241.	1.000	1.000	702.	41033.
1285	-21539.	379.	-4.	0.	21919.	1.000	1.000	380.	39838.
1290	-21539.	366.	4.	0.	21905.	1.000	1.000	366.	39813.
1295	-21539.	124.	-4.	0.	21663.	1.000	1.000	124.	40015.
1300	-21539.	110.	4.	0.	21650.	1.000	1.000	111.	40062.
1305	-21539.	212.	-4.	0.	21752.	1.000	1.000	213.	40268.
1305	-20945.	212.	4.	0.	21158.	1.000	1.000	213.	40268.
1310	-20945.	76.	-4.	0.	21021.	1.000	1.000	76.	40524.
1310	-20945.	76.	4.	0.	21021.	1.000	1.000	76.	40524.
1315	-20945.	62.	-4.	0.	21007.	1.000	1.000	62.	39396.
1315	-20945.	62.	4.	0.	21007.	1.000	1.000	62.	39396.
1320	-20945.	13.	-4.	0.	20958.	1.000	1.000	15.	39587.
1320	-20945.	13.	4.	0.	20958.	1.000	1.000	15.	39587.
1325	-20945.	86.	-4.	0.	21031.	1.000	1.000	86.	39437.

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REPORT, Stresses on Elements
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T	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
	-20945.	86.	4.	0.	21031.	1.000	1.000	86.	39437.	0.
	-20945.	176.	-4.	0.	21122.	1.000	1.000	176.	40342.	0.
	-20945.	176.	4.	0.	21122.	1.000	1.000	176.	40342.	0.
	-20945.	438.	-4.	0.	21383.	1.000	1.000	438.	40032.	1.
	-7.	438.	4.	0.	445.	1.000	1.000	438.	40032.	1.
	-4.	1446.	27.	0.	1450.	1.767	1.473	1447.	41095.	4.
	-4.	818.	-27.	0.	823.	1.000	1.000	820.	41156.	2.
	-4.	352.	27.	0.	360.	1.000	1.000	356.	39432.	1.
	-4.	352.	-27.	0.	360.	1.000	1.000	356.	39432.	1.
	-4.	445.	27.	0.	452.	1.000	1.000	448.	40227.	1.
	-4.	445.	-27.	0.	452.	1.000	1.000	448.	40227.	1.
	-4.	1109.	27.	0.	1114.	1.000	1.000	1111.	39638.	3.
	-4.	1109.	-27.	0.	1114.	1.000	1.000	1111.	39638.	3.
	-7.	1787.	230.	0.	1852.	1.767	1.473	1845.	40733.	5.
	-7.	1012.	-230.	0.	1118.	1.000	1.000	1112.	40909.	3.
	-7.	954.	230.	0.	1065.	1.000	1.000	1059.	41157.	3.
	-7.	954.	-230.	0.	1065.	1.000	1.000	1059.	41157.	3.
	-7.	1173.	230.	0.	1266.	1.000	1.000	1260.	39323.	3.
	-7.	1173.	-230.	0.	1266.	1.000	1.000	1260.	39323.	3.
	-75.	1332.	-215.	0.	1471.	1.767	1.473	1400.	40839.	3.
	-75.	792.	215.	0.	968.	1.000	1.000	901.	41012.	2.
	-75.	370.	-215.	0.	619.	1.000	1.000	567.	41058.	1.
	-75.	370.	215.	0.	619.	1.000	1.000	567.	41058.	1.
	-7.	693.	-14.	0.	701.	1.767	1.473	694.	40798.	2.
	-7.	453.	14.	0.	461.	1.000	1.000	454.	40994.	1.
	-7.	527.	-14.	0.	534.	1.000	1.000	527.	40928.	1.
	-7.	591.	14.	0.	598.	1.000	1.000	592.	40892.	1.
	-7.	1282.	-14.	0.	1289.	1.222	1.296	1282.	40602.	3.
	-4.	1880.	224.	0.	1937.	1.222	1.296	1932.	39753.	5.
	-4.	1228.	-224.	0.	1311.	1.222	1.296	1307.	40483.	3.
	0.	0.	0.	0.	0.	1.222	1.296	0.	38955.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	39286.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in. CODE STRESS	ALLOWABL STRES
1403	0.	0.	0.	0.	0.	1.000	1.000	0.	40693.
1404	0.	0.	0.	0.	0.	1.000	1.000	0.	41152.
1401	-4.	1228.	224.	0.	1311.	1.222	1.296	1307.	40483.
1406	-4.	1278.	-224.	0.	1358.	1.000	1.000	1354.	40184.
1409	-4.	2410.	224.	0.	2456.	1.000	1.000	2451.	40442.
1410	-44.	5064.	-662.	0.	5277.	1.767	1.473	5234.	40909.
1410	-44.	2875.	662.	0.	3205.	1.000	1.000	3165.	41064.
1420	-44.	2675.	-662.	0.	3024.	1.000	1.000	2984.	41112.
1400	-1.	2189.	-238.	0.	2241.	1.222	1.296	2241.	39545.
1425	-1.	3264.	238.	0.	3299.	1.000	1.000	3298.	39256.
1425	-1.	3264.	-238.	0.	3299.	1.000	1.000	3298.	39256.
1430	-19.	1123.	-334.	0.	1323.	1.767	1.473	1307.	40619.
1430	-19.	703.	334.	0.	984.	1.000	1.000	970.	40830.
1435	-12.	1380.	-226.	0.	1464.	1.767	1.473	1452.	40644.
1435	-12.	863.	226.	0.	985.	1.000	1.000	974.	40908.
1440	-12.	667.	-226.	0.	816.	1.000	1.000	806.	40646.
1440	-12.	667.	226.	0.	816.	1.000	1.000	806.	40646.
1445	-12.	1259.	-226.	0.	1349.	1.000	1.000	1337.	38832.
1445	-12.	1259.	226.	0.	1349.	1.000	1.000	1337.	38832.
1450	-12.	596.	-226.	0.	758.	1.000	1.000	748.	40759.
1450	-12.	596.	226.	0.	758.	1.000	1.000	748.	40759.
1455	-12.	585.	-226.	0.	749.	1.000	1.000	740.	39797.
1455	-12.	585.	226.	0.	749.	1.000	1.000	740.	39797.
1460	-12.	774.	-226.	0.	907.	1.222	1.296	897.	40118.
1460	-12.	799.	-331.	0.	1047.	1.222	1.296	1038.	40160.
1465	-12.	691.	331.	0.	966.	1.000	1.000	958.	39550.
1465	-12.	691.	-331.	0.	966.	1.000	1.000	958.	39550.
1470	-12.	103.	331.	0.	673.	1.000	1.000	671.	40604.
1470	-12.	103.	-331.	0.	673.	1.000	1.000	671.	40604.
1480	-12.	743.	331.	0.	1005.	1.000	1.000	995.	39391.
1480	-12.	743.	-331.	0.	1005.	1.000	1.000	995.	39391.
1485	9.	1067.	13.	0.	1077.	1.767	1.473	1067.	41050.

Stresses(lb./sq.in.)					STRESS		Stress(lb./sq.in.)		
AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	INTENSIFICATION IN-PLANE	OUT-PLANE	CODE STRESS	ALLOWABLE STRESS	%
9.	720.	-13.	0.	730.	1.000	1.000	720.	41128.	2.
1.	1366.	-46.	0.	1370.	1.767	1.473	1369.	41015.	3.
1.	778.	46.	0.	784.	1.000	1.000	783.	41118.	2.
1.	1992.	-46.	0.	1995.	1.000	1.000	1994.	40784.	5.
1.	1992.	46.	0.	1995.	1.000	1.000	1994.	40784.	5.
1.	3308.	-46.	0.	3310.	1.000	1.000	3309.	39930.	8.
1.	3308.	46.	0.	3310.	1.000	1.000	3309.	39930.	8.
-12.	4213.	692.	0.	4446.	1.767	1.473	4434.	40671.	11.
-12.	2385.	-692.	0.	2768.	1.000	1.000	2757.	40864.	7.
-12.	3298.	692.	0.	3587.	1.222	1.296	3576.	39572.	9.
-24.	8603.	1188.	0.	8948.	1.222	1.296	8925.	40480.	22.
-24.	3292.	-1188.	0.	4080.	1.000	1.000	4060.	40374.	10.
-24.	6735.	1188.	0.	7164.	1.000	1.000	7142.	40609.	18.
-126.	11116.	-5179.	0.	15286.	1.767	1.473	15193.	40489.	38.
-126.	6304.	5179.	0.	12191.	1.000	1.000	12125.	40841.	30.
-126.	6215.	-5179.	0.	12144.	1.000	1.000	12079.	40854.	30.
0.	1444.	-10.	0.	1445.	1.222	1.296	1445.	41179.	4.
0.	785.	10.	0.	785.	1.000	1.000	785.	41135.	2.
0.	565.	-10.	0.	565.	1.000	1.000	565.	41111.	1.
-85.	1528.	0.	0.	1613.	1.767	1.473	1528.	40983.	4.
-85.	865.	0.	0.	950.	1.000	1.000	865.	41100.	2.
-85.	865.	0.	0.	950.	1.000	1.000	865.	41140.	2.
-85.	865.	0.	0.	950.	1.000	1.000	865.	41140.	2.
0.	2402.	10.	0.	2402.	1.767	1.473	2402.	40646.	6.
0.	1359.	-10.	0.	1359.	1.000	1.000	1359.	40910.	3.
0.	2184.	10.	0.	2184.	1.000	1.000	2184.	40057.	5.
0.	2184.	-10.	0.	2184.	1.000	1.000	2184.	40057.	5.
0.	799.	10.	0.	799.	1.000	1.000	799.	41166.	2.
0.	799.	-10.	0.	799.	1.000	1.000	799.	41166.	2.
0.	587.	10.	0.	587.	1.000	1.000	587.	40458.	1.
0.	587.	-10.	0.	587.	1.000	1.000	587.	40458.	1.
0.	365.	10.	0.	365.	1.000	1.000	365.	40698.	1.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS
1565	0.	356.	-10.	0.	356.	1.000	1.000	356.	40669.
1570	0.	78.	10.	0.	81.	1.000	1.000	81.	40723.
1575	0.	69.	-10.	0.	72.	1.000	1.000	72.	40756.
1580	0.	153.	10.	0.	154.	1.000	1.000	154.	40315.
1580	0.	153.	-10.	0.	154.	1.000	1.000	154.	40315.
1585	0.	57.	10.	0.	60.	1.000	1.000	60.	41023.
1585	0.	57.	-10.	0.	60.	1.000	1.000	60.	41023.
1590	0.	38.	10.	0.	43.	1.000	1.000	43.	40486.
1590	0.	38.	-10.	0.	43.	1.000	1.000	43.	40486.
1595	0.	19.	10.	0.	27.	1.000	1.000	27.	40714.
1595	0.	19.	-10.	0.	27.	1.000	1.000	27.	40714.
1600	0.	1.	10.	0.	20.	1.000	1.000	20.	40933.
1600	0.	1.	-10.	0.	20.	1.000	1.000	20.	40933.
1605	0.	28.	2.	0.	28.	1.767	1.473	28.	41206.
1605	0.	19.	-2.	0.	19.	1.000	1.000	19.	41221.
1610	0.	2.	2.	0.	4.	1.000	1.000	4.	39930.
1610	0.	2.	-2.	0.	4.	1.000	1.000	4.	39930.
1615	0.	6.	0.	0.	6.	1.767	1.473	6.	41229.
1615	0.	4.	0.	0.	4.	1.000	1.000	4.	41237.
1620	0.	1.	0.	0.	1.	1.000	1.000	1.	40739.
1620	0.	1.	0.	0.	1.	1.000	1.000	1.	40739.
1625	0.	2.	0.	0.	2.	1.000	1.000	2.	40224.
1625	0.	2.	0.	0.	2.	1.000	1.000	2.	40224.
1630	0.	1.	0.	0.	1.	1.000	1.000	1.	41014.
1630	0.	1.	0.	0.	1.	1.000	1.000	1.	41014.
1635	0.	0.	0.	0.	0.	1.000	1.000	0.	40595.
1635	0.	0.	0.	0.	0.	1.000	1.000	0.	40595.
1640	0.	0.	0.	0.	0.	1.000	1.000	0.	40834.
1640	0.	0.	0.	0.	0.	1.000	1.000	0.	40834.
1645	0.	0.	0.	0.	0.	1.000	1.000	0.	40586.
1645	0.	0.	0.	0.	0.	1.000	1.000	0.	40586.
1650	0.	0.	0.	0.	0.	1.000	1.000	0.	41005.

T	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
	0.	0.	0.	0.	0.	1.000	1.000	0.	41005.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	40252.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	40252.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	40753.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	40718.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	40582.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	40609.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	40613.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	40613.	0.
	0.	0.	0.	0.	0.	1.767	1.473	0.	41141.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	41177.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	40705.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	40705.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	40690.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	40690.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	40762.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	40762.	0.
	0.	0.	0.	0.	0.	1.767	1.473	0.	41243.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	41243.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	41252.	0.
	-290.	7133.	21.	0.	7423.	1.222	1.296	7133.	39831.	18.
	-290.	5425.	-21.	0.	5715.	1.000	1.000	5425.	40180.	14.
	-290.	5289.	21.	0.	5579.	1.000	1.000	5289.	40204.	13.
	-290.	3380.	-21.	0.	3670.	1.000	1.000	3381.	40988.	8.
	-290.	3351.	21.	0.	3641.	1.000	1.000	3351.	40989.	8.
	-290.	3319.	-21.	0.	3609.	1.000	1.000	3319.	40922.	8.
	-290.	3319.	21.	0.	3609.	1.000	1.000	3319.	40922.	8.
	-290.	4456.	-21.	0.	4746.	1.000	1.000	4456.	39260.	11.
	-290.	4456.	21.	0.	4746.	1.000	1.000	4456.	39260.	11.
	-290.	481.	-21.	0.	772.	1.000	1.000	483.	40765.	1.
	-290.	481.	21.	0.	772.	1.000	1.000	483.	40765.	1.
	-245.	7165.	-13.	0.	7410.	1.767	1.473	7165.	39754.	18.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in. CODE STRESS	ALLOWABL STRES
1755	-245.	4054.	13.	0.	4300.	1.000	1.000	4055.	40381.
1760	-290.	5456.	-124.	0.	5751.	1.767	1.473	5462.	39873.
1760	-290.	3090.	124.	0.	3389.	1.000	1.000	3100.	40469.
1765	-290.	671.	-124.	0.	993.	1.000	1.000	716.	39830.
1765	-20945.	671.	124.	0.	21618.	1.000	1.000	716.	39810.
1770	-20945.	375.	-124.	0.	21322.	1.000	1.000	450.	40986.
1770	-20945.	375.	124.	0.	21322.	1.000	1.000	450.	40986.
1775	-20945.	41.	-124.	0.	20988.	1.000	1.000	251.	39008.
1775	-20945.	41.	124.	0.	20988.	1.000	1.000	251.	39008.
1780	-20945.	158.	-124.	0.	21105.	1.000	1.000	294.	39285.
1780	-20945.	158.	124.	0.	21105.	1.000	1.000	294.	39285.
1785	-20945.	278.	-124.	0.	21225.	1.000	1.000	373.	38786.
1785	-20945.	278.	124.	0.	21225.	1.000	1.000	373.	38786.
1790	-20945.	887.	-124.	0.	21834.	1.000	1.000	921.	40656.
1790	-20945.	887.	124.	0.	21834.	1.000	1.000	921.	40656.
1795	-20945.	2053.	-124.	0.	23000.	1.000	1.000	2068.	41144.
1795	-772.	2053.	124.	0.	2836.	1.000	1.000	2068.	41144.
1800	-772.	2426.	-124.	0.	3208.	1.000	1.000	2439.	40328.
1800	-772.	2426.	124.	0.	3208.	1.000	1.000	2439.	40328.
1805	-58.	4282.	-5.	0.	4340.	1.767	1.473	4282.	40870.
1805	-58.	2427.	5.	0.	2485.	1.000	1.000	2427.	40992.
1810	-58.	5076.	-5.	0.	5134.	1.000	1.000	5076.	40688.
1810	-20945.	5076.	5.	0.	26022.	1.000	1.000	5076.	40688.
1815	-20945.	1905.	-5.	0.	22851.	1.000	1.000	1905.	39158.
1815	-20945.	1905.	5.	0.	22851.	1.000	1.000	1905.	39158.
1820	-20945.	1265.	-5.	0.	22211.	1.000	1.000	1265.	37362.
1820	-20945.	1265.	5.	0.	22211.	1.000	1.000	1265.	37362.
1825	-20945.	638.	-5.	0.	21583.	1.000	1.000	638.	39454.
1825	-20945.	638.	5.	0.	21583.	1.000	1.000	638.	39454.
1830	-20945.	56.	-5.	0.	21002.	1.000	1.000	57.	40095.
1830	-309.	56.	5.	0.	365.	1.000	1.000	57.	40095.
1835	-143.	2689.	-49.	0.	2834.	1.767	1.473	2691.	41180.

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Stresses(lb./sq.in.)					STRESS		Stress(lb./sq.in.)		
AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	INTENSIFICATION IN-PLANE	OUT-PLANE	CODE STRESS	ALLOWABLE STRESS	%
-143.	1521.	49.	0.	1667.	1.000	1.000	1525.	41203.	4.
-143.	3867.	-49.	0.	4011.	1.000	1.000	3868.	40518.	10.
-2564.	3867.	49.	0.	6432.	1.000	1.000	3868.	40518.	10.
-2564.	3119.	-49.	0.	5684.	1.000	1.000	3120.	39975.	8.
-2564.	3119.	49.	0.	5684.	1.000	1.000	3120.	39975.	8.
-2564.	2370.	-49.	0.	4935.	1.000	1.000	2372.	39420.	6.
-2564.	2370.	49.	0.	4935.	1.000	1.000	2372.	39420.	6.
-2564.	1622.	-49.	0.	4187.	1.000	1.000	1625.	40694.	4.
-2564.	1622.	49.	0.	4187.	1.000	1.000	1625.	40694.	4.
-2564.	876.	-49.	0.	3441.	1.000	1.000	881.	40550.	2.
-2564.	876.	49.	0.	3441.	1.000	1.000	881.	40550.	2.
-2564.	646.	-49.	0.	3211.	1.000	1.000	653.	41239.	2.
-2564.	632.	49.	0.	3198.	1.000	1.000	640.	41244.	2.
-2564.	523.	-49.	0.	3089.	1.222	1.296	532.	41213.	1.
-2564.	469.	-23.	0.	3034.	1.222	1.296	471.	40808.	1.
-2564.	91.	23.	0.	2656.	1.000	1.000	102.	40557.	0.
-2564.	76.	-23.	0.	2641.	1.000	1.000	89.	40479.	0.
-2564.	170.	23.	0.	2734.	1.000	1.000	176.	38883.	0.
-2564.	170.	-23.	0.	2734.	1.000	1.000	176.	38883.	0.
-2564.	1315.	23.	0.	3879.	1.000	1.000	1316.	39604.	3.
-2564.	1315.	-23.	0.	3879.	1.000	1.000	1316.	39604.	3.
-2564.	2466.	23.	0.	5031.	1.000	1.000	2467.	38275.	6.
-2564.	2466.	-23.	0.	5031.	1.000	1.000	2467.	38275.	6.
-2564.	3618.	23.	0.	6182.	1.000	1.000	3618.	39923.	9.
-2564.	3618.	-23.	0.	6182.	1.000	1.000	3618.	39923.	9.
-2564.	4769.	23.	0.	7334.	1.000	1.000	4770.	38244.	12.
-2564.	4769.	-23.	0.	7334.	1.000	1.000	4770.	38244.	12.
-2564.	5921.	23.	0.	8485.	1.000	1.000	5921.	39573.	15.
-2564.	5921.	-23.	0.	8485.	1.000	1.000	5921.	39573.	15.
-2564.	7073.	23.	0.	9637.	1.000	1.000	7073.	38974.	18.
-2564.	7073.	-23.	0.	9637.	1.000	1.000	7073.	38974.	18.
-1818.	5615.	29.	0.	7434.	1.767	1.473	5615.	41032.	14.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS
1935	-1818.	3177.	-29.	0.	4996.	1.000	1.000	3178.	41103.
1945	-7.	37318.	22.	0.	37326.	1.767	1.473	37318.	40807.
1945	-7.	21116.	-22.	0.	21124.	1.000	1.000	21117.	40950.
1950	-7.	54710.	22.	0.	54718.	1.000	1.000	54710.	40694.
1950	-20945.	54710.	-22.	0.	75656.	1.000	1.000	54710.	40694.
1955	-20945.	23468.	22.	0.	44414.	1.000	1.000	23469.	40934.
1955	-20945.	23468.	-22.	0.	44414.	1.000	1.000	23469.	40934.
1960	-20945.	7774.	22.	0.	28719.	1.000	1.000	7774.	39948.
1960	-20945.	7774.	-22.	0.	28719.	1.000	1.000	7774.	39948.
1965	-20945.	3888.	22.	0.	24833.	1.000	1.000	3888.	40467.
1965	-20945.	3888.	-22.	0.	24833.	1.000	1.000	3888.	40467.
1970	-20945.	265.	22.	0.	21210.	1.000	1.000	269.	35483.
1970	0.	265.	-22.	0.	269.	1.000	1.000	269.	35483.
1975	-3.	87.	0.	0.	90.	1.767	1.473	87.	40126.
1975	-3.	55.	0.	0.	58.	1.000	1.000	55.	40570.
1980	-3.	55.	0.	0.	58.	1.000	1.000	55.	40596.
1980	-3.	55.	0.	0.	58.	1.000	1.000	55.	40596.
1985	0.	45.	16.	0.	56.	1.767	1.473	56.	40744.
1985	0.	26.	-16.	0.	42.	1.000	1.000	42.	40965.
1990	0.	403.	16.	0.	404.	1.000	1.000	404.	37682.
1990	0.	403.	-16.	0.	404.	1.000	1.000	404.	37682.
1995	0.	33.	16.	0.	47.	1.000	1.000	47.	40907.
1995	0.	33.	-16.	0.	47.	1.000	1.000	47.	40907.
2000	0.	336.	16.	0.	338.	1.000	1.000	338.	41020.
2000	0.	336.	-16.	0.	338.	1.000	1.000	338.	41020.
2005	0.	173.	16.	0.	176.	1.000	1.000	176.	40439.
2010	0.	165.	-16.	0.	169.	1.000	1.000	169.	40420.
2015	0.	178.	16.	0.	181.	1.296	1.296	181.	40144.
2015	0.	178.	-16.	0.	181.	1.296	1.296	181.	40144.
2020	0.	109.	16.	0.	113.	1.000	1.000	113.	40396.
2025	0.	102.	-16.	0.	107.	1.000	1.000	107.	40409.
2030	-4.	120.	0.	0.	123.	1.767	1.473	120.	40461.

Ver 3.21 Job: FRMC01 Date: JAN 20,1995 Time: 9:20 Page: 161
o: FLUOR DANIEL ID 13692
ORT, Stresses on Elements
P) D6(EXP)=D2-D4

Stresses(lb./sq.in.)					STRESS		Stress(lb./sq.in.)		
AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	INTENSIFICATION IN-PLANE	OUT-PLANE	CODE STRESS	ALLOWABLE STRESS	%
-4.	70.	0.	0.	74.	1.000	1.000	70.	40726.	0.
0.	96.	-31.	0.	114.	1.767	1.473	114.	40730.	0.
0.	54.	31.	0.	82.	1.000	1.000	82.	40957.	0.
0.	118.	-31.	0.	133.	1.000	1.000	133.	40702.	0.
0.	118.	31.	0.	133.	1.000	1.000	133.	40702.	0.
0.	71.	-31.	0.	94.	1.000	1.000	94.	40746.	0.
0.	71.	31.	0.	94.	1.000	1.000	94.	40746.	0.
0.	23.	-31.	0.	66.	1.000	1.000	66.	40013.	0.
0.	23.	31.	0.	66.	1.000	1.000	66.	40013.	0.
0.	87.	0.	0.	87.	1.767	1.473	87.	41190.	0.
0.	59.	0.	0.	59.	1.000	1.000	59.	41210.	0.
0.	0.	0.	0.	0.	1.000	1.000	0.	40804.	0.
0.	0.	0.	0.	0.	1.000	1.000	0.	40804.	0.
0.	0.	0.	0.	0.	1.767	1.473	0.	41252.	0.
0.	0.	0.	0.	0.	1.000	1.000	0.	41252.	0.
0.	0.	0.	0.	0.	1.000	1.000	0.	41252.	0.
0.	186.	44.	0.	205.	1.222	1.296	205.	41232.	0.
0.	90.	-44.	0.	126.	1.000	1.000	126.	41139.	0.
0.	77.	44.	0.	117.	1.000	1.000	117.	41128.	0.
-7.	179.	0.	0.	185.	1.767	1.473	179.	40706.	0.
-7.	112.	0.	0.	119.	1.000	1.000	112.	40886.	0.
0.	84.	-35.	0.	109.	1.767	1.473	109.	40891.	0.
0.	48.	35.	0.	85.	1.000	1.000	85.	41048.	0.
0.	232.	-35.	0.	242.	1.000	1.000	242.	39928.	1.
0.	232.	35.	0.	242.	1.000	1.000	242.	39928.	1.
0.	69.	-35.	0.	98.	1.000	1.000	98.	41119.	0.
0.	69.	35.	0.	98.	1.000	1.000	98.	41119.	0.
0.	95.	-35.	0.	118.	1.000	1.000	118.	40682.	0.
0.	95.	35.	0.	118.	1.000	1.000	118.	40682.	0.
0.	27.	-35.	0.	75.	1.000	1.000	75.	40816.	0.
0.	27.	35.	0.	75.	1.000	1.000	75.	40816.	0.
0.	150.	-35.	0.	165.	1.000	1.000	165.	40534.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS
2120	0.	150.	35.	0.	165.	1.000	1.000	165.	40534.
2125	0.	169.	-35.	0.	183.	1.000	1.000	183.	40963.
2125	0.	169.	35.	0.	183.	1.000	1.000	183.	40963.
2130	0.	487.	-35.	0.	492.	1.000	1.000	492.	39934.
2130	0.	487.	35.	0.	492.	1.000	1.000	492.	39934.
2135	-5.	285.	0.	0.	290.	1.767	1.473	285.	40254.
2135	-5.	166.	0.	0.	171.	1.000	1.000	166.	40679.
2140	0.	210.	-35.	0.	221.	1.767	1.473	221.	40413.
2140	0.	119.	35.	0.	138.	1.000	1.000	138.	40777.
2145	0.	56.	-9.	0.	59.	1.767	1.473	59.	40988.
2145	0.	38.	9.	0.	42.	1.000	1.000	42.	41072.
2150	0.	99.	-9.	0.	100.	1.000	1.000	100.	40330.
2150	0.	99.	9.	0.	100.	1.000	1.000	100.	40330.
2155	0.	47.	-9.	0.	50.	1.000	1.000	50.	41166.
2155	0.	47.	9.	0.	50.	1.000	1.000	50.	41166.
2160	0.	26.	-9.	0.	32.	1.000	1.000	32.	41014.
2160	0.	26.	9.	0.	32.	1.000	1.000	32.	41014.
2165	0.	13.	-9.	0.	22.	1.000	1.000	22.	41010.
2165	0.	13.	9.	0.	22.	1.000	1.000	22.	41010.
2170	0.	7.	-9.	0.	19.	1.000	1.000	19.	40832.
2170	0.	7.	9.	0.	19.	1.000	1.000	19.	40832.
2175	0.	3.	-9.	0.	18.	1.000	1.000	18.	41097.
2175	0.	3.	9.	0.	18.	1.000	1.000	18.	41097.
2180	0.	2.	-9.	0.	18.	1.000	1.000	18.	40880.
2180	0.	2.	9.	0.	18.	1.000	1.000	18.	40880.
2185	0.	1.	-9.	0.	18.	1.000	1.000	18.	41074.
2185	0.	1.	9.	0.	18.	1.000	1.000	18.	41074.
2190	0.	0.	-9.	0.	18.	1.000	1.000	18.	40868.
2190	0.	0.	9.	0.	18.	1.000	1.000	18.	40868.
2195	0.	0.	-9.	0.	18.	1.000	1.000	18.	41080.
2195	0.	0.	9.	0.	18.	1.000	1.000	18.	41080.
2200	0.	0.	-9.	0.	18.	1.000	1.000	18.	40871.

T	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	STRESS MAX 3D STRESS INTENSITY	INTENSIFICATION IN-PLANE	INTENSIFICATION OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
	0.	0.	9.	0.	18.	1.000	1.000	18.	40871.	0.
	0.	0.	-9.	0.	18.	1.000	1.000	18.	41079.	0.
	0.	0.	9.	0.	18.	1.000	1.000	18.	41079.	0.
	0.	0.	-9.	0.	18.	1.000	1.000	18.	40870.	0.
	0.	0.	9.	0.	18.	1.000	1.000	18.	40870.	0.
	0.	0.	-9.	0.	18.	1.000	1.000	18.	41079.	0.
	0.	0.	9.	0.	18.	1.000	1.000	18.	41079.	0.
	0.	0.	-9.	0.	18.	1.000	1.000	18.	40870.	0.
	0.	0.	9.	0.	18.	1.000	1.000	18.	40870.	0.
	0.	0.	-9.	0.	18.	1.000	1.000	18.	41079.	0.
	0.	0.	9.	0.	18.	1.000	1.000	18.	41079.	0.
	0.	0.	-9.	0.	18.	1.000	1.000	18.	40870.	0.
	0.	0.	9.	0.	18.	1.000	1.000	18.	40870.	0.
	0.	0.	-9.	0.	18.	1.000	1.000	18.	41079.	0.
	0.	0.	9.	0.	18.	1.000	1.000	18.	41079.	0.
	0.	0.	-9.	0.	18.	1.000	1.000	18.	40870.	0.
	0.	0.	9.	0.	18.	1.000	1.000	18.	40870.	0.
	0.	0.	-9.	0.	18.	1.000	1.000	18.	41079.	0.
	0.	0.	9.	0.	18.	1.000	1.000	18.	41079.	0.
	0.	0.	-9.	0.	18.	1.000	1.000	18.	40870.	0.
	0.	0.	9.	0.	18.	1.000	1.000	18.	40870.	0.
	0.	0.	-9.	0.	18.	1.000	1.000	18.	41079.	0.
	0.	0.	9.	0.	18.	1.000	1.000	18.	41079.	0.
	0.	0.	-9.	0.	18.	1.000	1.000	18.	40870.	0.
	0.	0.	9.	0.	18.	1.000	1.000	18.	40870.	0.
	0.	0.	-9.	0.	18.	1.000	1.000	18.	41079.	0.
	0.	0.	9.	0.	18.	1.000	1.000	18.	41079.	0.
	0.	0.	-9.	0.	18.	1.000	1.000	18.	40870.	0.
	0.	0.	9.	0.	18.	1.000	1.000	18.	40870.	0.
	0.	0.	-9.	0.	18.	1.000	1.000	18.	41079.	0.
	0.	0.	9.	0.	18.	1.000	1.000	18.	41079.	0.
	0.	0.	-9.	0.	18.	1.000	1.000	18.	40870.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS
2280	0.	0.	9.	0.	18.	1.000	1.000	18.	40870.
2285	0.	0.	-9.	0.	18.	1.000	1.000	18.	41079.
2285	0.	0.	9.	0.	18.	1.000	1.000	18.	41079.
2290	0.	0.	-9.	0.	18.	1.000	1.000	18.	40870.
2290	0.	0.	9.	0.	18.	1.000	1.000	18.	40870.
2295	0.	0.	-9.	0.	18.	1.000	1.000	18.	41079.
2295	0.	0.	9.	0.	18.	1.000	1.000	18.	41079.
2300	0.	0.	-9.	0.	18.	1.000	1.000	18.	40870.
2300	0.	0.	9.	0.	18.	1.000	1.000	18.	40870.
2305	0.	0.	-9.	0.	18.	1.000	1.000	18.	41079.
2305	0.	0.	9.	0.	18.	1.000	1.000	18.	41079.
2310	0.	0.	-9.	0.	18.	1.000	1.000	18.	40870.
2310	0.	0.	9.	0.	18.	1.000	1.000	18.	40870.
2315	0.	0.	-9.	0.	18.	1.000	1.000	18.	41079.
2315	0.	0.	9.	0.	18.	1.000	1.000	18.	41079.
2320	0.	0.	-9.	0.	18.	1.000	1.000	18.	40870.
2320	0.	0.	9.	0.	18.	1.000	1.000	18.	40870.
2325	0.	0.	-9.	0.	18.	1.000	1.000	18.	41079.
2325	0.	0.	9.	0.	18.	1.000	1.000	18.	41079.
2330	0.	0.	-9.	0.	18.	1.000	1.000	18.	40870.
2330	0.	0.	9.	0.	18.	1.000	1.000	18.	40870.
2335	0.	0.	-9.	0.	18.	1.000	1.000	18.	41079.
2335	0.	0.	9.	0.	18.	1.000	1.000	18.	41079.
2340	0.	0.	-9.	0.	18.	1.000	1.000	18.	40870.
2340	0.	0.	9.	0.	18.	1.000	1.000	18.	40870.
2345	0.	0.	-9.	0.	18.	1.000	1.000	18.	41079.
2345	0.	0.	9.	0.	18.	1.000	1.000	18.	41079.
2350	0.	0.	-9.	0.	18.	1.000	1.000	18.	40871.
2350	0.	0.	9.	0.	18.	1.000	1.000	18.	40871.
2355	0.	0.	-9.	0.	18.	1.000	1.000	18.	41080.
2355	0.	0.	9.	0.	18.	1.000	1.000	18.	41080.
2360	0.	0.	-9.	0.	18.	1.000	1.000	18.	40868.

Stresses(lb./sq.in.)					STRESS INTENSIFICATION		Stress(lb./sq.in.)		
AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	IN-PLANE	OUT-PLANE	CODE STRESS	ALLOWABLE STRESS	%
0.	0.	9.	0.	18.	1.000	1.000	18.	40868.	0.
0.	0.	-9.	0.	18.	1.000	1.000	18.	41076.	0.
0.	0.	9.	0.	18.	1.000	1.000	18.	41076.	0.
0.	0.	-9.	0.	18.	1.000	1.000	18.	40881.	0.
0.	0.	9.	0.	18.	1.000	1.000	18.	40881.	0.
0.	0.	-9.	0.	18.	1.000	1.000	18.	41089.	0.
0.	0.	9.	0.	18.	1.000	1.000	18.	41089.	0.
0.	0.	-9.	0.	18.	1.000	1.000	18.	40832.	0.
0.	0.	9.	0.	18.	1.000	1.000	18.	40832.	0.
0.	0.	-9.	0.	18.	1.000	1.000	18.	41041.	0.
0.	0.	9.	0.	18.	1.000	1.000	18.	41041.	0.
0.	1.	-9.	0.	18.	1.000	1.000	18.	41018.	0.
0.	1.	9.	0.	18.	1.000	1.000	18.	41018.	0.
0.	1.	-9.	0.	18.	1.000	1.000	18.	41221.	0.
0.	1.	9.	0.	18.	1.000	1.000	18.	41221.	0.
0.	5.	-9.	0.	19.	1.000	1.000	19.	40316.	0.
0.	5.	9.	0.	19.	1.000	1.000	19.	40316.	0.
0.	26.	0.	0.	26.	1.767	1.473	26.	41167.	0.
0.	17.	0.	0.	17.	1.000	1.000	17.	41194.	0.
0.	11.	0.	0.	11.	1.000	1.000	11.	41166.	0.
0.	11.	0.	0.	11.	1.000	1.000	11.	41166.	0.
0.	0.	0.	0.	0.	1.000	1.000	0.	38888.	0.
0.	0.	0.	0.	0.	1.000	1.000	0.	38888.	0.
0.	0.	0.	0.	0.	1.767	1.473	0.	41226.	0.
0.	0.	0.	0.	0.	1.000	1.000	0.	41226.	0.
0.	0.	0.	0.	0.	1.000	1.000	0.	41252.	0.

STRESS SUMMARY
CASE 7 (EXP) D7(EXP)=03-D4

**** CODE STRESS CHECK FAILED

PIPING CODE: B31.3 -1993, July 31, 1993 Addendum

HIGHEST STRESSES: (lb./sq.in.)

CODE STRESS %:	125140.	@NODE 1950	ALLOWABLE:	40694.
BENDING STRESS:	125140.	@NODE 1950		
TORSIONAL STRESS:	9184.	@NODE 1520		
AXIAL STRESS:	49267.	@NODE 1285		
3D MAX INTENSITY:	173048.	@NODE 1950		

STRESS OPTIMIZATION PARAMETERS:

CODE STRESS PERCENTAGES SHOWN BELOW REPRESENT THE NUMBER OF NODES IN THE SYSTEM THAT WERE WITHIN THE PERCENTAGE GIVEN OF THE HIGHEST CODE STRESS IN THE SYSTEM.

AVG. CODE STRESS 3494.

	/BETWEEN/	/BELOW/
CODE STRESS 90-100%	0.37	99.63
CODE STRESS 80-90 %	0.00	99.63
CODE STRESS 70-80 %	0.00	99.63
CODE STRESS 60-70 %	0.19	99.44
CODE STRESS 50-60 %	0.00	99.44
CODE STRESS 25-50 %	0.93	98.51
CODE STRESS 0-25 %	98.51	

PIPE ELEMENTS ANALYZED: 269

SAMPLED POINTS: 538

T	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
	0.	0.	0.	0.	0.	1.767	1.473	0.	41252.	0.
	0.	0.	0.	0.	0.	1.767	1.473	0.	41231.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	41240.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	41192.	0.
	-47909.	0.	0.	0.	47909.	1.000	1.000	0.	41192.	0.
	-47909.	49.	0.	0.	47958.	1.000	1.000	49.	40381.	0.
	-47909.	49.	0.	0.	47958.	1.000	1.000	49.	40381.	0.
	-47909.	98.	0.	0.	48007.	1.000	1.000	98.	39944.	0.
	-47909.	98.	0.	0.	48007.	1.000	1.000	98.	39944.	0.
	-47909.	147.	0.	0.	48056.	1.000	1.000	147.	40813.	0.
	-47909.	147.	0.	0.	48056.	1.000	1.000	147.	40813.	0.
	-47909.	201.	0.	0.	48110.	1.000	1.000	201.	40326.	0.
	-47909.	201.	0.	0.	48110.	1.000	1.000	201.	40326.	0.
	-47909.	91.	0.	0.	48000.	1.000	1.000	91.	40766.	0.
	-47909.	91.	0.	0.	48000.	1.000	1.000	91.	40766.	0.
	-47909.	358.	0.	0.	48267.	1.000	1.000	358.	40039.	1.
	-47909.	358.	0.	0.	48267.	1.000	1.000	358.	40039.	1.
	-47909.	605.	0.	0.	48514.	1.000	1.000	605.	40523.	1.
	-47909.	605.	0.	0.	48514.	1.000	1.000	605.	40523.	1.
	-47909.	1101.	0.	0.	49010.	1.000	1.000	1101.	40806.	3.
	-40.	1101.	0.	0.	1141.	1.000	1.000	1101.	40806.	3.
	-261.	5384.	-444.	0.	5715.	1.767	1.473	5457.	40898.	13.
	-261.	3046.	444.	0.	3425.	1.000	1.000	3173.	41019.	8.
	-261.	1608.	-444.	0.	2070.	1.000	1.000	1837.	38969.	5.
	-261.	1608.	444.	0.	2070.	1.000	1.000	1837.	38969.	5.
	-40.	8157.	799.	0.	8351.	1.767	1.473	8312.	41194.	20.
	-40.	4644.	-799.	0.	4949.	1.000	1.000	4911.	41214.	12.
	-40.	6212.	799.	0.	6453.	1.000	1.000	6414.	39090.	16.
	-476.	6212.	-799.	0.	6876.	1.000	1.000	6414.	39077.	16.
	-407.	17442.	0.	0.	17848.	1.767	1.473	17442.	40795.	43.
	-407.	9942.	0.	0.	10348.	1.000	1.000	9942.	40974.	24.
	-476.	12269.	-100.	0.	12746.	1.767	1.473	12270.	40823.	30.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS
1075	-476.	6944.	100.	0.	7423.	1.000	1.000	6947.	40976.
1080	-476.	4990.	-100.	0.	5469.	1.000	1.000	4994.	40708.
1080	-47909.	4990.	100.	0.	52899.	1.000	1.000	4994.	40721.
1085	-47909.	1991.	-100.	0.	49900.	1.000	1.000	2001.	41083.
1085	-47909.	1991.	100.	0.	49900.	1.000	1.000	2001.	41083.
1090	-47909.	1008.	-100.	0.	48917.	1.000	1.000	1027.	40669.
1090	-47909.	1008.	100.	0.	48917.	1.000	1.000	1027.	40669.
1095	-47909.	372.	-100.	0.	48282.	1.000	1.000	423.	40712.
1095	-47909.	372.	100.	0.	48282.	1.000	1.000	423.	40712.
1100	-47909.	263.	-100.	0.	48172.	1.000	1.000	331.	40751.
1100	-47909.	263.	100.	0.	48172.	1.000	1.000	331.	40751.
1105	-47909.	107.	-100.	0.	48016.	1.000	1.000	228.	41211.
1105	-47909.	107.	100.	0.	48016.	1.000	1.000	228.	41211.
1110	-47909.	50.	-100.	0.	47960.	1.000	1.000	207.	39512.
1110	-47909.	50.	100.	0.	47960.	1.000	1.000	207.	39512.
1115	-47909.	23.	-100.	0.	47932.	1.000	1.000	202.	39875.
1115	-47909.	23.	100.	0.	47932.	1.000	1.000	202.	39875.
1120	-47909.	29.	-100.	0.	47938.	1.000	1.000	203.	38745.
1120	-47909.	29.	100.	0.	47938.	1.000	1.000	203.	38745.
1125	-47909.	39.	-100.	0.	47948.	1.000	1.000	205.	40122.
1125	-47909.	39.	100.	0.	47948.	1.000	1.000	205.	40122.
1130	-47909.	102.	-100.	0.	48011.	1.000	1.000	225.	39019.
1130	-47909.	102.	100.	0.	48011.	1.000	1.000	225.	39019.
1135	-47909.	140.	-100.	0.	48050.	1.000	1.000	245.	40150.
1135	-47909.	140.	100.	0.	48050.	1.000	1.000	245.	40150.
1140	-47909.	382.	-100.	0.	48291.	1.000	1.000	432.	38689.
1140	-47909.	382.	100.	0.	48291.	1.000	1.000	432.	38689.
1145	-47909.	523.	-100.	0.	48432.	1.000	1.000	560.	39791.
1145	-47909.	523.	100.	0.	48432.	1.000	1.000	560.	39791.
1150	-47909.	1428.	-100.	0.	49338.	1.000	1.000	1442.	39736.
1150	1.	1428.	100.	0.	1443.	1.000	1.000	1442.	39736.
1155	-50.	11299.	-2.	0.	11349.	1.767	1.473	11299.	40914.

IT	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
	-50.	6394.	2.	0.	6445.	1.000	1.000	6394.	41022.	16.
	-50.	6417.	-2.	0.	6467.	1.000	1.000	6417.	40402.	16.
	-3177.	6417.	2.	0.	9594.	1.000	1.000	6417.	40402.	16.
	-3177.	3729.	-2.	0.	6906.	1.000	1.000	3729.	38822.	10.
	-3177.	3729.	2.	0.	6906.	1.000	1.000	3729.	38822.	10.
	-3177.	1046.	-2.	0.	4223.	1.000	1.000	1046.	38318.	3.
	-3177.	1046.	2.	0.	4223.	1.000	1.000	1046.	38318.	3.
	-3177.	300.	-2.	0.	3477.	1.000	1.000	300.	40800.	1.
	-3177.	300.	2.	0.	3477.	1.000	1.000	300.	40800.	1.
	-3177.	1641.	-2.	0.	4818.	1.000	1.000	1641.	41120.	4.
	-3177.	1641.	2.	0.	4818.	1.000	1.000	1641.	41120.	4.
	-3177.	2984.	-2.	0.	6161.	1.000	1.000	2984.	40672.	7.
	-3177.	2984.	2.	0.	6161.	1.000	1.000	2984.	40672.	7.
	-3177.	4326.	-2.	0.	7503.	1.000	1.000	4326.	40383.	11.
	-3177.	4326.	2.	0.	7503.	1.000	1.000	4326.	40383.	11.
	-3177.	5669.	-2.	0.	8846.	1.000	1.000	5669.	40961.	14.
	-3177.	5669.	2.	0.	8846.	1.000	1.000	5669.	40961.	14.
	-3177.	7011.	-2.	0.	10188.	1.000	1.000	7011.	40543.	17.
	-3177.	7011.	2.	0.	10188.	1.000	1.000	7011.	40543.	17.
	-3177.	8354.	-2.	0.	11531.	1.000	1.000	8354.	40834.	20.
	-3177.	8354.	2.	0.	11531.	1.000	1.000	8354.	40834.	20.
	-3177.	9696.	-2.	0.	12874.	1.000	1.000	9696.	40636.	24.
	-3177.	9696.	2.	0.	12874.	1.000	1.000	9696.	40636.	24.
	-3177.	11039.	-2.	0.	14216.	1.000	1.000	11039.	41054.	27.
	-3177.	11039.	2.	0.	14216.	1.000	1.000	11039.	41054.	27.
	-3177.	12382.	-2.	0.	15559.	1.000	1.000	12382.	40104.	31.
	-3177.	12382.	2.	0.	15559.	1.000	1.000	12382.	40104.	31.
	-3177.	13724.	-2.	0.	16901.	1.000	1.000	13724.	40298.	34.
	-3177.	13724.	2.	0.	16901.	1.000	1.000	13724.	40298.	34.
	-3177.	15067.	-2.	0.	18244.	1.000	1.000	15067.	40356.	37.
	-3177.	15067.	2.	0.	18244.	1.000	1.000	15067.	40356.	37.
	-17.	4607.	-1.	0.	4625.	1.767	1.473	4607.	40806.	11.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS
1235	-17.	2607.	1.	0.	2624.	1.000	1.000	2607.	40949.
1240	-17.	58045.	-1.	0.	58062.	1.000	1.000	58045.	40342.
1240	-47909.	58045.	1.	0.	105954.	1.000	1.000	58045.	40342.
1245	-47909.	21149.	-1.	0.	69058.	1.000	1.000	21149.	39029.
1245	-47909.	21149.	1.	0.	69058.	1.000	1.000	21149.	39029.
1250	-47909.	15747.	-1.	0.	63656.	1.000	1.000	15747.	37965.
1250	-47909.	15747.	1.	0.	63656.	1.000	1.000	15747.	37965.
1255	-47909.	5367.	-1.	0.	53276.	1.000	1.000	5367.	40188.
1255	-47909.	5367.	1.	0.	53276.	1.000	1.000	5367.	40188.
1260	-47909.	5013.	-1.	0.	52922.	1.000	1.000	5013.	38024.
1260	-47909.	5013.	1.	0.	52922.	1.000	1.000	5013.	38024.
1265	-47909.	344.	-1.	0.	48253.	1.000	1.000	344.	39088.
1265	-47909.	344.	1.	0.	48253.	1.000	1.000	344.	39088.
1270	-47909.	4325.	-1.	0.	52234.	1.000	1.000	4325.	40165.
1270	-67.	4325.	1.	0.	4392.	1.000	1.000	4325.	40165.
1275	-192.	7471.	-11.	0.	7663.	1.767	1.473	7471.	41185.
1275	-192.	4227.	11.	0.	4420.	1.000	1.000	4227.	41206.
1280	-192.	1606.	-11.	0.	1798.	1.000	1.000	1606.	41033.
1280	-49267.	1606.	11.	0.	50872.	1.000	1.000	1606.	41033.
1285	-49267.	868.	-11.	0.	50135.	1.000	1.000	869.	39838.
1290	-49267.	838.	11.	0.	50104.	1.000	1.000	838.	39813.
1295	-49267.	285.	-11.	0.	49552.	1.000	1.000	286.	40015.
1300	-49267.	254.	11.	0.	49521.	1.000	1.000	255.	40062.
1305	-49267.	483.	-11.	0.	49750.	1.000	1.000	484.	40268.
1305	-47909.	483.	11.	0.	48392.	1.000	1.000	484.	40268.
1310	-47909.	177.	-11.	0.	48086.	1.000	1.000	179.	40524.
1310	-47909.	177.	11.	0.	48086.	1.000	1.000	179.	40524.
1315	-47909.	130.	-11.	0.	48039.	1.000	1.000	132.	39396.
1315	-47909.	130.	11.	0.	48039.	1.000	1.000	132.	39396.
1320	-47909.	22.	-11.	0.	47931.	1.000	1.000	32.	39587.
1320	-47909.	22.	11.	0.	47931.	1.000	1.000	32.	39587.
1325	-47909.	167.	-11.	0.	48076.	1.000	1.000	169.	39437.

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Stresses(lb./sq.in.)					ESS	Stress(lb./sq.in.)		
AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRES INTENSITY	FICATION OUT-PLANE	CODE STRESS	ALLOWABLE STRESS	%
-47909.	167.	11.	0.	480	1.000	169.	39437.	0.
-47909.	334.	-11.	0.	482	1.000	335.	40342.	1.
-47909.	334.	11.	0.	482	1.000	335.	40342.	1.
-47909.	835.	-11.	0.	487	1.000	835.	40032.	2.
-17.	835.	11.	0.	852	1.000	835.	40032.	2.
-11.	3583.	31.	0.	359	1.473	3583.	41095.	9.
-11.	2027.	-31.	0.	203	1.000	2028.	41156.	5.
-11.	837.	31.	0.	858	1.000	839.	39432.	2.
-11.	837.	-31.	0.	850	1.000	839.	39432.	2.
-11.	1149.	31.	0.	1161	1.000	1150.	40227.	3.
-11.	1149.	-31.	0.	1161	1.000	1150.	40227.	3.
-11.	2813.	31.	0.	2825	1.000	2814.	39638.	7.
-11.	2813.	-31.	0.	2825	1.000	2814.	39638.	7.
-17.	4579.	277.	0.	4630	1.473	4613.	40733.	11.
-17.	2594.	-277.	0.	2669	1.000	2652.	40909.	6.
-17.	2689.	277.	0.	2763	1.000	2746.	41157.	7.
-17.	2689.	-277.	0.	2763	1.000	2746.	41157.	7.
-17.	3872.	277.	0.	3929	1.000	3912.	39323.	10.
-17.	3872.	-277.	0.	3929	1.000	3912.	39323.	10.
-227.	2677.	-399.	0.	3012	1.473	2794.	40839.	7.
-227.	1539.	399.	0.	1958	1.000	1734.	41012.	4.
-227.	511.	-399.	0.	1087	1.000	948.	41058.	2.
-227.	511.	399.	0.	1087	1.000	948.	41058.	2.
-17.	1389.	-479.	0.	1702	1.473	1688.	40798.	4.
-17.	885.	479.	0.	1316	1.000	1305.	40994.	3.
-17.	1175.	-479.	0.	1529	1.000	1516.	40928.	4.
-17.	1412.	479.	0.	1721	1.000	1706.	40892.	4.
-17.	3574.	-479.	0.	3717	1.296	3701.	40602.	9.
-12.	2551.	892.	0.	3124	1.296	3113.	39753.	8.
-12.	3279.	-892.	0.	3744	1.296	3733.	40483.	9.
0.	0.	0.	0.	0	1.296	0.	38955.	0.
0.	0.	0.	0.	0	1.000	0.	39286.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS
1403	0.	0.	0.	0.	0.	1.000	1.000	0.	40693.
1404	0.	0.	0.	0.	0.	1.000	1.000	0.	41152.
1401	-12.	3279.	892.	0.	3744.	1.222	1.296	3733.	40483.
1406	-12.	2936.	-892.	0.	3446.	1.000	1.000	3436.	40184.
1409	-12.	3703.	892.	0.	4122.	1.000	1.000	4110.	40442.
1410	-28.	5797.	-1446.	0.	6504.	1.767	1.473	6479.	40909.
1410	-28.	3417.	1446.	0.	4499.	1.000	1.000	4477.	41064.
1420	-28.	2798.	-1446.	0.	4045.	1.000	1.000	4025.	41112.
1400	-1.	3364.	-455.	0.	3486.	1.222	1.296	3484.	39545.
1425	-1.	5089.	455.	0.	5171.	1.000	1.000	5170.	39256.
1425	-1.	5089.	-455.	0.	5171.	1.000	1.000	5170.	39256.
1430	-26.	2299.	-687.	0.	2701.	1.767	1.473	2678.	40619.
1430	-26.	1427.	687.	0.	2000.	1.000	1.000	1981.	40830.
1435	-26.	2878.	-484.	0.	3061.	1.767	1.473	3037.	40644.
1435	-26.	1795.	484.	0.	2063.	1.000	1.000	2040.	40908.
1440	-26.	1310.	-484.	0.	1650.	1.000	1.000	1629.	40646.
1440	-26.	1310.	484.	0.	1650.	1.000	1.000	1629.	40646.
1445	-26.	1648.	-484.	0.	1934.	1.000	1.000	1911.	38832.
1445	-26.	1648.	484.	0.	1934.	1.000	1.000	1911.	38832.
1450	-26.	1083.	-484.	0.	1472.	1.000	1.000	1453.	40759.
1450	-26.	1083.	484.	0.	1472.	1.000	1.000	1453.	40759.
1455	-26.	1123.	-484.	0.	1502.	1.000	1.000	1483.	39797.
1455	-26.	1123.	484.	0.	1502.	1.000	1.000	1483.	39797.
1460	-26.	2064.	-484.	0.	2303.	1.222	1.296	2280.	40118.
1460	-26.	2145.	-807.	0.	2705.	1.222	1.296	2684.	40160.
1465	-26.	1400.	807.	0.	2153.	1.000	1.000	2136.	39550.
1465	-26.	1400.	-807.	0.	2153.	1.000	1.000	2136.	39550.
1470	-26.	537.	807.	0.	1709.	1.000	1.000	1700.	40604.
1470	-26.	537.	-807.	0.	1709.	1.000	1.000	1700.	40604.
1480	-26.	555.	807.	0.	1715.	1.000	1.000	1706.	39391.
1480	-26.	555.	-807.	0.	1715.	1.000	1.000	1706.	39391.
1485	4.	2400.	53.	0.	2406.	1.767	1.473	2402.	41050.

T	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	RESS IFICATION E OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
	4.	1628.	-53.	0.	1635.	1.000	1631.	41128.	4.
	1.	2903.	50.	0.	2906.	1.473	2904.	41015.	7.
	1.	1644.	-50.	0.	1648.	1.000	1647.	41118.	4.
	1.	2852.	50.	0.	2855.	1.000	2854.	40784.	7.
	1.	2852.	-50.	0.	2855.	1.000	2854.	40784.	7.
	1.	4695.	50.	0.	4698.	1.000	4696.	39930.	12.
	1.	4695.	-50.	0.	4698.	1.000	4696.	39930.	12.
	-26.	8710.	902.	0.	8920.	1.473	8895.	40671.	22.
	-26.	4930.	-902.	0.	5274.	1.000	5249.	40864.	13.
	-26.	6110.	902.	0.	6396.	1.296	6371.	39572.	16.
	-43.	15886.	1927.	0.	16388.	1.296	16347.	40480.	40.
	-43.	6366.	-1927.	0.	7479.	1.000	7442.	40374.	18.
	-43.	10202.	1927.	0.	10946.	1.000	10906.	40609.	27.
	-136.	11586.	-9184.	0.	21790.	1.473	21717.	40489.	54.
	-136.	6576.	9184.	0.	19556.	1.000	19510.	40841.	48.
	-136.	6428.	-9184.	0.	19506.	1.000	19460.	40854.	48.
	0.	3345.	-33.	0.	3346.	1.296	3346.	41179.	8.
	0.	1829.	33.	0.	1830.	1.000	1830.	41135.	4.
	0.	1327.	-33.	0.	1329.	1.000	1329.	41111.	3.
	-194.	3421.	0.	0.	3615.	1.473	3421.	40983.	8.
	-194.	1936.	0.	0.	2130.	1.000	1936.	41100.	5.
	-194.	1936.	0.	0.	2130.	1.000	1936.	41140.	5.
	-194.	1936.	0.	0.	2130.	1.000	1936.	41140.	5.
	0.	5415.	33.	0.	5415.	1.473	5415.	40646.	13.
	0.	3064.	-33.	0.	3065.	1.000	3065.	40910.	7.
	0.	4946.	33.	0.	4946.	1.000	4946.	40057.	12.
	0.	4946.	-33.	0.	4946.	1.000	4946.	40057.	12.
	0.	1809.	33.	0.	1810.	1.000	1810.	41166.	4.
	0.	1809.	-33.	0.	1810.	1.000	1810.	41166.	4.
	0.	1328.	33.	0.	1330.	1.000	1330.	40458.	3.
	0.	1328.	-33.	0.	1330.	1.000	1330.	40458.	3.
	0.	826.	33.	0.	829.	1.000	829.	40698.	2.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS
1565	0.	805.	-33.	0.	808.	1.000	1.000	808.	40669.
1570	0.	178.	33.	0.	190.	1.000	1.000	190.	40723.
1575	0.	157.	-33.	0.	170.	1.000	1.000	170.	40756.
1580	0.	345.	33.	0.	352.	1.000	1.000	352.	40315.
1580	0.	345.	-33.	0.	352.	1.000	1.000	352.	40315.
1585	0.	130.	33.	0.	145.	1.000	1.000	145.	41023.
1585	0.	130.	-33.	0.	145.	1.000	1.000	145.	41023.
1590	0.	86.	33.	0.	109.	1.000	1.000	109.	40486.
1590	0.	86.	-33.	0.	109.	1.000	1.000	109.	40486.
1595	0.	42.	33.	0.	79.	1.000	1.000	79.	40714.
1595	0.	42.	-33.	0.	79.	1.000	1.000	79.	40714.
1600	0.	1.	33.	0.	66.	1.000	1.000	66.	40933.
1600	0.	1.	-33.	0.	66.	1.000	1.000	66.	40933.
1605	0.	92.	5.	0.	93.	1.767	1.473	93.	41206.
1605	0.	63.	-5.	0.	64.	1.000	1.000	64.	41221.
1610	0.	5.	5.	0.	12.	1.000	1.000	12.	39930.
1610	0.	5.	-5.	0.	12.	1.000	1.000	12.	39930.
1615	0.	14.	0.	0.	14.	1.767	1.473	14.	41229.
1615	0.	10.	0.	0.	10.	1.000	1.000	10.	41237.
1620	0.	3.	0.	0.	3.	1.000	1.000	3.	40739.
1620	0.	3.	0.	0.	3.	1.000	1.000	3.	40739.
1625	0.	5.	0.	0.	5.	1.000	1.000	5.	40224.
1625	0.	5.	0.	0.	5.	1.000	1.000	5.	40224.
1630	0.	2.	0.	0.	2.	1.000	1.000	2.	41014.
1630	0.	2.	0.	0.	2.	1.000	1.000	2.	41014.
1635	0.	1.	0.	0.	2.	1.000	1.000	2.	40595.
1635	0.	1.	0.	0.	2.	1.000	1.000	2.	40595.
1640	0.	1.	0.	0.	1.	1.000	1.000	1.	40834.
1640	0.	1.	0.	0.	1.	1.000	1.000	1.	40834.
1645	0.	0.	0.	0.	1.	1.000	1.000	1.	40586.
1645	0.	0.	0.	0.	1.	1.000	1.000	1.	40586.
1650	0.	0.	0.	0.	1.	1.000	1.000	1.	41005.

T	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
	0.	0.	0.	0.	1.	1.000	1.000	1.	41005.	0.
	0.	0.	0.	0.	1.	1.000	1.000	1.	40252.	0.
	0.	0.	0.	0.	1.	1.000	1.000	1.	40252.	0.
	0.	0.	0.	0.	1.	1.000	1.000	1.	40753.	0.
	0.	0.	0.	0.	1.	1.000	1.000	1.	40718.	0.
	0.	0.	0.	0.	1.	1.000	1.000	1.	40582.	0.
	0.	0.	0.	0.	1.	1.000	1.000	1.	40609.	0.
	0.	0.	0.	0.	1.	1.000	1.000	1.	40613.	0.
	0.	0.	0.	0.	1.	1.000	1.000	1.	40613.	0.
	0.	1.	0.	0.	1.	1.767	1.473	1.	41141.	0.
	0.	1.	0.	0.	1.	1.000	1.000	1.	41177.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	40705.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	40705.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	40690.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	40690.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	40762.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	40762.	0.
	0.	0.	0.	0.	0.	1.767	1.473	0.	41243.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	41243.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	41252.	0.
	-530.	11241.	-51.	0.	11771.	1.222	1.296	11241.	39831.	28.
	-530.	8693.	51.	0.	9223.	1.000	1.000	8693.	40180.	22.
	-530.	8511.	-51.	0.	9041.	1.000	1.000	8512.	40204.	21.
	-530.	6018.	51.	0.	6549.	1.000	1.000	6019.	40988.	15.
	-530.	5976.	-51.	0.	6507.	1.000	1.000	5977.	40989.	15.
	-530.	5924.	51.	0.	6455.	1.000	1.000	5925.	40922.	14.
	-530.	5924.	-51.	0.	6455.	1.000	1.000	5925.	40922.	14.
	-530.	7212.	51.	0.	7742.	1.000	1.000	7213.	39260.	18.
	-530.	7212.	-51.	0.	7742.	1.000	1.000	7213.	39260.	18.
	-530.	1190.	51.	0.	1723.	1.000	1.000	1195.	40765.	3.
	-530.	1190.	-51.	0.	1723.	1.000	1.000	1195.	40765.	3.
	-444.	13348.	23.	0.	13792.	1.767	1.473	13348.	39754.	34.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS
1755	-444.	7553.	-23.	0.	7997.	1.000	1.000	7553.	40381.
1760	-530.	10042.	-149.	0.	10576.	1.767	1.473	10047.	39873.
1760	-530.	5687.	149.	0.	6224.	1.000	1.000	5694.	40469.
1765	-530.	1138.	-149.	0.	1694.	1.000	1.000	1177.	39830.
1765	-47909.	1138.	149.	0.	49048.	1.000	1.000	1177.	39810.
1770	-47909.	660.	-149.	0.	48570.	1.000	1.000	725.	40986.
1770	-47909.	660.	149.	0.	48570.	1.000	1.000	725.	40986.
1775	-47909.	44.	-149.	0.	47954.	1.000	1.000	302.	39008.
1775	-47909.	44.	149.	0.	47954.	1.000	1.000	302.	39008.
1780	-47909.	335.	-149.	0.	48244.	1.000	1.000	449.	39285.
1780	-47909.	335.	149.	0.	48244.	1.000	1.000	449.	39285.
1785	-47909.	668.	-149.	0.	48578.	1.000	1.000	732.	38786.
1785	-47909.	668.	149.	0.	48578.	1.000	1.000	732.	38786.
1790	-47909.	2017.	-149.	0.	49927.	1.000	1.000	2039.	40656.
1790	-47909.	2017.	149.	0.	49927.	1.000	1.000	2039.	40656.
1795	-47909.	4703.	-149.	0.	52612.	1.000	1.000	4712.	41144.
1795	-1766.	4703.	149.	0.	6476.	1.000	1.000	4712.	41144.
1800	-1766.	5547.	-149.	0.	7319.	1.000	1.000	5555.	40328.
1800	-1766.	5547.	149.	0.	7319.	1.000	1.000	5555.	40328.
1805	-132.	9772.	-9.	0.	9904.	1.767	1.473	9772.	40870.
1805	-132.	5532.	9.	0.	5664.	1.000	1.000	5532.	40992.
1810	-132.	11601.	-9.	0.	11733.	1.000	1.000	11601.	40688.
1810	-47909.	11601.	9.	0.	59510.	1.000	1.000	11601.	40688.
1815	-47909.	4355.	-9.	0.	52264.	1.000	1.000	4355.	39158.
1815	-47909.	4355.	9.	0.	52264.	1.000	1.000	4355.	39158.
1820	-47909.	2891.	-9.	0.	50800.	1.000	1.000	2891.	37362.
1820	-47909.	2891.	9.	0.	50800.	1.000	1.000	2891.	37362.
1825	-47909.	1458.	-9.	0.	49367.	1.000	1.000	1459.	39454.
1825	-47909.	1458.	9.	0.	49367.	1.000	1.000	1459.	39454.
1830	-47909.	110.	-9.	0.	48018.	1.000	1.000	111.	40095.
1830	-706.	110.	9.	0.	816.	1.000	1.000	111.	40095.
1835	-327.	6150.	-111.	0.	6481.	1.767	1.473	6154.	41180.

EXXON
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REPORT, Stresses on Elements
(EXP) D7(EXP)=D3-D4

Stresses(lb./sq.in.)					STRESS		Stress(lb./sq.in.)		
AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	INTENSIFICATION IN-PLANE	OUT-PLANE	CODE STRESS	ALLOWABLE STRESS	%
-327.	3480.	111.	0.	3814.	1.000	1.000	3487.	41203.	8.
-327.	8846.	-111.	0.	9176.	1.000	1.000	8848.	40518.	22.
-5865.	8846.	111.	0.	14712.	1.000	1.000	8848.	40518.	22.
-5865.	7133.	-111.	0.	13000.	1.000	1.000	7137.	39975.	18.
-5865.	7133.	111.	0.	13000.	1.000	1.000	7137.	39975.	18.
-5865.	5421.	-111.	0.	11288.	1.000	1.000	5426.	39420.	14.
-5865.	5421.	111.	0.	11288.	1.000	1.000	5426.	39420.	14.
-5865.	3710.	-111.	0.	9577.	1.000	1.000	3716.	40694.	9.
-5865.	3710.	111.	0.	9577.	1.000	1.000	3716.	40694.	9.
-5865.	2003.	-111.	0.	7871.	1.000	1.000	2015.	40550.	5.
-5865.	2003.	111.	0.	7871.	1.000	1.000	2015.	40550.	5.
-5865.	1477.	-111.	0.	7345.	1.000	1.000	1493.	41239.	4.
-5865.	1446.	111.	0.	7314.	1.000	1.000	1463.	41244.	4.
-5865.	1196.	-111.	0.	7064.	1.222	1.296	1216.	41213.	3.
-5865.	1073.	-52.	0.	6939.	1.222	1.296	1078.	40808.	3.
-5865.	209.	52.	0.	6074.	1.000	1.000	233.	40557.	1.
-5865.	174.	-52.	0.	6040.	1.000	1.000	203.	40479.	1.
-5865.	388.	52.	0.	6254.	1.000	1.000	402.	38883.	1.
-5865.	388.	-52.	0.	6254.	1.000	1.000	402.	38883.	1.
-5865.	3008.	52.	0.	8873.	1.000	1.000	3010.	39604.	8.
-5865.	3008.	-52.	0.	8873.	1.000	1.000	3010.	39604.	8.
-5865.	5641.	52.	0.	11507.	1.000	1.000	5642.	38275.	15.
-5865.	5641.	-52.	0.	11507.	1.000	1.000	5642.	38275.	15.
-5865.	8275.	52.	0.	14141.	1.000	1.000	8276.	39923.	21.
-5865.	8275.	-52.	0.	14141.	1.000	1.000	8276.	39923.	21.
-5865.	10909.	52.	0.	16775.	1.000	1.000	10910.	38244.	29.
-5865.	10909.	-52.	0.	16775.	1.000	1.000	10910.	38244.	29.
-5865.	13543.	52.	0.	19408.	1.000	1.000	13544.	39573.	34.
-5865.	13543.	-52.	0.	19408.	1.000	1.000	13544.	39573.	34.
-5865.	16177.	52.	0.	22042.	1.000	1.000	16178.	38974.	42.
-5865.	16177.	-52.	0.	22042.	1.000	1.000	16178.	38974.	42.
-4159.	12844.	67.	0.	17003.	1.767	1.473	12844.	41032.	31.

STRESS REPORT, Stresses on Elements
CASE 7 (EXP) D7(EXP)=D3-D4

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in. CODE STRESS	ALLOWABL STRES
1935	-4159.	7268.	-67.	0.	11427.	1.000	1.000	7269.	41103.
1945	-17.	85360.	51.	0.	85376.	1.767	1.473	85360.	40807.
1945	-17.	48300.	-51.	0.	48318.	1.000	1.000	48300.	40950.
1950	-17.	125140.	51.	0.	125156.	1.000	1.000	125140.	40694.
1950	-47909.	125140.	-51.	0.	173048.	1.000	1.000	125140.	40694.
1955	-47909.	53680.	51.	0.	101589.	1.000	1.000	53680.	40934.
1955	-47909.	53680.	-51.	0.	101589.	1.000	1.000	53680.	40934.
1960	-47909.	17781.	51.	0.	65690.	1.000	1.000	17781.	39948.
1960	-47909.	17781.	-51.	0.	65690.	1.000	1.000	17781.	39948.
1965	-47909.	8892.	51.	0.	56801.	1.000	1.000	8893.	40467.
1965	-47909.	8892.	-51.	0.	56801.	1.000	1.000	8893.	40467.
1970	-47909.	606.	51.	0.	48515.	1.000	1.000	615.	35483.
1970	0.	606.	-51.	0.	615.	1.000	1.000	615.	35483.
1975	-7.	199.	0.	0.	207.	1.767	1.473	199.	40126.
1975	-7.	126.	0.	0.	133.	1.000	1.000	126.	40570.
1980	-7.	126.	0.	0.	133.	1.000	1.000	126.	40596.
1980	-7.	126.	0.	0.	133.	1.000	1.000	126.	40596.
1985	0.	103.	38.	0.	128.	1.767	1.473	128.	40744.
1985	0.	59.	-38.	0.	95.	1.000	1.000	95.	40965.
1990	0.	921.	38.	0.	924.	1.000	1.000	924.	37682.
1990	0.	921.	-38.	0.	924.	1.000	1.000	924.	37682.
1995	0.	76.	38.	0.	107.	1.000	1.000	107.	40907.
1995	0.	76.	-38.	0.	107.	1.000	1.000	107.	40907.
2000	0.	768.	38.	0.	772.	1.000	1.000	772.	41020.
2000	0.	768.	-38.	0.	772.	1.000	1.000	772.	41020.
2005	0.	395.	38.	0.	402.	1.000	1.000	402.	40439.
2010	0.	378.	-38.	0.	386.	1.000	1.000	386.	40420.
2015	0.	406.	38.	0.	413.	1.296	1.296	413.	40144.
2015	0.	406.	-38.	0.	413.	1.296	1.296	413.	40144.
2020	0.	248.	38.	0.	260.	1.000	1.000	260.	40396.
2025	0.	232.	-38.	0.	244.	1.000	1.000	244.	40409.
2030	-8.	273.	0.	0.	282.	1.767	1.473	273.	40461.

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S REPORT, Stresses on Elements
7 (EXP) D7(EXP)=03-D4

NT	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
	-8.	160.	0.	0.	169.	1.000	1.000	160.	40726.	0.
	0.	219.	-71.	0.	261.	1.767	1.473	261.	40730.	1.
	0.	124.	71.	0.	188.	1.000	1.000	188.	40957.	0.
	0.	270.	-71.	0.	305.	1.000	1.000	305.	40702.	1.
	0.	270.	71.	0.	305.	1.000	1.000	305.	40702.	1.
	0.	162.	-71.	0.	215.	1.000	1.000	215.	40746.	1.
	0.	162.	71.	0.	215.	1.000	1.000	215.	40746.	1.
	0.	53.	-71.	0.	151.	1.000	1.000	151.	40013.	0.
	0.	53.	71.	0.	151.	1.000	1.000	151.	40013.	0.
	0.	199.	0.	0.	199.	1.767	1.473	199.	41190.	0.
	0.	135.	0.	0.	135.	1.000	1.000	135.	41210.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	40804.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	40804.	0.
	0.	0.	0.	0.	0.	1.767	1.473	0.	41252.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	41252.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	41252.	0.
	0.	423.	100.	0.	468.	1.222	1.296	468.	41232.	1.
	0.	205.	-100.	0.	286.	1.000	1.000	286.	41139.	1.
	0.	174.	100.	0.	265.	1.000	1.000	265.	41128.	1.
	-16.	408.	0.	0.	423.	1.767	1.473	408.	40706.	1.
	-16.	256.	0.	0.	272.	1.000	1.000	256.	40886.	1.
	0.	192.	-80.	0.	250.	1.767	1.473	250.	40891.	1.
	0.	109.	80.	0.	193.	1.000	1.000	193.	41048.	0.
	0.	529.	-80.	0.	553.	1.000	1.000	553.	39928.	1.
	0.	529.	80.	0.	553.	1.000	1.000	553.	39928.	1.
	0.	156.	-80.	0.	223.	1.000	1.000	223.	41119.	1.
	0.	156.	80.	0.	223.	1.000	1.000	223.	41119.	1.
	0.	217.	-80.	0.	269.	1.000	1.000	269.	40682.	1.
	0.	217.	80.	0.	269.	1.000	1.000	269.	40682.	1.
	0.	63.	-80.	0.	172.	1.000	1.000	172.	40816.	0.
	0.	63.	80.	0.	172.	1.000	1.000	172.	40816.	0.
	0.	342.	-80.	0.	378.	1.000	1.000	378.	40534.	1.

STRESS REPORT, Stresses on Elements
CASE 7 (EXP) D7(EXP)=D3-D4

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABL STRES
2120	0.	342.	80.	0.	378.	1.000	1.000	378.	40534.
2125	0.	386.	-80.	0.	418.	1.000	1.000	418.	40963.
2125	0.	386.	80.	0.	418.	1.000	1.000	418.	40963.
2130	0.	1114.	-80.	0.	1125.	1.000	1.000	1125.	39934.
2130	0.	1114.	80.	0.	1125.	1.000	1.000	1125.	39934.
2135	-12.	651.	0.	0.	664.	1.767	1.473	651.	40254.
2135	-12.	379.	0.	0.	391.	1.000	1.000	379.	40679.
2140	0.	480.	-80.	0.	506.	1.767	1.473	506.	40413.
2140	0.	272.	80.	0.	315.	1.000	1.000	315.	40777.
2145	0.	129.	-21.	0.	135.	1.767	1.473	135.	40988.
2145	0.	88.	21.	0.	97.	1.000	1.000	97.	41072.
2150	0.	225.	-21.	0.	229.	1.000	1.000	229.	40330.
2150	0.	225.	21.	0.	229.	1.000	1.000	229.	40330.
2155	0.	108.	-21.	0.	115.	1.000	1.000	115.	41166.
2155	0.	108.	21.	0.	115.	1.000	1.000	115.	41166.
2160	0.	60.	-21.	0.	73.	1.000	1.000	73.	41014.
2160	0.	60.	21.	0.	73.	1.000	1.000	73.	41014.
2165	0.	29.	-21.	0.	50.	1.000	1.000	50.	41010.
2165	0.	29.	21.	0.	50.	1.000	1.000	50.	41010.
2170	0.	16.	-21.	0.	44.	1.000	1.000	44.	40832.
2170	0.	16.	21.	0.	44.	1.000	1.000	44.	40832.
2175	0.	8.	-21.	0.	42.	1.000	1.000	42.	41097.
2175	0.	8.	21.	0.	42.	1.000	1.000	42.	41097.
2180	0.	4.	-21.	0.	42.	1.000	1.000	42.	40880.
2180	0.	4.	21.	0.	42.	1.000	1.000	42.	40880.
2185	0.	2.	-21.	0.	41.	1.000	1.000	41.	41074.
2185	0.	2.	21.	0.	41.	1.000	1.000	41.	41074.
2190	0.	1.	-21.	0.	41.	1.000	1.000	41.	40868.
2190	0.	1.	21.	0.	41.	1.000	1.000	41.	40868.
2195	0.	1.	-21.	0.	41.	1.000	1.000	41.	41080.
2195	0.	1.	21.	0.	41.	1.000	1.000	41.	41080.
2200	0.	0.	-21.	0.	41.	1.000	1.000	41.	40871.

S REPORT, Stresses on Elements
7 (EXP) D7(EXP)=03-D4

NT	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	STRESS MAX 3D STRESS INTENSITY	INTENSIFICATION IN-PLANE	INTENSIFICATION OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
	0.	0.	21.	0.	41.	1.000	1.000	41.	40871.	0.
	0.	0.	-21.	0.	41.	1.000	1.000	41.	41079.	0.
	0.	0.	21.	0.	41.	1.000	1.000	41.	41079.	0.
	0.	0.	-21.	0.	41.	1.000	1.000	41.	40870.	0.
	0.	0.	21.	0.	41.	1.000	1.000	41.	40870.	0.
	0.	0.	-21.	0.	41.	1.000	1.000	41.	41079.	0.
	0.	0.	21.	0.	41.	1.000	1.000	41.	41079.	0.
	0.	0.	-21.	0.	41.	1.000	1.000	41.	40870.	0.
	0.	0.	21.	0.	41.	1.000	1.000	41.	40870.	0.
	0.	0.	-21.	0.	41.	1.000	1.000	41.	41079.	0.
	0.	0.	21.	0.	41.	1.000	1.000	41.	41079.	0.
	0.	0.	-21.	0.	41.	1.000	1.000	41.	40870.	0.
	0.	0.	21.	0.	41.	1.000	1.000	41.	40870.	0.
	0.	0.	-21.	0.	41.	1.000	1.000	41.	41079.	0.
	0.	0.	21.	0.	41.	1.000	1.000	41.	41079.	0.
	0.	0.	-21.	0.	41.	1.000	1.000	41.	40870.	0.
	0.	0.	21.	0.	41.	1.000	1.000	41.	40870.	0.
	0.	0.	-21.	0.	41.	1.000	1.000	41.	41079.	0.
	0.	0.	21.	0.	41.	1.000	1.000	41.	41079.	0.
	0.	0.	-21.	0.	41.	1.000	1.000	41.	40870.	0.
	0.	0.	21.	0.	41.	1.000	1.000	41.	40870.	0.
	0.	0.	-21.	0.	41.	1.000	1.000	41.	41079.	0.
	0.	0.	21.	0.	41.	1.000	1.000	41.	41079.	0.
	0.	0.	-21.	0.	41.	1.000	1.000	41.	40870.	0.
	0.	0.	21.	0.	41.	1.000	1.000	41.	40870.	0.
	0.	0.	-21.	0.	41.	1.000	1.000	41.	41079.	0.
	0.	0.	21.	0.	41.	1.000	1.000	41.	41079.	0.
	0.	0.	-21.	0.	41.	1.000	1.000	41.	40870.	0.
	0.	0.	21.	0.	41.	1.000	1.000	41.	40870.	0.
	0.	0.	-21.	0.	41.	1.000	1.000	41.	41079.	0.
	0.	0.	21.	0.	41.	1.000	1.000	41.	41079.	0.
	0.	0.	-21.	0.	41.	1.000	1.000	41.	40870.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS
2280	0.	0.	21.	0.	41.	1.000	1.000	41.	40870.
2285	0.	0.	-21.	0.	41.	1.000	1.000	41.	41079.
2285	0.	0.	21.	0.	41.	1.000	1.000	41.	41079.
2290	0.	0.	-21.	0.	41.	1.000	1.000	41.	40870.
2290	0.	0.	21.	0.	41.	1.000	1.000	41.	40870.
2295	0.	0.	-21.	0.	41.	1.000	1.000	41.	41079.
2295	0.	0.	21.	0.	41.	1.000	1.000	41.	41079.
2300	0.	0.	-21.	0.	41.	1.000	1.000	41.	40870.
2300	0.	0.	21.	0.	41.	1.000	1.000	41.	40870.
2305	0.	0.	-21.	0.	41.	1.000	1.000	41.	41079.
2305	0.	0.	21.	0.	41.	1.000	1.000	41.	41079.
2310	0.	0.	-21.	0.	41.	1.000	1.000	41.	40870.
2310	0.	0.	21.	0.	41.	1.000	1.000	41.	40870.
2315	0.	0.	-21.	0.	41.	1.000	1.000	41.	41079.
2315	0.	0.	21.	0.	41.	1.000	1.000	41.	41079.
2320	0.	0.	-21.	0.	41.	1.000	1.000	41.	40870.
2320	0.	0.	21.	0.	41.	1.000	1.000	41.	40870.
2325	0.	0.	-21.	0.	41.	1.000	1.000	41.	41079.
2325	0.	0.	21.	0.	41.	1.000	1.000	41.	41079.
2330	0.	0.	-21.	0.	41.	1.000	1.000	41.	40870.
2330	0.	0.	21.	0.	41.	1.000	1.000	41.	40870.
2335	0.	0.	-21.	0.	41.	1.000	1.000	41.	41079.
2335	0.	0.	21.	0.	41.	1.000	1.000	41.	41079.
2340	0.	0.	-21.	0.	41.	1.000	1.000	41.	40870.
2340	0.	0.	21.	0.	41.	1.000	1.000	41.	40870.
2345	0.	0.	-21.	0.	41.	1.000	1.000	41.	41079.
2345	0.	0.	21.	0.	41.	1.000	1.000	41.	41079.
2350	0.	0.	-21.	0.	41.	1.000	1.000	41.	40871.
2350	0.	0.	21.	0.	41.	1.000	1.000	41.	40871.
2355	0.	0.	-21.	0.	41.	1.000	1.000	41.	41080.
2355	0.	0.	21.	0.	41.	1.000	1.000	41.	41080.
2360	0.	0.	-21.	0.	41.	1.000	1.000	41.	40868.

T	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
	0.	0.	21.	0.	41.	1.000	1.000	41.	40868.	0.
	0.	0.	-21.	0.	41.	1.000	1.000	41.	41076.	0.
	0.	0.	21.	0.	41.	1.000	1.000	41.	41076.	0.
	0.	0.	-21.	0.	41.	1.000	1.000	41.	40881.	0.
	0.	0.	21.	0.	41.	1.000	1.000	41.	40881.	0.
	0.	0.	-21.	0.	41.	1.000	1.000	41.	41089.	0.
	0.	0.	21.	0.	41.	1.000	1.000	41.	41089.	0.
	0.	1.	-21.	0.	41.	1.000	1.000	41.	40832.	0.
	0.	1.	21.	0.	41.	1.000	1.000	41.	40832.	0.
	0.	1.	-21.	0.	41.	1.000	1.000	41.	41041.	0.
	0.	1.	21.	0.	41.	1.000	1.000	41.	41041.	0.
	0.	3.	-21.	0.	41.	1.000	1.000	41.	41018.	0.
	0.	3.	21.	0.	41.	1.000	1.000	41.	41018.	0.
	0.	3.	-21.	0.	41.	1.000	1.000	41.	41221.	0.
	0.	3.	21.	0.	41.	1.000	1.000	41.	41221.	0.
	0.	12.	-21.	0.	43.	1.000	1.000	43.	40316.	0.
	0.	12.	21.	0.	43.	1.000	1.000	43.	40316.	0.
	0.	59.	0.	0.	59.	1.767	1.473	59.	41167.	0.
	0.	40.	0.	0.	40.	1.000	1.000	40.	41194.	0.
	0.	25.	0.	0.	25.	1.000	1.000	25.	41166.	0.
	0.	25.	0.	0.	25.	1.000	1.000	25.	41166.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	38888.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	38888.	0.
	0.	0.	0.	0.	0.	1.767	1.473	0.	41226.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	41226.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	41252.	0.

RESTRAINT REPORT, Loads on Restraints
RESTRAINT SUMMARY

RESTRAINT SUMMARY REPORT

LOAD CASE DEFINITION KEY

CASE 1 (OPE) W+DIS+T1+P1
CASE 2 (OPE) W+DIS+T2+P1
CASE 3 (OPE) W+DIS+T3+P1
CASE 4 (SUS) W+P1
CASE 5 (EXP) D5(EXP)=D1-D4
CASE 6 (EXP) D6(EXP)=D2-D4
CASE 7 (EXP) D7(EXP)=D3-D4

E TYPE	FX	FY	FZ	RESULTANT	MX	MY	MZ	RESULTANT
	Forces(lb.)				Moments(ft.lb.)			
	Rigid X Rigid Y Rigid Z							
OPE	11446.	-75.	0.	11447.	0.	0.	0.	0.
OPE	-46676.	-75.	-1.	46676.	0.	0.	0.	0.
OPE	-106764.	-75.	-1.	106764.	0.	0.	0.	0.
SUS	0.	-75.	0.	75.	0.	0.	0.	0.
EXP	11446.	0.	0.	11446.	0.	0.	0.	0.
EXP	-46676.	0.	-1.	46676.	0.	0.	0.	0.
EXP	-106764.	0.	-1.	106764.	0.	0.	0.	0.
MAX.	106764./ 3	75./ 3	1./ 3	106764./ 3	0./ 1	0./ 1	0./ 1	0./ 1
	Rigid Y							
OPE	0.	-169.	0.	169.	0.	0.	0.	0.
OPE	0.	-168.	0.	168.	0.	0.	0.	0.
OPE	0.	-168.	0.	168.	0.	0.	0.	0.
SUS	0.	-169.	0.	169.	0.	0.	0.	0.
EXP	0.	0.	0.	0.	0.	0.	0.	0.
EXP	0.	0.	0.	0.	0.	0.	0.	0.
EXP	0.	1.	0.	1.	0.	0.	0.	0.
MAX.	0./ 1	169./ 1	0./ 1	169./ 1	0./ 1	0./ 1	0./ 1	0./ 1
	Rigid Y Rigid Z Rigid X							
OPE	0.	-141.	0.	141.	0.	0.	0.	0.
OPE	0.	-143.	4.	143.	0.	0.	0.	0.
OPE	0.	-145.	7.	145.	0.	0.	0.	0.
SUS	0.	-141.	1.	141.	0.	0.	0.	0.
EXP	0.	0.	-1.	1.	0.	0.	0.	0.
EXP	0.	-2.	3.	4.	0.	0.	0.	0.
EXP	0.	-4.	7.	8.	0.	0.	0.	0.
MAX.	0./ 3	145./ 3	7./ 3	145./ 3	0./ 1	0./ 1	0./ 1	0./ 1
	Rigid Y							
OPE	0.	-163.	0.	163.	0.	0.	0.	0.
OPE	0.	-155.	0.	155.	0.	0.	0.	0.
OPE	0.	-147.	0.	147.	0.	0.	0.	0.
SUS	0.	-162.	0.	162.	0.	0.	0.	0.
EXP	0.	-2.	0.	2.	0.	0.	0.	0.
EXP	0.	7.	0.	7.	0.	0.	0.	0.
EXP	0.	15.	0.	15.	0.	0.	0.	0.
MAX.	0./ 1	163./ 1	0./ 1	163./ 1	0./ 1	0./ 1	0./ 1	0./ 1

NODE	CASE	TYPE	Forces(lb.) FX	FY	FZ	RESULTANT	Moments(ft.lb.) MX	MY	MZ	RESULTANT
1045			Rigid Y Rigid Z Rigid X							
	1	OPE	-11438.	-167.	44.	11439.	0.	0.	0.	0.
	2	OPE	46636.	-165.	-276.	46637.	0.	0.	0.	0.
	3	OPE	106673.	-163.	-608.	106675.	0.	0.	0.	0.
	4	SUS	-1.	-166.	-19.	167.	0.	0.	0.	0.
	5	EXP	-11437.	0.	63.	11437.	0.	0.	0.	0.
	6	EXP	46637.	2.	-257.	46638.	0.	0.	0.	0.
	7	EXP	106674.	3.	-588.	106676.	0.	0.	0.	0.
		MAX.	106674./ 7	167./ 1	608./ 3	106676./ 7	0./ 1	0./ 1	0./ 1	0./ 1
1065			Rigid Y Rigid Z Rigid X							
	1	OPE	134.	-197.	-45.	243.	0.	0.	0.	0.
	2	OPE	-394.	-326.	319.	603.	0.	0.	0.	0.
	3	OPE	-961.	-459.	695.	1257.	0.	0.	0.	0.
	4	SUS	30.	-222.	27.	226.	0.	0.	0.	0.
	5	EXP	104.	25.	-72.	129.	0.	0.	0.	0.
	6	EXP	-424.	-103.	292.	526.	0.	0.	0.	0.
	7	EXP	-971.	-237.	669.	1202.	0.	0.	0.	0.
		MAX.	971./ 7	459./ 3	695./ 3	1257./ 3	0./ 1	0./ 1	0./ 1	0./ 1
1080			Rigid Y Rigid Z Rigid X							
	1	OPE	11304.	-116.	-3.	11304.	0.	0.	0.	0.
	2	OPE	-46242.	-72.	-67.	46242.	0.	0.	0.	0.
	3	OPE	-105732.	-26.	-134.	105733.	0.	0.	0.	0.
	4	SUS	-29.	-107.	-16.	112.	0.	0.	0.	0.
	5	EXP	11333.	-9.	13.	11333.	0.	0.	0.	0.
	6	EXP	-46212.	36.	-51.	46213.	0.	0.	0.	0.
	7	EXP	-105703.	81.	-118.	105703.	0.	0.	0.	0.
		MAX.	105732./ 3	116./ 1	134./ 3	105733./ 3	0./ 1	0./ 1	0./ 1	0./ 1

ASE	TYPE	FX	FY	FZ	RESULTANT	MX	MY	MZ	RESULTANT
		Forces(lb.)				Moments(ft.lb.)			
		Rigid Y Rigid Z Rigid X							
1	OPE	0.	-121.	5.	121.	0.	0.	0.	0.
2	OPE	0.	-35.	25.	43.	0.	0.	0.	0.
3	OPE	0.	54.	45.	70.	0.	0.	0.	0.
4	SUS	0.	-104.	9.	104.	0.	0.	0.	0.
5	EXP	0.	-17.	-4.	17.	0.	0.	0.	0.
6	EXP	0.	69.	16.	71.	0.	0.	0.	0.
7	EXP	0.	158.	36.	162.	0.	0.	0.	0.
	MAX.	0./ 3	158./ 7	45./ 3	162./ 7	0./ 1	0./ 1	0./ 1	0./ 1
		Rigid Y Rigid Z Rigid X							
1	OPE	0.	-103.	-1.	103.	0.	0.	0.	0.
2	OPE	0.	-115.	-3.	115.	0.	0.	0.	0.
3	OPE	0.	-127.	-6.	128.	0.	0.	0.	0.
4	SUS	0.	-105.	-1.	105.	0.	0.	0.	0.
5	EXP	0.	2.	1.	2.	0.	0.	0.	0.
6	EXP	0.	-10.	-2.	10.	0.	0.	0.	0.
7	EXP	0.	-22.	-5.	23.	0.	0.	0.	0.
	MAX.	0./ 3	127./ 3	6./ 3	128./ 3	0./ 1	0./ 1	0./ 1	0./ 1
		Rigid Y Rigid Z Rigid X							
	OPE	0.	-186.	0.	186.	0.	0.	0.	0.
	OPE	0.	-183.	1.	183.	0.	0.	0.	0.
	OPE	0.	-181.	1.	181.	0.	0.	0.	0.
	SUS	0.	-186.	0.	186.	0.	0.	0.	0.
	EXP	0.	-1.	0.	1.	0.	0.	0.	0.
	EXP	0.	2.	0.	2.	0.	0.	0.	0.
	EXP	0.	5.	1.	5.	0.	0.	0.	0.
	MAX.	0./ 4	186./ 1	1./ 3	186./ 1	0./ 1	0./ 1	0./ 1	0./ 1

RESTRAINT REPORT, Loads on Restraints
RESTRAINT SUMMARY

			Forces(lb.)				Moments(ft.lb.)			
NODE	CASE	TYPE	FX	FY	FZ	RESULTANT	MX	MY	MZ	RESULTANT
1120			Rigid Y	Rigid X	Rigid Z					
	1	OPE	0.	-232.	0.	232.	0.	0.	0.	0.
	2	OPE	0.	-232.	0.	232.	0.	0.	0.	0.
	3	OPE	0.	-233.	1.	233.	0.	0.	0.	0.
	4	SUS	0.	-232.	0.	232.	0.	0.	0.	0.
	5	EXP	0.	0.	0.	0.	0.	0.	0.	0.
	6	EXP	0.	0.	1.	1.	0.	0.	0.	0.
	7	EXP	0.	-1.	1.	1.	0.	0.	0.	0.
		MAX.	0./ 3	233./ 3	1./ 7	233./ 3	0./ 1	0./ 1	0./ 1	0./ 1
1130			Rigid Y	Rigid Z	Rigid X					
	1	OPE	0.	-219.	1.	219.	0.	0.	0.	0.
	2	OPE	0.	-219.	-2.	219.	0.	0.	0.	0.
	3	OPE	0.	-218.	-5.	219.	0.	0.	0.	0.
	4	SUS	0.	-219.	0.	219.	0.	0.	0.	0.
	5	EXP	0.	0.	1.	1.	0.	0.	0.	0.
	6	EXP	0.	0.	-2.	2.	0.	0.	0.	0.
	7	EXP	0.	0.	-5.	5.	0.	0.	0.	0.
		MAX.	0./ 3	219./ 1	5./ 7	219./ 1	0./ 1	0./ 1	0./ 1	0./ 1
1140			Rigid Y	Rigid Z	Rigid X					
	1	OPE	0.	-234.	-2.	234.	0.	0.	0.	0.
	2	OPE	0.	-235.	8.	235.	0.	0.	0.	0.
	3	OPE	0.	-235.	18.	236.	0.	0.	0.	0.
	4	SUS	0.	-235.	0.	235.	0.	0.	0.	0.
	5	EXP	0.	0.	-2.	2.	0.	0.	0.	0.
	6	EXP	0.	0.	8.	8.	0.	0.	0.	0.
	7	EXP	0.	0.	18.	18.	0.	0.	0.	0.
		MAX.	0./ 3	235./ 3	18./ 7	236./ 3	0./ 1	0./ 1	0./ 1	0./ 1

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ASE	TYPE	FX	FY	FZ	RESULTANT	MX	MY	MZ	RESULTANT
		Forces(lb.)				Moments(ft.lb.)			
		Rigid Y Rigid Z Rigid X							
1	OPE	-11447.	-186.	14.	11448.	0.	0.	0.	0.
2	OPE	46677.	-185.	-55.	46677.	0.	0.	0.	0.
3	OPE	106766.	-185.	-127.	106766.	0.	0.	0.	0.
4	SUS	0.	-186.	0.	186.	0.	0.	0.	0.
5	EXP	-11447.	0.	14.	11447.	0.	0.	0.	0.
6	EXP	46677.	0.	-55.	46677.	0.	0.	0.	0.
7	EXP	106766.	1.	-127.	106766.	0.	0.	0.	0.
	MAX.	106766./ 3	186./ 1	127./ 7	106766./ 3	0./ 1	0./ 1	0./ 1	0./ 1
		Rigid Y Rigid X Rigid Z							
1	OPE	4.	-174.	747.	767.	0.	0.	0.	0.
2	OPE	-18.	-174.	-3046.	3051.	0.	0.	0.	0.
3	OPE	-41.	-173.	-6968.	6970.	0.	0.	0.	0.
4	SUS	0.	-174.	0.	174.	0.	0.	0.	0.
5	EXP	4.	0.	747.	747.	0.	0.	0.	0.
6	EXP	-18.	1.	-3046.	3046.	0.	0.	0.	0.
7	EXP	-41.	1.	-6968.	6968.	0.	0.	0.	0.
	MAX.	41./ 3	174./ 1	6968./ 3	6970./ 3	0./ 1	0./ 1	0./ 1	0./ 1
		Rigid Y							
1	OPE	0.	-241.	0.	241.	0.	0.	0.	0.
2	OPE	0.	-243.	0.	243.	0.	0.	0.	0.
3	OPE	0.	-245.	0.	245.	0.	0.	0.	0.
4	SUS	0.	-242.	0.	242.	0.	0.	0.	0.
5	EXP	0.	0.	0.	0.	0.	0.	0.	0.
6	EXP	0.	-1.	0.	1.	0.	0.	0.	0.
7	EXP	0.	-3.	0.	3.	0.	0.	0.	0.
	MAX.	0./ 1	245./ 3	0./ 1	245./ 3	0./ 1	0./ 1	0./ 1	0./ 1
		Rigid Y							
	OPE	0.	-74.	0.	74.	0.	0.	0.	0.
	OPE	0.	-73.	0.	73.	0.	0.	0.	0.
	OPE	0.	-72.	0.	72.	0.	0.	0.	0.
	SUS	0.	-73.	0.	73.	0.	0.	0.	0.
	EXP	0.	0.	0.	0.	0.	0.	0.	0.
	EXP	0.	1.	0.	1.	0.	0.	0.	0.
	EXP	0.	2.	0.	2.	0.	0.	0.	0.
	MAX.	0./ 1	74./ 1	0./ 1	74./ 1	0./ 1	0./ 1	0./ 1	0./ 1

RESTRAINT REPORT, Loads on Restraints
RESTRAINT SUMMARY

NODE	CASE	TYPE	Forces(lb.) FX	FY	FZ	RESULTANT	Moments(ft.lb.) MX	MY	MZ	RESULTANT
1190		Rigid Y								
	1	OPE	0.	-137.	0.	137.	0.	0.	0.	0.
	2	OPE	0.	-137.	0.	137.	0.	0.	0.	0.
	3	OPE	0.	-138.	0.	138.	0.	0.	0.	0.
	4	SUS	0.	-137.	0.	137.	0.	0.	0.	0.
	5	EXP	0.	0.	0.	0.	0.	0.	0.	0.
	6	EXP	0.	0.	0.	0.	0.	0.	0.	0.
	7	EXP	0.	0.	0.	0.	0.	0.	0.	0.
		MAX.	0./ 1	138./ 3	0./ 1	138./ 3	0./ 1	0./ 1	0./ 1	0./ 1
1200		Rigid Y								
	1	OPE	0.	-123.	0.	123.	0.	0.	0.	0.
	2	OPE	0.	-123.	0.	123.	0.	0.	0.	0.
	3	OPE	0.	-123.	0.	123.	0.	0.	0.	0.
	4	SUS	0.	-123.	0.	123.	0.	0.	0.	0.
	5	EXP	0.	0.	0.	0.	0.	0.	0.	0.
	6	EXP	0.	0.	0.	0.	0.	0.	0.	0.
	7	EXP	0.	0.	0.	0.	0.	0.	0.	0.
		MAX.	0./ 1	123./ 1	0./ 1	123./ 1	0./ 1	0./ 1	0./ 1	0./ 1
1210		Rigid Y								
	1	OPE	0.	-115.	0.	115.	0.	0.	0.	0.
	2	OPE	0.	-115.	0.	115.	0.	0.	0.	0.
	3	OPE	0.	-115.	0.	115.	0.	0.	0.	0.
	4	SUS	0.	-115.	0.	115.	0.	0.	0.	0.
	5	EXP	0.	0.	0.	0.	0.	0.	0.	0.
	6	EXP	0.	0.	0.	0.	0.	0.	0.	0.
	7	EXP	0.	0.	0.	0.	0.	0.	0.	0.
		MAX.	0./ 1	115./ 3	0./ 1	115./ 3	0./ 1	0./ 1	0./ 1	0./ 1
1220		Rigid Y								
	1	OPE	0.	-161.	0.	161.	0.	0.	0.	0.
	2	OPE	0.	-161.	0.	161.	0.	0.	0.	0.
	3	OPE	0.	-161.	0.	161.	0.	0.	0.	0.
	4	SUS	0.	-161.	0.	161.	0.	0.	0.	0.
	5	EXP	0.	0.	0.	0.	0.	0.	0.	0.
	6	EXP	0.	0.	0.	0.	0.	0.	0.	0.
	7	EXP	0.	0.	0.	0.	0.	0.	0.	0.
		MAX.	0./ 1	161./ 1	0./ 1	161./ 1	0./ 1	0./ 1	0./ 1	0./ 1
1230		Rigid Y								
	1	OPE	0.	-2.	0.	2.	0.	0.	0.	0.
	2	OPE	0.	-2.	0.	2.	0.	0.	0.	0.
	3	OPE	0.	-2.	0.	2.	0.	0.	0.	0.
	4	SUS	0.	-2.	0.	2.	0.	0.	0.	0.
	5	EXP	0.	0.	0.	0.	0.	0.	0.	0.
	6	EXP	0.	0.	0.	0.	0.	0.	0.	0.
	7	EXP	0.	0.	0.	0.	0.	0.	0.	0.
		MAX.	0./ 1	2./ 3	0./ 1	2./ 3	0./ 1	0./ 1	0./ 1	0./ 1

AINT REPORT, Loads on Restraints
AINT SUMMARY

CASE	TYPE	Forces(lb.) FX	FY	FZ	RESULTANT	Moments(ft.lb.) MX	MY	MZ	RESULTANT
0		Rigid Y Rigid Z Rigid X							
1	OPE	11442.	-192.	-816.	11473.	0.	0.	0.	0.
2	OPE	-46660.	-192.	3327.	46778.	0.	0.	0.	0.
3	OPE	-106725.	-191.	7610.	106996.	0.	0.	0.	0.
4	SUS	0.	-192.	0.	192.	0.	0.	0.	0.
5	EXP	11442.	0.	-816.	11471.	0.	0.	0.	0.
6	EXP	-46660.	0.	3327.	46778.	0.	0.	0.	0.
7	EXP	-106725.	0.	7610.	106996.	0.	0.	0.	0.
	MAX.	106725./ 3	192./ 1	7610./ 3	106996./ 3	0./ 1	0./ 1	0./ 1	0./ 1
0		Rigid Y Rigid Z Rigid X							
1	OPE	0.	-266.	73.	276.	0.	0.	0.	0.
2	OPE	0.	-266.	-297.	399.	0.	0.	0.	0.
3	OPE	0.	-266.	-679.	729.	0.	0.	0.	0.
4	SUS	0.	-266.	0.	266.	0.	0.	0.	0.
5	EXP	0.	0.	73.	73.	0.	0.	0.	0.
6	EXP	0.	0.	-297.	297.	0.	0.	0.	0.
7	EXP	0.	0.	-679.	679.	0.	0.	0.	0.
	MAX.	0./ 3	266./ 3	679./ 3	729./ 3	0./ 1	0./ 1	0./ 1	0./ 1
0		Rigid Y Rigid Z Rigid X							
1	OPE	0.	-263.	-23.	264.	0.	0.	0.	0.
2	OPE	0.	-263.	95.	280.	0.	0.	0.	0.
3	OPE	0.	-263.	216.	341.	0.	0.	0.	0.
4	SUS	0.	-263.	0.	263.	0.	0.	0.	0.
5	EXP	0.	0.	-23.	23.	0.	0.	0.	0.
6	EXP	0.	0.	95.	95.	0.	0.	0.	0.
7	EXP	0.	0.	216.	216.	0.	0.	0.	0.
	MAX.	0./ 3	263./ 1	216./ 3	341./ 3	0./ 1	0./ 1	0./ 1	0./ 1

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NT REPORT, Loads on Restraints
NT SUMMARY

SE	TYPE	FX	FY	FZ	RESULTANT	MX	MY	MZ	RESULTANT
		Forces(lb.)				Moments(ft.lb.)			
		Rigid Y	Rigid X	Rigid Z					
	OPE	-11430.	-179.	53.	11432.	0.	0.	0.	0.
	OPE	46611.	-179.	-217.	46612.	0.	0.	0.	0.
	OPE	106614.	-179.	-495.	106616.	0.	0.	0.	0.
	SUS	0.	-179.	0.	179.	0.	0.	0.	0.
	EXP	-11430.	0.	53.	11431.	0.	0.	0.	0.
	EXP	46611.	0.	-217.	46612.	0.	0.	0.	0.
	EXP	106614.	0.	-495.	106616.	0.	0.	0.	0.
	MAX.	106614./ 3	179./ 1	495./ 7	106616./ 3	0./ 1	0./ 1	0./ 1	0./ 1
		Rigid Y	Rigid X	Rigid Z					
	OPE	-19.	-123.	11725.	11726.	0.	0.	0.	0.
	OPE	77.	-123.	-47812.	47812.	0.	0.	0.	0.
	OPE	175.	-123.	-109362.	109362.	0.	0.	0.	0.
	SUS	0.	-123.	0.	123.	0.	0.	0.	0.
	EXP	-19.	0.	11725.	11725.	0.	0.	0.	0.
	EXP	77.	0.	-47812.	47812.	0.	0.	0.	0.
	EXP	175.	0.	-109362.	109362.	0.	0.	0.	0.
	MAX.	175./ 7	123./ 3	109362./ 3	109362./ 3	0./ 1	0./ 1	0./ 1	0./ 1
		Rigid Y	Rigid X	Rigid Z					
	OPE	4.	-137.	-324.	352.	0.	0.	0.	0.
	OPE	-16.	-137.	1323.	1330.	0.	0.	0.	0.
	OPE	-37.	-137.	3026.	3030.	0.	0.	0.	0.
	SUS	0.	-137.	0.	137.	0.	0.	0.	0.
	EXP	4.	0.	-324.	324.	0.	0.	0.	0.
	EXP	-17.	0.	1323.	1323.	0.	0.	0.	0.
	EXP	-37.	0.	3026.	3026.	0.	0.	0.	0.
	MAX.	37./ 7	137./ 3	3026./ 3	3030./ 3	0./ 1	0./ 1	0./ 1	0./ 1

RESTRAINT REPORT, Loads on Restraints
RESTRAINT SUMMARY

			Forces(lb.)				Moments(ft.lb.)			
NODE	CASE	TYPE	FX	FY	FZ	RESULTANT	MX	MY	MZ	RESULTANT
1315			Rigid Y	Rigid X	Rigid Z					
	1	OPE	-1.	-178.	0.	178.	0.	0.	0.	0.
	2	OPE	6.	-177.	0.	177.	0.	0.	0.	0.
	3	OPE	13.	-177.	0.	177.	0.	0.	0.	0.
	4	SUS	0.	-177.	0.	177.	0.	0.	0.	0.
	5	EXP	-1.	0.	0.	1.	0.	0.	0.	0.
	6	EXP	6.	0.	0.	6.	0.	0.	0.	0.
	7	EXP	13.	1.	0.	13.	0.	0.	0.	0.
		MAX.	13./ 7	178./ 1	0./ 3	178./ 1	0./ 1	0./ 1	0./ 1	0./ 1
1325			Rigid Y	Rigid X	Rigid Z					
	1	OPE	-1.	-168.	0.	168.	0.	0.	0.	0.
	2	OPE	-10.	-172.	0.	173.	0.	0.	0.	0.
	3	OPE	-19.	-177.	0.	178.	0.	0.	0.	0.
	4	SUS	1.	-169.	0.	169.	0.	0.	0.	0.
	5	EXP	-2.	1.	0.	2.	0.	0.	0.	0.
	6	EXP	-11.	-3.	0.	11.	0.	0.	0.	0.
	7	EXP	-20.	-7.	0.	22.	0.	0.	0.	0.
		MAX.	20./ 7	177./ 3	0./ 7	178./ 3	0./ 1	0./ 1	0./ 1	0./ 1
1335			Rigid Y	Rigid X	Rigid Z					
	1	OPE	6.	-113.	-11441.	11441.	0.	0.	0.	0.
	2	OPE	-1.	-106.	46660.	46660.	0.	0.	0.	0.
	3	OPE	-9.	-98.	106724.	106724.	0.	0.	0.	0.
	4	SUS	-3.	-111.	-2.	111.	0.	0.	0.	0.
	5	EXP	10.	-1.	-11439.	11439.	0.	0.	0.	0.
	6	EXP	2.	6.	46661.	46661.	0.	0.	0.	0.
	7	EXP	-6.	13.	106726.	106726.	0.	0.	0.	0.
		MAX.	10./ 5	113./ 1	106726./ 7	106726./ 7	0./ 1	0./ 1	0./ 1	0./ 1

CASE	TYPE	FX	FY	FZ	RESULTANT	MX	MY	MZ	RESULTANT
		forces(lb.)				Moments(ft.lb.)			
45		Rigid Y							
1	OPE	0.	-128.	0.	128.	0.	0.	0.	0.
2	OPE	0.	-159.	0.	159.	0.	0.	0.	0.
3	OPE	0.	-192.	0.	192.	0.	0.	0.	0.
4	SUS	0.	-137.	0.	137.	0.	0.	0.	0.
5	EXP	0.	9.	0.	9.	0.	0.	0.	0.
6	EXP	0.	-23.	0.	23.	0.	0.	0.	0.
7	EXP	0.	-55.	0.	55.	0.	0.	0.	0.
	MAX.	0./ 1	192./ 3	0./ 1	192./ 3	0./	0./ 1	0./ 1	0./ 1
i5		Rigid Y							
1	OPE	0.	-164.	0.	164.	0.	0.	0.	0.
2	OPE	0.	-97.	0.	97.	0.	0.	0.	0.
3	OPE	0.	-27.	0.	27.	0.	0.	0.	0.
4	SUS	0.	-132.	0.	132.	0.	0.	0.	0.
5	EXP	0.	-32.	0.	32.	0.	0.	0.	0.
6	EXP	0.	35.	0.	35.	0.	0.	0.	0.
7	EXP	0.	104.	0.	104.	0.	0.	0.	0.
	MAX.	0./ 1	164./ 1	0./ 1	164./ 1	0./ 1	0./ 1	0./ 1	0./ 1
0		Rigid Y							
1	OPE	0.	-117.	0.	117.	0.	0.	0.	0.
2	OPE	0.	-484.	0.	484.	0.	0.	0.	0.
3	OPE	0.	-862.	0.	862.	0.	0.	0.	0.
4	SUS	0.	-300.	0.	300.	0.	0.	0.	0.
5	EXP	0.	183.	0.	183.	0.	0.	0.	0.
6	EXP	0.	-183.	0.	183.	0.	0.	0.	0.
7	EXP	0.	-562.	0.	562.	0.	0.	0.	0.
	MAX.	0./ 1	862./ 3	0./ 1	862./ 3	0./ 1	0./ 1	0./ 1	0./ 1
0		Displ. Reaction							
1	OPE	-5.	-295.	-3.	295.	-157.	17.	433.	461.
2	OPE	12.	-262.	-11.	262.	5.	-201.	402.	450.
3	OPE	30.	-227.	-20.	230.	172.	-427.	370.	590.
4	SUS	2.	-164.	0.	164.	-24.	-11.	19.	33.
5	EXP	-7.	-131.	-4.	132.	-133.	28.	414.	436.
6	EXP	10.	-98.	-12.	99.	29.	-190.	383.	429.
7	EXP	27.	-63.	-20.	72.	196.	-416.	351.	578.
	MAX.	30./ 3	295./ 1	20./ 7	295./ 1	196./ 7	427./ 3	433./ 1	590./ 3
i		Rigid Y							
1	OPE	0.	-193.	0.	193.	0.	0.	0.	0.
2	OPE	0.	115.	0.	115.	0.	0.	0.	0.
3	OPE	0.	434.	0.	434.	0.	0.	0.	0.
4	SUS	0.	-193.	0.	193.	0.	0.	0.	0.
5	EXP	0.	0.	0.	0.	0.	0.	0.	0.
6	EXP	0.	308.	0.	308.	0.	0.	0.	0.
7	EXP	0.	627.	0.	627.	0.	0.	0.	0.
	MAX.	0./ 1	627./ 7	0./ 1	627./ 7	0./ 1	0./ 1	0./ 1	0./ 1

ASE	TYPE	Forces(lb.) FX	FY	FZ	RESULTANT	Moments(ft.lb.) MX	MY	MZ	RESULTANT
		Rigid Y							
1	OPE	0.	-249.	0.	249.	0.	0.	0.	0.
2	OPE	0.	-265.	0.	265.	0.	0.	0.	0.
3	OPE	0.	-282.	0.	282.	0.	0.	0.	0.
4	SUS	0.	-208.	0.	208.	0.	0.	0.	0.
5	EXP	0.	-41.	0.	41.	0.	0.	0.	0.
6	EXP	0.	-57.	0.	57.	0.	0.	0.	0.
7	EXP	0.	-75.	0.	75.	0.	0.	0.	0.
	MAX.	0./ 1	282./ 3	0./ 1	282./ 3	0./ 1	0./ 1	0./ 1	0./ 1
		Rigid Y							
	OPE	0.	-166.	0.	166.	0.	0.	0.	0.
	OPE	0.	-152.	0.	152.	0.	0.	0.	0.
	OPE	0.	-137.	0.	137.	0.	0.	0.	0.
	SUS	0.	-177.	0.	177.	0.	0.	0.	0.
	EXP	0.	11.	0.	11.	0.	0.	0.	0.
	EXP	0.	25.	0.	25.	0.	0.	0.	0.
	EXP	0.	39.	0.	39.	0.	0.	0.	0.
	MAX.	0./ 1	177./ 4	0./ 1	177./ 4	0./ 1	0./ 1	0./ 1	0./ 1
		Rigid Y							
	OPE	0.	-256.	0.	256.	0.	0.	0.	0.
	OPE	0.	-29.	0.	29.	0.	0.	0.	0.
	OPE	0.	206.	0.	206.	0.	0.	0.	0.
	SUS	0.	-221.	0.	221.	0.	0.	0.	0.
	EXP	0.	-34.	0.	34.	0.	0.	0.	0.
	EXP	0.	193.	0.	193.	0.	0.	0.	0.
	EXP	0.	427.	0.	427.	0.	0.	0.	0.
	MAX.	0./ 1	427./ 7	0./ 1	427./ 7	0./ 1	0./ 1	0./ 1	0./ 1
		Rigid Y							
	OPE	0.	-245.	0.	245.	0.	0.	0.	0.
	OPE	0.	-232.	0.	232.	0.	0.	0.	0.
	OPE	0.	-217.	0.	217.	0.	0.	0.	0.
	SUS	0.	-191.	0.	191.	0.	0.	0.	0.
	EXP	0.	-55.	0.	55.	0.	0.	0.	0.
	EXP	0.	-41.	0.	41.	0.	0.	0.	0.
	EXP	0.	-27.	0.	27.	0.	0.	0.	0.
	MAX.	0./ 1	245./ 1	0./ 1	245./ 1	0./ 1	0./ 1	0./ 1	0./ 1
		Rigid Y							
	OPE	0.	-13.	0.	13.	0.	0.	0.	0.
	OPE	0.	-84.	0.	84.	0.	0.	0.	0.
	OPE	0.	-158.	0.	158.	0.	0.	0.	0.
	SUS	0.	-201.	0.	201.	0.	0.	0.	0.
	EXP	0.	189.	0.	189.	0.	0.	0.	0.
	EXP	0.	117.	0.	117.	0.	0.	0.	0.
	EXP	0.	43.	0.	43.	0.	0.	0.	0.
	MAX.	0./ 1	201./ 4	0./ 1	201./ 4	0./ 1	0./ 1	0./ 1	0./ 1

ASE	TYPE	Forces(lb.) FX	FY	FZ	RESULTANT	Moments(ft.lb.) MX	MY	MZ	RESULTANT
		Displ. Reaction							
1	OPE	17.	-395.	-174.	432.	83.	-473.	927.	1044.
2	OPE	58.	-417.	-661.	783.	45.	-1586.	957.	1853.
3	OPE	100.	-440.	-1164.	1248.	6.	-2737.	988.	2910.
4	SUS	4.	-136.	-42.	142.	13.	-98.	65.	118.
5	EXP	13.	-259.	-132.	291.	70.	-375.	862.	943.
6	EXP	53.	-281.	-619.	682.	32.	-1488.	892.	1735.
7	EXP	95.	-304.	-1122.	1167.	-7.	-2639.	923.	2796.
	MAX.	100./ 3	440./ 3	1164./ 3	1248./ 3	83./ 1	2737./ 3	988./ 3	2910./ 3
		Rigid Y							
1	OPE	0.	-213.	0.	213.	0.	0.	0.	0.
2	OPE	0.	-497.	0.	497.	0.	0.	0.	0.
3	OPE	0.	-790.	0.	790.	0.	0.	0.	0.
4	SUS	0.	-268.	0.	268.	0.	0.	0.	0.
5	EXP	0.	54.	0.	54.	0.	0.	0.	0.
6	EXP	0.	-229.	0.	229.	0.	0.	0.	0.
7	EXP	0.	-523.	0.	523.	0.	0.	0.	0.
	MAX.	0./ 1	790./ 3	0./ 1	790./ 3	0./ 1	0./ 1	0./ 1	0./ 1
		Rigid Y							
	OPE	0.	-151.	0.	151.	0.	0.	0.	0.
	OPE	0.	-89.	0.	89.	0.	0.	0.	0.
	OPE	0.	-25.	0.	25.	0.	0.	0.	0.
	SUS	0.	-140.	0.	140.	0.	0.	0.	0.
	EXP	0.	-11.	0.	11.	0.	0.	0.	0.
	EXP	0.	50.	0.	50.	0.	0.	0.	0.
	EXP	0.	114.	0.	114.	0.	0.	0.	0.
	MAX.	0./ 1	151./ 1	0./ 1	151./ 1	0./ 1	0./ 1	0./ 1	0./ 1
		Rigid Y							
	OPE	0.	-149.	0.	149.	0.	0.	0.	0.
	OPE	0.	-165.	0.	165.	0.	0.	0.	0.
	OPE	0.	-182.	0.	182.	0.	0.	0.	0.
	SUS	0.	-152.	0.	152.	0.	0.	0.	0.
	EXP	0.	3.	0.	3.	0.	0.	0.	0.
	EXP	0.	-13.	0.	13.	0.	0.	0.	0.
	EXP	0.	-30.	0.	30.	0.	0.	0.	0.
	MAX.	0./ 1	182./ 3	0./ 1	182./ 3	0./ 1	0./ 1	0./ 1	0./ 1
		Rigid Y							
	OPE	0.	-129.	0.	129.	0.	0.	0.	0.
	OPE	0.	-125.	0.	125.	0.	0.	0.	0.
	OPE	0.	-121.	0.	121.	0.	0.	0.	0.
	SUS	0.	-128.	0.	128.	0.	0.	0.	0.
	EXP	0.	-1.	0.	1.	0.	0.	0.	0.
	EXP	0.	3.	0.	3.	0.	0.	0.	0.
	EXP	0.	7.	0.	7.	0.	0.	0.	0.
	MAX.	0./ 1	129./ 1	0./ 1	129./ 1	0./ 1	0./ 1	0./ 1	0./ 1

CASE	TYPE	Forces(lb.) FX	FY	FZ	RESULTANT	Moments(ft.lb.) MX	MY	MZ	RESULTANT
0		Rigid Y							
1	OPE	0.	-93.	0.	93.	0.	0.	0.	0.
2	OPE	0.	-93.	0.	93.	0.	0.	0.	0.
3	OPE	0.	-93.	0.	93.	0.	0.	0.	0.
4	SUS	0.	-93.	0.	93.	0.	0.	0.	0.
5	EXP	0.	0.	0.	0.	0.	0.	0.	0.
6	EXP	0.	0.	0.	0.	0.	0.	0.	0.
7	EXP	0.	0.	0.	0.	0.	0.	0.	0.
	MAX.	0./ 1	93./ 1	0./ 1	93./ 1	0./ 1	0./ 1	0./ 1	0./ 1
0		Rigid Y							
1	OPE	0.	-156.	0.	156.	0.	0.	0.	0.
2	OPE	0.	-157.	0.	157.	0.	0.	0.	0.
3	OPE	0.	-158.	0.	158.	0.	0.	0.	0.
4	SUS	0.	-157.	0.	157.	0.	0.	0.	0.
5	EXP	0.	1.	0.	1.	0.	0.	0.	0.
6	EXP	0.	0.	0.	0.	0.	0.	0.	0.
7	EXP	0.	-2.	0.	2.	0.	0.	0.	0.
	MAX.	0./ 1	158./ 3	0./ 1	158./ 3	0./ 1	0./ 1	0./ 1	0./ 1
;		Rigid Y							
1	OPE	0.	-143.	0.	143.	0.	0.	0.	0.
2	OPE	0.	-143.	0.	143.	0.	0.	0.	0.
3	OPE	0.	-142.	0.	142.	0.	0.	0.	0.
4	SUS	0.	-143.	0.	143.	0.	0.	0.	0.
5	EXP	0.	0.	0.	0.	0.	0.	0.	0.
6	EXP	0.	0.	0.	0.	0.	0.	0.	0.
7	EXP	0.	0.	0.	0.	0.	0.	0.	0.
	MAX.	0./ 1	143./ 1	0./ 1	143./ 1	0./ 1	0./ 1	0./ 1	0./ 1
		Rigid Y							
1	OPE	0.	-119.	0.	119.	0.	0.	0.	0.
2	OPE	0.	-119.	0.	119.	0.	0.	0.	0.
3	OPE	0.	-119.	0.	119.	0.	0.	0.	0.
4	SUS	0.	-119.	0.	119.	0.	0.	0.	0.
5	EXP	0.	0.	0.	0.	0.	0.	0.	0.
6	EXP	0.	0.	0.	0.	0.	0.	0.	0.
7	EXP	0.	0.	0.	0.	0.	0.	0.	0.
	MAX.	0./ 1	119./ 3	0./ 1	119./ 3	0./ 1	0./ 1	0./ 1	0./ 1
		Rigid Y							
1	OPE	0.	-120.	0.	120.	0.	0.	0.	0.
2	OPE	0.	-120.	0.	120.	0.	0.	0.	0.
3	OPE	0.	-120.	0.	120.	0.	0.	0.	0.
4	SUS	0.	-120.	0.	120.	0.	0.	0.	0.
5	EXP	0.	0.	0.	0.	0.	0.	0.	0.
6	EXP	0.	0.	0.	0.	0.	0.	0.	0.
7	EXP	0.	0.	0.	0.	0.	0.	0.	0.
	MAX.	0./ 1	120./ 1	0./ 1	120./ 1	0./ 1	0./ 1	0./ 1	0./ 1

CASE	TYPE	FX	FY	FZ	RESULTANT	MX	MY	MZ	RESULTANT
		Forces(lb.)				Moments(ft.lb.)			
5		Rigid Y							
1	OPE	0.	-157.	0.	157.	0.	0.	0.	0.
2	OPE	0.	-157.	0.	157.	0.	0.	0.	0.
3	OPE	0.	-157.	0.	157.	0.	0.	0.	0.
4	SUS	0.	-157.	0.	157.	0.	0.	0.	0.
5	EXP	0.	0.	0.	0.	0.	0.	0.	0.
6	EXP	0.	0.	0.	0.	0.	0.	0.	0.
7	EXP	0.	0.	0.	0.	0.	0.	0.	0.
	MAX.	0./ 1	157./ 1	0./ 1	157./ 1	0./ 1	0./ 1	0./ 1	0./ 1
0		Rigid Y							
1	OPE	0.	-129.	0.	129.	0.	0.	0.	0.
2	OPE	0.	-129.	0.	129.	0.	0.	0.	0.
3	OPE	0.	-129.	0.	129.	0.	0.	0.	0.
4	SUS	0.	-129.	0.	129.	0.	0.	0.	0.
5	EXP	0.	0.	0.	0.	0.	0.	0.	0.
6	EXP	0.	0.	0.	0.	0.	0.	0.	0.
7	EXP	0.	0.	0.	0.	0.	0.	0.	0.
	MAX.	0./ 1	129./ 3	0./ 1	129./ 3	0./ 1	0./ 1	0./ 1	0./ 1
)		Rigid Y							
1	OPE	0.	-111.	0.	111.	0.	0.	0.	0.
2	OPE	0.	-111.	0.	111.	0.	0.	0.	0.
3	OPE	0.	-111.	0.	111.	0.	0.	0.	0.
4	SUS	0.	-111.	0.	111.	0.	0.	0.	0.
5	EXP	0.	0.	0.	0.	0.	0.	0.	0.
6	EXP	0.	0.	0.	0.	0.	0.	0.	0.
7	EXP	0.	0.	0.	0.	0.	0.	0.	0.
	MAX.	0./ 1	111./ 1	0./ 1	111./ 1	0./ 1	0./ 1	0./ 1	0./ 1
		Rigid Y							
1	OPE	0.	-109.	0.	109.	0.	0.	0.	0.
2	OPE	0.	-109.	0.	109.	0.	0.	0.	0.
3	OPE	0.	-109.	0.	109.	0.	0.	0.	0.
4	SUS	0.	-109.	0.	109.	0.	0.	0.	0.
5	EXP	0.	0.	0.	0.	0.	0.	0.	0.
6	EXP	0.	0.	0.	0.	0.	0.	0.	0.
7	EXP	0.	0.	0.	0.	0.	0.	0.	0.
	MAX.	0./ 1	109./ 1	0./ 1	109./ 1	0./ 1	0./ 1	0./ 1	0./ 1
		Rigid Y							
1	OPE	0.	-81.	0.	81.	0.	0.	0.	0.
2	OPE	0.	75.	0.	75.	0.	0.	0.	0.
3	OPE	0.	237.	0.	237.	0.	0.	0.	0.
4	SUS	0.	-231.	0.	231.	0.	0.	0.	0.
5	EXP	0.	149.	0.	149.	0.	0.	0.	0.
6	EXP	0.	306.	0.	306.	0.	0.	0.	0.
7	EXP	0.	467.	0.	467.	0.	0.	0.	0.
	MAX.	0./ 1	467./ 7	0./ 1	467./ 7	0./ 1	0./ 1	0./ 1	0./ 1

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RAINT REPORT, Loads on Restraints
RAINT SUMMARY

CASE	TYPE	FX	FY	FZ	RESULTANT	MX	MY	MZ	RESULTANT
		Forces(lb.)				Moments(ft.lb.)			
55		Rigid Z	Rigid Y	Rigid X					
1	OPE	-23.	-212.	11618.	11620.	0.	0.	0.	0.
2	OPE	-70.	-288.	-45987.	45988.	0.	0.	0.	0.
3	OPE	-118.	-367.	-105540.	105541.	0.	0.	0.	0.
4	SUS	-6.	-173.	43.	178.	0.	0.	0.	0.
5	EXP	-17.	-40.	11575.	11575.	0.	0.	0.	0.
6	EXP	-64.	-116.	-46030.	46030.	0.	0.	0.	0.
7	EXP	-112.	-194.	-105583.	105583.	0.	0.	0.	0.
	MAX.	118./ 3	367./ 3	105583./ 7	105583./ 7	0./ 1	0./ 1	0./ 1	0./ 1
5		Rigid Z	Rigid Y	Rigid X					
1	OPE	6.	-201.	0.	201.	0.	0.	0.	0.
2	OPE	8.	-205.	0.	206.	0.	0.	0.	0.
3	OPE	10.	-210.	0.	210.	0.	0.	0.	0.
4	SUS	2.	-207.	0.	207.	0.	0.	0.	0.
5	EXP	5.	6.	0.	8.	0.	0.	0.	0.
6	EXP	7.	1.	0.	7.	0.	0.	0.	0.
7	EXP	9.	-3.	0.	9.	0.	0.	0.	0.
	MAX.	10./ 3	210./ 3	0./ 7	210./ 3	0./ 1	0./ 1	0./ 1	0./ 1
5		Rigid Z	Rigid Y	Rigid X					
1	OPE	-13.	-219.	0.	219.	0.	0.	0.	0.
2	OPE	43.	-217.	0.	222.	0.	0.	0.	0.
3	OPE	101.	-216.	0.	239.	0.	0.	0.	0.
4	SUS	0.	-218.	0.	218.	0.	0.	0.	0.
5	EXP	-12.	-1.	0.	12.	0.	0.	0.	0.
6	EXP	44.	0.	0.	44.	0.	0.	0.	0.
7	EXP	101.	2.	0.	101.	0.	0.	0.	0.
	MAX.	101./ 7	219./ 1	0./ 3	239./ 3	0./ 1	0./ 1	0./ 1	0./ 1

RESTRAINT REPORT, Loads on Restraints
RESTRAINT SUMMARY

		Forces(lb.)				Moments(ft.lb.)			
NODE	CASE TYPE	FX	FY	FZ	RESULTANT	MX	MY	MZ	RESULTANT
1795		Rigid Z	Rigid Y	Rigid X					
1	OPE	43.	-68.	-11024.	11024.	0.	0.	0.	0.
2	OPE	-170.	-69.	44956.	44956.	0.	0.	0.	0.
3	OPE	-391.	-70.	102828.	102829.	0.	0.	0.	0.
4	SUS	0.	-68.	0.	68.	0.	0.	0.	0.
5	EXP	43.	0.	-11024.	11024.	0.	0.	0.	0.
6	EXP	-171.	-1.	44956.	44956.	0.	0.	0.	0.
7	EXP	-391.	-2.	102828.	102829.	0.	0.	0.	0.
	MAX.	391./ 7	70./ 3	102828./ 3	102829./ 3	0./ 1	0./ 1	0./ 1	0./ 1
1810		Rigid Z	Rigid Y	Rigid X					
1	OPE	11415.	-176.	-434.	11424.	0.	0.	0.	0.
2	OPE	-46548.	-176.	1766.	46581.	0.	0.	0.	0.
3	OPE	-106469.	-176.	4040.	106546.	0.	0.	0.	0.
4	SUS	0.	-174.	0.	174.	0.	0.	0.	0.
5	EXP	11415.	-2.	-433.	11423.	0.	0.	0.	0.
6	EXP	-46548.	-2.	1766.	46581.	0.	0.	0.	0.
7	EXP	-106469.	-2.	4040.	106546.	0.	0.	0.	0.
	MAX.	106469./ 3	176./ 3	4040./ 7	106546./ 3	0./ 1	0./ 1	0./ 1	0./ 1
1820		Rigid X	Rigid Y	Rigid Z					
1	OPE	0.	-290.	13.	290.	0.	0.	0.	0.
2	OPE	0.	-289.	-54.	294.	0.	0.	0.	0.
3	OPE	0.	-288.	-125.	313.	0.	0.	0.	0.
4	SUS	0.	-292.	0.	292.	0.	0.	0.	0.
5	EXP	0.	2.	13.	14.	0.	0.	0.	0.
6	EXP	0.	3.	-54.	55.	0.	0.	0.	0.
7	EXP	0.	4.	-125.	125.	0.	0.	0.	0.
	MAX.	0./ 3	292./ 4	125./ 7	313./ 3	0./ 1	0./ 1	0./ 1	0./ 1

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AINT REPORT, Loads on Restraints
AINT SUMMARY

CASE	TYPE	FX	FY	FZ	RESULTANT	MX	MY	MZ	RESULTANT
		Forces(lb.)				Moments(ft.lb.)			
0		Rigid X Rigid Y Rigid Z							
1	OPE	-11278.	-223.	76.	11280.	0.	0.	0.	0.
2	OPE	45988.	-217.	-310.	45990.	0.	0.	0.	0.
3	OPE	105190.	-211.	-709.	105192.	0.	0.	0.	0.
4	SUS	0.	-220.	0.	220.	0.	0.	0.	0.
5	EXP	-11278.	-3.	76.	11278.	0.	0.	0.	0.
6	EXP	45988.	3.	-310.	45989.	0.	0.	0.	0.
7	EXP	105190.	10.	-709.	105192.	0.	0.	0.	0.
	MAX.	105190./ 3	223./ 1	709./ 3	105192./ 3	0./ 1	0./ 1	0./ 1	0./ 1
)		Rigid Z Rigid Y Rigid X							
1	OPE	-173.	31.	1323.	1335.	0.	0.	0.	0.
2	OPE	705.	24.	-5395.	5441.	0.	0.	0.	0.
3	OPE	1612.	16.	-12340.	12445.	0.	0.	0.	0.
4	SUS	0.	28.	0.	28.	0.	0.	0.	0.
5	EXP	-173.	3.	1323.	1334.	0.	0.	0.	0.
6	EXP	705.	-4.	-5395.	5441.	0.	0.	0.	0.
7	EXP	1612.	-12.	-12340.	12445.	0.	0.	0.	0.
	MAX.	1612./ 3	31./ 1	12340./ 3	12445./ 3	0./ 1	0./ 1	0./ 1	0./ 1
		Rigid Y							
1	OPE	0.	-203.	0.	203.	0.	0.	0.	0.
2	OPE	0.	-203.	0.	203.	0.	0.	0.	0.
3	OPE	0.	-203.	0.	203.	0.	0.	0.	0.
4	SUS	0.	-202.	0.	202.	0.	0.	0.	0.
5	EXP	0.	0.	0.	0.	0.	0.	0.	0.
6	EXP	0.	-1.	0.	1.	0.	0.	0.	0.
7	EXP	0.	-1.	0.	1.	0.	0.	0.	0.
	MAX.	0./ 1	203./ 3	0./ 1	203./ 3	0./ 1	0./ 1	0./ 1	0./ 1
		Rigid Y							
1	OPE	0.	-133.	0.	133.	0.	0.	0.	0.
2	OPE	0.	-120.	0.	120.	0.	0.	0.	0.
3	OPE	0.	-107.	0.	107.	0.	0.	0.	0.
4	SUS	0.	-130.	0.	130.	0.	0.	0.	0.
5	EXP	0.	-2.	0.	2.	0.	0.	0.	0.
6	EXP	0.	10.	0.	10.	0.	0.	0.	0.
7	EXP	0.	23.	0.	23.	0.	0.	0.	0.
	MAX.	0./ 1	133./ 1	0./ 1	133./ 1	0./ 1	0./ 1	0./ 1	0./ 1

RESTRAINT REPORT, Loads on Restraints
RESTRAINT SUMMARY

			Forces(lb.)				Moments(ft.lb.)			
NODE	CASE	TYPE	FX	FY	FZ	RESULTANT	MX	MY	MZ	RESULTANT
1900		Rigid Y								
	1	OPE	0.	-248.	0.	248.	0.	0.	0.	0.
	2	OPE	0.	-241.	0.	241.	0.	0.	0.	0.
	3	OPE	0.	-233.	0.	233.	0.	0.	0.	0.
	4	SUS	0.	-247.	0.	247.	0.	0.	0.	0.
	5	EXP	0.	-2.	0.	2.	0.	0.	0.	0.
	6	EXP	0.	6.	0.	6.	0.	0.	0.	0.
	7	EXP	0.	14.	0.	14.	0.	0.	0.	0.
		MAX.	0./ 1	248./ 1	0./ 1	248./ 1	0./ 1	0./ 1	0./ 1	0.
1910		Rigid Y								
	1	OPE	0.	-252.	0.	252.	0.	0.	0.	0.
	2	OPE	0.	-253.	0.	253.	0.	0.	0.	0.
	3	OPE	0.	-254.	0.	254.	0.	0.	0.	0.
	4	SUS	0.	-253.	0.	253.	0.	0.	0.	0.
	5	EXP	0.	0.	0.	0.	0.	0.	0.	0.
	6	EXP	0.	-1.	0.	1.	0.	0.	0.	0.
	7	EXP	0.	-1.	0.	1.	0.	0.	0.	0.
		MAX.	0./ 1	254./ 3	0./ 1	254./ 3	0./ 1	0./ 1	0./ 1	0.
1920		Rigid Y								
	1	OPE	0.	-254.	0.	254.	0.	0.	0.	0.
	2	OPE	0.	-254.	0.	254.	0.	0.	0.	0.
	3	OPE	0.	-253.	0.	253.	0.	0.	0.	0.
	4	SUS	0.	-254.	0.	254.	0.	0.	0.	0.
	5	EXP	0.	0.	0.	0.	0.	0.	0.	0.
	6	EXP	0.	0.	0.	0.	0.	0.	0.	0.
	7	EXP	0.	1.	0.	1.	0.	0.	0.	0.
		MAX.	0./ 1	254./ 1	0./ 1	254./ 1	0./ 1	0./ 1	0./ 1	0.
1930		Rigid Y								
	1	OPE	0.	-228.	0.	228.	0.	0.	0.	0.
	2	OPE	0.	-231.	0.	231.	0.	0.	0.	0.
	3	OPE	0.	-234.	0.	234.	0.	0.	0.	0.
	4	SUS	0.	-229.	0.	229.	0.	0.	0.	0.
	5	EXP	0.	1.	0.	1.	0.	0.	0.	0.
	6	EXP	0.	-2.	0.	2.	0.	0.	0.	0.
	7	EXP	0.	-5.	0.	5.	0.	0.	0.	0.
		MAX.	0./ 1	234./ 3	0./ 1	234./ 3	0./ 1	0./ 1	0./ 1	0.
1950		Rigid Z Rigid Y Rigid X								
	1	OPE	-11442.	21.	-1676.	11564.	0.	0.	0.	0.
	2	OPE	46660.	25.	6836.	47158.	0.	0.	0.	0.
	3	OPE	106726.	29.	15637.	107865.	0.	0.	0.	0.
	4	SUS	0.	22.	0.	22.	0.	0.	0.	0.
	5	EXP	-11442.	-1.	-1676.	11564.	0.	0.	0.	0.
	6	EXP	46660.	3.	6836.	47158.	0.	0.	0.	0.
	7	EXP	106726.	7.	15637.	107865.	0.	0.	0.	0.
		MAX.	106726./ 3	29./ 3	15637./ 3	107865./ 3	0./ 1	0./ 1	0./ 1	0.

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AINT REPORT, Loads on Restraints
AINT SUMMARY

CASE	TYPE	Forces(lb.) FX	FY	FZ	RESULTANT	Moments(ft.lb.) MX	MY	MZ	RESULTANT
D		Rigid X Rigid Y Rigid Z							
1	OPE	0.	-174.	289.	337.	0.	0.	0.	0.
2	OPE	0.	-179.	-1178.	1192.	0.	0.	0.	0.
3	OPE	0.	-184.	-2694.	2701.	0.	0.	0.	0.
4	SUS	0.	-175.	0.	175.	0.	0.	0.	0.
5	EXP	0.	1.	289.	289.	0.	0.	0.	0.
6	EXP	0.	-4.	-1178.	1178.	0.	0.	0.	0.
7	EXP	0.	-9.	-2694.	2694.	0.	0.	0.	0.
	MAX.	0./ 3	184./ 3	2694./ 3	2701./ 3	0./ 1	0./ 1	0./ 1	0./ 1
)		Rigid X Rigid Y Rigid Z							
1	OPE	11446.	-347.	-14.	11452.	0.	0.	0.	0.
2	OPE	-46676.	-335.	56.	46677.	0.	0.	0.	0.
3	OPE	-106764.	-323.	128.	106764.	0.	0.	0.	0.
4	SUS	0.	-345.	0.	345.	0.	0.	0.	0.
5	EXP	11446.	-2.	-14.	11446.	0.	0.	0.	0.
6	EXP	-46676.	10.	56.	46676.	0.	0.	0.	0.
7	EXP	-106764.	22.	128.	106764.	0.	0.	0.	0.
	MAX.	106764./ 3	347./ 1	128./ 3	106764./ 3	0./ 1	0./ 1	0./ 1	0./ 1
		Rigid Y							
1	OPE	0.	-228.	0.	228.	0.	0.	0.	0.
2	OPE	0.	-248.	0.	248.	0.	0.	0.	0.
3	OPE	0.	-269.	0.	269.	0.	0.	0.	0.
4	SUS	0.	-232.	0.	232.	0.	0.	0.	0.
5	EXP	0.	4.	0.	4.	0.	0.	0.	0.
6	EXP	0.	-16.	0.	16.	0.	0.	0.	0.
7	EXP	0.	-37.	0.	37.	0.	0.	0.	0.
	MAX.	0./ 1	269./ 3	0./ 1	269./ 3	0./ 1	0./ 1	0./ 1	0./ 1
		Rigid Y							
1	OPE	0.	-109.	0.	109.	0.	0.	0.	0.
2	OPE	0.	-88.	0.	88.	0.	0.	0.	0.
3	OPE	0.	-66.	0.	66.	0.	0.	0.	0.
4	SUS	0.	-105.	0.	105.	0.	0.	0.	0.
5	EXP	0.	-4.	0.	4.	0.	0.	0.	0.
6	EXP	0.	17.	0.	17.	0.	0.	0.	0.
7	EXP	0.	39.	0.	39.	0.	0.	0.	0.
	MAX.	0./ 1	109./ 1	0./ 1	109./ 1	0./ 1	0./ 1	0./ 1	0./ 1

CASE	TYPE	FX	FY	FZ	RESULTANT	MX	MY	MZ	RESULTANT
		Forces(lb.)				Moments(ft.lb.)			
)		Rigid Y							
1	OPE	0.	-133.	0.	133.	0.	0.	0.	0.
2	OPE	0.	-146.	0.	146.	0.	0.	0.	0.
3	OPE	0.	-160.	0.	160.	0.	0.	0.	0.
4	SUS	0.	-136.	0.	136.	0.	0.	0.	0.
5	EXP	0.	3.	0.	3.	0.	0.	0.	0.
6	EXP	0.	-10.	0.	10.	0.	0.	0.	0.
7	EXP	0.	-24.	0.	24.	0.	0.	0.	0.
	MAX.	0./ 1	160./ 3	0./ 1	160./ 3	0./ 1	0./ 1	0./ 1	0./ 1
		Rigid Y							
1	OPE	0.	-132.	0.	132.	0.	0.	0.	0.
2	OPE	0.	-131.	0.	131.	0.	0.	0.	0.
3	OPE	0.	-129.	0.	129.	0.	0.	0.	0.
4	SUS	0.	-132.	0.	132.	0.	0.	0.	0.
5	EXP	0.	0.	0.	0.	0.	0.	0.	0.
6	EXP	0.	1.	0.	1.	0.	0.	0.	0.
7	EXP	0.	3.	0.	3.	0.	0.	0.	0.
	MAX.	0./ 1	132./ 1	0./ 1	132./ 1	0./ 1	0./ 1	0./ 1	0./ 1
		Rigid Y							
1	OPE	0.	-97.	0.	97.	0.	0.	0.	0.
2	OPE	0.	-96.	0.	96.	0.	0.	0.	0.
3	OPE	0.	-94.	0.	94.	0.	0.	0.	0.
4	SUS	0.	-97.	0.	97.	0.	0.	0.	0.
5	EXP	0.	0.	0.	0.	0.	0.	0.	0.
6	EXP	0.	1.	0.	1.	0.	0.	0.	0.
7	EXP	0.	3.	0.	3.	0.	0.	0.	0.
	MAX.	0./ 1	97./ 1	0./ 1	97./ 1	0./ 1	0./ 1	0./ 1	0./ 1
		Rigid Y							
1	OPE	0.	-168.	0.	168.	0.	0.	0.	0.
2	OPE	0.	-193.	0.	193.	0.	0.	0.	0.
3	OPE	0.	-219.	0.	219.	0.	0.	0.	0.
4	SUS	0.	-173.	0.	173.	0.	0.	0.	0.
5	EXP	0.	5.	0.	5.	0.	0.	0.	0.
6	EXP	0.	-20.	0.	20.	0.	0.	0.	0.
7	EXP	0.	-46.	0.	46.	0.	0.	0.	0.
	MAX.	0./ 1	219./ 3	0./ 1	219./ 3	0./ 1	0./ 1	0./ 1	0./ 1
		Rigid Y							
	OPE	0.	-113.	0.	113.	0.	0.	0.	0.
	OPE	0.	-103.	0.	103.	0.	0.	0.	0.
	OPE	0.	-92.	0.	92.	0.	0.	0.	0.
	SUS	0.	-111.	0.	111.	0.	0.	0.	0.
	EXP	0.	-2.	0.	2.	0.	0.	0.	0.
	EXP	0.	8.	0.	8.	0.	0.	0.	0.
	EXP	0.	19.	0.	19.	0.	0.	0.	0.
	MAX.	0./ 1	113./ 1	0./ 1	113./ 1	0./ 1	0./ 1	0./ 1	0./ 1

CASE	TYPE	Forces(lb.) FX	FY	FZ	RESULTANT	Moments(ft.lb.) MX	MY	MZ	RESULTANT
)		Rigid Y							
1	OPE	0.	-122.	0.	122.	0.	0.	0.	0.
2	OPE	0.	-137.	0.	137.	0.	0.	0.	0.
3	OPE	0.	-152.	0.	152.	0.	0.	0.	0.
4	SUS	0.	-125.	0.	125.	0.	0.	0.	0.
5	EXP	0.	3.	0.	3.	0.	0.	0.	0.
6	EXP	0.	-12.	0.	12.	0.	0.	0.	0.
7	EXP	0.	-27.	0.	27.	0.	0.	0.	0.
	MAX.	0./ 1	152./ 3	0./ 1	152./ 3	0./ 1	0./ 1	0./ 1	0./ 1
)		Rigid Y							
1	OPE	0.	-173.	0.	173.	0.	0.	0.	0.
2	OPE	0.	-148.	0.	148.	0.	0.	0.	0.
3	OPE	0.	-122.	0.	122.	0.	0.	0.	0.
4	SUS	0.	-168.	0.	168.	0.	0.	0.	0.
5	EXP	0.	-5.	0.	5.	0.	0.	0.	0.
6	EXP	0.	20.	0.	20.	0.	0.	0.	0.
7	EXP	0.	47.	0.	47.	0.	0.	0.	0.
	MAX.	0./ 1	173./ 1	0./ 1	173./ 1	0./ 1	0./ 1	0./ 1	0./ 1
		Rigid Y							
1	OPE	0.	-131.	0.	131.	0.	0.	0.	0.
2	OPE	0.	-149.	0.	149.	0.	0.	0.	0.
3	OPE	0.	-168.	0.	168.	0.	0.	0.	0.
4	SUS	0.	-135.	0.	135.	0.	0.	0.	0.
5	EXP	0.	4.	0.	4.	0.	0.	0.	0.
6	EXP	0.	-15.	0.	15.	0.	0.	0.	0.
7	EXP	0.	-33.	0.	33.	0.	0.	0.	0.
	MAX.	0./ 1	168./ 3	0./ 1	168./ 3	0./ 1	0./ 1	0./ 1	0./ 1
		Rigid Y							
1	OPE	0.	-74.	0.	74.	0.	0.	0.	0.
2	OPE	0.	-70.	0.	70.	0.	0.	0.	0.
3	OPE	0.	-66.	0.	66.	0.	0.	0.	0.
4	SUS	0.	-73.	0.	73.	0.	0.	0.	0.
5	EXP	0.	-1.	0.	1.	0.	0.	0.	0.
6	EXP	0.	3.	0.	3.	0.	0.	0.	0.
7	EXP	0.	7.	0.	7.	0.	0.	0.	0.
	MAX.	0./ 1	74./ 1	0./ 1	74./ 1	0./ 1	0./ 1	0./ 1	0./ 1
		Rigid Y							
1	OPE	0.	-95.	0.	95.	0.	0.	0.	0.
2	OPE	0.	-96.	0.	96.	0.	0.	0.	0.
3	OPE	0.	-97.	0.	97.	0.	0.	0.	0.
4	SUS	0.	-95.	0.	95.	0.	0.	0.	0.
5	EXP	0.	0.	0.	0.	0.	0.	0.	0.
6	EXP	0.	-1.	0.	1.	0.	0.	0.	0.
7	EXP	0.	-2.	0.	2.	0.	0.	0.	0.
	MAX.	0./ 1	97./ 3	0./ 1	97./ 3	0./ 1	0./ 1	0./ 1	0./ 1

CASE	TYPE	FX	FY	FZ	RESULTANT	MX	MY	MZ	RESULTANT
		Forces(lb.)				Moments(ft.lb.)			
10		Rigid Y							
1	OPE	0.	-89.	0.	89.	0.	0.	0.	0.
2	OPE	0.	-89.	0.	89.	0.	0.	0.	0.
3	OPE	0.	-89.	0.	89.	0.	0.	0.	0.
4	SUS	0.	-89.	0.	89.	0.	0.	0.	0.
5	EXP	0.	0.	0.	0.	0.	0.	0.	0.
6	EXP	0.	0.	0.	0.	0.	0.	0.	0.
7	EXP	0.	1.	0.	1.	0.	0.	0.	0.
	MAX.	0./ 1	89./ 1	0./ 1	89./ 1	0./ 1	0./ 1	0./ 1	0./ 1
0		Rigid Y							
1	OPE	0.	-91.	0.	91.	0.	0.	0.	0.
2	OPE	0.	-91.	0.	91.	0.	0.	0.	0.
3	OPE	0.	-91.	0.	91.	0.	0.	0.	0.
4	SUS	0.	-91.	0.	91.	0.	0.	0.	0.
5	EXP	0.	0.	0.	0.	0.	0.	0.	0.
6	EXP	0.	0.	0.	0.	0.	0.	0.	0.
7	EXP	0.	0.	0.	0.	0.	0.	0.	0.
	MAX.	0./ 1	91./ 3	0./ 1	91./ 3	0./ 1	0./ 1	0./ 1	0./ 1
0		Rigid Y							
1	OPE	0.	-90.	0.	90.	0.	0.	0.	0.
2	OPE	0.	-90.	0.	90.	0.	0.	0.	0.
3	OPE	0.	-90.	0.	90.	0.	0.	0.	0.
4	SUS	0.	-90.	0.	90.	0.	0.	0.	0.
5	EXP	0.	0.	0.	0.	0.	0.	0.	0.
6	EXP	0.	0.	0.	0.	0.	0.	0.	0.
7	EXP	0.	0.	0.	0.	0.	0.	0.	0.
	MAX.	0./ 1	90./ 1	0./ 1	90./ 1	0./ 1	0./ 1	0./ 1	0./ 1
)		Rigid Y							
1	OPE	0.	-90.	0.	90.	0.	0.	0.	0.
2	OPE	0.	-90.	0.	90.	0.	0.	0.	0.
3	OPE	0.	-90.	0.	90.	0.	0.	0.	0.
4	SUS	0.	-90.	0.	90.	0.	0.	0.	0.
5	EXP	0.	0.	0.	0.	0.	0.	0.	0.
6	EXP	0.	0.	0.	0.	0.	0.	0.	0.
7	EXP	0.	0.	0.	0.	0.	0.	0.	0.
	MAX.	0./ 1	90./ 3	0./ 1	90./ 3	0./ 1	0./ 1	0./ 1	0./ 1
)		Rigid Y							
1	OPE	0.	-90.	0.	90.	0.	0.	0.	0.
2	OPE	0.	-90.	0.	90.	0.	0.	0.	0.
3	OPE	0.	-90.	0.	90.	0.	0.	0.	0.
4	SUS	0.	-90.	0.	90.	0.	0.	0.	0.
5	EXP	0.	0.	0.	0.	0.	0.	0.	0.
6	EXP	0.	0.	0.	0.	0.	0.	0.	0.
7	EXP	0.	0.	0.	0.	0.	0.	0.	0.
	MAX.	0./ 1	90./ 1	0./ 1	90./ 1	0./ 1	0./ 1	0./ 1	0./ 1

CASE	TYPE	Forces(lb.) FX	FY	FZ	RESULTANT	Moments(ft.lb.) MX	MY	MZ	RESULTANT
0		Rigid Y							
1	OPE	0.	-90.	0.	90.	0.	0.	0.	0.
2	OPE	0.	-90.	0.	90.	0.	0.	0.	0.
3	OPE	0.	-90.	0.	90.	0.	0.	0.	0.
4	SUS	0.	-90.	0.	90.	0.	0.	0.	0.
5	EXP	0.	0.	0.	0.	0.	0.	0.	0.
6	EXP	0.	0.	0.	0.	0.	0.	0.	0.
7	EXP	0.	0.	0.	0.	0.	0.	0.	0.
	MAX.	0./ 1	90./ 3	0./ 1	90./ 3	0./ 1	0./ 1	0./ 1	0./ 1
0		Rigid Y							
1	OPE	0.	-90.	0.	90.	0.	0.	0.	0.
2	OPE	0.	-90.	0.	90.	0.	0.	0.	0.
3	OPE	0.	-90.	0.	90.	0.	0.	0.	0.
4	SUS	0.	-90.	0.	90.	0.	0.	0.	0.
5	EXP	0.	0.	0.	0.	0.	0.	0.	0.
6	EXP	0.	0.	0.	0.	0.	0.	0.	0.
7	EXP	0.	0.	0.	0.	0.	0.	0.	0.
	MAX.	0./ 1	90./ 1	0./ 1	90./ 1	0./ 1	0./ 1	0./ 1	0./ 1
0		Rigid Y							
1	OPE	0.	-90.	0.	90.	0.	0.	0.	0.
2	OPE	0.	-90.	0.	90.	0.	0.	0.	0.
3	OPE	0.	-90.	0.	90.	0.	0.	0.	0.
4	SUS	0.	-90.	0.	90.	0.	0.	0.	0.
5	EXP	0.	0.	0.	0.	0.	0.	0.	0.
6	EXP	0.	0.	0.	0.	0.	0.	0.	0.
7	EXP	0.	0.	0.	0.	0.	0.	0.	0.
	MAX.	0./ 1	90./ 1	0./ 1	90./ 1	0./ 1	0./ 1	0./ 1	0./ 1
0		Rigid Y							
1	OPE	0.	-90.	0.	90.	0.	0.	0.	0.
2	OPE	0.	-90.	0.	90.	0.	0.	0.	0.
3	OPE	0.	-90.	0.	90.	0.	0.	0.	0.
4	SUS	0.	-90.	0.	90.	0.	0.	0.	0.
5	EXP	0.	0.	0.	0.	0.	0.	0.	0.
6	EXP	0.	0.	0.	0.	0.	0.	0.	0.
7	EXP	0.	0.	0.	0.	0.	0.	0.	0.
	MAX.	0./ 1	90./ 1	0./ 1	90./ 1	0./ 1	0./ 1	0./ 1	0./ 1

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IT REPORT, Loads on Restraints
IT SUMMARY

GE TYPE	Forces(lb.) FX	FY	FZ	RESULTANT	Moments(ft.lb.) MX	MY	MZ	RESULTANT
	Rigid Y							
OPE	0.	-90.	0.	90.	0.	0.	0.	0.
OPE	0.	-90.	0.	90.	0.	0.	0.	0.
OPE	0.	-90.	0.	90.	0.	0.	0.	0.
SUS	0.	-90.	0.	90.	0.	0.	0.	0.
EXP	0.	0.	0.	0.	0.	0.	0.	0.
EXP	0.	0.	0.	0.	0.	0.	0.	0.
EXP	0.	0.	0.	0.	0.	0.	0.	0.
MAX.	0./ 1	90./ 1	0./ 1	90./ 1	0./ 1	0./ 1	0./ 1	0./ 1
	Rigid Y							
OPE	0.	-90.	0.	90.	0.	0.	0.	0.
OPE	0.	-90.	0.	90.	0.	0.	0.	0.
OPE	0.	-90.	0.	90.	0.	0.	0.	0.
SUS	0.	-90.	0.	90.	0.	0.	0.	0.
EXP	0.	0.	0.	0.	0.	0.	0.	0.
EXP	0.	0.	0.	0.	0.	0.	0.	0.
EXP	0.	0.	0.	0.	0.	0.	0.	0.
MAX.	0./ 1	90./ 1	0./ 1	90./ 1	0./ 1	0./ 1	0./ 1	0./ 1
	Rigid Y							
OPE	0.	-90.	0.	90.	0.	0.	0.	0.
OPE	0.	-90.	0.	90.	0.	0.	0.	0.
OPE	0.	-90.	0.	90.	0.	0.	0.	0.
SUS	0.	-90.	0.	90.	0.	0.	0.	0.
EXP	0.	0.	0.	0.	0.	0.	0.	0.
EXP	0.	0.	0.	0.	0.	0.	0.	0.
EXP	0.	0.	0.	0.	0.	0.	0.	0.
MAX.	0./ 1	90./ 1	0./ 1	90./ 1	0./ 1	0./ 1	0./ 1	0./ 1
	Rigid Y							
OPE	0.	-90.	0.	90.	0.	0.	0.	0.
OPE	0.	-90.	0.	90.	0.	0.	0.	0.
OPE	0.	-90.	0.	90.	0.	0.	0.	0.
SUS	0.	-90.	0.	90.	0.	0.	0.	0.
EXP	0.	0.	0.	0.	0.	0.	0.	0.
EXP	0.	0.	0.	0.	0.	0.	0.	0.
EXP	0.	0.	0.	0.	0.	0.	0.	0.
MAX.	0./ 1	90./ 1	0./ 1	90./ 1	0./ 1	0./ 1	0./ 1	0./ 1
	Rigid Y							
OPE	0.	-90.	0.	90.	0.	0.	0.	0.
OPE	0.	-90.	0.	90.	0.	0.	0.	0.
OPE	0.	-90.	0.	90.	0.	0.	0.	0.
SUS	0.	-90.	0.	90.	0.	0.	0.	0.
EXP	0.	0.	0.	0.	0.	0.	0.	0.
EXP	0.	0.	0.	0.	0.	0.	0.	0.
EXP	0.	0.	0.	0.	0.	0.	0.	0.
MAX.	0./ 1	90./ 1	0./ 1	90./ 1	0./ 1	0./ 1	0./ 1	0./ 1

AINT REPORT, Loads on Restraints
AINT SUMMARY

CASE	TYPE	Forces(lb.) FX	FY	FZ	RESULTANT	Moments(ft.lb.) MX	MY	MZ	RESULTANT
)		Rigid Y							
1	OPE	0.	-90.	0.	90.	0.	0.	0.	0.
2	OPE	0.	-90.	0.	90.	0.	0.	0.	0.
3	OPE	0.	-90.	0.	90.	0.	0.	0.	0.
4	SUS	0.	-90.	0.	90.	0.	0.	0.	0.
5	EXP	0.	0.	0.	0.	0.	0.	0.	0.
6	EXP	0.	0.	0.	0.	0.	0.	0.	0.
7	EXP	0.	0.	0.	0.	0.	0.	0.	0.
	MAX.	0./ 1	90./ 1	0./ 1	90./ 1	0./ 1	0./ 1	0./ 1	0./ 1
)		Rigid Y							
1	OPE	0.	-90.	0.	90.	0.	0.	0.	0.
2	OPE	0.	-90.	0.	90.	0.	0.	0.	0.
3	OPE	0.	-90.	0.	90.	0.	0.	0.	0.
4	SUS	0.	-90.	0.	90.	0.	0.	0.	0.
5	EXP	0.	0.	0.	0.	0.	0.	0.	0.
6	EXP	0.	0.	0.	0.	0.	0.	0.	0.
7	EXP	0.	0.	0.	0.	0.	0.	0.	0.
	MAX.	0./ 1	90./ 2	0./ 1	90./ 2	0./ 1	0./ 1	0./ 1	0./ 1
		Rigid Y							
1	OPE	0.	-90	0.	90.	0.	0.	0.	0.
2	OPE	0.	-9(	0.	90.	0.	0.	0.	0.
3	OPE	0.	-9	0.	90.	0.	0.	0.	0.
4	SUS	0.	-9	0.	90.	0.	0.	0.	0.
5	EXP	0.		0.	0.	0.	0.	0.	0.
5	EXP	0.		0.	0.	0.	0.	0.	0.
7	EXP	0.		0.	0.	0.	0.	0.	0.
	MAX.	0./ 1	9	0./ 1	90./ 1	0./ 1	0./ 1	0./ 1	0./ 1
		Rigid Y							
	OPE	0.	-9	0.	91.	0.	0.	0.	0.
	OPE	0.	-9	0.	91.	0.	0.	0.	0.
	OPE	0.	-9	0.	91.	0.	0.	0.	0.
	SUS	0.	-9	0.	91.	0.	0.	0.	0.
	EXP	0.		0.	0.	0.	0.	0.	0.
	EXP	0.		0.	0.	0.	0.	0.	0.
	EXP	0.		0.	0.	0.	0.	0.	0.
	MAX.	0./ 1	9	0./ 1	91./ 3	0./ 1	0./ 1	0./ 1	0./ 1
		Rigid Y							
	OPE	0.	-8	0.	89.	0.	0.	0.	0.
	OPE	0.	-8	0.	89.	0.	0.	0.	0.
	OPE	0.	-8	0.	89.	0.	0.	0.	0.
	SUS	0.	-8	0.	89.	0.	0.	0.	0.
	EXP	0.		0.	0.	0.	0.	0.	0.
	EXP	0.		0.	0.	0.	0.	0.	0.
	EXP	0.		0.	0.	0.	0.	0.	0.
	MAX.	0./ 1	8	0./ 1	89./ 1	0./ 1	0./ 1	0./ 1	0./ 1

II Ver 3.21 Job: FRMC01 Date: JAN 20,1995 Time: 9:20 Page: 210
ed To: FLUOR DANIEL ID 13692
INT REPORT, Loads on Restraints
INT SUMMARY

		Forces(lb.)				Moments(ft.lb.)			
SE	TYPE	FX	FY	FZ	RESULTANT	MX	MY	MZ	RESULTANT
		Rigid Y							
	OPE	0.	-95.	0.	95.	0.	0.	0.	0.
	OPE	0.	-95.	0.	95.	0.	0.	0.	0.
	OPE	0.	-95.	0.	95.	0.	0.	0.	0.
	SUS	0.	-95.	0.	95.	0.	0.	0.	0.
	EXP	0.	0.	0.	0.	0.	0.	0.	0.
	EXP	0.	0.	0.	0.	0.	0.	0.	0.
	EXP	0.	0.	0.	0.	0.	0.	0.	0.
	MAX.	0./ 1	95./ 3	0./ 1	95./ 3	0./ 1	0./ 1	0./ 1	0./ 1
		Rigid Y							
	OPE	0.	-73.	0.	73.	0.	0.	0.	0.
	OPE	0.	-73.	0.	73.	0.	0.	0.	0.
	OPE	0.	-72.	0.	72.	0.	0.	0.	0.
	SUS	0.	-73.	0.	73.	0.	0.	0.	0.
	EXP	0.	0.	0.	0.	0.	0.	0.	0.
	EXP	0.	0.	0.	0.	0.	0.	0.	0.
	EXP	0.	0.	0.	0.	0.	0.	0.	0.
	MAX.	0./ 1	73./ 1	0./ 1	73./ 1	0./ 1	0./ 1	0./ 1	0./ 1
		Rigid Y							
	OPE	0.	-123.	0.	123.	0.	0.	0.	0.
	OPE	0.	-123.	0.	123.	0.	0.	0.	0.
	OPE	0.	-124.	0.	124.	0.	0.	0.	0.
	SUS	0.	-123.	0.	123.	0.	0.	0.	0.
	EXP	0.	0.	0.	0.	0.	0.	0.	0.
	EXP	0.	0.	0.	0.	0.	0.	0.	0.
	EXP	0.	-1.	0.	1.	0.	0.	0.	0.
	MAX.	0./ 1	124./ 3	0./ 1	124./ 3	0./ 1	0./ 1	0./ 1	0./ 1
		Rigid Y							
	OPE	0.	-206.	0.	206.	0.	0.	0.	0.
	OPE	0.	-205.	0.	205.	0.	0.	0.	0.
	OPE	0.	-205.	0.	205.	0.	0.	0.	0.
	SUS	0.	-206.	0.	206.	0.	0.	0.	0.
	EXP	0.	0.	0.	0.	0.	0.	0.	0.
	EXP	0.	0.	0.	0.	0.	0.	0.	0.
	EXP	0.	1.	0.	1.	0.	0.	0.	0.
	MAX.	0./ 1	206./ 1	0./ 1	206./ 1	0./ 1	0./ 1	0./ 1	0./ 1

6588

FLUOR DANIEL

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
US DEPARTMENT OF ENERGY

STRESS ANALYSIS FOR 3" CARBON STEEL FILTRATE (WATER) TRANSFER LINE

REPORT NO. FERMCO-PS-2

000407

Analysis of 3" carbon steel filtrate (water) piping between existing pipe and Tanks 25 and 26 and branch piping from a water supply line and a steam supply line

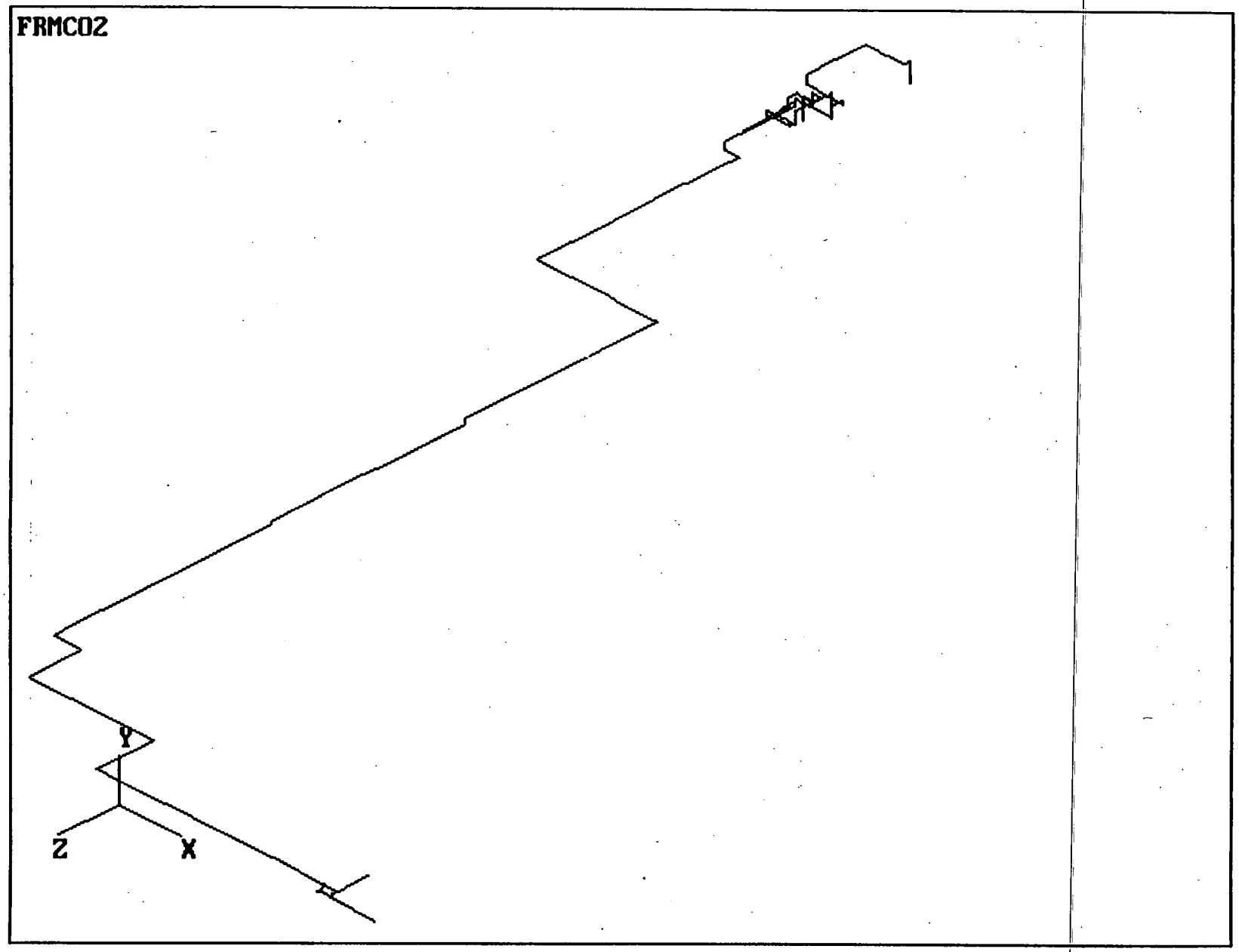
The piping was analyzed for weight and thermal expansion loads. The temperatures used for thermal expansion analyses are 350°F, 450°F, and 550°F.

The as installed piping system does not fully meet the requirements of ANSI B31.3 Code. In certain portions of the piping system the stresses exceed the code allowables. The maximum code stresses in the piping for each load case is found on the "stress summary" page of the computer output (see page i of the computer output). In addition, a number U-bolts experience thermal expansion loads above their rated capacity. The support loads are documented in the "restraint summary" portion of the computer output.

However, caution shall be exercised in the interpretation of the results. The calculation of the loads on the supports and stresses in the piping system are based on a mathematical model which assumed idealized conditions. For example, it is assumed that a tight U-bolt acts as rigid restraint in three directions. However, as the load on the U-bolt increases beyond its capacity, this assumption may no longer be valid. Under such conditions, the pipe may slide through the U-bolt or the U-bolt may yield locally (but not fail). Such occurrences, in our judgment, would allow the pipe to expand with less constraint than as modeled, resulting in lower than calculated piping stresses and pipe support loads.

In order to reduce the support loads and piping stresses, a number supports need to be modified. An analysis of the piping system with the recommended changes is documented in a separate report.

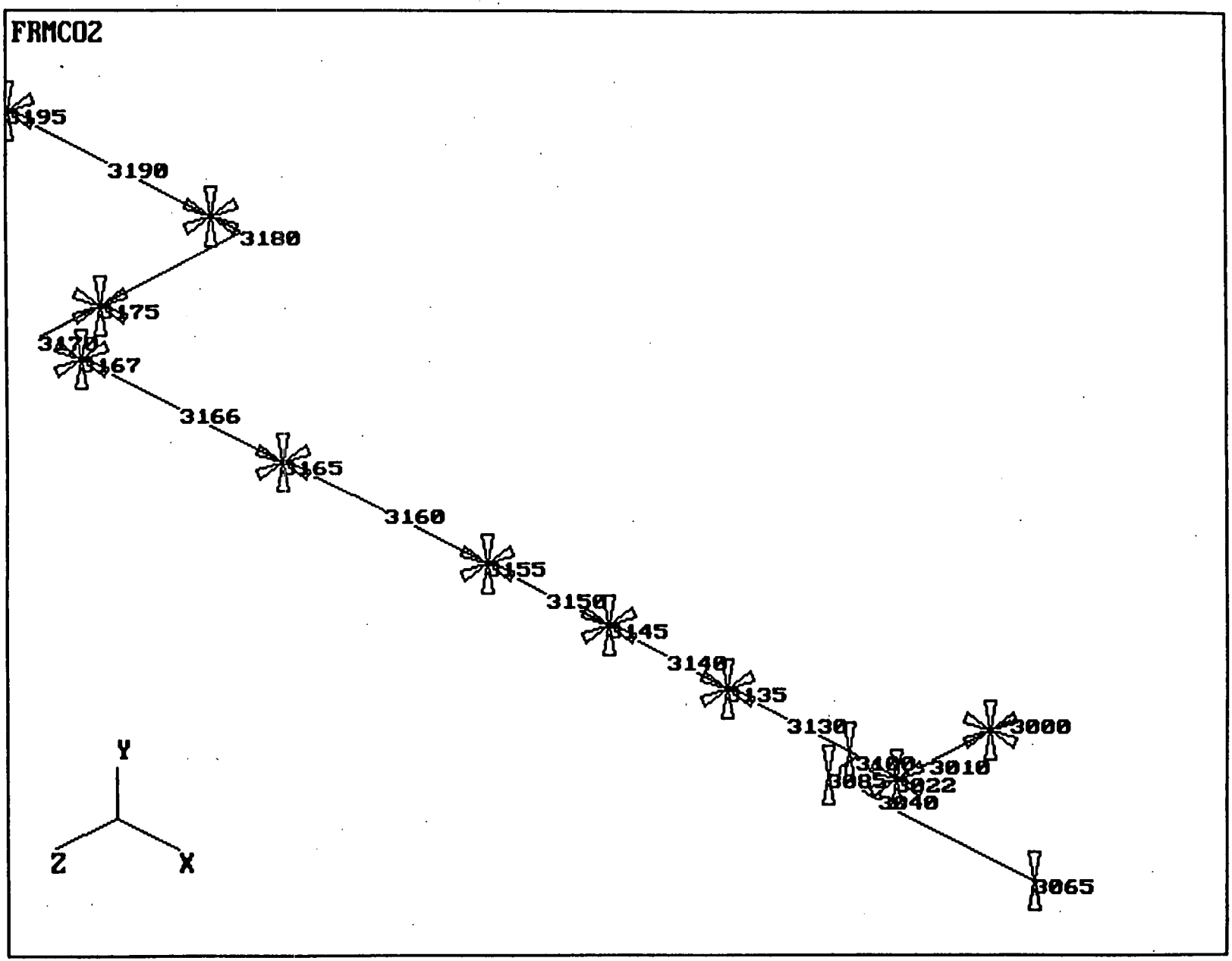
000408-000



000409

6588

000410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3135
3130
3000
3010
3022
3040
3065
Y
Z
X

FRMCO2
3280
3275
3265
3260
3258
3255
3250
3245
3240
3235
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3220
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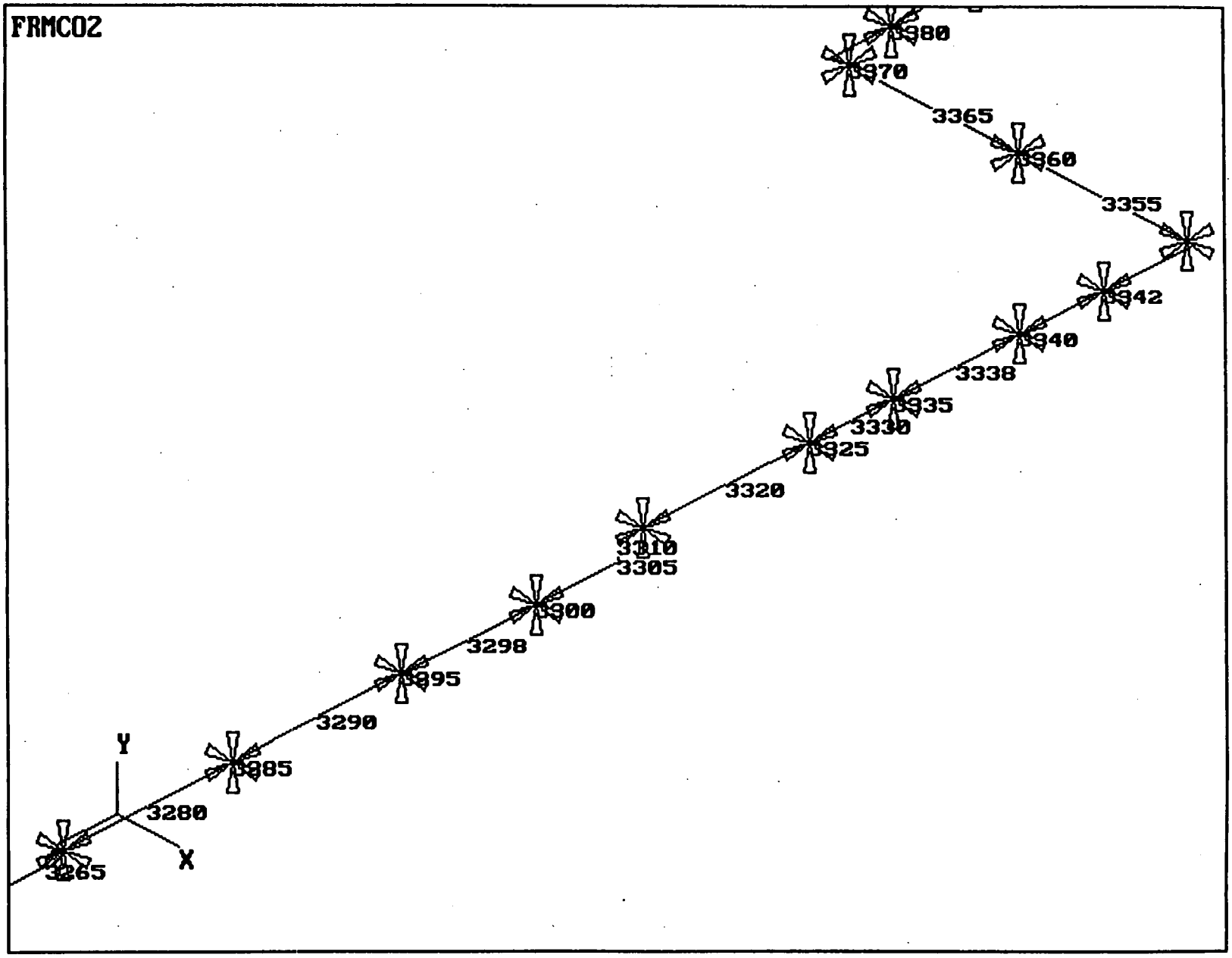
3200
3195
3190
3180
Y
Z
X

0004110

000420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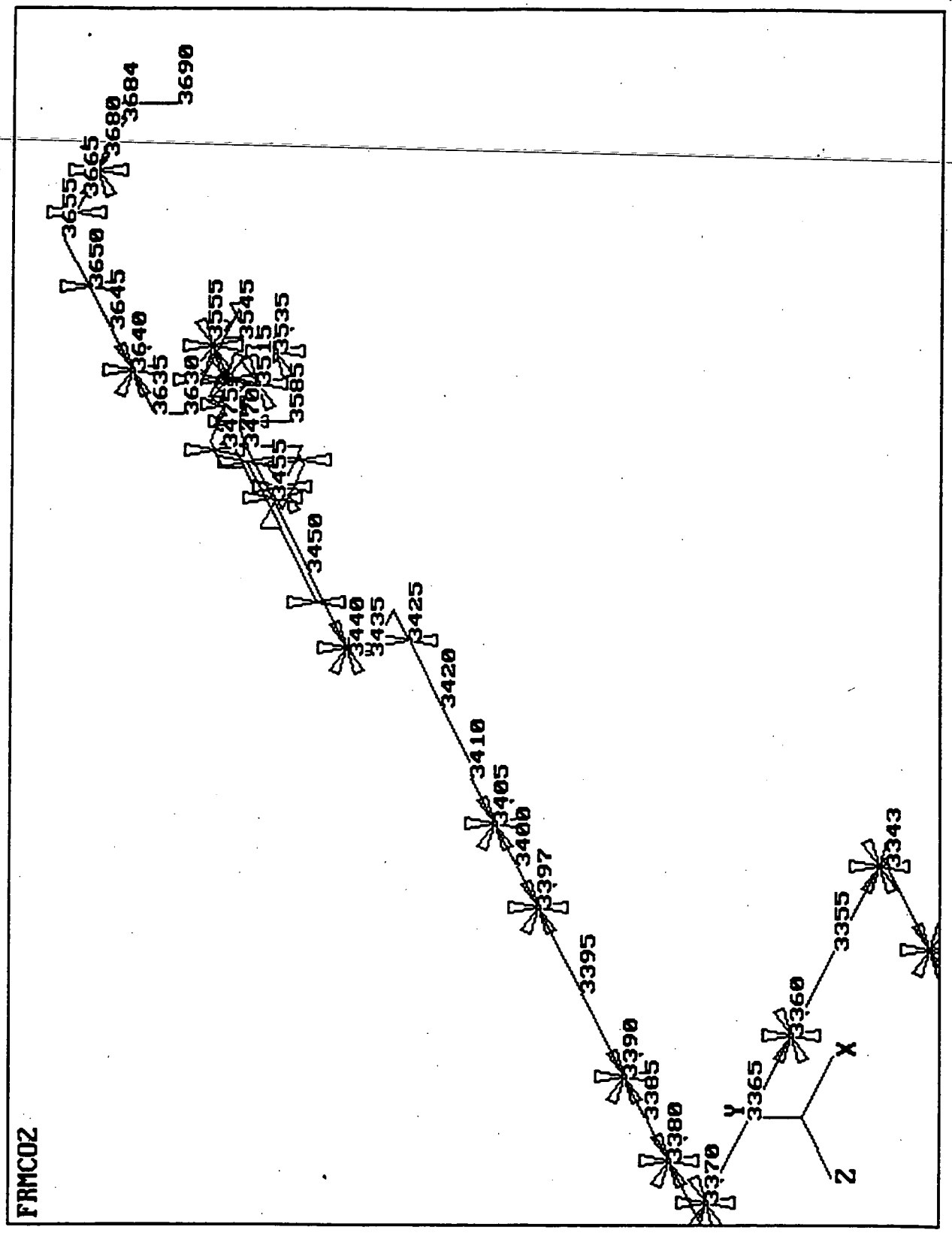
3295
3290
3285
3280
3265
Y
X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3475
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3455
3450
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3435
3425
3420
3410
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3360
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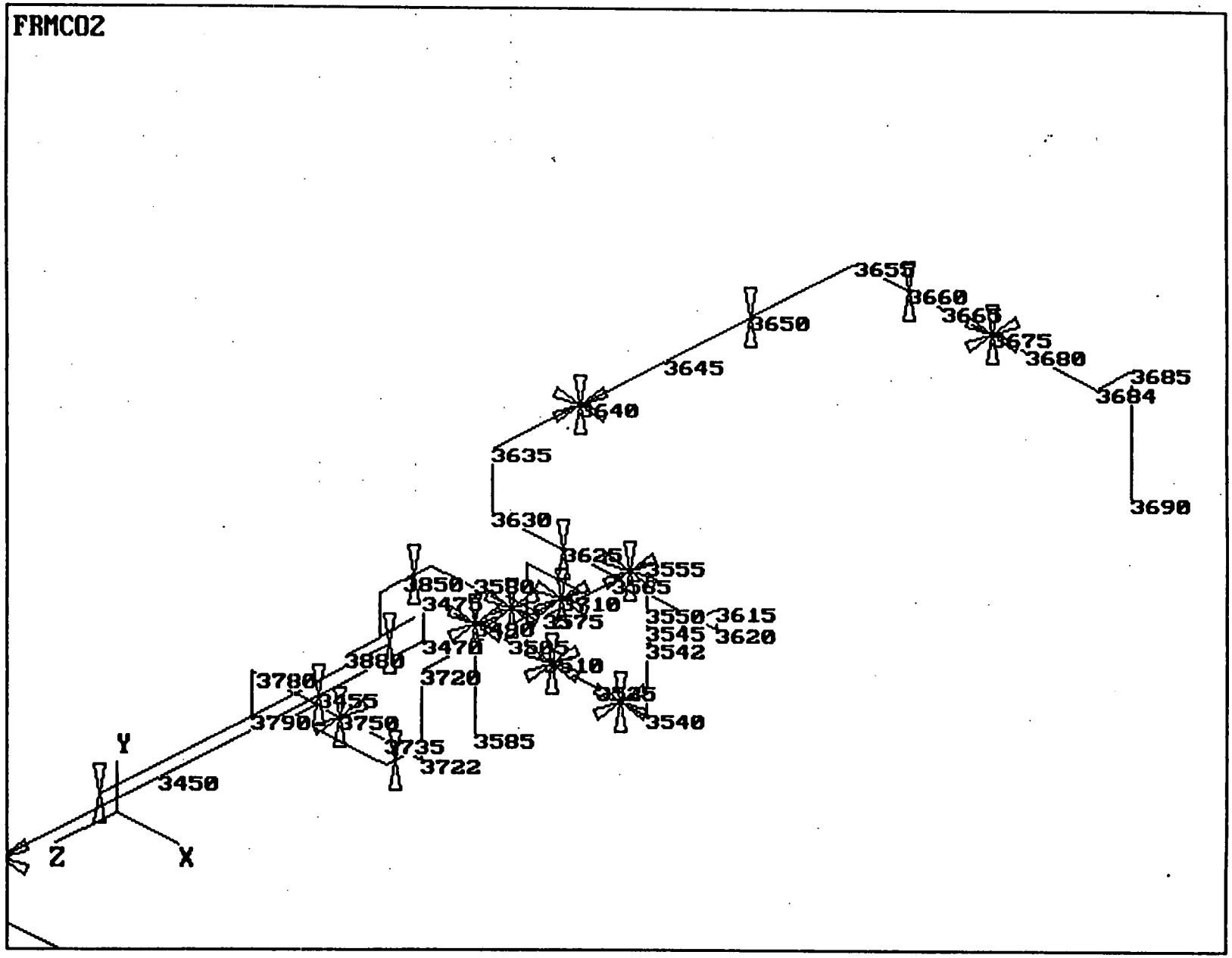
3343
Y
X
Z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3565
3550
3615
3545
3620
3542
3540
3585
3720
3735
3722
3850
3580
3475
3470
3880
3780
3455
3790
3750
3450
Y
Z
X

000414

LISTING OF STATIC LOAD CASES FOR THIS ANALYSIS

CASE --------TITLE---------

1 (OPE)W+DIS+T1+P1
2 (OPE)W+DIS+T2+P1
3 (OPE)W+DIS+T3+P1
4 (SUS)W+P1
5 (EXP)D5=D1-D4
6 (EXP)D6=D2-D4
7 (EXP)D7=D3-D4

TABLE OF CONTENTS -- STATIC OUTPUT

----------REPORT----------	----------LOAD CASE----------	-PAGE-
INPUT LISTING	- N/A -	1
STRESS SUMMARY	CASE 1 (OPE) W+DIS+T1+P1	46
STRESS REPORT, Stresses on Elements	CASE 1 (OPE) W+DIS+T1+P1	47
STRESS SUMMARY	CASE 2 (OPE) W+DIS+T2+P1	58
STRESS REPORT, Stresses on Elements	CASE 2 (OPE) W+DIS+T2+P1	59
STRESS SUMMARY	CASE 3 (OPE) W+DIS+T3+P1	70
STRESS REPORT, Stresses on Elements	CASE 3 (OPE) W+DIS+T3+P1	71
STRESS SUMMARY	CASE 4 (SUS) W+P1	82
STRESS REPORT, Stresses on Elements	CASE 4 (SUS) W+P1	83
STRESS SUMMARY	CASE 5 (EXP) D5(EXP)=D1-D4	94
STRESS REPORT, Stresses on Elements	CASE 5 (EXP) D5(EXP)=D1-D4	95
STRESS SUMMARY	CASE 6 (EXP) D6(EXP)=D2-D4	106
STRESS REPORT, Stresses on Elements	CASE 6 (EXP) D6(EXP)=D2-D4	107
STRESS SUMMARY	CASE 7 (EXP) D7(EXP)=D3-D4	118
STRESS REPORT, Stresses on Elements	CASE 7 (EXP) D7(EXP)=D3-D4	119
RESTRAINT SUMMARY	VARIOUS	130

Licensed To: FLUOR DANIEL ID: 13692

Job Description:

PROJECT:FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

CLIENT :UNITED STATES DEPARTMENT OF ENERGY

ANALYST:Jos Kaliyadan

NOTES :HOT WATER AND STEAM PIPING BETWEEN TANKS 25, 26 AND EXIST. PIPE

nsed To: FLUOR DANIEL ID: 13692

DATA

—3000—To—3005—DZ=-2.000-ft.

ia= 3.500 in. Wall= .216 in. Insul= 1.500 in.
AL
l= 350 F T2= 450 F T3= 550 F P1= 150.0000 lb./sq.in.
at= (1)LOW CARBON STEEL E= 29,500,000 lb./sq.in. v = .292
ensity= .2899 lb./cu.in. Insul= .0040 lb./cu.in.
uid= .03972222 lb./cu.in.
AINTS
de 3005 Y
de 3005 X
de 3005 Z
ABLE STRESSES
1.3 (1993) Sc= 17,000 lb./sq.in. Sh1= 17,000 lb./sq.in.
2= 17,000 lb./sq.in. Sh3= 17,000 lb./sq.in.

3005 To 3010 DZ= 5.916 ft.

3010 To 3015 DZ= 1.096 ft.
Weight= 92.00 lb.

3015 To 3020 DZ= 2.000 ft.
& TEE's
le 3020 Welding Tee

3020 To 3022 DZ= .250 ft.
INTS
le 3022 X
le 3022 Y
le 3022 Z

3022 To 3025 DZ= .278 ft.

3025 To 3030 DZ= 1.096 ft.
Weight= 113.00 lb.

3030 To 3035 DZ= .375 ft.
t "TO" end
ius= 4.500 in. (LONG) Bend Angle= 90.000

3035 To 3040 DY= -.666 ft.

3040 To 3045 DY= -.125 ft.
Weight= 24.00 lb.

3045 To 3050 DY= -.208 ft.
TEE's
3050 Welding Tee

---

050 To 3055 DX= .250 ft.

PIPE DATA

From 3055 To 3060 DX= 1.096 ft.
RIGID Weight= 113.00 lb.

From 3060 To 3065 DX= 13.958 ft.
RESTRAINTS
  Node 3065 Y

From 3050 To 3070 DX= -.250 ft.

From 3070 To 3075 DX= -1.096 ft.
RIGID Weight= 113.00 lb.

From 3075 To 3080 DX= -2.653 ft.
SIF's & TEE's
  Node 3080 Welding Tee

From 3080 To 3085 DX= -1.000 ft.
RESTRAINTS
  Node 3085 Y

From 3080 To 3090 DY= 1.000 ft.
BEND at "TO" end
  Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 3090 To 3095 DZ= -.695 ft.

From 3095 To 3100 DZ= -1.096 ft.
RIGID Weight= 113.00 lb.

From 3100 To 3105 DZ= -.208 ft.
SIF's & TEE's
  Node 3105 Welding Tee

From 3105 To 3106 DX= .250 ft.

From 3106 To 3110 DX= 1.096 ft.
RIGID Weight= 113.00 lb.

From 3110 To 3020 DX= 2.653 ft.

From 3105 To 3120 DX= -.208 ft.

From 3120 To 3125 DX= -.791 ft.
RESTRAINTS
  Node 3125 Y

From 3125 To 3130 DX= -6.000 ft.

From 3130 To 3135 DX= -6.000 ft.
RESTRAINTS
  Node 3135 X
  Node 3135 Y

```
S A R  I I   VERS 3.21  JOBNAME:FRMCO2   JAN 21,1995  9:38am   Page   4
sed To: FLUOR DANIEL                                        ID:  13692

DATA

nued...

de  3135  Z
-----------------------------------------------------------------------
3135  To  3140  DX= -6.000 ft.
-----------------------------------------------------------------------
3140  To  3145  DX= -6.000 ft.
INTS
le  3145  X
le  3145  Y
e  3145  Z
-----------------------------------------------------------------------
3145  To  3150  DX= -6.000 ft.
-----------------------------------------------------------------------
3150  To  3155  DX= -6.000 ft.
INTS
e  3155  X
e  3155  Y
e  3155  Z
-----------------------------------------------------------------------
155  To  3160  DX= -10.000 ft.
-----------------------------------------------------------------------
160  To  3165  DX= -10.000 ft.
NTS
  3165  X
  3165  Y
  3165  Z
-----------------------------------------------------------------------
165  To  3166  DX= -10.000 ft.
-----------------------------------------------------------------------
166  To  3167  DX= -10.000 ft.
NTS
  3167  X
  3167  Y
  3167  Z
-----------------------------------------------------------------------
167  To  3170  DX= -4.000 ft.
 "TO" end
s= 4.500 in. (LONG)   Bend Angle= 90.000
-----------------------------------------------------------------------
70  To  3175  DZ= -6.000 ft.
TS
  3175  X
  3175  Y
  3175  Z
-----------------------------------------------------------------------
75  To  3180  DZ= -14.000 ft.
"TO" end
s= 4.500 in. (LONG)   Bend Angle= 90.000
```

PIPE DATA

From 3180 To 3185 DX= -3.000 ft.
RESTRAINTS
  Node 3185 X
  Node 3185 Y
  Node 3185 Z

From 3185 To 3190 DX= -10.000 ft.

From 3190 To 3195 DX= -10.000 ft.
RESTRAINTS
  Node 3195 X
  Node 3195 Y
  Node 3195 Z

From 3195 To 3200 DX= -6.000 ft.

From 3200 To 3205 DX= -6.000 ft.
RESTRAINTS
  Node 3205 X
  Node 3205 Y
  Node 3205 Z

From 3205 To 3210 DX= -9.000 ft.
BEND at "TO" end
  Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 3210 To 3215 DZ= -1.666 ft.
RESTRAINTS
  Node 3215 X
  Node 3215 Y
  Node 3215 Z

From 3215 To 3220 DZ= -17.000 ft.
BEND at "TO" end
  Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 3220 To 3225 DX= -4.000 ft.
RESTRAINTS
  Node 3225 X
  Node 3225 Y
  Node 3225 Z

From 3225 To 3230 DX= -6.000 ft.
BEND at "TO" end
  Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 3230 To 3235 DZ= -4.000 ft.
RESTRAINTS
  Node 3235 X
  Node 3235 Y
  Node 3235 Z

ıTA

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235 To 3240 DZ= -13.000 ft.

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240 To 3245 DZ= -13.000 ft.
NTS
3245 X
3245 Y
3245 Z

---

245 To 3250 DZ= -9.500 ft.

---

250 To 3255 DZ= -9.500 ft.
NTS
3255 X
3255 Y
3255 Z

---

255 To 3258 DZ= -9.500 ft.

---

258 To 3260 DZ= -9.500 ft.
ITS
3260 X
3260 Y
3260 Z

---

60 To 3265 DZ= -9.000 ft.
"TO" end
s= 4.500 in. (LONG) Bend Angle= 90.000

---

65 To 3270 DY= .750 ft.
"TO" end
s= 4.500 in. (LONG) Bend Angle= 90.000

---

70 To 3275 DZ= -2.000 ft.
TS
3275 X
3275 Y
3275 Z

---

75 To 3280 DZ= -10.000 ft.

---

80 To 3285 DZ= -10.000 ft.
S
3285 X
3285 Y
3285 Z

---

5 To 3290 DZ= -10.000 ft.

---

0 To 3295 DZ= -10.000 ft.
S
3295 X
3295 Y

PIPE DATA

Continued...

Node 3295 Z

From 3295 To 3298 DZ= -8.000 ft.

From 3298 To 3300 DZ= -8.000 ft.

RESTRAINTS
Node 3300 X
Node 3300 Y
Node 3300 Z

From 3300 To 3305 DZ= -10.000 ft.

BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 45.000

From 3305 To 3310 DX= -2.280 ft. DZ= -2.280 ft.

BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 45.000

From 3310 To 3315 DZ= -3.000 ft.

RESTRAINTS
Node 3315 X
Node 3315 Y
Node 3315 Z

From 3315 To 3320 DZ= -10.000 ft.

From 3320 To 3325 DZ= -10.000 ft.

RESTRAINTS
Node 3325 X
Node 3325 Y
Node 3325 Z

From 3325 To 3330 DZ= -5.000 ft.

From 3330 To 3335 DZ= -5.000 ft.

RESTRAINTS
Node 3335 X
Node 3335 Y
Node 3335 Z

From 3335 To 3338 DZ= -7.500 ft.

From 3338 To 3340 DZ= -7.500 ft.

RESTRAINTS
Node 3340 X
Node 3340 Y
Node 3340 Z

ITA

---

340 To 3342 DZ= -10.000 ft.

---

342 To 3343 DZ= -10.000 ft.
NTS
3342 X
3342 Y
3342 Z

---

343 To 3345 DZ= -1.000 ft.
"TO" end
us= 4.500 in. (LONG) Bend Angle= 90.000

---

345 To 3350 DX= -1.000 ft.
NTS
3350 X
3350 Y
3350 Z

---

350 To 3355 DX= -10.000 ft.

---

355 To 3360 DX= -10.000 ft.
ITS
3360 X
3360 Y
3360 Z

---

60 To 3365 DX= -10.000 ft.

---

65 To 3370 DX= -10.000 ft.
TS
3370 X
3370 Y
3370 Z

---

70 To 3375 DX= -2.000 ft.
"TO" end
s= 4.500 in. (LONG) Bend Angle= 90.000

---

75 To 3380 DZ= -7.000 ft.
TS
3380 X
3380 Y
3380 Z

---

80 To 3385 DZ= -5.000 ft.

---

85 To 3390 DZ= -5.000 ft.
TS
3390 X
3390 Y
3390 Z

PIPE DATA

From 3390 To 3395 DZ= -10.000 ft.

From 3395 To 3397 DZ= -10.000 ft.
RESTRAINTS
Node 3397 X
Node 3397 Y
Node 3397 Z

From 3397 To 3400 DZ= -5.000 ft.

From 3400 To 3405 DZ= -5.000 ft.
RESTRAINTS
Node 3405 X
Node 3405 Y
Node 3405 Z

From 3405 To 3410 DZ= -5.500 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 45.000

From 3410 To 3415 DX= .707 ft. DZ= -.707 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 45.000

From 3415 To 3420 DZ= -7.000 ft.

From 3420 To 3425 DZ= -8.000 ft.
RESTRAINTS
Node 3425 Y

From 3425 To 3430 DZ= -3.500 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 3430 To 3435 DX= -5.500 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 3435 To 3440 DY= 2.000 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 3440 To 3445 DZ= -1.000 ft.
RESTRAINTS
Node 3445 Y
Node 3445 X
Node 3445 Z

From 3445 To 3450 DZ= -9.000 ft.

ATA

3450 To 3455 DZ= -9.000 ft.

INTS
e 3455 Y

3455 To 3470 DZ= -6.000 ft.
t "TO" end
ius= 4.500 in. (LONG) Bend Angle= 90.000

3470 To 3475 DY= 2.000 ft.
t "TO" end
ius= 4.500 in. (LONG) Bend Angle= 90.000

3475 To 3480 DX= .666 ft.

3480 To 3485 DX= .791 ft.
Weight= 75.00 lb.

3485 To 3490 DX= 1.541 ft.
INTS
3490 X
3490 Y
3490 Z

3490 To 3500 DX= 1.500 ft.
TEE's
3500 Welding Tee

---

500 To 3505 DX= .500 ft.

---

505 To 3507 DX= .958 ft.
Weight= 110.00 lb.
TEE's
3507 Welding Tee

---

507 To 3510 DX= .958 ft.
Weight= 110.00 lb.

---

510 To 3515 DX= .500 ft.
NTS
3515 X
3515 Y
3515 Z

---

515 To 3520 DX= .583 ft.
TEE's
3520 Welding Tee

---

520 To 3525 DX= 2.000 ft.

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525 To 3530 DX= 1.000 ft.
Weight= 60.00 lb.

PIPE DATA

From 3530 To 3535 DX= .416 ft.
RESTRAINTS
Node 3535 X
Node 3535 Y
Node 3535 Z

From 3535 To 3540 DX= 1.584 ft.
SIF's & TEE's
Node 3540 Welding Tee

From 3540 To 3542 DY= 3.170 ft.
SIF's & TEE's
Node 3542 Welding Tee

From 3542 To 3545 DY= .770 ft.

From 3545 To 3550 DY= .791 ft.
RIGID Weight= 60.00 lb.

From 3550 To 3555 DY= 2.187 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 3555 To 3560 DZ= 1.000 ft.
RESTRAINTS
Node 3560 Y
Node 3560 X
Node 3560 Z

From 3560 To 3565 DZ= 1.096 ft.
RIGID Weight= 113.00 lb.

From 3565 To 3570 DZ= .791 ft.
RIGID Weight= 75.00 lb.

From 3570 To 3575 DZ= 3.125 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 3575 To 3580 DX= -4.000 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 3580 To 3585 DY= -7.000 ft.
DISPLACEMENTS
Node 3585 DX= -.106 in. DY= .300 in. DZ= -.106 in. RX= .000
RY= .000 RZ= .000

From 3542 To 3600 DZ= -.500 ft.

d To: FLUOR DANIEL ID: 13692

TA

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500 To 3605 DZ= -.791 ft.
Weight= 75.00 lb.

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505 To 3610 DZ= -.791 ft.
Weight= 75.00 lb.

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510 To 3615 DZ= -1.916 ft.
"TO" end
is= 4.500 in. (LONG) Bend Angle= 90.000

---

515 To 3620 DY= -1.000 ft.
"TO" end
is= 4.500 in. (LONG) Bend Angle= 90.000

---

520 To 3625 DX= -9.000 ft.
TS
3625 Y

---

25 To 3630 DX= -4.000 ft.
"TO" end
s= 4.500 in. (LONG) Bend Angle= 90.000

---

30 To 3635 DY= 3.000 ft.
"TO" end
s= 4.500 in. (LONG) Bend Angle= 90.000

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35 To 3640 DZ= -5.000 ft.
TS
3640 X
3640 Y
3640 Z

---

40 To 3645 DZ= -5.000 ft.

---

45 To 3650 DZ= -5.000 ft.
TS
3650 Y

---

50 To 3655 DZ= -6.000 ft.
"TO" end
= 4.500 in. (LONG) Bend Angle= 90.000

---

55 To 3660 DX= 3.000 ft.
S
3660 Y

---

60 To 3665 DX= 2.000 ft.

---

65 To 3675 DX= 2.833 ft.
S
3675 X
3675 Y

PIPE DATA

Continued...

Node 3675 Z

From 3675 To 3680 DX= 1.937 ft.

From 3680 To 3682 DX= .791 ft.
RIGID Weight= 75.00 lb.

From 3682 To 3684 DX= 3.270 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 3684 To 3685 DZ= -2.000 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 3685 To 3690 DY= -6.000 ft.
DISPLACEMENTS
Node 3690 DX= -.106 in. DY= .300 in. DZ= -.106 in. RX= .000
RY= .000 RZ= .000

From 3507 To 3700 DY= 4.000 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 3700 To 3705 DX= 3.000 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 3705 To 3710 DZ= 1.000 ft.
RESTRAINTS
Node 3710 X
Node 3710 Y
Node 3710 Z

From 3710 To 3720 DZ= 8.000 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 3720 To 3722 DY= -4.000 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 3722 To 3725 DX= -.750 ft.
SIF's & TEE's
Node 3725 Welding Tee

From 3725 To 3730 DX= -.375 ft.

TA

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730 To 3735 DX= -.971 ft.
Weight= 98.00 lb.

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735 To 3740 DX= -.854 ft.

2.875 in. Wall= .216 in. Insul= 1.500 in.

---

740 To 3745 DX= -.945 ft.
Weight= 59.00 lb.

---

745 To 3750 DX= -.854 ft.
ITS
3750 Y
3750 Z

---

750 To 3755 DX= -.971 ft.

3.500 in. Wall= .216 in. Insul= 1.500 in.
Weight= 98.00 lb.

---

755 To 3760 DX= -.278 ft.
TEE's
3760 Welding Tee

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760 To 3765 DX= -1.083 ft.

---

765 To 3770 DX= -.791 ft.
Weight= 50.00 lb.

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770 To 3775 DX= -.708 ft.

---

775 To 3780 DX= -.791 ft.
Weight= 75.00 lb.

---

780 To 3785 DX= -.375 ft.
"TO" end
s= 4.500 in. (LONG) Bend Angle= 90.000

---

785 To 3790 DY= -2.000 ft.
TEE's
3790 Welding Tee

---

790 To 3800 DZ= 8.666 ft.

5.625 in. Wall= .280 in. Insul= 1.500 in.
'S
3800 Y

---

790 To 3805 DZ= -7.916 ft.
'S
3805 Y

PIPE DATA

From 3500 To 3820 DZ= -2.000 ft.
PIPE
Dia= 3.500 in. Wall= .216 in. Insul= 1.500 in.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 3820 To 3825 DX= -1.375 ft.
RESTRAINTS
Node 3825 X
Node 3825 Y
Node 3825 Z

From 3825 To 3830 DX= -.375 ft.

From 3830 To 3835 DX= -3.500 ft.
RIGID Weight= 213.00 lb.

From 3835 To 3840 DX= -.750 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 3840 To 3845 DZ= 1.000 ft.
RESTRAINTS
Node 3845 Y

From 3845 To 3850 DZ= .500 ft.

From 3850 To 3855 DZ= .971 ft.
RIGID Weight= 98.00 lb.

From 3855 To 3860 DZ= .500 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 3860 To 3865 DY= -1.000 ft.

From 3865 To 3870 DY= -1.000 ft.
PIPE
Dia= 2.375 in. Wall= .218 in. Insul= 1.500 in.
SIF's & TEE's
Node 3870 Welding Tee

From 3870 To 3875 DZ= -2.000 ft.

From 3870 To 3880 DZ= 2.000 ft.

From 3725 To 3881 DZ= .833 ft.
RESTRAINTS
Node 3881 Y

TA

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881 To 3882 DZ= .500 ft.

3.500 in. Wall= .216 in. Insul= 1.500 in.
"TO" end
ıs= 4.500 in. (LONG) Bend Angle= 90.000

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382 To 3885 DX= -.458 ft.

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385 To 3890 DX= -.971 ft.
leight= 98.00 lb.

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390 To 3900 DX= -3.820 ft.
"TO" end
s= 4.500 in. (LONG) Bend Angle= 90.000

D0 To 3760 DZ= -1.333 ft.

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40 To 3905 DY= -.500 ft.

MATERIAL Changes:
3000 3005 Mat= (1)LOW CARBON STEEL E= 29,500,000 lb./sq.in. v = .292
Density= .2899 lb./cu.in.

EMENTS

035 Radius= 4.500 in. (LONG) Bend Angle= 90.000
090 Radius= 4.500 in. (LONG) Bend Angle= 90.000
170 Radius= 4.500 in. (LONG) Bend Angle= 90.000
180 Radius= 4.500 in. (LONG) Bend Angle= 90.000
210 Radius= 4.500 in. (LONG) Bend Angle= 90.000
220 Radius= 4.500 in. (LONG) Bend Angle= 90.000
230 Radius= 4.500 in. (LONG) Bend Angle= 90.000
265 Radius= 4.500 in. (LONG) Bend Angle= 90.000
270 Radius= 4.500 in. (LONG) Bend Angle= 90.000
305 Radius= 4.500 in. (LONG) Bend Angle= 45.000
310 Radius= 4.500 in. (LONG) Bend Angle= 45.000
345 Radius= 4.500 in. (LONG) Bend Angle= 90.000
375 Radius= 4.500 in. (LONG) Bend Angle= 90.000
410 Radius= 4.500 in. (LONG) Bend Angle= 45.000
415 Radius= 4.500 in. (LONG) Bend Angle= 45.000
430 Radius= 4.500 in. (LONG) Bend Angle= 90.000
435 Radius= 4.500 in. (LONG) Bend Angle= 90.000
440 Radius= 4.500 in. (LONG) Bend Angle= 90.000
470 Radius= 4.500 in. (LONG) Bend Angle= 90.000
475 Radius= 4.500 in. (LONG) Bend Angle= 90.000
555 Radius= 4.500 in. (LONG) Bend Angle= 90.000
575 Radius= 4.500 in. (LONG) Bend Angle= 90.000
580 Radius= 4.500 in. (LONG) Bend Angle= 90.000
615 Radius= 4.500 in. (LONG) Bend Angle= 90.000
620 Radius= 4.500 in. (LONG) Bend Angle= 90.000
630 Radius= 4.500 in. (LONG) Bend Angle= 90.000
635 Radius= 4.500 in. (LONG) Bend Angle= 90.000
655 Radius= 4.500 in. (LONG) Bend Angle= 90.000
734 Radius= 4.500 in. (LONG) Bend Angle= 90.000
735 Radius= 4.500 in. (LONG) Bend Angle= 90.000
800 Radius= 4.500 in. (LONG) Bend Angle= 90.000
805 Radius= 4.500 in. (LONG) Bend Angle= 90.000
820 Radius= 4.500 in. (LONG) Bend Angle= 90.000
822 Radius= 4.500 in. (LONG) Bend Angle= 90.000
835 Radius= 4.500 in. (LONG) Bend Angle= 90.000
840 Radius= 4.500 in. (LONG) Bend Angle= 90.000
900 Radius= 4.500 in. (LONG) Bend Angle= 90.000
900 Radius= 4.500 in. (LONG) Bend Angle= 90.000
912 Radius= 4.500 in. (LONG) Bend Angle= 90.000
910 Radius= 4.500 in. (LONG) Bend Angle= 90.000

RIGIDS

3010	3015	RIGID	Weight= 92.00 lb.
3025	3030	RIGID	Weight= 113.00 lb.
3040	3045	RIGID	Weight= 24.00 lb.
3055	3060	RIGID	Weight= 113.00 lb.
3070	3075	RIGID	Weight= 113.00 lb.
3095	3100	RIGID	Weight= 113.00 lb.
3106	3110	RIGID	Weight= 113.00 lb.
3480	3485	RIGID	Weight= 75.00 lb.
3505	3507	RIGID	Weight= 110.00 lb.
3507	3510	RIGID	Weight= 110.00 lb.
3525	3530	RIGID	Weight= 60.00 lb.
3545	3550	RIGID	Weight= 60.00 lb.
3560	3565	RIGID	Weight= 113.00 lb.
3565	3570	RIGID	Weight= 75.00 lb.
3600	3605	RIGID	Weight= 75.00 lb.
3605	3610	RIGID	Weight= 75.00 lb.
3680	3682	RIGID	Weight= 75.00 lb.
3730	3735	RIGID	Weight= 98.00 lb.
3740	3745	RIGID	Weight= 59.00 lb.
3750	3755	RIGID	Weight= 98.00 lb.
3765	3770	RIGID	Weight= 50.00 lb.
3775	3780	RIGID	Weight= 75.00 lb.
3830	3835	RIGID	Weight= 213.00 lb.
3850	3855	RIGID	Weight= 98.00 lb.
3885	3890	RIGID	Weight= 98.00 lb.

NTS

TYPE	CNODE	STIF1	Len GAP STIF2	MU YIELD FORCE	Dir Vectors		
Y					.000	1.000	.000
X					1.000	.000	.000
Z					.000	.000	1.000
X					1.000	.000	.000
Y					.000	1.000	.000
Z					.000	.000	1.000
Y					.000	1.000	.000
Y					.000	1.000	.000
Y					.000	1.000	.000
X					1.000	.000	.000
Y					.000	1.000	.000
Z					.000	.000	1.000
X					1.000	.000	.000
Y					.000	1.000	.000
Z					.000	.000	1.000
X					1.000	.000	.000
Y					.000	1.000	.000
Z					.000	.000	1.000
X					1.000	.000	.000
Y					.000	1.000	.000
Z					.000	.000	1.000
X					1.000	.000	.000
Y					.000	1.000	.000
Z					.000	.000	1.000
X					1.000	.000	.000
Y					.000	1.000	.000
Z					.000	.000	1.000
X					1.000	.000	.000
Y					.000	1.000	.000
Z					.000	.000	1.000
X					1.000	.000	.000
Y					.000	1.000	.000
Z					.000	.000	1.000
X					1.000	.000	.000
Y					.000	1.000	.000
Z					.000	.000	1.000
X					1.000	.000	.000
Y					.000	1.000	.000

TS TYPE	CNODE	STIF1	Len GAP STIF2	MU YIELD FORCE	Dir Vectors		
Z					.000	.000	1.000
X					1.000	.000	.000
Y					.000	1.000	.000
Z					.000	.000	1.000
X					1.000	.000	.000
Y					.000	1.000	.000
Z					.000	.000	1.000
X					1.000	.000	.000
Y					.000	1.000	.000
Z					.000	.000	1.000
X					1.000	.000	.000
Y					.000	1.000	.000
Z					.000	.000	1.000
X					1.000	.000	.000
Y					.000	1.000	.000
Z					.000	.000	1.000
X					1.000	.000	.000
Y					.000	1.000	.000
Z					.000	.000	1.000
X					1.000	.000	.000
Y					.000	1.000	.000
Z					.000	.000	1.000
X					1.000	.000	.000
Y					.000	1.000	.000
Z					.000	.000	1.000
X					1.000	.000	.000
Y					.000	1.000	.000
Z					.000	.000	1.000
X					1.000	.000	.000
Y					.000	1.000	.000
Z					.000	.000	1.000
X					1.000	.000	.000
Y					.000	1.000	.000
Z					.000	.000	1.000
X					1.000	.000	.000
Y					.000	1.000	.000
Z					.000	.000	1.000
X					1.000	.000	.000

RESTRAINTS

NODE	TYPE	CNODE	STIF1	Len GAP STIF2	MU YIELD FORCE	Dir Vectors		
3390	Y					.000	1.000	.000
3390	Z					.000	.000	1.000
3397	X					1.000	.000	.000
3397	Y					.000	1.000	.000
3397	Z					.000	.000	1.000
3405	X					1.000	.000	.000
3405	Y					.000	1.000	.000
3405	Z					.000	.000	1.000
3425	Y					.000	1.000	.000
3445	Y					.000	1.000	.000
3445	X					1.000	.000	.000
3445	Z					.000	.000	1.000
3455	Y					.000	1.000	.000
3490	X					1.000	.000	.000
3490	Y					.000	1.000	.000
3490	Z					.000	.000	1.000
3515	X					1.000	.000	.000
3515	Y					.000	1.000	.000
3515	Z					.000	.000	1.000
3535	X					1.000	.000	.000
3535	Y					.000	1.000	.000
3535	Z					.000	.000	1.000
3560	Y					.000	1.000	.000
3560	X					1.000	.000	.000
3560	Z					.000	.000	1.000
3625	Y					.000	1.000	.000
3640	X					1.000	.000	.000
3640	Y					.000	1.000	.000
3640	Z					.000	.000	1.000
3650	Y					.000	1.000	.000
3660	Y					.000	1.000	.000
3675	X					1.000	.000	.000
3675	Y					.000	1.000	.000
3675	Z					.000	.000	1.000
3710	X					1.000	.000	.000
3710	Y					.000	1.000	.000
3710	Z					.000	.000	1.000
3750	Y					.000	1.000	.000
3750	Z					.000	.000	1.000
3800	Y					.000	1.000	.000
3805	Y					.000	1.000	.000
3825	X					1.000	.000	.000
3825	Y					.000	1.000	.000
3825	Z					.000	.000	1.000
3845	Y					.000	1.000	.000
3881	Y					.000	1.000	.000

EMENTS

385 Node 3585 DX= -.106 in. DY= .300 in. DZ= -.106 in.
RX= .000 RY= .000 RZ= .000
390 Node 3690 DX= -.106 in. DY= .300 in. DZ= -.106 in.
RX= .000 RY= .000 RZ= .000

ALLOWABLE STRESS Changes
3000 3005 B31.3 (1993) Sc= 17,000 lb./sq.in. Sh1= 17,000 lb./sq.in.
Sh2= 17,000 lb./sq.in. Sh3= 17,000 lb./sq.in.

TEE's

3020	Node	3020	Welding Tee
3050	Node	3050	Welding Tee
3080	Node	3080	Welding Tee
3105	Node	3105	Welding Tee
3500	Node	3500	Welding Tee
3507	Node	3507	Welding Tee
3520	Node	3520	Welding Tee
3540	Node	3540	Welding Tee
3542	Node	3542	Welding Tee
3725	Node	3725	Welding Tee
3760	Node	3760	Welding Tee
3790	Node	3790	Welding Tee
3870	Node	3870	Welding Tee

HANGER CONTROL AND LOCATION DATA

No. of Hanger Design Load Cases = 1 Actual Cold Load Flag = 0.0
Short Range Spring Flag = 0.0 Default Hanger Table = 1

000441

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I To: FLUOR DANIEL ID: 13692

IITS USED...

NGLISH NOM/SCH INPUT= ON

NGTH	inches	x	1.000	=	in.
RCE	pounds	x	1.000	=	lb.
SS(dynamics)	pounds	x	1.000	=	lbm
MENTS(INPUT)	inch-pounds	x	1.000	=	in.lb.
MENTS(OUTPUT)	inch-pounds	x	0.083	=	ft.lb.
RESS	lbs./sq.in.	x	1.000	=	lb./sq.in.
MP. SCALE	degrees F.	x	1.000	=	F
ESSURE	psig	x	1.000	=	lb./sq.in.
ASTIC MODULUS	lbs./sq.in.	x	1.000	=	lb./sq.in.
PE DENSITY	lbs./cu.in.	x	1.000	=	lb./cu.in.
SULATION DENS.	lbs./cu.in.	x	1.000	=	lb./cu.in.
JID DENSITY	lbs./cu.in.	x	1.000	=	lb./cu.in.
NSL. STIF	lbs./in.	x	1.000	=	lb./in.
TATIONAL STIF	in.lb./deg.	x	1.000	=	in.lb./deg
FORM LOAD	lb./in.	x	1.000	=	lb./in.
OAD	g's	x	1.000	=	g's
D LOAD	lbs./sq.in.	x	144.000	=	lb./sq.ft.
VATION	inches	x	0.083	=	ft.
POUND LENGTH	inches	x	0.083	=	ft.
METER	inches	x	1.000	=	in.
L THICKNESS	inches	x	1.000	=	in.

SETUP FILE PARAMETERS

CONNECT_GEOMETRY_THRU_CNODES =	YES
MIN_ALLOWED_BEND_ANGLE =	.5000000E+01
MAX_ALLOWED_BEND_ANGLE =	.9500000E+02
BEND_LENGTH_ATTACHMENT_PERCENT =	.5000000E+01
MIN_ANGLE_TO_ADJACENT_BEND_PT =	.5000000E+01
LOOP_CLOSURE_TOLERANCE =	0.1000000E+01 in.
THERMAL_BOWING_HORZ_TOLERANCE =	.1000000E-03
USE_PRESSURE_STIFFENING =	DEFAULT
USE_PD/4T	NO
BASE_HOOP_STRESS_ON_OD	NO
ALPHA_TOLERANCE =	.5000000E-01
RESLD-FORCE =	NO
HGR_DEF_RESWGT_STIF =	0.1000000E+13 lb./in.
DECOMP_SNG_TOL =	.1000000E+11
BEND_AXIAL_SHAPE =	NO
FRICT_STIF =	0.5000000E+05 lb./in.
FRICT_NORM_FORCE_VAR =	.2500000E+00
FRICT_ANGLE_VAR =	.3000000E+02
FRICT_SLIDE_MULT =	.1000000E+01
ROD_TOLERANCE =	.1000000E+01
ROD_INC =	.2000000E+01
INCORE_NUMERICAL_CHECK =	NO
OUTCORE_NUMERICAL_CHECK =	NO
DEFAULT_TRANS_RESTRAINT_STIFF=	0.1000000E+13 lb./in.
DEFAULT_ROT_RESTRAINT_STIFF=	0.1000000E+13 in.lb./deg
IGNORE_SPRING_HANGER_STIFFNESS =	NO
MISSING_MASS_ZPA =	EXTRACTED
MIN_WALL_MILL_TOLERANCE =	.1250000E+02
REDUCED_INTERSECTION =	B31.1(POST1980)
USE_WRC329	NO
NO_REDUCED_SIF_FOR_RFT_AND_WLT	NO
B31.1_REDUCED_Z_FIX =	YES
CLASS_1_BRANCH_FLEX	NO
ALL_STRESS_CASES_CORRODED =	NO
ADD_TORSION_IN_SL_STRESS =	DEFAULT
ADD_F/A_IN_STRESS =	DEFAULT
OCCASIONAL_LOAD_FACTOR =	.0000000E+00
DEFAULT_CODE =	B31.3
B31.3_SUS_CASE_SIF_FACTOR =	.1000000E+01
ALLOW_USERS_BEND_SIF =	NO
USE_SCHNEIDER	NO
PRINTER_TYPE =	LASER_JET
PRINTER_PORT =	LPT1
PRINTER_NORMAL_FMT_STRING =	LaserJet_80/6
PRINTER_COMPRESS_FMT_STRING =	LaserJet_132/6
PRINTER_RESET_FMT_STRING =	LaserJetReset1
DISABLE_PRINTER_CHECKS =	NO
PAGE_LENGTH =	US
LINES_PER_PAGE =	.5700000E+02

ILE PARAMETERS

_TYPE =	HPGL
BASE=	AISC89.BIN
_FLANGE=	GENERIC.VHD
)N_JT_DBASE=	PATHWAY.JHD
SIZE_SPECIFICATION	ANSI
(IT_SCREENS	OFF
\RE_YOU_SURE_PROMPTS	OFF
!EPORTS_BY_LOAD_CASE	YES
!MENT_NODAL_SORTING	YES
_INPUT_EXAMPLE_TEXT	MAX
;T_ANIMATE	YES
'ABLE_OF_CONTENTS	ON
)NCTION_KEYS_DISPLAYED	YES

EXECUTION CONTROL PARAMETERS

Rigid/ExpJt Print Flag	.000	
Thermal/Weight Print Flag ..	.000	
Bourdon Option	.000	
Loop Closure Flag	.000	
Liberal Allowable Flag	1.000	
Uniform Load Option	.000	
Thermal Bowing Delta Temp ..	.000	F
Ambient Temperature	70.000	F
Plastic Coefficient	.000	
Eqn Optimizer	.000	
Node Selection	.000	
Eqn Ordering	.000	
Collins	.000	
Degree Determination	.000	
User Eqn Control	.000	

E REPORT

/----------(in.)----------/

X	Y	Z
.0000	.0000	.0000
.0000	.0000	24.0000
.0000	.0000	95.0000
.0000	.0000	108.1600
.0000	.0000	132.1600
.0000	.0000	135.1600
.0000	.0000	138.4960
.0000	.0000	151.6560
.0000	.0000	156.1560
.0000	-8.0000	156.1560
.0000	-9.5000	156.1560
.0000	-12.0000	156.1560
3.0000	-12.0000	156.1560
16.1600	-12.0000	156.1560
183.6600	-12.0000	156.1560
.0000	-12.0000	156.1560
-3.0000	-12.0000	156.1560
-16.1600	-12.0000	156.1560
-47.9960	-12.0000	156.1560
-59.9960	-12.0000	156.1560
-47.9960	-12.0000	156.1560
-47.9960	.0000	156.1560
-47.9960	.0000	147.8160
-47.9960	.0000	134.6560
-47.9960	.0000	132.1560
-44.9960	.0000	132.1560
-31.8360	.0000	132.1560
-31.8360	.0000	132.1600
.0000	.0000	132.1600
-47.9960	.0000	132.1560
-50.4960	.0000	132.1560
-59.9960	.0000	132.1560
-131.9960	.0000	132.1560
-203.9960	.0000	132.1560
-275.9960	.0000	132.1560
-347.9960	.0000	132.1560
-419.9960	.0000	132.1560
-491.9960	.0000	132.1560
-611.9960	.0000	132.1560
-731.9960	.0000	132.1560
-851.9960	.0000	132.1560
-971.9960	.0000	132.1560
-1019.9960	.0000	132.1560
-1019.9960	.0000	60.1560
-1019.9960	.0000	-107.8440
-1055.9960	.0000	-107.8440
-1175.9960	.0000	-107.8440
-1295.9960	.0000	-107.8440

COORDINATE REPORT

/--------(in.)--------/

NODE	X	Y	Z
3200	-1367.9960	.0000	-107.8440
3205	-1439.9960	.0000	-107.8440
3210	-1547.9960	.0000	-107.8440
3215	-1547.9960	.0000	-127.8440
3220	-1547.9960	.0000	-331.8440
3225	-1595.9960	.0000	-331.8440
3230	-1667.9960	.0000	-331.8440
3235	-1667.9960	.0000	-379.8440
3240	-1667.9960	.0000	-535.8440
3245	-1667.9960	.0000	-691.8440
3250	-1667.9960	.0000	-805.8440
3255	-1667.9960	.0000	-919.8440
3258	-1667.9960	.0000	-1033.8440
3260	-1667.9960	.0000	-1147.8440
3265	-1667.9960	.0000	-1255.8440
3270	-1667.9960	9.0000	-1255.8440
3275	-1667.9960	9.0000	-1279.8440
3280	-1667.9960	9.0000	-1399.8440
3285	-1667.9960	9.0000	-1519.8440
3290	-1667.9960	9.0000	-1639.8440
3295	-1667.9960	9.0000	-1759.8440
3298	-1667.9960	9.0000	-1855.8440
3300	-1667.9960	9.0000	-1951.8440
3305	-1667.9960	9.0000	-2071.8440
3310	-1695.3560	9.0000	-2099.2040
3315	-1695.3560	9.0000	-2135.2040
3320	-1695.3560	9.0000	-2255.2040
3325	-1695.3560	9.0000	-2375.2040
3330	-1695.3560	9.0000	-2435.2040
3335	-1695.3560	9.0000	-2495.2040
3338	-1695.3560	9.0000	-2585.2040
3340	-1695.3560	9.0000	-2675.2040
3342	-1695.3560	9.0000	-2795.2040
3343	-1695.3560	9.0000	-2915.2040
3345	-1695.3560	9.0000	-2927.2040
3350	-1707.3560	9.0000	-2927.2040
3355	-1827.3560	9.0000	-2927.2040
3360	-1947.3560	9.0000	-2927.2040
3365	-2067.3560	9.0000	-2927.2040
3370	-2187.3560	9.0000	-2927.2040
3375	-2211.3560	9.0000	-2927.2040
3380	-2211.3560	9.0000	-3011.2040
3385	-2211.3560	9.0000	-3071.2040
3390	-2211.3560	9.0000	-3131.2040
3395	-2211.3560	9.0000	-3251.2040
3397	-2211.3560	9.0000	-3371.2040
3400	-2211.3560	9.0000	-3431.2040
3405	-2211.3560	9.0000	-3491.2040

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TE REPORT

/----------(in.)----------/

X	Y	Z
-2211.3560	9.0000	-3557.2040
-2202.8720	9.0000	-3565.6880
-2202.8720	9.0000	-3649.6880
-2202.8720	9.0000	-3745.6880
-2202.8720	9.0000	-3787.6880
-2268.8720	9.0000	-3787.6880
-2268.8720	33.0000	-3787.6880
-2268.8720	33.0000	-3799.6880
-2268.8720	33.0000	-3907.6880
-2268.8720	33.0000	-4015.6880
-2268.8720	33.0000	-4087.6880
-2268.8720	57.0000	-4087.6880
-2260.8720	57.0000	-4087.6880
-2251.3720	57.0000	-4087.6880
-2232.8720	57.0000	-4087.6880
-2214.8720	57.0000	-4087.6880
-2208.8720	57.0000	-4087.6880
-2197.3720	57.0000	-4087.6880
-2185.8720	57.0000	-4087.6880
-2179.8720	57.0000	-4087.6880
-2172.8720	57.0000	-4087.6880
-2148.8720	57.0000	-4087.6880
-2136.8720	57.0000	-4087.6880
-2131.8720	57.0000	-4087.6880
-2112.8640	57.0000	-4087.6880
-2112.8640	95.0399	-4087.6880
-2112.8640	104.2900	-4087.6880
-2112.8640	113.7900	-4087.6880
-2112.8640	140.0400	-4087.6880
-2112.8640	140.0400	-4075.6880
-2112.8640	140.0400	-4062.5280
-2112.8640	140.0400	-4053.0280
-2112.8640	140.0400	-4015.5280
-2160.8640	140.0400	-4015.5280
-2160.8640	56.0399	-4015.5280
-2112.8640	95.0399	-4087.6880
-2112.8640	95.0399	-4093.6880
-2112.8640	95.0399	-4103.1880
-2112.8640	95.0399	-4112.6880
-2112.8640	95.0399	-4135.6880
-2112.8640	83.0399	-4135.6880
-2220.8640	83.0399	-4135.6880
-2268.8640	83.0399	-4135.6880
-2268.8640	119.0400	-4135.6880
-2268.8640	119.0400	-4195.6880
-2268.8640	119.0400	-4255.6880
-2268.8640	119.0400	-4315.6880
-2268.8640	119.0400	-4387.6880

COORDINATE REPORT

NODE	X (in.)	Y (in.)	Z (in.)
3660	-2232.8640	119.0400	-4387.6880
3665	-2208.8640	119.0400	-4387.6880
3675	-2174.8640	119.0400	-4387.6880
3680	-2151.6140	119.0400	-4387.6880
3682	-2142.1140	119.0400	-4387.6880
3684	-2102.8740	119.0400	-4387.6880
3685	-2102.8740	119.0400	-4411.6880
3690	-2102.8740	47.0399	-4411.6880
3507	-2197.3720	57.0000	-4087.6880
3700	-2197.3720	105.0000	-4087.6880
3705	-2161.3720	105.0000	-4087.6880
3710	-2161.3720	105.0000	-4075.6880
3720	-2161.3720	105.0000	-3979.6880
3722	-2161.3720	57.0000	-3979.6880
3725	-2170.3720	57.0000	-3979.6880
3730	-2174.8720	57.0000	-3979.6880
3735	-2186.5320	57.0000	-3979.6880
3740	-2196.7820	57.0000	-3979.6880
3745	-2208.1220	57.0000	-3979.6880
3750	-2218.3720	57.0000	-3979.6880
3755	-2230.0320	57.0000	-3979.6880
3760	-2233.3720	57.0000	-3979.6880
3765	-2246.3720	57.0000	-3979.6880
3770	-2255.8720	57.0000	-3979.6880
3775	-2264.3720	57.0000	-3979.6880
3780	-2273.8720	57.0000	-3979.6880
3785	-2278.3720	57.0000	-3979.6880
3790	-2278.3720	33.0000	-3979.6880
3800	-2278.3720	33.0000	-3875.6880
3790	-2278.3720	33.0000	-3979.6880
3805	-2278.3720	33.0000	-4074.6880
3500	-2214.8720	57.0000	-4087.6880
3820	-2214.8720	57.0000	-4111.6880
3825	-2231.3720	57.0000	-4111.6880
3830	-2235.8720	57.0000	-4111.6880
3835	-2277.8720	57.0000	-4111.6880
3840	-2286.8720	57.0000	-4111.6880
3845	-2286.8720	57.0000	-4099.6880
3850	-2286.8720	57.0000	-4093.6880
3855	-2286.8720	57.0000	-4082.0280
3860	-2286.8720	57.0000	-4076.0280
3865	-2286.8720	45.0000	-4076.0280
3870	-2286.8720	33.0000	-4076.0280
3875	-2286.8720	33.0000	-4100.0280
3870	-2286.8720	33.0000	-4076.0280
3880	-2286.8720	33.0000	-4052.0280
3725	-2170.3720	57.0000	-3979.6880
3881	-2170.3720	57.0000	-3969.6880

TE REPORT

/----------(in.)----------/

X	Y	Z
-2170.3720	57.0000	-3963.6880
-2175.8720	57.0000	-3963.6880
-2187.5320	57.0000	-3963.6880
-2233.3720	57.0000	-3963.6880
-2233.3720	57.0000	-3979.6880
-2112.8640	57.0000	-4087.6880
-2112.8640	51.0000	-4087.6880

END SIF & FLEXIBILITY VALUES

(PE_KEY:

0	No Flanges	SIFs IN/OUT of Plane
1	Flange	Flexibilities IN/OUT of plane
2	Flanges	

/PE	SIFi	SIFo	Ki	Ko
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473

----- INTERSECTION SIF VALUES

TYPE KEY:
1 - Reinforced Fabricated Tee
2 - Unreinforced Fabricated Tee
3 - Welding Tee
4 - Sweepolet
5 - Weldolet
6 - Extruded Welding Tee

TEE	TYPE	HEADER SIFo	HEADER SIFi	BRANCH THICK (in.)	BRANCH SIFo	BRANCH SIFi
3020	3	1.29585	1.22188	0.00000	1.29585	1.22188
3050	3	1.29585	1.22188	0.00000	1.29585	1.22188
3080	3	1.29585	1.22188	0.00000	1.29585	1.22188
3105	3	1.29585	1.22188	0.00000	1.29585	1.22188
3500	3	1.29585	1.22188	0.00000	1.29585	1.22188
3507	3	1.29585	1.22188	0.00000	1.29585	1.22188
3540	3	1.29585	1.22188	0.00000	1.29585	1.22188
3542	3	1.29585	1.22188	0.00000	1.29585	1.22188
3725	3	1.29585	1.22188	0.21600	1.29585	1.22188
3760	3	1.29585	1.22188	0.00000	1.29585	1.22188
3790	3	1.69084	1.51813	0.28000	1.69084	1.51813
3870	3	1.00000	1.00000	0.00000	1.00000	1.00000
3520	3	1.29585	1.22188	0.00000	1.29585	1.22188

PIPE PROPERTIES #1

TO	ALPHA1	ALPHA2	ALPHA3	PIPE-WT	INSUL-WT	FLUID-WT
	/--THERMAL EXPANSION (in./in.) --/			----- WEIGHTS (lb./ft.) -----/		
3005.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3010.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3015.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3020.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3022.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3025.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3030.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3035.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3040.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3045.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3050.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3055.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3060.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3065.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3070.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3075.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3080.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3085.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3090.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3095.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3100.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3105.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3106.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3110.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3020.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3120.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3125.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3130.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3135.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3140.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3145.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3150.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3155.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3160.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3165.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3166.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3167.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3170.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3175.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3180.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3185.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3190.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3195.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3200.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3205.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3210.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3215.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3220.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3225.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238

----- PIPE PROPERTIES #1

3225.	3230.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3230.	3235.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3235.	3240.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3240.	3245.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3245.	3250.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3250.	3255.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3255.	3258.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3258.	3260.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3260.	3265.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3265.	3270.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3270.	3275.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3275.	3280.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3280.	3285.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3285.	3290.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3290.	3295.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3295.	3298.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3298.	3300.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3300.	3305.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3305.	3310.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3310.	3315.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3315.	3320.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3320.	3325.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3325.	3330.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3330.	3335.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3335.	3338.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3338.	3340.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3340.	3342.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3342.	3343.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3343.	3345.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3345.	3350.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3350.	3355.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3355.	3360.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3360.	3365.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3365.	3370.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3370.	3375.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3375.	3380.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3380.	3385.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3385.	3390.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3390.	3395.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3395.	3397.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3397.	3400.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3400.	3405.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3405.	3410.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3410.	3415.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3415.	3420.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3420.	3425.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3425.	3430.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3430.	3435.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3435.	3440.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3440.	3445.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3445.	3450.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238

IPE PROPERTIES #1

1455.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1470.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1475.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1480.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1485.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1490.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1500.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1505.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1507.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1510.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1515.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1520.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1525.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1530.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1535.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1540.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1542.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1545.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1550.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1555.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1560.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1565.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1570.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1575.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1580.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1585.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1600.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1605.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1610.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1615.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1620.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1625.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1630.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1635.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1640.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1645.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1650.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1655.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1660.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1665.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1675.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1680.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1682.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1684.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1685.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1690.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1700.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1705.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1710.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1720.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
1722.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238

----- PIPE PROPERTIES #1

3722.	3725.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3725.	3730.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3730.	3735.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3735.	3740.	0.001879	0.002630	0.003420	6.2776	1.0020	2.2344
3740.	3745.	0.001879	0.002630	0.003420	6.2776	1.0020	2.2344
3745.	3750.	0.001879	0.002630	0.003420	6.2776	1.0020	2.2344
3750.	3755.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3755.	3760.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3760.	3765.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3765.	3770.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3770.	3775.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3775.	3780.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3780.	3785.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3785.	3790.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3790.	3800.	0.001879	0.002630	0.003420	19.4184	1.8608	13.7710
3790.	3805.	0.001879	0.002630	0.003420	19.4184	1.8608	13.7710
3500.	3820.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3820.	3825.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3825.	3830.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3830.	3835.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3835.	3840.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3840.	3845.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3845.	3850.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3850.	3855.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3855.	3860.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3860.	3865.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3865.	3870.	0.001879	0.002630	0.003420	5.1396	0.8875	1.4075
3870.	3875.	0.001879	0.002630	0.003420	5.1396	0.8875	1.4075
3870.	3880.	0.001879	0.002630	0.003420	5.1396	0.8875	1.4075
3725.	3881.	0.001879	0.002630	0.003420	5.1396	0.8875	1.4075
3881.	3882.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3882.	3885.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3885.	3890.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3890.	3900.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3900.	3760.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238
3540.	3905.	0.001879	0.002630	0.003420	7.7532	1.1451	3.5238

- PIPE PROPERTIES #2

ermal Bowing Alphas, Thickness Parameter, and
nimum Required Wall Thickness

TE: Minimum wall thickness based on straight pipes only.
No considerations for area replacement of tees have been made.

TO	TB ALPHA1	TB ALPHA2	TB ALPHA3	y PARM	MIN THK
	/--THERMAL BOWING EXP(in./in./F) --/				(in.)
). 3005.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
). 3010.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
). 3015.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
). 3020.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
). 3022.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
). 3025.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 3030.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
). 3035.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 3040.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 3045.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
. 3050.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 3055.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 3060.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
. 3065.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 3070.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 3075.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
. 3080.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 3085.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 3090.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 3095.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 3100.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
. 3105.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 3106.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 3110.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
. 3020.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 3120.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 3125.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 3130.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 3135.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 3140.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 3145.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 3150.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 3155.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 3160.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3165.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3166.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3167.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3170.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3175.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3180.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3185.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3190.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3195.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3200.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3205.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173

----- PIPE PROPERTIES #2

Thermal Bowing Alphas, Thickness Parameter, and
Minimum Required Wall Thickness
NOTE: Minimum wall thickness based on straight pipes only.
No considerations for area replacement of tees have been made.

3205.	3210.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3210.	3215.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3215.	3220.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3220.	3225.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3225.	3230.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3230.	3235.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3235.	3240.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3240.	3245.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3245.	3250.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3250.	3255.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3255.	3258.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3258.	3260.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3260.	3265.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3265.	3270.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3270.	3275.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3275.	3280.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3280.	3285.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3285.	3290.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3290.	3295.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3295.	3298.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3298.	3300.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3300.	3305.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3305.	3310.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3310.	3315.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3315.	3320.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3320.	3325.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3325.	3330.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3330.	3335.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3335.	3338.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3338.	3340.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3340.	3342.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3342.	3343.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3343.	3345.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3345.	3350.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3350.	3355.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3355.	3360.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3360.	3365.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3365.	3370.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3370.	3375.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3375.	3380.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3380.	3385.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3385.	3390.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3390.	3395.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3395.	3397.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3397.	3400.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3400.	3405.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3405.	3410.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3410.	3415.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3415.	3420.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173

- PIPE PROPERTIES #2
ermal Bowing Alphas, Thickness Parameter, and
nimum Required Wall Thickness

TE: Minimum wall thickness based on straight pipes only.
No considerations for area replacement of tees have been made.

0. 3435.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
5. 3440.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
0. 3445.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
5. 3450.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
0. 3455.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
5. 3470.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
0. 3475.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
5. 3480.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
0. 3485.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
5. 3490.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
0. 3500.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
0. 3505.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
7. 3507.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
0. 3510.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
0. 3515.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
0. 3520.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
0. 3525.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
0. 3530.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
0. 3535.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
0. 3540.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
0. 3542.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
0. 3545.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
0. 3550.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
0. 3555.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
0. 3560.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
0. 3565.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
0. 3570.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
0. 3575.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
0. 3580.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
0. 3585.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
0. 3600.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
0. 3605.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
0. 3610.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
0. 3615.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
0. 3620.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
0. 3625.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
0. 3630.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
0. 3635.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
0. 3640.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
0. 3645.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
0. 3650.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
0. 3655.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
0. 3660.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
0. 3665.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
0. 3675.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
0. 3680.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
0. 3682.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
0. 3684.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
0. 3685.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173

3420.	3425.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3425.	3430.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173

- PIPE PROPERTIES #2
ermal Bowing Alphas, Thickness Parameter, and
nimum Required Wall Thickness

TE: Minimum wall thickness based on straight pipes only.
No considerations for area replacement of tees have been made.

). 3705.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
). 3710.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
). 3720.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
). 3722.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
). 3725.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
). 3730.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
). 3735.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
). 3740.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0142
). 3745.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
). 3750.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0142
). 3755.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
. 3760.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
). 3765.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 3770.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
. 3775.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 3780.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
. 3785.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 3790.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 3800.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0328
. 3805.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0328
. 3820.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 3825.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 3830.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 3835.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
. 3840.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 3845.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 3850.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 3855.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
. 3860.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 3865.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 3870.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0117
. 3875.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0117
. 3880.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0117
. 3881.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0117
. 3882.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 3885.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 3890.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
. 3900.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 3760.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 3905.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173

3685.	3690.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
3507.	3700.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173

**** NO CODE STRESS CHECK PROCESSED

PIPING CODE: B31.3 -1993, July 31, 1993 Addendum

HIGHEST STRESSES: (lb./sq.in.)

OPE STRESS %:	170392.	@NODE 3020	ALLOWABLE:	0.
BENDING STRESS:	108178.	@NODE 3020		
TORSIONAL STRESS:	6342.	@NODE 3090		
AXIAL STRESS:	93278.	@NODE 3505		
3D MAX INTENSITY:	170339.	@NODE 3020		

STRESS OPTIMIZATION PARAMETERS:

OPE STRESS PERCENTAGES SHOWN BELOW REPRESENT THE NUMBER OF NODES IN THE SYSTEM THAT WERE WITHIN THE PERCENTAGE GIVEN OF THE HIGHEST OPE STRESS IN THE SYSTEM.

AVG. OPE STRESS 27466.

	/BETWEEN/	/BELOW/
OPE STRESS 90-100%	0.31	99.69
OPE STRESS 80-90 %	0.31	99.38
OPE STRESS 70-80 %	0.31	99.07
OPE STRESS 60-70 %	1.85	97.22
OPE STRESS 50-60 %	2.16	95.06
OPE STRESS 25-50 %	30.86	64.20
OPE STRESS 0-25 %	64.20	

PIPE ELEMENTS ANALYZED: 162

SAMPLED POINTS: 324

T	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS	%
	498.	0.	0.	1065.	1295.	1.000	1.000	498.	0.	0.
	498.	173.	0.	1065.	1295.	1.000	1.000	671.	0.	0.
	-61836.	173.	0.	1065.	63134.	1.000	1.000	62010.	0.	0.
	-61836.	46695.	0.	1065.	109526.	1.000	1.000	108532.	0.	0.
	-61836.	55367.	0.	1065.	117204.	1.000	1.000	117204.	0.	0.
	-61836.	87065.	0.	1065.	149897.	1.222	1.296	148901.	0.	0.
	-62068.	108178.	-2806.	1065.	170339.	1.222	1.296	170392.	0.	0.
	-62068.	49516.	2806.	1065.	112720.	1.000	1.000	111902.	0.	0.
	619.	49516.	-2806.	1065.	50449.	1.000	1.000	50453.	0.	0.
	619.	42050.	2806.	1065.	42796.	1.000	1.000	43042.	0.	0.
	619.	18736.	-2806.	1065.	20152.	1.768	1.473	20178.	0.	0.
	703.	6527.	-1373.	1065.	7352.	1.768	1.473	7785.	0.	0.
	703.	4409.	1373.	1065.	5803.	1.000	1.000	5898.	0.	0.
	701.	12113.	-1373.	1065.	12707.	1.000	1.000	13122.	0.	0.
	690.	15436.	1373.	1065.	16359.	1.000	1.000	16369.	0.	0.
	689.	25638.	-1373.	1065.	26089.	1.222	1.296	26473.	0.	0.
	498.	9049.	0.	1065.	9546.	1.222	1.296	9546.	0.	0.
	498.	6948.	0.	1065.	7446.	1.000	1.000	7446.	0.	0.
	498.	5407.	0.	1065.	5905.	1.000	1.000	5905.	0.	0.
	498.	0.	0.	1065.	1295.	1.000	1.000	498.	0.	0.
	-1217.	16958.	254.	1065.	18182.	1.222	1.296	18182.	0.	0.
	-1217.	14035.	-254.	1065.	16254.	1.000	1.000	15260.	0.	0.
	-1217.	14610.	254.	1065.	15834.	1.000	1.000	15835.	0.	0.
	-1217.	19400.	-254.	1065.	21618.	1.222	1.296	20623.	0.	0.
	498.	1390.	0.	1065.	1888.	1.222	1.296	1888.	0.	0.
	498.	0.	0.	1065.	1295.	1.000	1.000	498.	0.	0.
	424.	17002.	2396.	1065.	18073.	1.222	1.296	18088.	0.	0.
	376.	7822.	-6342.	1065.	15236.	1.768	1.473	15278.	0.	0.
	376.	5270.	6342.	1065.	13884.	1.000	1.000	14111.	0.	0.
	376.	13702.	-6342.	1065.	19130.	1.000	1.000	19048.	0.	0.
	376.	42844.	6342.	1065.	45043.	1.000	1.000	45058.	0.	0.
	376.	59119.	-6342.	1065.	61070.	1.222	1.296	60840.	0.	0.

STRESS REPORT, Stresses on Elements
CASE 1 (OPE) W+DIS+T1+P1

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS
3105	-35518.	13247.	-63.	1065.	48765.	1.222	1.296	48765.	0.
3106	-35518.	10488.	63.	1065.	47002.	1.000	1.000	46007.	0.
3110	-35518.	11859.	-63.	1065.	47377.	1.000	1.000	47378.	0.
3020	-35518.	22355.	63.	1065.	58868.	1.222	1.296	57873.	0.
3105	-37232.	62806.	-44.	1065.	100038.	1.222	1.296	100038.	0.
3120	-37232.	50246.	44.	1065.	88474.	1.000	1.000	87478.	0.
3120	-37232.	50246.	-44.	1065.	87478.	1.000	1.000	87478.	0.
3125	-37232.	45898.	44.	1065.	84126.	1.000	1.000	83131.	0.
3125	-37232.	45898.	-44.	1065.	83131.	1.000	1.000	83131.	0.
3130	-37232.	12967.	44.	1065.	51194.	1.000	1.000	50199.	0.
3130	-37232.	12967.	-44.	1065.	50199.	1.000	1.000	50199.	0.
3135	-37232.	19915.	44.	1065.	58142.	1.000	1.000	57147.	0.
3135	-54927.	19915.	-44.	1065.	74842.	1.000	1.000	74842.	0.
3140	-54927.	7399.	44.	1065.	63321.	1.000	1.000	62326.	0.
3140	-54927.	7399.	-44.	1065.	62558.	1.000	1.000	62326.	0.
3145	-54927.	5252.	44.	1065.	61175.	1.000	1.000	60180.	0.
3145	-54927.	5252.	-44.	1065.	60676.	1.000	1.000	60180.	0.
3150	-54927.	2150.	44.	1065.	58072.	1.000	1.000	57078.	0.
3150	-54927.	2150.	-44.	1065.	57956.	1.000	1.000	57078.	0.
3155	-54927.	2229.	44.	1065.	58151.	1.000	1.000	57158.	0.
3155	-54927.	2229.	-44.	1065.	58026.	1.000	1.000	57158.	0.
3160	-54927.	1676.	44.	1065.	57598.	1.000	1.000	56605.	0.
3160	-54927.	1676.	-44.	1065.	57541.	1.000	1.000	56605.	0.
3165	-54927.	3463.	44.	1065.	59385.	1.000	1.000	58391.	0.
3165	-54927.	3463.	-44.	1065.	59108.	1.000	1.000	58391.	0.
3166	-54927.	2058.	44.	1065.	57980.	1.000	1.000	56986.	0.
3166	-54927.	2058.	-44.	1065.	57876.	1.000	1.000	56986.	0.
3167	-54927.	2410.	44.	1065.	58332.	1.000	1.000	57338.	0.
3167	471.	2410.	-44.	1065.	2882.	1.000	1.000	2883.	0.
3170	410.	5961.	-112.	1065.	6550.	1.768	1.473	6374.	0.
3170	410.	3372.	112.	1065.	3788.	1.000	1.000	3789.	0.
3175	410.	1314.	-112.	1065.	1913.	1.000	1.000	1743.	0.

EMENT DES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS	%
175	237.	1314.	112.	1065.	2072.	1.000	1.000	1571.	0.	0.
180	465.	8166.	175.	1065.	8704.	1.768	1.473	8638.	0.	0.
180	465.	4626.	-175.	1065.	5103.	1.000	1.000	5104.	0.	0.
185	465.	6418.	175.	1065.	6958.	1.000	1.000	6892.	0.	0.
185	-54927.	6418.	-175.	1065.	61698.	1.000	1.000	61354.	0.	0.
190	-54927.	2955.	175.	1065.	58878.	1.000	1.000	57902.	0.	0.
190	-54927.	2955.	-175.	1065.	58662.	1.000	1.000	57902.	0.	0.
195	-54927.	2923.	175.	1065.	58846.	1.000	1.000	57870.	0.	0.
95	-54927.	2923.	-175.	1065.	58634.	1.000	1.000	57870.	0.	0.
00	-54927.	1713.	175.	1065.	57636.	1.000	1.000	56675.	0.	0.
00	-54927.	1713.	-175.	1065.	57574.	1.000	1.000	56675.	0.	0.
05	-54927.	1937.	175.	1065.	57860.	1.000	1.000	56896.	0.	0.
05	-106.	1937.	-175.	1065.	2964.	1.000	1.000	2075.	0.	0.
10	414.	11028.	398.	1065.	11636.	1.768	1.473	11471.	0.	0.
10	414.	6244.	-398.	1065.	6705.	1.000	1.000	6709.	0.	0.
15	414.	5940.	398.	1065.	6569.	1.000	1.000	6407.	0.	0.
15	311.	5940.	-398.	1065.	6302.	1.000	1.000	6304.	0.	0.
20	509.	3341.	819.	1065.	4163.	1.768	1.473	4230.	0.	0.
20	509.	1911.	-819.	1065.	2922.	1.000	1.000	3025.	0.	0.
25	509.	9118.	819.	1065.	9743.	1.000	1.000	9772.	0.	0.
25	442.	9118.	-819.	1065.	9699.	1.000	1.000	9705.	0.	0.
30	570.	3614.	69.	1065.	4042.	1.768	1.473	4186.	0.	0.
30	570.	2215.	-69.	1065.	2788.	1.000	1.000	2789.	0.	0.
35	570.	1987.	69.	1065.	2464.	1.000	1.000	2561.	0.	0.
35	-54927.	1987.	-69.	1065.	57814.	1.000	1.000	56918.	0.	0.
40	-54927.	3962.	69.	1065.	59884.	1.000	1.000	58891.	0.	0.
40	-54927.	3962.	-69.	1065.	59545.	1.000	1.000	58891.	0.	0.
45	-54927.	5535.	69.	1065.	61458.	1.000	1.000	60464.	0.	0.
45	-54927.	5535.	-69.	1065.	60924.	1.000	1.000	60464.	0.	0.
50	-54927.	1182.	69.	1065.	57108.	1.000	1.000	56117.	0.	0.
50	-54927.	1182.	-69.	1065.	57108.	1.000	1.000	56117.	0.	0.
55	-54927.	80.	69.	1065.	56142.	1.000	1.000	55086.	0.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.) STRESS	ALLOWAB STRES
3255	-54927.	80.	-69.	1065.	56142.	1.000	1.000	55086.	
3258	-54927.	1222.	69.	1065.	57145.	1.000	1.000	56157.	
3258	-54927.	1222.	-69.	1065.	57144.	1.000	1.000	56157.	
3260	-54927.	10280.	69.	1065.	66202.	1.000	1.000	65208.	
3260	-4219.	10280.	-69.	1065.	14499.	1.000	1.000	14500.	
3265	213.	10096.	-18.	1065.	10878.	1.768	1.473	10309.	
3265	213.	10096.	18.	1065.	10309.	1.768	1.473	10309.	
3270	-4219.	35495.	79.	1065.	40709.	1.768	1.473	39714.	
3270	-4219.	20080.	-79.	1065.	24300.	1.000	1.000	24300.	
3275	-4219.	13099.	79.	1065.	18314.	1.000	1.000	17319.	
3275	-54927.	13099.	-79.	1065.	68026.	1.000	1.000	68027.	
3280	-54927.	2376.	79.	1065.	58298.	1.000	1.000	57308.	
3280	-54927.	2376.	-79.	1065.	58155.	1.000	1.000	57308.	
3285	-54927.	451.	79.	1065.	56467.	1.000	1.000	55404.	
3285	-54927.	451.	-79.	1065.	56467.	1.000	1.000	55404.	
3290	-54927.	2700.	79.	1065.	58622.	1.000	1.000	57632.	
3290	-54927.	2700.	-79.	1065.	58439.	1.000	1.000	57632.	
3295	-54927.	3439.	79.	1065.	59362.	1.000	1.000	58370.	
3295	-54927.	3439.	-79.	1065.	59087.	1.000	1.000	58370.	
3298	-54927.	2425.	79.	1065.	58348.	1.000	1.000	57357.	
3298	-54927.	2425.	-79.	1065.	58198.	1.000	1.000	57357.	
3300	-54927.	6673.	79.	1065.	62596.	1.000	1.000	61602.	
3300	-436.	6673.	-79.	1065.	7431.	1.000	1.000	7111.	
3305	-269.	27820.	-116.	1065.	29086.	1.768	1.473	28090.	
3305	-269.	15740.	116.	1065.	16011.	1.000	1.000	16011.	
3310	-436.	18112.	-280.	1065.	19552.	1.768	1.473	18557.	
3310	-436.	10248.	280.	1065.	10698.	1.000	1.000	10699.	
3315	-436.	4092.	-280.	1065.	5552.	1.000	1.000	4566.	
3315	-54927.	4092.	280.	1065.	59660.	1.000	1.000	59057.	
3320	-54927.	2413.	-280.	1065.	58338.	1.000	1.000	57404.	
3320	-54927.	2413.	280.	1065.	58188.	1.000	1.000	57404.	
3325	-54927.	2748.	-280.	1065.	58672.	1.000	1.000	57731.	

MENT ES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS	%
25	-54927.	2748.	280.	1065.	58482.	1.000	1.000	57731.	0.	0.
30	-54927.	699.	-280.	1065.	56687.	1.000	1.000	55822.	0.	0.
30	-54927.	699.	280.	1065.	56686.	1.000	1.000	55822.	0.	0.
35	-54927.	1160.	-280.	1065.	57091.	1.000	1.000	56214.	0.	0.
35	-54927.	1160.	280.	1065.	57090.	1.000	1.000	56214.	0.	0.
38	-54927.	1256.	-280.	1065.	57181.	1.000	1.000	56302.	0.	0.
38	-54927.	1256.	280.	1065.	57174.	1.000	1.000	56302.	0.	0.
40	-54927.	1925.	-280.	1065.	57850.	1.000	1.000	56932.	0.	0.
40	-54927.	1925.	280.	1065.	57761.	1.000	1.000	56932.	0.	0.
42	-54927.	5401.	-280.	1065.	61326.	1.000	1.000	60357.	0.	0.
42	-1630.	5401.	280.	1065.	7519.	1.000	1.000	7060.	0.	0.
43	-1630.	16537.	-280.	1065.	19170.	1.000	1.000	18176.	0.	0.
43	-1630.	16537.	280.	1065.	18176.	1.000	1.000	18176.	0.	0.
45	356.	11277.	65.	1065.	11917.	1.768	1.473	11635.	0.	0.
45	356.	6392.	-65.	1065.	6750.	1.000	1.000	6750.	0.	0.
50	356.	14305.	65.	1065.	14944.	1.000	1.000	14662.	0.	0.
50	-54927.	14305.	-65.	1065.	69232.	1.000	1.000	69232.	0.	0.
55	-54927.	6035.	65.	1065.	61957.	1.000	1.000	60963.	0.	0.
55	-54927.	6035.	-65.	1065.	61362.	1.000	1.000	60963.	0.	0.
60	-54927.	4748.	65.	1065.	60670.	1.000	1.000	59676.	0.	0.
60	-54927.	4748.	-65.	1065.	60234.	1.000	1.000	59676.	0.	0.
65	-54927.	3477.	65.	1065.	59399.	1.000	1.000	58406.	0.	0.
65	-54927.	3477.	-65.	1065.	59120.	1.000	1.000	58406.	0.	0.
70	-54927.	3146.	65.	1065.	59068.	1.000	1.000	58076.	0.	0.
70	409.	3146.	-65.	1065.	3558.	1.000	1.000	3558.	0.	0.
75	161.	12266.	-46.	1065.	13100.	1.768	1.473	12427.	0.	0.
75	161.	6939.	46.	1065.	7101.	1.000	1.000	7101.	0.	0.
80	161.	2167.	-46.	1065.	3002.	1.000	1.000	2330.	0.	0.
80	-54927.	2167.	46.	1065.	57971.	1.000	1.000	57095.	0.	0.
	-54927.	813.	-46.	1065.	56785.	1.000	1.000	55745.	0.	0.
	-54927.	813.	46.	1065.	56784.	1.000	1.000	55745.	0.	0.
	-54927.	2735.	-46.	1065.	58657.	1.000	1.000	57663.	0.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in. STRESS	ALLOWA STRE
3390	-54927.	2735.	46.	1065.	58469.	1.000	1.000	57663.	
3395	-54927.	2049.	-46.	1065.	57971.	1.000	1.000	56978.	
3395	-54927.	2049.	46.	1065.	57868.	1.000	1.000	56978.	
3397	-54927.	1919.	-46.	1065.	57841.	1.000	1.000	56848.	
3397	-54927.	1919.	46.	1065.	57754.	1.000	1.000	56848.	
3400	-54927.	1462.	-46.	1065.	57384.	1.000	1.000	56392.	
3400	-54927.	1462.	46.	1065.	57354.	1.000	1.000	56392.	
3405	-54927.	3412.	-46.	1065.	59334.	1.000	1.000	58340.	
3405	437.	3412.	46.	1065.	3850.	1.000	1.000	3851.	
3410	464.	1739.	371.	1065.	2389.	1.768	1.473	2354.	
3410	464.	1115.	-371.	1065.	1850.	1.000	1.000	1803.	
3415	437.	2263.	-208.	1065.	2851.	1.768	1.473	2738.	
3415	437.	1534.	208.	1065.	2094.	1.000	1.000	2026.	
3420	437.	2684.	-208.	1065.	3268.	1.000	1.000	3153.	
3420	437.	2684.	208.	1065.	3148.	1.000	1.000	3153.	
3425	437.	3618.	-208.	1065.	4197.	1.000	1.000	4079.	
3425	437.	3618.	208.	1065.	4076.	1.000	1.000	4079.	
3430	485.	5892.	-13.	1065.	6402.	1.768	1.473	6377.	
3430	485.	3336.	13.	1065.	3821.	1.000	1.000	3821.	
3435	501.	1274.	-743.	1065.	2311.	1.768	1.473	2458.	
3435	501.	743.	743.	1065.	1947.	1.000	1.000	2162.	
3440	437.	3984.	176.	1065.	4556.	1.768	1.473	4437.	
3440	437.	2386.	-176.	1065.	2845.	1.000	1.000	2849.	
3445	437.	2438.	176.	1065.	3016.	1.000	1.000	2900.	
3445	18.	2438.	-176.	1065.	3275.	1.000	1.000	2481.	
3450	18.	2445.	176.	1065.	3440.	1.000	1.000	2489.	
3450	18.	2445.	-176.	1065.	3282.	1.000	1.000	2489.	
3455	18.	4110.	176.	1065.	5099.	1.000	1.000	4144.	
3455	18.	4110.	-176.	1065.	4737.	1.000	1.000	4144.	
3470	391.	10789.	-1832.	1065.	11968.	1.768	1.473	11785.	
3470	391.	6107.	1832.	1065.	7460.	1.000	1.000	7513.	
3475	491.	1293.	-2991.	1065.	6246.	1.768	1.473	6611.	

:MENT :ES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS	%
75	491.	878.	2991.	1065.	6136.	1.000	1.000	6537.	0.	0.
80	491.	1367.	-2991.	1065.	6267.	1.000	1.000	6627.	0.	0.
85	491.	7309.	2991.	1065.	9830.	1.000	1.000	9936.	0.	0.
90	491.	18828.	-2991.	1065.	20236.	1.000	1.000	20246.	0.	0.
90	-92696.	18828.	2991.	1065.	111684.	1.000	1.000	112451.	0.	0.
00	-92696.	15579.	-2991.	1065.	109434.	1.222	1.296	109384.	0.	0.
00	-93278.	29035.	1995.	1065.	122378.	1.222	1.296	122586.	0.	0.
05	-93278.	19402.	-1995.	1065.	113746.	1.000	1.000	113086.	0.	0.
10	-93160.	5169.	518.	1065.	98839.	1.000	1.000	98432.	0.	0.
15	-93160.	6433.	-518.	1065.	100594.	1.000	1.000	99676.	0.	0.
15	-71886.	6433.	518.	1065.	78672.	1.000	1.000	78402.	0.	0.
20	-71886.	5254.	-518.	1065.	78142.	1.296	1.296	77241.	0.	0.
20	-71886.	5254.	518.	1065.	77640.	1.296	1.296	77241.	0.	0.
25	-71886.	13253.	-518.	1065.	86140.	1.000	1.000	85180.	0.	0.
30	-71886.	20276.	518.	1065.	92168.	1.000	1.000	92188.	0.	0.
35	-71886.	23340.	-518.	1065.	96227.	1.000	1.000	95250.	0.	0.
35	326.	23340.	518.	1065.	23689.	1.000	1.000	23689.	0.	0.
40	326.	16842.	-518.	1065.	17542.	1.222	1.296	17199.	0.	0.
40	-1006.	16883.	243.	1065.	17896.	1.222	1.296	17896.	0.	0.
42	-988.	6945.	-243.	1065.	8941.	1.222	1.296	7950.	0.	0.
42	-898.	8701.	-472.	1065.	9691.	1.222	1.296	9650.	0.	0.
45	-894.	5015.	472.	1065.	6968.	1.000	1.000	5997.	0.	0.
40	-865.	4409.	-472.	1065.	5912.	1.000	1.000	5374.	0.	0.
45	445.	4490.	-3518.	1065.	8654.	1.768	1.473	8791.	0.	0.
45	445.	2828.	3518.	1065.	7760.	1.000	1.000	8028.	0.	0.
40	445.	15426.	-3518.	1065.	17457.	1.000	1.000	17400.	0.	0.
40	432.	9427.	3518.	1065.	12112.	1.000	1.000	12195.	0.	0.
45	398.	9764.	-1142.	1065.	10610.	1.768	1.473	10425.	0.	0.
45	398.	6330.	1142.	1065.	7105.	1.000	1.000	7127.	0.	0.
40	227.	15099.	-372.	1065.	15884.	1.768	1.473	15344.	0.	0.
40	227.	8606.	372.	1065.	8864.	1.000	1.000	8865.	0.	0.
45	190.	5227.	-372.	1065.	6078.	1.000	1.000	5470.	0.	0.

STRESS REPORT, Stresses on Elements
CASE 1 (OPE) W+DIS+T1+P1

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.) STRESS	ALLOWAB STRES
3542	481.	3468.	-363.	1065.	4014.	1.222	1.296	4024.	0
3600	481.	1995.	363.	1065.	2612.	1.000	1.000	2603.	0
3610	481.	534.	-363.	1065.	1543.	1.000	1.000	1382.	0
3615	501.	1526.	-926.	1065.	2740.	1.768	1.473	2901.	0
3615	501.	1035.	926.	1065.	2406.	1.000	1.000	2623.	0
3620	445.	3763.	-56.	1065.	4315.	1.768	1.473	4209.	0
3620	445.	2339.	56.	1065.	2786.	1.000	1.000	2786.	0
3625	445.	1864.	-56.	1065.	2418.	1.000	1.000	2312.	0
3625	445.	1864.	56.	1065.	2337.	1.000	1.000	2312.	0.
3630	445.	3396.	-785.	1065.	4246.	1.768	1.473	4186.	0.
3630	445.	1921.	785.	1065.	2839.	1.000	1.000	2926.	0.
3635	481.	2026.	-116.	1065.	2551.	1.768	1.473	2520.	0.
3635	481.	1342.	116.	1065.	1859.	1.000	1.000	1842.	0.
3640	481.	2824.	-116.	1065.	3346.	1.000	1.000	3314.	0.
3640	449.	2824.	116.	1065.	3281.	1.000	1.000	3282.	0.
3645	449.	1459.	-116.	1065.	2018.	1.000	1.000	1926.	0.
3645	449.	1459.	116.	1065.	1990.	1.000	1.000	1926.	0.
3650	449.	1372.	-116.	1065.	1932.	1.000	1.000	1841.	0.
3650	449.	1372.	116.	1065.	1916.	1.000	1.000	1841.	0.
3655	475.	5106.	690.	1065.	5794.	1.768	1.473	5764.	0.
3655	475.	2893.	-690.	1065.	3639.	1.000	1.000	3680.	0.
3660	475.	935.	690.	1065.	2006.	1.000	1.000	2142.	0.
3660	475.	935.	-690.	1065.	2005.	1.000	1.000	2142.	0.
3665	475.	2893.	690.	1065.	3682.	1.000	1.000	3680.	0.
3665	475.	2893.	-690.	1065.	3639.	1.000	1.000	3680.	0.
3675	475.	6491.	690.	1065.	7146.	1.000	1.000	7111.	0.
3675	346.	6491.	-690.	1065.	6975.	1.000	1.000	6982.	0.
3680	346.	4231.	690.	1065.	5072.	1.000	1.000	4796.	0.
3682	346.	3388.	-690.	1065.	3981.	1.000	1.000	4004.	0.
3684	493.	4162.	2799.	1065.	7286.	1.768	1.473	7468.	0.
3684	493.	2370.	-2799.	1065.	6287.	1.000	1.000	6571.	0.
3685	334.	9251.	755.	1065.	10027.	1.768	1.473	9707.	0.

EMENT DES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS	
685	334.	5846.	-755.	1065.	6362.	1.000	1.000	6372.	0.	0.
690	303.	9062.	755.	1065.	9871.	1.000	1.000	9490.	0.	0.
507	370.	5477.	23.	1065.	5847.	1.222	1.296	5847.	0.	0.
700	380.	6151.	253.	1065.	6785.	1.768	1.473	6552.	0.	0.
700	380.	3486.	-253.	1065.	3899.	1.000	1.000	3903.	0.	0.
705	442.	3462.	240.	1065.	4044.	1.768	1.473	3937.	0.	0.
705	442.	1959.	-240.	1065.	2458.	1.000	1.000	2458.	0.	0.
710	442.	1185.	240.	1065.	1803.	1.000	1.000	1720.	0.	0.
710	486.	1185.	-240.	1065.	1787.	1.000	1.000	1765.	0.	0.
720	462.	1199.	410.	1065.	1916.	1.768	1.473	1915.	0.	0.
720	462.	728.	-410.	1065.	1668.	1.000	1.000	1559.	0.	0.
722	498.	1803.	39.	1065.	2302.	1.768	1.473	2302.	0.	0.
722	498.	1102.	-39.	1065.	1617.	1.000	1.000	1602.	0.	0.
725	498.	1699.	39.	1065.	2198.	1.222	1.296	2199.	0.	0.
725	489.	1101.	213.	1065.	1707.	1.222	1.296	1670.	0.	0.
730	489.	711.	-213.	1065.	1466.	1.000	1.000	1318.	0.	0.
735	379.	937.	329.	848.	1523.	1.000	1.000	1524.	0.	0.
740	379.	1334.	-329.	848.	1855.	1.000	1.000	1866.	0.	0.
745	379.	2215.	329.	848.	2676.	1.000	1.000	2690.	0.	0.
750	379.	3362.	-329.	848.	3820.	1.000	1.000	3805.	0.	0.
755	489.	660.	213.	1065.	1455.	1.000	1.000	1275.	0.	0.
760	489.	439.	-213.	1065.	1390.	1.222	1.296	1101.	0.	0.
760	498.	1246.	59.	1065.	1748.	1.222	1.296	1749.	0.	0.
765	498.	247.	-59.	1065.	1301.	1.000	1.000	772.	0.	0.
770	498.	88.	59.	1065.	1300.	1.000	1.000	645.	0.	0.
775	498.	231.	-59.	1065.	1301.	1.000	1.000	758.	0.	0.
780	498.	264.	59.	1065.	1302.	1.768	1.473	787.	0.	0.
785	470.	174.	0.	1065.	1295.	1.768	1.473	644.	0.	0.
785	470.	118.	0.	1065.	1295.	1.000	1.000	588.	0.	0.
790	461.	131.	0.	1065.	1295.	1.518	1.691	591.	0.	0.
790	776.	3288.	0.	1625.	4064.	1.518	1.691	4064.	0.	0.
790	776.	0.	0.	1625.	1853.	1.000	1.000	776.	0.	0.

STRESS REPORT, Stresses on Elements
CASE 1 (OPE) W+DIS+T1+P1

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in. STRESS	ALLOWA STRE
3790	776.	3324.	0.	1625.	4100.	1.518	1.691	4100.	
3805	776.	0.	0.	1625.	1853.	1.000	1.000	776.	
3500	242.	15628.	181.	1065.	15875.	1.222	1.296	15875.	
3820	-85.	7000.	-190.	1065.	8088.	1.768	1.473	7095.	
3820	-85.	3960.	190.	1065.	4709.	1.000	1.000	4063.	
3825	-85.	1088.	-190.	1065.	2209.	1.000	1.000	1237.	
3825	498.	1088.	190.	1065.	1674.	1.000	1.000	1650.	
3830	498.	1335.	-190.	1065.	1872.	1.000	1.000	1886.	
3835	498.	756.	190.	1065.	1469.	1.000	1.000	1343.	
3840	498.	1133.	0.	1065.	1641.	1.768	1.473	1630.	
3840	498.	769.	0.	1065.	1322.	1.000	1.000	1267.	
3845	498.	1447.	0.	1065.	1944.	1.000	1.000	1944.	
3845	498.	1447.	0.	1065.	1944.	1.000	1.000	1944.	
3850	498.	889.	0.	1065.	1427.	1.000	1.000	1387.	
3855	498.	176.	0.	1065.	1295.	1.000	1.000	673.	
3860	518.	0.	0.	1065.	1295.	1.768	1.473	518.	
3860	518.	0.	0.	1065.	1295.	1.000	1.000	518.	
3865	514.	0.	0.	1065.	1295.	1.000	1.000	514.	
3865	325.	0.	0.	667.	900.	1.000	1.000	325.	
3870	320.	0.	0.	667.	900.	1.000	1.000	320.	
3870	300.	244.	0.	667.	900.	1.000	1.000	544.	
3875	300.	0.	0.	667.	900.	1.000	1.000	300.	
3870	300.	244.	0.	667.	900.	1.000	1.000	544.	
3880	300.	0.	0.	667.	900.	1.000	1.000	300.	
3725	299.	1507.	-477.	667.	2043.	1.222	1.296	2125.	
3881	299.	1461.	515.	667.	2041.	1.000	1.000	2087.	
3881	497.	619.	-218.	1065.	1442.	1.000	1.000	1255.	
3882	507.	261.	-130.	1065.	1325.	1.768	1.473	875.	
3882	507.	177.	130.	1065.	1320.	1.000	1.000	821.	
3885	507.	121.	-130.	1065.	1318.	1.000	1.000	793.	
3890	507.	178.	130.	1065.	1320.	1.000	1.000	821.	
3900	498.	173.	-326.	1065.	1426.	1.768	1.473	1173.	

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Licensed To: FLUOR DANIEL ID 13692
STRESS REPORT, Stresses on Elements
CASE 1 (OPE) W+DIS+T1+P1

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS
3900	498.	117.	326.	1065.	1418.	1.000	1.000	1161.	0.
3760	498.	438.	-326.	1065.	1478.	1.222	1.296	1284.	0.
3540	500.	0.	0.	1065.	1295.	1.222	1.296	500.	0.
3905	498.	0.	0.	1065.	1295.	1.000	1.000	498.	0.

**** NO CODE STRESS CHECK PROCESSED

PIPING CODE: B31.3 -1993, July 31, 1993 Addendum

HIGHEST STRESSES: (lb./sq.in.)

OPE STRESS %:	238787.	@NODE 3020	ALLOWABLE:	0.
BENDING STRESS:	151486.	@NODE 3020		
TORSIONAL STRESS:	8684.	@NODE 3090		
AXIAL STRESS:	130754.	@NODE 3505		
3D MAX INTENSITY:	238705.	@NODE 3020		

STRESS OPTIMIZATION PARAMETERS:

OPE STRESS PERCENTAGES SHOWN BELOW REPRESENT THE NUMBER OF NODES IN THE SYSTEM THAT WERE WITHIN THE PERCENTAGE GIVEN OF THE HIGHEST OPE STRESS IN THE SYSTEM.

AVG. OPE STRESS 38084.

	/BETWEEN/	/BELOW/
OPE STRESS 90-100%	0.31	99.69
OPE STRESS 80-90 %	0.31	99.38
OPE STRESS 70-80 %	0.31	99.07
OPE STRESS 60-70 %	1.85	97.22
OPE STRESS 50-60 %	2.16	95.06
OPE STRESS 25-50 %	30.86	64.20
OPE STRESS 0-25 %	64.20	

PIPE ELEMENTS ANALYZED: 162

SAMPLED POINTS: 324

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in STRESS	ALLOW STRI
3000	498.	0.	0.	1065.	1295.	1.000	1.000	498.	
3005	498.	173.	0.	1065.	1295.	1.000	1.000	671.	
3005	-86746.	173.	0.	1065.	88043.	1.000	1.000	86919.	
3010	-86746.	65356.	0.	1065.	153098.	1.000	1.000	152102.	
3015	-86746.	77484.	0.	1065.	164230.	1.000	1.000	164230.	
3020	-86746.	121766.	0.	1065.	209507.	1.222	1.296	208512.	
3020	-87075.	151486.	-4128.	1065.	238705.	1.222	1.296	238787.	
3022	-87075.	68963.	4128.	1065.	157250.	1.000	1.000	156531.	
3022	663.	68963.	-4128.	1065.	70114.	1.000	1.000	70118.	
3025	663.	58565.	4128.	1065.	59473.	1.000	1.000	59807.	
3030	663.	25994.	-4128.	1065.	27906.	1.768	1.473	27936.	
3035	709.	8466.	-1844.	1065.	9498.	1.768	1.473	9943.	
3035	709.	5732.	1844.	1065.	7422.	1.000	1.000	7525.	
3040	707.	16549.	-1844.	1065.	17236.	1.000	1.000	17662.	
3045	696.	21204.	1844.	1065.	22208.	1.000	1.000	22218.	
3050	695.	35396.	-1844.	1065.	35887.	1.222	1.296	36283.	
3050	498.	11397.	0.	1065.	11894.	1.222	1.296	11894.	
3055	498.	8838.	0.	1065.	9336.	1.000	1.000	9336.	
3060	498.	7159.	0.	1065.	7657.	1.000	1.000	7657.	
3065	498.	0.	0.	1065.	1295.	1.000	1.000	498.	
3050	-1901.	24450.	484.	1065.	26368.	1.222	1.296	26370.	
3070	-1901.	20126.	-484.	1065.	23043.	1.000	1.000	22051.	
3075	-1901.	20618.	484.	1065.	22540.	1.000	1.000	22542.	
3080	-1901.	26984.	-484.	1065.	29896.	1.222	1.296	28903.	
3080	498.	1370.	0.	1065.	1868.	1.222	1.296	1868.	
3085	498.	0.	0.	1065.	1295.	1.000	1.000	498.	
3080	427.	24272.	3281.	1065.	25556.	1.222	1.296	25571.	
3090	332.	11097.	-8684.	1065.	20976.	1.768	1.473	20944.	
3090	332.	7490.	8684.	1065.	19049.	1.000	1.000	19247.	
3095	332.	19318.	-8684.	1065.	26474.	1.000	1.000	26310.	
3100	332.	60100.	8684.	1065.	62879.	1.000	1.000	62892.	
3105	332.	82907.	-8684.	1065.	85356.	1.222	1.296	85039.	

MENT ES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS	%
05	-49906.	18310.	90.	1065.	68216.	1.222	1.296	68218.	0.	0.
06	-49906.	14458.	-90.	1065.	65360.	1.000	1.000	64366.	0.	0.
10	-49906.	16428.	90.	1065.	66334.	1.000	1.000	66335.	0.	0.
20	-49906.	31620.	-90.	1065.	82522.	1.222	1.296	81526.	0.	0.
05	-52305.	87862.	-52.	1065.	140167.	1.222	1.296	140167.	0.	0.
20	-52305.	70292.	52.	1065.	123593.	1.000	1.000	122598.	0.	0.
20	-52305.	70292.	-52.	1065.	122598.	1.000	1.000	122598.	0.	0.
05	-52305.	64207.	52.	1065.	117507.	1.000	1.000	116512.	0.	0.
05	-52305.	64207.	-52.	1065.	116512.	1.000	1.000	116512.	0.	0.
20	-52305.	18146.	52.	1065.	71446.	1.000	1.000	70451.	0.	0.
20	-52305.	18146.	-52.	1065.	70450.	1.000	1.000	70451.	0.	0.
05	-52305.	27851.	52.	1065.	81151.	1.000	1.000	80156.	0.	0.
05	-77076.	27851.	-52.	1065.	104926.	1.000	1.000	104926.	0.	0.
20	-77076.	10331.	52.	1065.	88402.	1.000	1.000	87406.	0.	0.
20	-77076.	10331.	-52.	1065.	87406.	1.000	1.000	87406.	0.	0.
05	-77076.	7306.	52.	1065.	85377.	1.000	1.000	84382.	0.	0.
05	-77076.	7306.	-52.	1065.	84625.	1.000	1.000	84382.	0.	0.
20	-77076.	3005.	52.	1065.	81076.	1.000	1.000	80082.	0.	0.
20	-77076.	3005.	-52.	1065.	80855.	1.000	1.000	80082.	0.	0.
05	-77076.	2384.	52.	1065.	80455.	1.000	1.000	79462.	0.	0.
05	-77076.	2384.	-52.	1065.	80311.	1.000	1.000	79462.	0.	0.
20	-77076.	1771.	52.	1065.	79842.	1.000	1.000	78850.	0.	0.
20	-77076.	1771.	-52.	1065.	79774.	1.000	1.000	78850.	0.	0.
05	-77076.	3473.	52.	1065.	81544.	1.000	1.000	80550.	0.	0.
05	-77076.	3473.	-52.	1065.	81265.	1.000	1.000	80550.	0.	0.
20	-77076.	2212.	52.	1065.	80283.	1.000	1.000	79290.	0.	0.
20	-77076.	2212.	-52.	1065.	80160.	1.000	1.000	79290.	0.	0.
05	-77076.	3070.	52.	1065.	81140.	1.000	1.000	80147.	0.	0.
	460.	3070.	-52.	1065.	3532.	1.000	1.000	3532.	0.	0.
	374.	8342.	-111.	1065.	8966.	1.768	1.473	8720.	0.	0.
	374.	4720.	111.	1065.	5099.	1.000	1.000	5099.	0.	0.
	374.	1675.	-111.	1065.	2306.	1.000	1.000	2063.	0.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in. STRESS	ALLOW STRE
3175	133.	1675.	111.	1065.	2488.	1.000	1.000	1822.	
3180	451.	11411.	175.	1065.	11960.	1.768	1.473	11868.	
3180	451.	6460.	-175.	1065.	6920.	1.000	1.000	6921.	
3185	451.	8697.	175.	1065.	9248.	1.000	1.000	9155.	
3185	-77076.	8697.	-175.	1065.	85844.	1.000	1.000	85780.	
3190	-77076.	3680.	175.	1065.	81752.	1.000	1.000	80772.	
3190	-77076.	3680.	-175.	1065.	81446.	1.000	1.000	80772.	
3195	-77076.	3278.	175.	1065.	81350.	1.000	1.000	80372.	
3195	-77076.	3278.	-175.	1065.	81094.	1.000	1.000	80372.	
3200	-77076.	2395.	175.	1065.	80466.	1.000	1.000	79496.	
3200	-77076.	2395.	-175.	1065.	80320.	1.000	1.000	79496.	
3205	-77076.	2687.	175.	1065.	80758.	1.000	1.000	79786.	
3205	-348.	2687.	-175.	1065.	3858.	1.000	1.000	3058.	
3210	381.	15422.	393.	1065.	16055.	1.768	1.473	15822.	
3210	381.	8728.	-393.	1065.	9143.	1.000	1.000	9144.	
3215	381.	8269.	393.	1065.	8918.	1.000	1.000	8687.	
3215	237.	8269.	-393.	1065.	8542.	1.000	1.000	8543.	
3220	513.	4617.	809.	1065.	5350.	1.768	1.473	5406.	
3220	513.	2626.	-809.	1065.	3532.	1.000	1.000	3598.	
3225	513.	12430.	809.	1065.	13013.	1.000	1.000	13048.	
3225	419.	12430.	-809.	1065.	12951.	1.000	1.000	12954.	
3230	599.	4528.	73.	1065.	4927.	1.768	1.473	5129.	
3230	599.	2696.	-73.	1065.	3298.	1.000	1.000	3299.	
3235	599.	2486.	73.	1065.	2930.	1.000	1.000	3089.	
3235	-77076.	2486.	-73.	1065.	80400.	1.000	1.000	79566.	
3240	-77076.	3918.	73.	1065.	81989.	1.000	1.000	80996.	
3240	-77076.	3918.	-73.	1065.	81656.	1.000	1.000	80996.	
3245	-77076.	5743.	73.	1065.	83814.	1.000	1.000	82820.	
3245	-77076.	5743.	-73.	1065.	83255.	1.000	1.000	82820.	
3250	-77076.	1524.	73.	1065.	79594.	1.000	1.000	78606.	
3250	-77076.	1524.	-73.	1065.	79556.	1.000	1.000	78606.	
3255	-77076.	912.	73.	1065.	79020.	1.000	1.000	77999.	

RESS REPORT, Stresses on Elements
SE 2 (OPE) W+DIS+T2+P1

EMENT	Stresses(lb./sq.in.)					STRESS INTENSIFICATION		--Stress(lb./sq.in.)--		
DES	AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	IN-PLANE	OUT-PLANE	STRESS	ALLOWABLE STRESS	%
255	-77076.	912.	-73.	1065.	79020.	1.000	1.000	77999.	0.	0.
258	-77076.	2417.	73.	1065.	80488.	1.000	1.000	79497.	0.	0.
258	-77076.	2417.	-73.	1065.	80340.	1.000	1.000	79497.	0.	0.
260	-77076.	13533.	73.	1065.	91604.	1.000	1.000	90610.	0.	0.
260	-6057.	13533.	-73.	1065.	19591.	1.000	1.000	19591.	0.	0.
265	95.	14568.	-1.	1065.	15468.	1.768	1.473	14663.	0.	0.
265	95.	14568.	1.	1065.	14663.	1.768	1.473	14663.	0.	0.
270	-6057.	48707.	81.	1065.	55760.	1.768	1.473	54765.	0.	0.
270	-6057.	27555.	-81.	1065.	33612.	1.000	1.000	33612.	0.	0.
275	-6057.	17599.	81.	1065.	24652.	1.000	1.000	23657.	0.	0.
275	-77076.	17599.	-81.	1065.	94674.	1.000	1.000	94675.	0.	0.
280	-77076.	4019.	81.	1065.	82090.	1.000	1.000	81098.	0.	0.
280	-77076.	4019.	-81.	1065.	81744.	1.000	1.000	81098.	0.	0.
285	-77076.	1068.	81.	1065.	79157.	1.000	1.000	78156.	0.	0.
285	-77076.	1068.	-81.	1065.	79157.	1.000	1.000	78156.	0.	0.
290	-77076.	3169.	81.	1065.	81240.	1.000	1.000	80248.	0.	0.
290	-77076.	3169.	-81.	1065.	80998.	1.000	1.000	80248.	0.	0.
295	-77076.	4043.	81.	1065.	82114.	1.000	1.000	81121.	0.	0.
295	-77076.	4043.	-81.	1065.	81764.	1.000	1.000	81121.	0.	0.
298	-77076.	3383.	81.	1065.	81454.	1.000	1.000	80462.	0.	0.
298	-77076.	3383.	-81.	1065.	81186.	1.000	1.000	80462.	0.	0.
300	-77076.	9101.	81.	1065.	87172.	1.000	1.000	86178.	0.	0.
300	-809.	9101.	-81.	1065.	9932.	1.000	1.000	9911.	0.	0.
305	-576.	38934.	-122.	1065.	40506.	1.768	1.473	39510.	0.	0.
305	-576.	22027.	122.	1065.	22604.	1.000	1.000	22604.	0.	0.
310	-809.	25348.	-284.	1065.	27158.	1.768	1.473	26163.	0.	0.
310	-809.	14341.	284.	1065.	15160.	1.000	1.000	15161.	0.	0.
315	-809.	5395.	-284.	1065.	7221.	1.000	1.000	6233.	0.	0.
315	-77076.	5395.	284.	1065.	82950.	1.000	1.000	82500.	0.	0.
310	-77076.	2657.	-284.	1065.	80730.	1.000	1.000	79792.	0.	0.
310	-77076.	2657.	284.	1065.	80550.	1.000	1.000	79792.	0.	0.
315	-77076.	3025.	-284.	1065.	81098.	1.000	1.000	80153.	0.	0.

STRESS REPORT, Stresses on Elements
CASE 2 (OPE) W+DIS+T2+P1

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.) STRESS	ALLOWAB STRES
3325	-77076.	3025.	284.	1065.	80873.	1.000	1.000	80153.	0
3330	-77076.	770.	-284.	1065.	78897.	1.000	1.000	78032.	0
3330	-77076.	770.	284.	1065.	78896.	1.000	1.000	78032.	0
3335	-77076.	1316.	-284.	1065.	79389.	1.000	1.000	78509.	0
3335	-77076.	1316.	284.	1065.	79376.	1.000	1.000	78509.	0
3338	-77076.	1292.	-284.	1065.	79365.	1.000	1.000	78487.	0
3338	-77076.	1292.	284.	1065.	79354.	1.000	1.000	78487.	0
3340	-77076.	2285.	-284.	1065.	80358.	1.000	1.000	79430.	0
3340	-77076.	2285.	284.	1065.	80224.	1.000	1.000	79430.	0
3342	-77076.	7528.	-284.	1065.	85600.	1.000	1.000	84625.	0
3342	-2480.	7528.	284.	1065.	10231.	1.000	1.000	10029.	0
3343	-2480.	23145.	-284.	1065.	26626.	1.000	1.000	25631.	0
3343	-2480.	23145.	284.	1065.	25631.	1.000	1.000	25631.	0
3345	300.	15751.	65.	1065.	16447.	1.768	1.473	16052.	0
3345	300.	8920.	-65.	1065.	9221.	1.000	1.000	9221.	0
3350	300.	19998.	65.	1065.	20693.	1.000	1.000	20298.	0
3350	-77076.	19998.	-65.	1065.	97073.	1.000	1.000	97074.	0
3355	-77076.	8238.	65.	1065.	86308.	1.000	1.000	85314.	0
3355	-77076.	8238.	-65.	1065.	85442.	1.000	1.000	85314.	0
3360	-77076.	5486.	65.	1065.	83556.	1.000	1.000	82562.	0
3360	-77076.	5486.	-65.	1065.	83030.	1.000	1.000	82562.	0
3365	-77076.	4487.	65.	1065.	82558.	1.000	1.000	81564.	0
3365	-77076.	4487.	-65.	1065.	82154.	1.000	1.000	81564.	0
3370	-77076.	4300.	65.	1065.	82371.	1.000	1.000	81378.	0
3370	374.	4300.	-65.	1065.	4676.	1.000	1.000	4676.	0
3375	27.	17167.	-59.	1065.	18136.	1.768	1.473	17194.	0
3375	27.	9712.	59.	1065.	9739.	1.000	1.000	9739.	0
3380	27.	3005.	-59.	1065.	3975.	1.000	1.000	3034.	0
3380	-77076.	3005.	59.	1065.	80855.	1.000	1.000	80082.	0
3385	-77076.	1137.	-59.	1065.	79218.	1.000	1.000	78218.	0
3385	-77076.	1137.	59.	1065.	79217.	1.000	1.000	78218.	0
3390	-77076.	2780.	-59.	1065.	80851.	1.000	1.000	79858.	0

EMENT DES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS	%
390	-77076.	2780.	59.	1065.	80658.	1.000	1.000	79858.	0.	0.
395	-77076.	2052.	-59.	1065.	80123.	1.000	1.000	79131.	0.	0.
395	-77076.	2052.	59.	1065.	80020.	1.000	1.000	79131.	0.	0.
397	-77076.	1962.	-59.	1065.	80032.	1.000	1.000	79040.	0.	0.
397	-77076.	1962.	59.	1065.	79940.	1.000	1.000	79040.	0.	0.
400	-77076.	1607.	-59.	1065.	79677.	1.000	1.000	78686.	0.	0.
400	-77076.	1607.	59.	1065.	79629.	1.000	1.000	78686.	0.	0.
405	-77076.	3847.	-59.	1065.	81918.	1.000	1.000	80924.	0.	0.
405	414.	3847.	59.	1065.	4263.	1.000	1.000	4263.	0.	0.
410	451.	2014.	360.	1065.	2658.	1.768	1.473	2590.	0.	0.
410	451.	1258.	-360.	1065.	1950.	1.000	1.000	1900.	0.	0.
415	414.	2275.	-223.	1065.	2891.	1.768	1.473	2732.	0.	0.
415	414.	1540.	223.	1065.	2128.	1.000	1.000	2017.	0.	0.
420	414.	3063.	-223.	1065.	3672.	1.000	1.000	3510.	0.	0.
420	414.	3063.	223.	1065.	3506.	1.000	1.000	3510.	0.	0.
425	414.	4570.	-223.	1065.	5170.	1.000	1.000	5005.	0.	0.
425	414.	4570.	223.	1065.	5003.	1.000	1.000	5005.	0.	0.
430	480.	8150.	-170.	1065.	8672.	1.768	1.473	8638.	0.	0.
430	480.	4613.	170.	1065.	5105.	1.000	1.000	5106.	0.	0.
435	497.	1635.	-1028.	1065.	2963.	1.768	1.473	3124.	0.	0.
435	497.	929.	1028.	1065.	2503.	1.000	1.000	2754.	0.	0.
440	414.	4996.	240.	1065.	5598.	1.768	1.473	5433.	0.	0.
440	414.	3026.	-240.	1065.	3474.	1.000	1.000	3478.	0.	0.
445	414.	3008.	240.	1065.	3622.	1.000	1.000	3460.	0.	0.
445	-171.	3008.	-240.	1065.	3970.	1.000	1.000	3217.	0.	0.
450	-171.	3156.	240.	1065.	4349.	1.000	1.000	3363.	0.	0.
450	-171.	3156.	-240.	1065.	4098.	1.000	1.000	3363.	0.	0.
455	-171.	5162.	240.	1065.	6346.	1.000	1.000	5355.	0.	0.
455	-171.	5162.	-240.	1065.	5851.	1.000	1.000	5355.	0.	0.
470	352.	14928.	-2560.	1065.	16392.	1.768	1.473	16134.	0.	0.
470	352.	8450.	2560.	1065.	10184.	1.000	1.000	10233.	0.	0.
475	489.	1818.	-4206.	1065.	8727.	1.768	1.473	9094.	0.	0.

STRESS REPORT, Stresses on Elements
CASE 2 (OPE) W+DIS+T2+P1

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.) STRESS	ALLOWAB STRES
3475	489.	1234.	4206.	1065.	8586.	1.000	1.000	8990.	0
3480	489.	1901.	-4206.	1065.	8749.	1.000	1.000	9112.	0
3485	489.	10207.	4206.	1065.	13606.	1.000	1.000	13714.	0
3490	489.	26330.	-4206.	1065.	28124.	1.000	1.000	28130.	0
3490	-129938.	26330.	4206.	1065.	156494.	1.000	1.000	157578.	0
3500	-129938.	21457.	-4206.	1065.	152621.	1.222	1.296	152984.	0
3500	-130754.	40442.	2840.	1065.	171290.	1.222	1.296	171593.	0
3505	-130754.	26898.	-2840.	1065.	158748.	1.000	1.000	158245.	0
3510	-130588.	6845.	762.	1065.	137737.	1.000	1.000	137601.	0
3515	-130588.	8969.	-762.	1065.	140560.	1.000	1.000	139685.	0
3515	-100812.	8969.	762.	1065.	109823.	1.000	1.000	109910.	0
3520	-100812.	7377.	-762.	1065.	109195.	1.296	1.296	108345.	0
3520	-100812.	7377.	762.	1065.	108428.	1.296	1.296	108345.	0
3525	-100812.	17952.	-762.	1065.	119769.	1.000	1.000	118829.	0
3530	-100812.	27383.	762.	1065.	128204.	1.000	1.000	128237.	0
3535	-100812.	31466.	-762.	1065.	133282.	1.000	1.000	132314.	0
3535	274.	31466.	762.	1065.	31777.	1.000	1.000	31777.	0
3540	274.	22537.	-762.	1065.	23308.	1.222	1.296	22863.	0
3540	-1526.	22607.	335.	1065.	24142.	1.222	1.296	24142.	0
3542	-1508.	9866.	-335.	1065.	12387.	1.222	1.296	11396.	0
3542	-1423.	11867.	-692.	1065.	13362.	1.222	1.296	13370.	0
3545	-1419.	6939.	692.	1065.	9454.	1.000	1.000	8494.	0
3550	-1390.	6203.	-692.	1065.	8027.	1.000	1.000	7745.	0
3555	408.	5569.	-4477.	1065.	10866.	1.768	1.473	10953.	0
3555	408.	3591.	4477.	1065.	9807.	1.000	1.000	10056.	0
3560	408.	20817.	-4477.	1065.	23201.	1.000	1.000	23069.	0
3570	417.	12574.	4477.	1065.	15777.	1.000	1.000	15853.	0
3575	366.	12400.	-1317.	1065.	13293.	1.768	1.473	13042.	0
3575	366.	8038.	1317.	1065.	8807.	1.000	1.000	8825.	0
3580	156.	19151.	-391.	1065.	20005.	1.768	1.473	19323.	0
3580	156.	10900.	391.	1065.	11084.	1.000	1.000	11084.	0
3585	119.	6781.	-391.	1065.	7697.	1.000	1.000	6946.	0

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ensed To: FLUOR DANIEL ID 13692
ESS REPORT, Stresses on Elements
E 2 (OPE) W+DIS+T2+P1

MENT ES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) STRESS	ALLOWABLE STRESS	%
42	474.	3812.	-465.	1065.	4386.	1.222	1.296	4398.	0.	0.
00	474.	2166.	465.	1065.	2844.	1.000	1.000	2832.	0.	0.
10	474.	563.	-465.	1065.	1643.	1.000	1.000	1562.	0.	0.
15	497.	2024.	-1282.	1065.	3596.	1.768	1.473	3763.	0.	0.
15	497.	1371.	1282.	1065.	3172.	1.000	1.000	3404.	0.	0.
20	423.	5102.	-47.	1065.	5674.	1.768	1.473	5526.	0.	0.
20	423.	3182.	47.	1065.	3607.	1.000	1.000	3607.	0.	0.
25	423.	2046.	-47.	1065.	2620.	1.000	1.000	2472.	0.	0.
25	423.	2046.	47.	1065.	2517.	1.000	1.000	2472.	0.	0.
30	430.	4679.	-1109.	1065.	5694.	1.768	1.473	5608.	0.	0.
30	430.	2647.	1109.	1065.	3793.	1.000	1.000	3883.	0.	0.
35	474.	2906.	-192.	1065.	3449.	1.768	1.473	3405.	0.	0.
5	474.	1918.	192.	1065.	2422.	1.000	1.000	2430.	0.	0.
0	474.	4139.	-192.	1065.	4676.	1.000	1.000	4631.	0.	0.
0	430.	4139.	192.	1065.	4584.	1.000	1.000	4586.	0.	0.
5	430.	1922.	-192.	1065.	2517.	1.000	1.000	2389.	0.	0.
5	430.	1922.	192.	1065.	2425.	1.000	1.000	2389.	0.	0.
0	430.	1793.	-192.	1065.	2390.	1.000	1.000	2263.	0.	0.
0	430.	1793.	192.	1065.	2315.	1.000	1.000	2263.	0.	0.
5	465.	7159.	787.	1065.	7848.	1.768	1.473	7795.	0.	0.
5	465.	4058.	-787.	1065.	4789.	1.000	1.000	4817.	0.	0.
0	465.	1390.	787.	1065.	2482.	1.000	1.000	2564.	0.	0.
0	465.	1390.	-787.	1065.	2432.	1.000	1.000	2564.	0.	0.
5	465.	3428.	787.	1065.	4259.	1.000	1.000	4237.	0.	0.
5	465.	3428.	-787.	1065.	4199.	1.000	1.000	4237.	0.	0.
5	465.	7641.	787.	1065.	8320.	1.000	1.000	8266.	0.	0.
5	315.	7641.	-787.	1065.	8110.	1.000	1.000	8116.	0.	0.
0	315.	5072.	787.	1065.	5964.	1.000	1.000	5626.	0.	0.
2	315.	4214.	-787.	1065.	4795.	1.000	1.000	4813.	0.	0.
5	497.	5159.	3267.	1065.	8643.	1.768	1.473	8822.	0.	0.
5	497.	2936.	-3267.	1065.	7381.	1.000	1.000	7660.	0.	0.
5	316.	10539.	862.	1065.	11350.	1.768	1.473	10995.	0.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	INTE IN-PLA	ESS FICATION JT-PLANE	--Stress(lb./sq.in ALLOW STRESS	STR
3685	316.	6686.	-862.	1065.	7211.	1.(	1.000	7220.	
3690	285.	11106.	862.	1065.	11942.	1.	1.000	11524.	
3507	329.	7740.	39.	1065.	8069.	1.	1.296	8069.	
3700	332.	8690.	341.	1065.	9379.	1.3	1.473	9049.	
3700	332.	4925.	-341.	1065.	5301.	1.(	1.000	5304.	
3705	420.	4851.	354.	1065.	5472.	1.7	1.473	5322.	
3705	420.	2745.	-354.	1065.	3242.	1.(	1.000	3254.	
3710	420.	1734.	354.	1065.	2415.	1.(	1.000	2292.	
3710	482.	1734.	-354.	1065.	2326.	1.00	1.000	2355.	
3720	457.	1612.	567.	1065.	2431.	1.76	1.473	2429.	
3720	457.	992.	-567.	1065.	1941.	1.00	1.000	1965.	
3722	498.	2425.	85.	1065.	2928.	1.76	1.473	2929.	
3722	498.	1489.	-85.	1065.	1994.	1.000	1.000	1996.	
3725	498.	2185.	85.	1065.	2688.	1.222	1.296	2690.	
3725	485.	1530.	244.	1065.	2073.	1.22	1.296	2091.	
3730	485.	983.	-244.	1065.	1633.	1.00	1.000	1583.	
3735	374.	1086.	377.	848.	1656.	1.000	1.000	1697.	
3740	374.	1204.	-377.	848.	1777.	1.000	1.000	1795.	
3745	374.	1817.	377.	848.	2318.	1.000	1.000	2342.	
3750	374.	2753.	-377.	848.	3246.	1.000	1.000	3228.	
3755	485.	419.	244.	1065.	1414.	1.000	1.000	1129.	
3760	485.	264.	-244.	1065.	1384.	1.222	1.296	1040.	
3760	498.	762.	127.	1065.	1417.	1.222	1.296	1301.	
3765	498.	18.	-127.	1065.	1314.	1.000	1.000	753.	
3770	498.	274.	127.	1065.	1324.	1.000	1.000	872.	
3775	498.	348.	-127.	1065.	1328.	1.00	1.000	929.	
3780	498.	330.	127.	1065.	1327.	1.76	1.473	915.	
3785	463.	375.	0.	1065.	1295.	1.76	1.473	838.	
3785	463.	255.	0.	1065.	1295.	1.00	1.000	718.	
3790	454.	281.	0.	1065.	1295.	1.51	1.691	735.	
3790	776.	3393.	0.	1625.	4169.	1.51	1.691	4169.	
3800	776.	0.	0.	1625.	1853.	1.000	1.000	776.	

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censed To: FLUOR DANIEL ID 13692
RESS REPORT, Stresses on Elements
SE 2 (OPE) W+DIS+T2+P1

EMENT	Stresses(lb./sq.in.) AXIAL	BENDING	TORSION	HOOP	3D MAX SHEAR	STRESS INTENSIFICATION		--Stress(lb./sq.in.)--	ALLOWABLE	%
IES	STRESS	STRESS	STRESS	STRESS	INTENSITY	IN-PLANE	OUT-PLANE	STRESS	STRESS	
90	776.	3471.	0.	1625.	4247.	1.518	1.691	4247.	0.	0.
05	776.	0.	0.	1625.	1853.	1.000	1.000	776.	0.	0.
00	139.	21887.	239.	1065.	22031.	1.222	1.296	22031.	0.	0.
20	-319.	9840.	-153.	1065.	11158.	1.768	1.473	10164.	0.	0.
20	-319.	5567.	153.	1065.	6347.	1.000	1.000	5894.	0.	0.
25	-319.	1429.	-153.	1065.	2760.	1.000	1.000	1780.	0.	0.
25	498.	1429.	153.	1065.	1951.	1.000	1.000	1959.	0.	0.
30	498.	1649.	-153.	1065.	2168.	1.000	1.000	2174.	0.	0.
35	498.	811.	153.	1065.	1465.	1.000	1.000	1364.	0.	0.
40	498.	1065.	0.	1065.	1581.	1.768	1.473	1562.	0.	0.
40	498.	723.	0.	1065.	1295.	1.000	1.000	1220.	0.	0.
45	498.	1447.	0.	1065.	1944.	1.000	1.000	1944.	0.	0.
45	498.	1447.	0.	1065.	1944.	1.000	1.000	1944.	0.	0.
50	498.	889.	0.	1065.	1427.	1.000	1.000	1387.	0.	0.
55	498.	176.	0.	1065.	1295.	1.000	1.000	673.	0.	0.
60	518.	0.	0.	1065.	1295.	1.768	1.473	518.	0.	0.
0	518.	0.	0.	1065.	1295.	1.000	1.000	518.	0.	0.
5	514.	0.	0.	1065.	1295.	1.000	1.000	514.	0.	0.
5	325.	0.	0.	667.	900.	1.000	1.000	325.	0.	0.
0	320.	0.	0.	667.	900.	1.000	1.000	320.	0.	0.
0	300.	244.	0.	667.	900.	1.000	1.000	544.	0.	0.
5	300.	0.	0.	667.	900.	1.000	1.000	300.	0.	0.
0	300.	244.	0.	667.	900.	1.000	1.000	544.	0.	0.
0	300.	0.	0.	667.	900.	1.000	1.000	300.	0.	0.
5	299.	1983.	-491.	667.	2484.	1.222	1.296	2547.	0.	0.
1	299.	1589.	530.	667.	2167.	1.000	1.000	2209.	0.	0.
1	497.	673.	-225.	1065.	1466.	1.000	1.000	1307.	0.	0.
2	510.	265.	-149.	1065.	1334.	1.768	1.473	908.	0.	0.
2	510.	180.	149.	1065.	1327.	1.000	1.000	857.	0.	0.
3	510.	122.	-149.	1065.	1326.	1.000	1.000	831.	0.	0.
1	510.	205.	149.	1065.	1328.	1.000	1.000	871.	0.	0.
1	498.	244.	-262.	1065.	1394.	1.768	1.473	1076.	0.	0.

STRESS REPORT, Stresses on Elements
CASE 2 (OPE) W+DIS+T2+P1

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.) STRESS	ALLOWAB STRES
3900	498.	165.	262.	1065.	1384.	1.000	1.000	1047.	0
3760	498.	393.	-262.	1065.	1419.	1.222	1.296	1152.	0
3540	500.	0.	0.	1065.	1295.	1.222	1.296	500.	0
3905	498.	0.	0.	1065.	1295.	1.000	1.000	498.	0

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ed To: FLUOR DANIEL ID 13692
SUMMARY
(OPE) W+DIS+T3+P1

**** NO CODE STRESS CHECK PROCESSED

PIPING CODE: B31.3 -1993, July 31, 1993 Addendum

HIGHEST STRESSES: (lb./sq.in.)

OPE STRESS %:	310812.	@NODE 3020	ALLOWABLE:	0.
BENDING STRESS:	197102.	@NODE 3020		
TORSIONAL STRESS:	11151.	@NODE 3090		
AXIAL STRESS:	170206.	@NODE 3505		
3D MAX INTENSITY:	310698.	@NODE 3020		

STRESS OPTIMIZATION PARAMETERS:

OPE STRESS PERCENTAGES SHOWN BELOW REPRESENT THE NUMBER OF NODES IN THE SYSTEM THAT WERE WITHIN THE PERCENTAGE GIVEN OF THE HIGHEST OPE STRESS IN THE SYSTEM.

AVG. OPE STRESS 49287.

	/BETWEEN/	/BELOW/
OPE STRESS 90-100%	0.31	99.69
OPE STRESS 80-90 %	0.31	99.38
OPE STRESS 70-80 %	0.31	99.07
OPE STRESS 60-70 %	1.85	97.22
OPE STRESS 50-60 %	2.16	95.06
OPE STRESS 25-50 %	30.56	64.51
OPE STRESS 0-25 %	64.51	

PIPE ELEMENTS ANALYZED: 162

SAMPLED POINTS: 324

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in STRESS	ALLOW STR
3000	498.	0.	0.	1065.	1295.	1.000	1.000	498.	
3005	498.	173.	0.	1065.	1295.	1.000	1.000	671.	
3005	-112970.	173.	0.	1065.	114266.	1.000	1.000	113142.	
3010	-112970.	85002.	0.	1065.	198968.	1.000	1.000	197972.	
3015	-112970.	100770.	0.	1065.	213739.	1.000	1.000	213739.	
3020	-112970.	158315.	0.	1065.	272280.	1.222	1.296	271284.	
3020	-113401.	197102.	-5519.	1065.	310698.	1.222	1.296	310812.	
3022	-113401.	89470.	5519.	1065.	204165.	1.000	1.000	203550.	
3022	709.	89470.	-5519.	1065.	90852.	1.000	1.000	90858.	
3025	709.	75976.	5519.	1065.	77058.	1.000	1.000	77483.	
3030	709.	33636.	-5519.	1065.	36076.	1.768	1.473	36110.	
3035	715.	10520.	-2340.	1065.	11771.	1.768	1.473	12229.	
3035	715.	7131.	2340.	1065.	9136.	1.000	1.000	9245.	
3040	713.	21221.	-2340.	1065.	22006.	1.000	1.000	22445.	
3045	702.	27277.	2340.	1065.	28368.	1.000	1.000	28378.	
3050	701.	45672.	-2340.	1065.	46204.	1.222	1.296	46612.	
3050	498.	13868.	0.	1065.	14366.	1.222	1.296	14366.	
3055	498.	10828.	0.	1065.	11326.	1.000	1.000	11326.	
3060	498.	9004.	0.	1065.	9502.	1.000	1.000	9502.	
3065	498.	0.	0.	1065.	1295.	1.000	1.000	498.	
3050	-2622.	32339.	726.	1065.	34991.	1.222	1.296	34994.	
3070	-2622.	26541.	-726.	1065.	30193.	1.000	1.000	29203.	
3075	-2622.	26942.	726.	1065.	29600.	1.000	1.000	29603.	
3080	-2622.	34970.	-726.	1065.	38614.	1.222	1.296	37622.	
3080	498.	1349.	0.	1065.	1846.	1.222	1.296	1846.	
3085	498.	0.	0.	1065.	1295.	1.000	1.000	498.	
3080	431.	31928.	4213.	1065.	33437.	1.222	1.296	33452.	
3090	286.	14550.	-11151.	1065.	27021.	1.768	1.473	26914.	
3090	286.	9829.	11151.	1065.	24488.	1.000	1.000	24657.	
3095	286.	25230.	-11151.	1065.	34207.	1.000	1.000	33959.	
3100	286.	78268.	11151.	1065.	81658.	1.000	1.000	81669.	
3105	286.	107951.	-11151.	1065.	110924.	1.222	1.296	110516.	

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EPORT, Stresses on Elements
OPE) W+DIS+T3+P1

Stresses(lb./sq.in.)					STRESS INTENSIFICATION		--Stress(lb./sq.in.)--		
AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	IN-PLANE	OUT-PLANE	STRESS	ALLOWABLE STRESS	%
-65053.	23641.	251.	1065.	88696.	1.222	1.296	88700.	0.	0.
-65053.	18638.	-251.	1065.	84688.	1.000	1.000	83698.	0.	0.
-65053.	21238.	251.	1065.	86293.	1.000	1.000	86298.	0.	0.
-65053.	41377.	-251.	1065.	107427.	1.222	1.296	106434.	0.	0.
-68173.	114240.	-59.	1065.	182412.	1.222	1.296	182412.	0.	0.
-68173.	91396.	59.	1065.	160564.	1.000	1.000	159569.	0.	0.
-68173.	91396.	-59.	1065.	159569.	1.000	1.000	159569.	0.	0.
-68173.	83481.	59.	1065.	152649.	1.000	1.000	151654.	0.	0.
-68173.	83481.	-59.	1065.	151654.	1.000	1.000	151654.	0.	0.
-68173.	23599.	59.	1065.	92768.	1.000	1.000	91772.	0.	0.
-68173.	23599.	-59.	1065.	91772.	1.000	1.000	91772.	0.	0.
-68173.	36210.	59.	1065.	105378.	1.000	1.000	104384.	0.	0.
-100392.	36210.	-59.	1065.	136602.	1.000	1.000	136602.	0.	0.
-100392.	13420.	59.	1065.	114808.	1.000	1.000	113813.	0.	0.
-100392.	13420.	-59.	1065.	113812.	1.000	1.000	113813.	0.	0.
-100392.	9475.	59.	1065.	110863.	1.000	1.000	109868.	0.	0.
-100392.	9475.	-59.	1065.	109868.	1.000	1.000	109868.	0.	0.
-100392.	3907.	59.	1065.	105294.	1.000	1.000	104301.	0.	0.
-100392.	3907.	-59.	1065.	104962.	1.000	1.000	104301.	0.	0.
-100392.	2591.	59.	1065.	103978.	1.000	1.000	102986.	0.	0.
-100392.	2591.	-59.	1065.	103808.	1.000	1.000	102986.	0.	0.
-100392.	1897.	59.	1065.	103284.	1.000	1.000	102292.	0.	0.
-100392.	1897.	-59.	1065.	103200.	1.000	1.000	102292.	0.	0.
-100392.	3487.	59.	1065.	104874.	1.000	1.000	103881.	0.	0.
-100392.	3487.	-59.	1065.	104594.	1.000	1.000	103881.	0.	0.
-100392.	2415.	59.	1065.	103802.	1.000	1.000	102810.	0.	0.
-100392.	2415.	-59.	1065.	103654.	1.000	1.000	102810.	0.	0.
-100392.	3811.	59.	1065.	105199.	1.000	1.000	104206.	0.	0.
449.	3811.	-59.	1065.	4262.	1.000	1.000	4263.	0.	0.
337.	10850.	-110.	1065.	11510.	1.768	1.473	11190.	0.	0.
337.	6138.	110.	1065.	6479.	1.000	1.000	6480.	0.	0.
337.	2079.	-110.	1065.	2746.	1.000	1.000	2428.	0.	0.

STRESS REPORT, Stresses on Elements
CASE 3 (OPE) W+DIS+T3+P1

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.) STRESS	ALLOWAB STRES
3175	24.	2079.	110.	1065.	2950.	1.000	1.000	2114.	0
3180	437.	14832.	175.	1065.	15394.	1.768	1.473	15273.	0
3180	437.	8394.	-175.	1065.	8838.	1.000	1.000	8839.	0
3185	437.	11149.	175.	1065.	11712.	1.000	1.000	11592.	0
3185	-100392.	11149.	-175.	1065.	111542.	1.000	1.000	111547.	0
3190	-100392.	4510.	175.	1065.	105898.	1.000	1.000	104916.	0
3190	-100392.	4510.	-175.	1065.	105491.	1.000	1.000	104916.	0
3195	-100392.	3723.	175.	1065.	105111.	1.000	1.000	104132.	0
3195	-100392.	3723.	-175.	1065.	104802.	1.000	1.000	104132.	0
3200	-100392.	3113.	175.	1065.	104500.	1.000	1.000	103524.	0
3200	-100392.	3113.	-175.	1065.	104266.	1.000	1.000	103524.	0
3205	-100392.	3481.	175.	1065.	104870.	1.000	1.000	103891.	0
3205	-602.	3481.	-175.	1065.	4806.	1.000	1.000	4101.	0
3210	346.	20050.	387.	1065.	20713.	1.768	1.473	20410.	0
3210	346.	11345.	-387.	1065.	11716.	1.000	1.000	11717.	0
3215	346.	10730.	387.	1065.	11405.	1.000	1.000	11103.	0
3215	159.	10730.	-387.	1065.	10916.	1.000	1.000	10916.	0
3220	518.	5973.	799.	1065.	6645.	1.768	1.473	6701.	0
3220	518.	3389.	-799.	1065.	4221.	1.000	1.000	4265.	0
3225	518.	15978.	799.	1065.	16533.	1.000	1.000	16576.	0
3225	396.	15978.	-799.	1065.	16452.	1.000	1.000	16454.	0
3230	629.	5575.	78.	1065.	5943.	1.768	1.473	6206.	0
3230	629.	3261.	-78.	1065.	3893.	1.000	1.000	3893.	0
3235	629.	3061.	78.	1065.	3464.	1.000	1.000	3694.	0
3235	-100392.	3061.	-78.	1065.	104220.	1.000	1.000	103457.	0
3240	-100392.	3887.	78.	1065.	105274.	1.000	1.000	104282.	0
3240	-100392.	3887.	-78.	1065.	104944.	1.000	1.000	104282.	0
3245	-100392.	5967.	78.	1065.	107354.	1.000	1.000	106361.	0
3245	-100392.	5967.	-78.	1065.	106768.	1.000	1.000	106361.	0
3250	-100392.	1884.	78.	1065.	103271.	1.000	1.000	102282.	0
3250	-100392.	1884.	-78.	1065.	103188.	1.000	1.000	102282.	0
3255	-100392.	1818.	78.	1065.	103205.	1.000	1.000	102216.	0

Stresses(lb./sq.in.)					STRESS INTENSIFICATION		--Stress(lb./sq.in.)--		
AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	IN-PLANE	OUT-PLANE	STRESS	ALLOWABLE STRESS	%
-100392.	1818.	-78.	1065.	103130.	1.000	1.000	102216.	0.	0.
-100392.	3677.	78.	1065.	105064.	1.000	1.000	104072.	0.	0.
-100392.	3677.	-78.	1065.	104760.	1.000	1.000	104072.	0.	0.
-100392.	16959.	78.	1065.	118346.	1.000	1.000	117352.	0.	0.
-7992.	16959.	-78.	1065.	24952.	1.000	1.000	24952.	0.	0.
-29.	19276.	17.	1065.	20301.	1.768	1.473	19305.	0.	0.
-29.	19276.	-17.	1065.	19305.	1.768	1.473	19305.	0.	0.
-7992.	62617.	83.	1065.	71604.	1.768	1.473	70609.	0.	0.
-7992.	35424.	-83.	1065.	43416.	1.000	1.000	43416.	0.	0.
-7992.	22336.	83.	1065.	31324.	1.000	1.000	30329.	0.	0.
-100392.	22336.	-83.	1065.	122728.	1.000	1.000	122729.	0.	0.
-100392.	5750.	83.	1065.	107138.	1.000	1.000	106144.	0.	0.
-100392.	5750.	-83.	1065.	106578.	1.000	1.000	106144.	0.	0.
-100392.	2315.	83.	1065.	103703.	1.000	1.000	102714.	0.	0.
-100392.	2315.	-83.	1065.	103567.	1.000	1.000	102714.	0.	0.
-100392.	3667.	83.	1065.	105054.	1.000	1.000	104063.	0.	0.
-100392.	3667.	-83.	1065.	104752.	1.000	1.000	104063.	0.	0.
-100392.	4708.	83.	1065.	106096.	1.000	1.000	105103.	0.	0.
-100392.	4708.	-83.	1065.	105664.	1.000	1.000	105103.	0.	0.
-100392.	4399.	83.	1065.	105786.	1.000	1.000	104794.	0.	0.
-100392.	4399.	-83.	1065.	105394.	1.000	1.000	104794.	0.	0.
-100392.	11707.	83.	1065.	113094.	1.000	1.000	112100.	0.	0.
-1202.	11707.	-83.	1065.	12910.	1.000	1.000	12910.	0.	0.
-898.	50635.	-129.	1065.	52529.	1.768	1.473	51534.	0.	0.
-898.	28646.	129.	1065.	29546.	1.000	1.000	29546.	0.	0.
-1202.	32965.	-289.	1065.	35167.	1.768	1.473	34172.	0.	0.
-1202.	18650.	289.	1065.	19860.	1.000	1.000	19860.	0.	0.
-1202.	6822.	-289.	1065.	9037.	1.000	1.000	8048.	0.	0.
-100392.	6822.	289.	1065.	107518.	1.000	1.000	107238.	0.	0.
-100392.	2969.	-289.	1065.	104358.	1.000	1.000	103417.	0.	0.
-100392.	2969.	289.	1065.	104140.	1.000	1.000	103417.	0.	0.
-100392.	3379.	-289.	1065.	104768.	1.000	1.000	103820.	0.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in. STRESS	ALLOW STRE
3325	-100392.	3379.	289.	1065.	104500.	1.000	1.000	103820.	
3330	-100392.	860.	-289.	1065.	102292.	1.000	1.000	101428.	
3330	-100392.	860.	289.	1065.	102292.	1.000	1.000	101428.	
3335	-100392.	1510.	-289.	1065.	102899.	1.000	1.000	102009.	
3335	-100392.	1510.	289.	1065.	102862.	1.000	1.000	102009.	
3338	-100392.	1342.	-289.	1065.	102731.	1.000	1.000	101854.	
3338	-100392.	1342.	289.	1065.	102714.	1.000	1.000	101854.	
3340	-100392.	2713.	-289.	1065.	104102.	1.000	1.000	103166.	
3340	-100392.	2713.	289.	1065.	103916.	1.000	1.000	103166.	
3342	-100392.	9773.	-289.	1065.	111162.	1.000	1.000	110182.	
3342	-3375.	9773.	289.	1065.	13160.	1.000	1.000	13165.	
3343	-3375.	30101.	-289.	1065.	34475.	1.000	1.000	33481.	
3343	-3375.	30101.	289.	1065.	33480.	1.000	1.000	33481.	
3345	241.	20467.	64.	1065.	21222.	1.768	1.473	20708.	
3345	241.	11586.	-64.	1065.	11827.	1.000	1.000	11827.	
3350	241.	25995.	64.	1065.	26750.	1.000	1.000	26236.	
3350	-100392.	25995.	-64.	1065.	126388.	1.000	1.000	126388.	
3355	-100392.	10595.	64.	1065.	111983.	1.000	1.000	110988.	
3355	-100392.	10595.	-64.	1065.	110988.	1.000	1.000	110988.	
3360	-100392.	6386.	64.	1065.	107774.	1.000	1.000	106780.	
3360	-100392.	6386.	-64.	1065.	107136.	1.000	1.000	106780.	
3365	-100392.	5613.	64.	1065.	107001.	1.000	1.000	106007.	
3365	-100392.	5613.	-64.	1065.	106458.	1.000	1.000	106007.	
3370	-100392.	5533.	64.	1065.	106920.	1.000	1.000	105926.	
3370	337.	5533.	-64.	1065.	5871.	1.000	1.000	5871.	
3375	-115.	22327.	-72.	1065.	23438.	1.768	1.473	22442.	
3375	-115.	12631.	72.	1065.	12747.	1.000	1.000	12747.	
3380	-115.	3893.	-72.	1065.	5006.	1.000	1.000	4011.	
3380	-100392.	3893.	72.	1065.	104950.	1.000	1.000	104288.	
3385	-100392.	1478.	-72.	1065.	102866.	1.000	1.000	101878.	
3385	-100392.	1478.	72.	1065.	102834.	1.000	1.000	101878.	
3390	-100392.	2843.	-72.	1065.	104231.	1.000	1.000	103239.	

Stresses(lb./sq.in.)					STRESS INTENSIFICATION		--Stress(lb./sq.in.)--		
AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	IN-PLANE	OUT-PLANE	STRESS	ALLOWABLE STRESS	%
-100392.	2843.	72.	1065.	104030.	1.000	1.000	103239.	0.	0.
-100392.	2056.	-72.	1065.	103444.	1.000	1.000	102454.	0.	0.
-100392.	2056.	72.	1065.	103340.	1.000	1.000	102454.	0.	0.
-100392.	2024.	-72.	1065.	103411.	1.000	1.000	102421.	0.	0.
-100392.	2024.	72.	1065.	103311.	1.000	1.000	102421.	0.	0.
-100392.	1784.	-72.	1065.	103172.	1.000	1.000	102182.	0.	0.
-100392.	1784.	72.	1065.	103101.	1.000	1.000	102182.	0.	0.
-100392.	4374.	-72.	1065.	105762.	1.000	1.000	104768.	0.	0.
389.	4374.	72.	1065.	4765.	1.000	1.000	4766.	0.	0.
437.	2341.	349.	1065.	2982.	1.768	1.473	2879.	0.	0.
437.	1431.	-349.	1065.	2082.	1.000	1.000	2029.	0.	0.
389.	2291.	-239.	1065.	2937.	1.768	1.473	2730.	0.	0.
389.	1548.	239.	1065.	2164.	1.000	1.000	2010.	0.	0.
389.	3516.	-239.	1065.	4150.	1.000	1.000	3938.	0.	0.
389.	3516.	239.	1065.	3935.	1.000	1.000	3938.	0.	0.
389.	5656.	-239.	1065.	6280.	1.000	1.000	6066.	0.	0.
389.	5656.	239.	1065.	6064.	1.000	1.000	6066.	0.	0.
475.	10529.	-335.	1065.	11069.	1.768	1.473	11025.	0.	0.
475.	5958.	335.	1065.	6468.	1.000	1.000	6471.	0.	0.
493.	2084.	-1329.	1065.	3708.	1.768	1.473	3870.	0.	0.
493.	1179.	1329.	1065.	3140.	1.000	1.000	3400.	0.	0.
389.	6077.	308.	1065.	6711.	1.768	1.473	6497.	0.	0.
389.	3711.	-308.	1065.	4146.	1.000	1.000	4151.	0.	0.
389.	3623.	308.	1065.	4273.	1.000	1.000	4064.	0.	0.
-370.	3623.	-308.	1065.	4712.	1.000	1.000	4045.	0.	0.
-370.	3984.	308.	1065.	5384.	1.000	1.000	4401.	0.	0.
-370.	3984.	-308.	1065.	5027.	1.000	1.000	4401.	0.	0.
-370.	6337.	308.	1065.	7727.	1.000	1.000	6737.	0.	0.
-370.	6337.	-308.	1065.	7083.	1.000	1.000	6737.	0.	0.
312.	19286.	-3327.	1065.	21048.	1.768	1.473	20713.	0.	0.
312.	10917.	3327.	1065.	13052.	1.000	1.000	13097.	0.	0.
486.	2371.	-5484.	1065.	11341.	1.768	1.473	11708.	0.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in. STRESS	ALLOWA STRE
3475	486.	1609.	5484.	1065.	11167.	1.000	1.000	11572.	
3480	486.	2464.	-5484.	1065.	11365.	1.000	1.000	11728.	
3485	486.	13258.	5484.	1065.	17584.	1.000	1.000	17693.	
3490	486.	34234.	-5484.	1065.	36434.	1.000	1.000	36435.	
3490	-169143.	34234.	5484.	1065.	203673.	1.000	1.000	205092.	
3500	-169143.	27647.	-5484.	1065.	198089.	1.222	1.296	198886.	
3500	-170206.	52452.	3731.	1065.	222783.	1.222	1.296	223186.	
3505	-170206.	34791.	-3731.	1065.	206128.	1.000	1.000	205789.	
3510	-169989.	8611.	1019.	1065.	178687.	1.000	1.000	178838.	
3515	-169989.	11641.	-1019.	1065.	182637.	1.000	1.000	181808.	
3515	-131263.	11641.	1019.	1065.	142919.	1.000	1.000	143081.	
3520	-131263.	9613.	-1019.	1065.	141886.	1.296	1.296	141090.	
3520	-131263.	9613.	1019.	1065.	140891.	1.296	1.296	141090.	
3525	-131263.	22901.	-1019.	1065.	155172.	1.000	1.000	154254.	
3530	-131263.	34867.	1019.	1065.	166143.	1.000	1.000	166190.	
3535	-131263.	40024.	-1019.	1065.	172294.	1.000	1.000	171339.	
3535	220.	40024.	1019.	1065.	40296.	1.000	1.000	40296.	
3540	220.	28533.	-1019.	1065.	29379.	1.222	1.296	28826.	
3540	-2073.	28633.	432.	1065.	30718.	1.222	1.296	30719.	
3542	-2055.	12985.	-432.	1065.	16059.	1.222	1.296	15069.	
3542	-1975.	15208.	-924.	1065.	17283.	1.222	1.296	17295.	
3545	-1971.	8968.	924.	1065.	12077.	1.000	1.000	11128.	
3550	-1942.	8102.	-924.	1065.	10262.	1.000	1.000	10252.	
3555	369.	6781.	-5487.	1065.	13240.	1.768	1.473	13270.	
3555	369.	4436.	5487.	1065.	11980.	1.000	1.000	12206.	
3560	369.	26491.	-5487.	1065.	29254.	1.000	1.000	29044.	
3570	401.	15887.	5487.	1065.	19640.	1.000	1.000	19710.	
3575	333.	15175.	-1501.	1065.	16119.	1.768	1.473	15801.	
3575	333.	9836.	1501.	1065.	10603.	1.000	1.000	10617.	
3580	82.	23422.	-412.	1065.	24349.	1.768	1.473	23518.	
3580	82.	13319.	412.	1065.	13426.	1.000	1.000	13426.	
3585	45.	8436.	-412.	1065.	9423.	1.000	1.000	8521.	

Stresses(lb./sq.in.)					STRESS INTENSIFICATION		--Stress(lb./sq.in.)--		
AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	IN-PLANE	OUT-PLANE	STRESS	ALLOWABLE STRESS	%
467.	4322.	-573.	1065.	4924.	1.222	1.296	4938.	0.	0.
467.	2436.	573.	1065.	3178.	1.000	1.000	3159.	0.	0.
467.	602.	-573.	1065.	1755.	1.000	1.000	1761.	0.	0.
492.	2552.	-1657.	1065.	4507.	1.768	1.473	4674.	0.	0.
492.	1726.	1657.	1065.	3987.	1.000	1.000	4227.	0.	0.
400.	6512.	-36.	1065.	7107.	1.768	1.473	6913.	0.	0.
400.	4071.	36.	1065.	4472.	1.000	1.000	4472.	0.	0.
400.	2254.	-36.	1065.	2850.	1.000	1.000	2656.	0.	0.
400.	2254.	36.	1065.	2721.	1.000	1.000	2656.	0.	0.
413.	6031.	-1451.	1065.	7221.	1.768	1.473	7105.	0.	0.
413.	3412.	1451.	1065.	4801.	1.000	1.000	4892.	0.	0.
467.	3834.	-272.	1065.	4396.	1.768	1.473	4339.	0.	0.
467.	2525.	272.	1065.	3040.	1.000	1.000	3049.	0.	0.
467.	5538.	-272.	1065.	6091.	1.000	1.000	6031.	0.	0.
409.	5538.	272.	1065.	5972.	1.000	1.000	5974.	0.	0.
409.	2411.	-272.	1065.	3046.	1.000	1.000	2881.	0.	0.
409.	2411.	272.	1065.	2885.	1.000	1.000	2881.	0.	0.
409.	2244.	-272.	1065.	2882.	1.000	1.000	2718.	0.	0.
409.	2244.	272.	1065.	2743.	1.000	1.000	2718.	0.	0.
456.	9320.	888.	1065.	10019.	1.768	1.473	9944.	0.	0.
456.	5284.	-888.	1065.	6009.	1.000	1.000	6031.	0.	0.
456.	1888.	888.	1065.	3008.	1.000	1.000	3048.	0.	0.
456.	1888.	-888.	1065.	2940.	1.000	1.000	3048.	0.	0.
456.	3995.	888.	1065.	4870.	1.000	1.000	4828.	0.	0.
456.	3995.	-888.	1065.	4792.	1.000	1.000	4828.	0.	0.
456.	8900.	888.	1065.	9605.	1.000	1.000	9531.	0.	0.
283.	8900.	-888.	1065.	9353.	1.000	1.000	9358.	0.	0.
283.	6010.	888.	1065.	6953.	1.000	1.000	6550.	0.	0.
283.	5124.	-888.	1065.	5691.	1.000	1.000	5706.	0.	0.
501.	6209.	3760.	1065.	10074.	1.768	1.473	10253.	0.	0.
501.	3533.	-3760.	1065.	8533.	1.000	1.000	8809.	0.	0.
297.	11899.	973.	1065.	12747.	1.768	1.473	12355.	0.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in. STRESS	ALLOWA STRE
3685	297.	7572.	-973.	1065.	8106.	1.000	1.000	8115.	
3690	266.	13259.	973.	1065.	14123.	1.000	1.000	13667.	
3507	286.	10123.	56.	1065.	10409.	1.222	1.296	10409.	
3700	281.	11364.	434.	1065.	12109.	1.768	1.473	11677.	
3700	281.	6440.	-434.	1065.	6777.	1.000	1.000	6779.	
3705	396.	6314.	474.	1065.	6978.	1.768	1.473	6781.	
3705	396.	3573.	-474.	1065.	4081.	1.000	1.000	4093.	
3710	396.	2314.	474.	1065.	3063.	1.000	1.000	2897.	
3710	478.	2314.	-474.	1065.	2948.	1.000	1.000	2978.	
3720	452.	2053.	733.	1065.	2981.	1.768	1.473	2974.	
3720	452.	1274.	-733.	1065.	2265.	1.000	1.000	2394.	
3722	498.	3082.	134.	1065.	3589.	1.768	1.473	3591.	
3722	498.	1896.	-134.	1065.	2409.	1.000	1.000	2413.	
3725	498.	2700.	134.	1065.	3209.	1.222	1.296	3211.	
3725	482.	1981.	277.	1065.	2524.	1.222	1.296	2538.	
3730	482.	1269.	-277.	1065.	1867.	1.000	1.000	1867.	
3735	370.	1253.	428.	848.	1835.	1.000	1.000	1888.	
3740	370.	1080.	-428.	848.	1718.	1.000	1.000	1748.	
3745	370.	1398.	428.	848.	1964.	1.000	1.000	2009.	
3750	370.	2122.	-428.	848.	2673.	1.000	1.000	2658.	
3755	482.	276.	277.	1065.	1412.	1.000	1.000	1101.	
3760	482.	408.	-277.	1065.	1429.	1.222	1.296	1170.	
3760	498.	252.	199.	1065.	1358.	1.222	1.296	969.	
3765	498.	298.	-199.	1065.	1362.	1.000	1.000	995.	
3770	498.	471.	199.	1065.	1388.	1.000	1.000	1114.	
3775	498.	470.	-199.	1065.	1388.	1.000	1.000	1114.	
3780	498.	400.	199.	1065.	1376.	1.768	1.473	1062.	
3785	457.	587.	0.	1065.	1295.	1.768	1.473	1043.	
3785	457.	398.	0.	1065.	1295.	1.000	1.000	855.	
3790	448.	439.	0.	1065.	1295.	1.518	1.691	887.	
3790	776.	3503.	0.	1625.	4280.	1.518	1.691	4280.	
3800	776.	0.	0.	1625.	1853.	1.000	1.000	776.	

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To: FLUOR DANIEL ID 13692
PORT, Stresses on Elements
PE) W+DIS+T3+P1

Stresses(lb./sq.in.)					STRESS INTENSIFICATION		--Stress(lb./sq.in.)--		
AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	IN-PLANE	OUT-PLANE	STRESS	ALLOWABLE STRESS	%
776.	3626.	0.	1625.	4402.	1.518	1.691	4402.	0.	0.
776.	0.	0.	1625.	1853.	1.000	1.000	776.	0.	0.
30.	28476.	300.	1065.	28512.	1.222	1.296	28512.	0.	0.
-566.	12830.	-114.	1065.	14393.	1.768	1.473	13398.	0.	0.
-566.	7258.	114.	1065.	8075.	1.000	1.000	7828.	0.	0.
-566.	1788.	-114.	1065.	3357.	1.000	1.000	2368.	0.	0.
498.	1788.	114.	1065.	2297.	1.000	1.000	2300.	0.	0.
498.	1979.	-114.	1065.	2487.	1.000	1.000	2489.	0.	0.
498.	869.	114.	1065.	1468.	1.000	1.000	1396.	0.	0.
498.	993.	0.	1065.	1518.	1.768	1.473	1491.	0.	0.
498.	674.	0.	1065.	1295.	1.000	1.000	1172.	0.	0.
498.	1447.	0.	1065.	1944.	1.000	1.000	1944.	0.	0.
498.	1447.	0.	1065.	1944.	1.000	1.000	1944.	0.	0.
498.	889.	0.	1065.	1427.	1.000	1.000	1387.	0.	0.
498.	176.	0.	1065.	1295.	1.000	1.000	673.	0.	0.
518.	0.	0.	1065.	1295.	1.768	1.473	518.	0.	0.
518.	0.	0.	1065.	1295.	1.000	1.000	518.	0.	0.
514.	0.	0.	1065.	1295.	1.000	1.000	514.	0.	0.
325.	0.	0.	667.	900.	1.000	1.000	325.	0.	0.
320.	0.	0.	667.	900.	1.000	1.000	320.	0.	0.
300.	244.	0.	667.	900.	1.000	1.000	544.	0.	0.
300.	0.	0.	667.	900.	1.000	1.000	300.	0.	0.
300.	244.	0.	667.	900.	1.000	1.000	544.	0.	0.
300.	0.	0.	667.	900.	1.000	1.000	300.	0.	0.
299.	2484.	-506.	667.	2961.	1.222	1.296	3012.	0.	0.
299.	1724.	546.	667.	2301.	1.000	1.000	2339.	0.	0.
497.	731.	-231.	1065.	1495.	1.000	1.000	1362.	0.	0.
514.	269.	-168.	1065.	1344.	1.768	1.473	945.	0.	0.
514.	182.	168.	1065.	1335.	1.000	1.000	897.	0.	0.
514.	122.	-168.	1065.	1334.	1.000	1.000	872.	0.	0.
514.	233.	168.	1065.	1339.	1.000	1.000	923.	0.	0.
498.	319.	-193.	1065.	1362.	1.768	1.473	1000.	0.	0.

STRESS REPORT, Stresses on Elements
CASE 3 (OPE) W+DIS+T3+P1

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in. STRESS	ALLOWA STRE
3900	498.	216.	193.	1065.	1351.	1.000	1.000	941.	
3760	498.	381.	-193.	1065.	1370.	1.222	1.296	1041.	
3540	500.	0.	0.	1065.	1295.	1.222	1.296	500.	
3905	498.	0.	0.	1065.	1295.	1.000	1.000	498.	

SUMMARY
(SUS) W+P1

**** CODE STRESS CHECK PASSED

PIPING CODE: B31.3 -1993, July 31, 1993 Addendum

HIGHEST STRESSES: (lb./sq.in.)

CODE STRESS %:	6541.	@NODE 3020	ALLOWABLE:	17000.
BENDING STRESS:	6032.	@NODE 3020		
TORSIONAL STRESS:	843.	@NODE 3220		
AXIAL STRESS:	776.	@NODE 3800		
3D MAX INTENSITY:	6618.	@NODE 3020		

STRESS OPTIMIZATION PARAMETERS:

CODE STRESS PERCENTAGES SHOWN BELOW REPRESENT THE NUMBER OF NODES IN THE SYSTEM THAT WERE WITHIN THE PERCENTAGE GIVEN OF THE HIGHEST CODE STRESS IN THE SYSTEM.

AVG. CODE STRESS 1626.

	/BETWEEN/	/BELOW/
CODE STRESS 90-100%	0.31	99.69
CODE STRESS 80-90 %	1.85	97.84
CODE STRESS 70-80 %	0.62	97.22
CODE STRESS 60-70 %	1.85	95.37
CODE STRESS 50-60 %	3.09	92.28
CODE STRESS 25-50 %	32.41	59.88
CODE STRESS 0-25 %	59.88	

PIPE ELEMENTS ANALYZED: 162

SAMPLED POINTS: 324

STRESS REPORT, Stresses on Elements
CASE 4 (SUS) W+P1

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in. CODE STRESS	ALLOWAB STRE
3000	498.	0.	0.	1065.	1295.	1.000	1.000	498.	17000
3005	498.	173.	0.	1065.	1295.	1.000	1.000	671.	17000
3005	497.	173.	0.	1065.	1295.	1.000	1.000	670.	17000
3010	497.	748.	0.	1065.	1303.	1.000	1.000	1245.	17000
3015	497.	1509.	0.	1065.	2006.	1.000	1.000	2006.	17000
3020	497.	4862.	0.	1065.	5360.	1.222	1.296	5360.	17000
3020	509.	6032.	501.	1065.	6618.	1.222	1.296	6541.	17000
3022	509.	5128.	-501.	1065.	5703.	1.000	1.000	5637.	17000
3022	510.	5128.	501.	1065.	5726.	1.000	1.000	5638.	17000
3025	510.	4063.	-501.	1065.	4657.	1.000	1.000	4573.	17000
3030	510.	776.	501.	1065.	1745.	1.768	1.473	1286.	17000
3035	688.	2002.	-195.	1065.	2615.	1.768	1.473	2690.	17000
3035	688.	1262.	195.	1065.	1989.	1.000	1.000	1950.	17000
3040	687.	1234.	-195.	1065.	1962.	1.000	1.000	1920.	17000
3045	675.	1222.	195.	1065.	1937.	1.000	1.000	1897.	17000
3050	674.	1496.	-195.	1065.	2169.	1.222	1.296	2170.	17000
3050	498.	3174.	0.	1065.	3671.	1.222	1.296	3671.	17000
3055	498.	2218.	0.	1065.	2716.	1.000	1.000	2716.	17000
3060	498.	1022.	0.	1065.	1543.	1.000	1.000	1519.	17000
3065	498.	0.	0.	1065.	1295.	1.000	1.000	498.	17000
3050	497.	1996.	-321.	1065.	2574.	1.222	1.296	2492.	17000
3070	497.	1324.	321.	1065.	1933.	1.000	1.000	1821.	17000
3075	497.	447.	-321.	1065.	1477.	1.000	1.000	944.	17000
3080	497.	550.	321.	1065.	1506.	1.222	1.296	1047.	17000
3080	498.	1440.	0.	1065.	1938.	1.222	1.296	1938.	17000
3085	498.	0.	0.	1065.	1295.	1.000	1.000	498.	17000
3080	416.	1423.	181.	1065.	2012.	1.222	1.296	1839.	17000
3090	485.	863.	-480.	1065.	1767.	1.768	1.473	1348.	17000
3090	485.	527.	480.	1065.	1638.	1.000	1.000	1012.	17000
3095	485.	353.	-480.	1065.	1576.	1.000	1.000	838.	17000
3100	485.	843.	480.	1065.	1771.	1.000	1.000	1329.	17000
3105	485.	1157.	-480.	1065.	1929.	1.222	1.296	1642.	17000

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T	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
	487.	662.	-445.	1065.	1658.	1.222	1.296	1149.	17000.	7.
	487.	573.	445.	1065.	1615.	1.000	1.000	1060.	17000.	6.
	487.	466.	-445.	1065.	1587.	1.000	1.000	953.	17000.	6.
	487.	1366.	445.	1065.	2074.	1.222	1.296	1853.	17000.	11.
	486.	779.	-27.	1065.	1351.	1.222	1.296	1265.	17000.	7.
	486.	630.	27.	1065.	1300.	1.000	1.000	1116.	17000.	7.
	486.	630.	-27.	1065.	1301.	1.000	1.000	1116.	17000.	7.
	486.	773.	27.	1065.	1337.	1.000	1.000	1259.	17000.	7.
	486.	773.	-27.	1065.	1347.	1.000	1.000	1259.	17000.	7.
	486.	583.	27.	1065.	1299.	1.000	1.000	1068.	17000.	6.
	486.	583.	-27.	1065.	1299.	1.000	1.000	1068.	17000.	6.
	486.	1177.	27.	1065.	1691.	1.000	1.000	1663.	17000.	10.
	498.	1177.	-27.	1065.	1680.	1.000	1.000	1674.	17000.	10.
	498.	595.	27.	1065.	1299.	1.000	1.000	1093.	17000.	6.
	498.	595.	-27.	1065.	1299.	1.000	1.000	1093.	17000.	6.
	498.	746.	27.	1065.	1322.	1.000	1.000	1244.	17000.	7.
	498.	746.	-27.	1065.	1322.	1.000	1.000	1244.	17000.	7.
	498.	150.	27.	1065.	1296.	1.000	1.000	647.	17000.	4.
	498.	150.	-27.	1065.	1296.	1.000	1.000	647.	17000.	4.
	498.	2067.	27.	1065.	2565.	1.000	1.000	2565.	17000.	15.
	498.	2067.	-27.	1065.	2565.	1.000	1.000	2565.	17000.	15.
	498.	1564.	27.	1065.	2062.	1.000	1.000	2062.	17000.	12.
	498.	1564.	-27.	1065.	2062.	1.000	1.000	2062.	17000.	12.
	498.	3451.	27.	1065.	3949.	1.000	1.000	3949.	17000.	23.
	498.	3451.	-27.	1065.	3949.	1.000	1.000	3949.	17000.	23.
	498.	1888.	27.	1065.	2386.	1.000	1.000	2386.	17000.	14.
	498.	1888.	-27.	1065.	2386.	1.000	1.000	2386.	17000.	14.
	498.	1418.	27.	1065.	1917.	1.000	1.000	1916.	17000.	11.
	498.	1418.	-27.	1065.	1917.	1.000	1.000	1916.	17000.	11.
	498.	9.	-113.	1065.	1310.	1.768	1.473	507.	17000.	3.
	498.	6.	113.	1065.	1310.	1.000	1.000	504.	17000.	3.
	498.	774.	-113.	1065.	1411.	1.000	1.000	1272.	17000.	7.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.i CODE STRESS	ALLOWAI STRI
3175	498.	774.	113.	1065.	1411.	1.000	1.000	1272.	1700
3180	498.	652.	176.	1065.	1416.	1.768	1.473	1150.	1700
3180	498.	443.	-176.	1065.	1367.	1.000	1.000	940.	1700
3185	498.	2299.	176.	1065.	2818.	1.000	1.000	2796.	1700
3185	498.	2299.	-176.	1065.	2818.	1.000	1.000	2796.	1700
3190	498.	1926.	176.	1065.	2449.	1.000	1.000	2423.	1700
3190	498.	1926.	-176.	1065.	2449.	1.000	1.000	2423.	1700
3195	498.	2497.	176.	1065.	3015.	1.000	1.000	2994.	1700
3195	498.	2497.	-176.	1065.	3015.	1.000	1.000	2994.	1700
3200	498.	122.	176.	1065.	1336.	1.000	1.000	619.	1700
3200	498.	122.	-176.	1065.	1336.	1.000	1.000	619.	1700
3205	498.	372.	176.	1065.	1357.	1.000	1.000	870.	1700
3205	498.	372.	-176.	1065.	1357.	1.000	1.000	870.	1700
3210	498.	660.	412.	1065.	1624.	1.768	1.473	1158.	1700
3210	498.	448.	-412.	1065.	1551.	1.000	1.000	946.	1700
3215	498.	875.	412.	1065.	1721.	1.000	1.000	1373.	1700
3215	498.	875.	-412.	1065.	1721.	1.000	1.000	1373.	1700
3220	498.	781.	843.	1065.	2117.	1.768	1.473	1279.	1700
3220	498.	531.	-843.	1065.	1975.	1.000	1.000	1028.	1700
3225	498.	2942.	843.	1065.	3831.	1.000	1.000	3439.	1700
3225	498.	2942.	-843.	1065.	3831.	1.000	1.000	3439.	1700
3230	498.	2346.	58.	1065.	2846.	1.768	1.473	2844.	1700
3230	498.	1593.	-58.	1065.	2094.	1.000	1.000	2090.	1700
3235	498.	1320.	58.	1065.	1822.	1.000	1.000	1818.	1700
3235	498.	1320.	-58.	1065.	1822.	1.000	1.000	1818.	1700
3240	498.	4125.	58.	1065.	4624.	1.000	1.000	4623.	1700
3240	498.	4125.	-58.	1065.	4624.	1.000	1.000	4623.	1700
3245	498.	5041.	58.	1065.	5540.	1.000	1.000	5539.	1700
3245	498.	5041.	-58.	1065.	5540.	1.000	1.000	5539.	1700
3250	498.	328.	58.	1065.	1302.	1.000	1.000	825.	1700
3250	498.	328.	-58.	1065.	1302.	1.000	1.000	825.	1700
3255	498.	2109.	58.	1065.	2610.	1.000	1.000	2607.	1700

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REPORT, Stresses on Elements
(SUS) W+P1

Stresses(lb./sq.in.)					STRESS INTENSIFICATION		Stress(lb./sq.in.)		
AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	IN-PLANE	OUT-PLANE	CODE STRESS	ALLOWABLE STRESS	%
498.	2109.	-58.	1065.	2610.	1.000	1.000	2607.	17000.	15.
498.	1783.	58.	1065.	2283.	1.000	1.000	2280.	17000.	13.
498.	1783.	-58.	1065.	2283.	1.000	1.000	2280.	17000.	13.
498.	2149.	58.	1065.	2649.	1.000	1.000	2646.	17000.	16.
381.	2149.	-58.	1065.	2650.	1.000	1.000	2529.	17000.	15.
508.	1116.	-60.	1065.	1644.	1.768	1.473	1624.	17000.	10.
508.	1116.	60.	1065.	1639.	1.768	1.473	1624.	17000.	10.
381.	2440.	74.	1065.	3058.	1.768	1.473	2820.	17000.	17.
381.	1382.	-74.	1065.	1982.	1.000	1.000	1763.	17000.	10.
381.	1850.	74.	1065.	2469.	1.000	1.000	2230.	17000.	13.
498.	1850.	-74.	1065.	2352.	1.000	1.000	2347.	17000.	14.
498.	1750.	74.	1065.	2252.	1.000	1.000	2247.	17000.	13.
498.	1750.	-74.	1065.	2252.	1.000	1.000	2247.	17000.	13.
498.	3312.	74.	1065.	3812.	1.000	1.000	3809.	17000.	22.
498.	3312.	-74.	1065.	3812.	1.000	1.000	3809.	17000.	22.
498.	1564.	74.	1065.	2067.	1.000	1.000	2062.	17000.	12.
498.	1564.	-74.	1065.	2067.	1.000	1.000	2062.	17000.	12.
498.	2207.	74.	1065.	2709.	1.000	1.000	2705.	17000.	16.
498.	2207.	-74.	1065.	2709.	1.000	1.000	2705.	17000.	16.
498.	527.	74.	1065.	1315.	1.000	1.000	1025.	17000.	6.
498.	527.	-74.	1065.	1315.	1.000	1.000	1025.	17000.	6.
498.	2272.	74.	1065.	2774.	1.000	1.000	2770.	17000.	16.
498.	2272.	-74.	1065.	2774.	1.000	1.000	2770.	17000.	16.
498.	567.	-101.	1065.	1336.	1.768	1.473	1065.	17000.	6.
498.	385.	101.	1065.	1319.	1.000	1.000	883.	17000.	5.
498.	469.	-268.	1065.	1440.	1.768	1.473	967.	17000.	6.
498.	318.	268.	1065.	1410.	1.000	1.000	816.	17000.	5.
498.	1952.	-268.	1065.	2507.	1.000	1.000	2449.	17000.	14.
498.	1952.	268.	1065.	2507.	1.000	1.000	2449.	17000.	14.
498.	2132.	-268.	1065.	2684.	1.000	1.000	2630.	17000.	15.
498.	2132.	268.	1065.	2684.	1.000	1.000	2630.	17000.	15.
498.	2430.	-268.	1065.	2976.	1.000	1.000	2927.	17000.	17.

STRESS REPORT, Stresses on Elements
CASE 4 (SUS) W+P1

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS
3325	498.	2430.	268.	1065.	2976.	1.000	1.000	2927.	17000.
3330	498.	618.	-268.	1065.	1483.	1.000	1.000	1116.	17000.
3330	498.	618.	268.	1065.	1483.	1.000	1.000	1116.	17000.
3335	498.	969.	-268.	1065.	1652.	1.000	1.000	1466.	17000.
3335	498.	969.	268.	1065.	1652.	1.000	1.000	1466.	17000.
3338	498.	1218.	-268.	1065.	1820.	1.000	1.000	1715.	17000.
3338	498.	1218.	268.	1065.	1820.	1.000	1.000	1715.	17000.
3340	498.	1460.	-268.	1065.	2029.	1.000	1.000	1957.	17000.
3340	498.	1460.	268.	1065.	2029.	1.000	1.000	1957.	17000.
3342	498.	702.	-268.	1065.	1515.	1.000	1.000	1200.	17000.
3342	498.	702.	268.	1065.	1515.	1.000	1.000	1200.	17000.
3343	498.	248.	-268.	1065.	1399.	1.000	1.000	746.	17000.
3343	498.	248.	268.	1065.	1399.	1.000	1.000	746.	17000.
3345	498.	1024.	67.	1065.	1558.	1.768	1.473	1521.	17000.
3345	498.	695.	-67.	1065.	1338.	1.000	1.000	1193.	17000.
3350	498.	988.	67.	1065.	1529.	1.000	1.000	1486.	17000.
3350	498.	988.	-67.	1065.	1529.	1.000	1.000	1486.	17000.
3355	498.	1909.	67.	1065.	2410.	1.000	1.000	2406.	17000.
3355	498.	1909.	-67.	1065.	2410.	1.000	1.000	2406.	17000.
3360	498.	3841.	67.	1065.	4340.	1.000	1.000	4338.	17000.
3360	498.	3841.	-67.	1065.	4340.	1.000	1.000	4338.	17000.
3365	498.	1934.	67.	1065.	2435.	1.000	1.000	2432.	17000.
3365	498.	1934.	-67.	1065.	2435.	1.000	1.000	2432.	17000.
3370	498.	937.	67.	1065.	1487.	1.000	1.000	1435.	17000.
3370	498.	937.	-67.	1065.	1487.	1.000	1.000	1435.	17000.
3375	498.	7.	-15.	1065.	1295.	1.768	1.473	504.	17000.
3375	498.	4.	15.	1065.	1295.	1.000	1.000	502.	17000.
3380	498.	420.	-15.	1065.	1296.	1.000	1.000	918.	17000.
3380	498.	420.	15.	1065.	1296.	1.000	1.000	918.	17000.
3385	498.	51.	-15.	1065.	1295.	1.000	1.000	548.	17000.
3385	498.	51.	15.	1065.	1295.	1.000	1.000	548.	17000.
3390	498.	2683.	-15.	1065.	3181.	1.000	1.000	3181.	17000.

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sed To: FLUOR DANIEL ID 13692
S REPORT, Stresses on Elements
4 (SUS) W+P1

NT	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
	498.	2683.	15.	1065.	3181.	1.000	1.000	3181.	17000.	19.
	498.	2040.	-15.	1065.	2538.	1.000	1.000	2538.	17000.	15.
	498.	2040.	15.	1065.	2538.	1.000	1.000	2538.	17000.	15.
	498.	1883.	-15.	1065.	2381.	1.000	1.000	2380.	17000.	14.
	498.	1883.	15.	1065.	2381.	1.000	1.000	2380.	17000.	14.
	498.	1258.	-15.	1065.	1756.	1.000	1.000	1756.	17000.	10.
	498.	1258.	15.	1065.	1756.	1.000	1.000	1756.	17000.	10.
	498.	2796.	-15.	1065.	3293.	1.000	1.000	3293.	17000.	19.
	495.	2796.	15.	1065.	3291.	1.000	1.000	3291.	17000.	19.
	496.	1343.	398.	1065.	2006.	1.768	1.473	1839.	17000.	11.
	496.	912.	-398.	1065.	1728.	1.000	1.000	1408.	17000.	8.
	495.	2246.	-170.	1065.	2767.	1.768	1.473	2742.	17000.	16.
	495.	1525.	170.	1065.	2049.	1.000	1.000	2020.	17000.	12.
	495.	2123.	-170.	1065.	2645.	1.000	1.000	2618.	17000.	15.
	495.	2123.	170.	1065.	2640.	1.000	1.000	2618.	17000.	15.
	495.	2316.	-170.	1065.	2836.	1.000	1.000	2811.	17000.	17.
	495.	2316.	170.	1065.	2832.	1.000	1.000	2811.	17000.	17.
	497.	404.	378.	1065.	1511.	1.768	1.473	901.	17000.	5.
	497.	261.	-378.	1065.	1478.	1.000	1.000	758.	17000.	4.
	510.	1137.	-29.	1065.	1658.	1.768	1.473	1647.	17000.	10.
	510.	771.	29.	1065.	1337.	1.000	1.000	1281.	17000.	8.
	495.	1683.	14.	1065.	2183.	1.768	1.473	2178.	17000.	13.
	495.	952.	-14.	1065.	1486.	1.000	1.000	1448.	17000.	9.
	495.	1185.	14.	1065.	1689.	1.000	1.000	1680.	17000.	10.
	491.	1185.	-14.	1065.	1693.	1.000	1.000	1676.	17000.	10.
	491.	1716.	14.	1065.	2221.	1.000	1.000	2207.	17000.	13.
	491.	1716.	-14.	1065.	2208.	1.000	1.000	2207.	17000.	13.
	491.	2388.	14.	1065.	2892.	1.000	1.000	2879.	17000.	17.
	491.	2388.	-14.	1065.	2879.	1.000	1.000	2879.	17000.	17.
	487.	447.	-13.	1065.	1296.	1.768	1.473	934.	17000.	5.
	487.	253.	13.	1065.	1296.	1.000	1.000	740.	17000.	4.
	498.	35.	42.	1065.	1297.	1.768	1.473	532.	17000.	3.

STRESS REPORT, Stresses on Elements
CASE 4 (SUS) W+P1

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.i CODE STRESS	ALLOWA STR
3475	498.	21.	-42.	1065.	1297.	1.000	1.000	519.	1700
3480	498.	47.	42.	1065.	1297.	1.000	1.000	545.	1700
3485	498.	278.	-42.	1065.	1298.	1.000	1.000	776.	1700
3490	498.	1259.	42.	1065.	1759.	1.000	1.000	1757.	1700
3490	497.	1259.	-42.	1065.	1758.	1.000	1.000	1756.	1700
3500	497.	778.	42.	1065.	1352.	1.222	1.296	1275.	1700
3500	501.	686.	-102.	1065.	1364.	1.222	1.296	1187.	1700
3505	501.	864.	102.	1065.	1457.	1.000	1.000	1364.	1700
3510	497.	336.	-55.	1065.	1302.	1.000	1.000	833.	1700
3515	497.	410.	55.	1065.	1303.	1.000	1.000	907.	1700
3515	498.	410.	-55.	1065.	1303.	1.000	1.000	907.	1700
3520	498.	259.	55.	1065.	1301.	1.296	1.296	756.	1700
3520	498.	259.	-55.	1065.	1301.	1.296	1.296	756.	1700
3525	498.	456.	55.	1065.	1304.	1.000	1.000	954.	1700
3530	498.	625.	-55.	1065.	1315.	1.000	1.000	1122.	1700
3535	498.	706.	55.	1065.	1331.	1.000	1.000	1204.	1700
3535	497.	706.	-55.	1065.	1332.	1.000	1.000	1203.	1700
3540	497.	82.	55.	1065.	1299.	1.222	1.296	579.	1700
3540	503.	144.	-31.	1065.	1297.	1.222	1.296	646.	1700
3542	520.	1742.	31.	1065.	2217.	1.222	1.296	2262.	1700
3542	623.	1745.	-85.	1065.	2373.	1.222	1.296	2367.	1700
3545	627.	1060.	85.	1065.	1719.	1.000	1.000	1687.	1700
3550	656.	685.	-85.	1065.	1414.	1.000	1.000	1341.	1700
3555	528.	1153.	-76.	1065.	1700.	1.768	1.473	1681.	1700
3555	528.	660.	76.	1065.	1329.	1.000	1.000	1189.	1700
3560	528.	2323.	-76.	1065.	2794.	1.000	1.000	2851.	1700
3570	498.	462.	76.	1065.	1312.	1.000	1.000	960.	1700
3575	495.	251.	55.	1065.	1301.	1.768	1.473	745.	1700
3575	495.	170.	-55.	1065.	1300.	1.000	1.000	664.	1700
3580	478.	548.	24.	1065.	1297.	1.768	1.473	1026.	1700
3580	478.	316.	-24.	1065.	1296.	1.000	1.000	793.	1700
3585	441.	64.	24.	1065.	1296.	1.000	1.000	505.	1700

T	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
	497.	3488.	-28.	1065.	3986.	1.222	1.296	3985.	17000.	23.
	497.	2072.	28.	1065.	2570.	1.000	1.000	2569.	17000.	15.
	497.	501.	-28.	1065.	1298.	1.000	1.000	998.	17000.	6.
	514.	340.	-26.	1065.	1297.	1.768	1.473	854.	17000.	5.
	514.	196.	26.	1065.	1296.	1.000	1.000	710.	17000.	4.
	495.	309.	-94.	1065.	1312.	1.768	1.473	804.	17000.	5.
	495.	177.	94.	1065.	1309.	1.000	1.000	672.	17000.	4.
	495.	1478.	-94.	1065.	1987.	1.000	1.000	1973.	17000.	12.
	495.	1478.	94.	1065.	1982.	1.000	1.000	1973.	17000.	12.
	484.	341.	-29.	1065.	1297.	1.768	1.473	825.	17000.	5.
	484.	218.	29.	1065.	1297.	1.000	1.000	702.	17000.	4.
	497.	285.	6.	1065.	1295.	1.768	1.473	783.	17000.	5.
	497.	163.	-6.	1065.	1295.	1.000	1.000	660.	17000.	4.
	497.	939.	6.	1065.	1471.	1.000	1.000	1436.	17000.	8.
	500.	939.	-6.	1065.	1472.	1.000	1.000	1438.	17000.	8.
	500.	263.	6.	1065.	1295.	1.000	1.000	762.	17000.	4.
	500.	263.	-6.	1065.	1295.	1.000	1.000	762.	17000.	4.
	500.	745.	6.	1065.	1305.	1.000	1.000	1244.	17000.	7.
	500.	745.	-6.	1065.	1303.	1.000	1.000	1244.	17000.	7.
	497.	76.	110.	1065.	1311.	1.768	1.473	573.	17000.	3.
	497.	51.	-110.	1065.	1310.	1.000	1.000	548.	17000.	3.
	497.	662.	110.	1065.	1363.	1.000	1.000	1159.	17000.	7.
	497.	662.	-110.	1065.	1364.	1.000	1.000	1159.	17000.	7.
	497.	474.	110.	1065.	1330.	1.000	1.000	971.	17000.	6.
	497.	474.	-110.	1065.	1330.	1.000	1.000	971.	17000.	6.
	497.	784.	110.	1065.	1413.	1.000	1.000	1281.	17000.	8.
	496.	784.	-110.	1065.	1414.	1.000	1.000	1280.	17000.	8.
	496.	428.	110.	1065.	1326.	1.000	1.000	924.	17000.	5.
	496.	596.	-110.	1065.	1348.	1.000	1.000	1092.	17000.	6.
	494.	240.	10.	1065.	1295.	1.768	1.473	734.	17000.	4.
	494.	146.	-10.	1065.	1295.	1.000	1.000	640.	17000.	4.
	465.	982.	-35.	1065.	1543.	1.768	1.473	1448.	17000.	9.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in CODE STRESS	ALLOWAB STRE
3685	465.	556.	35.	1065.	1302.	1.000	1.000	1021.	17000
3690	434.	241.	-35.	1065.	1297.	1.000	1.000	675.	17000
3507	471.	188.	-6.	1065.	1295.	1.222	1.296	659.	17000
3700	501.	178.	38.	1065.	1297.	1.768	1.473	679.	17000
3700	501.	101.	-38.	1065.	1297.	1.000	1.000	602.	17000
3705	498.	214.	-44.	1065.	1298.	1.768	1.473	712.	17000
3705	498.	146.	44.	1065.	1298.	1.000	1.000	643.	17000
3710	498.	290.	-44.	1065.	1299.	1.000	1.000	788.	17000
3710	497.	290.	44.	1065.	1299.	1.000	1.000	787.	17000
3720	475.	334.	11.	1065.	1295.	1.768	1.473	809.	17000
3720	475.	195.	-11.	1065.	1295.	1.000	1.000	670.	17000
3722	498.	286.	-78.	1065.	1307.	1.768	1.473	784.	17000
3722	498.	162.	78.	1065.	1304.	1.000	1.000	660.	17000
3725	498.	548.	-78.	1065.	1320.	1.222	1.296	1046.	17000
3725	497.	28.	136.	1065.	1317.	1.222	1.296	525.	17000
3730	497.	30.	-136.	1065.	1317.	1.000	1.000	528.	17000
3735	389.	650.	210.	848.	1264.	1.000	1.000	1040.	17000
3740	389.	1696.	-210.	848.	2128.	1.000	1.000	2086.	17000
3745	389.	3213.	210.	848.	3627.	1.000	1.000	3603.	17000
3750	389.	4910.	-210.	848.	5317.	1.000	1.000	5300.	17000
3755	497.	1343.	136.	1065.	1860.	1.000	1.000	1841.	17000
3760	497.	1193.	-136.	1065.	1726.	1.222	1.296	1690.	17000
3760	498.	2458.	-110.	1065.	2964.	1.222	1.296	2956.	17000
3765	498.	913.	110.	1065.	1495.	1.000	1.000	1410.	17000
3770	498.	380.	-110.	1065.	1323.	1.000	1.000	878.	17000
3775	498.	60.	110.	1065.	1311.	1.000	1.000	557.	17000
3780	498.	99.	-110.	1065.	1311.	1.768	1.473	596.	17000
3785	486.	325.	0.	1065.	1295.	1.768	1.473	811.	17000
3785	486.	221.	0.	1065.	1295.	1.000	1.000	707.	17000
3790	477.	243.	0.	1065.	1295.	1.518	1.691	720.	17000
3790	776.	3024.	0.	1625.	3800.	1.518	1.691	3800.	17000
3800	776.	0.	0.	1625.	1853.	1.000	1.000	776.	17000

T	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
	776.	2956.	0.	1625.	3733.	1.518	1.691	3733.	17000.	22.
	776.	0.	0.	1625.	1853.	1.000	1.000	776.	17000.	5.
	501.	166.	31.	1065.	1297.	1.222	1.296	667.	17000.	4.
	502.	116.	-282.	1065.	1391.	1.768	1.473	618.	17000.	4.
	502.	68.	282.	1065.	1385.	1.000	1.000	570.	17000.	3.
	502.	230.	-282.	1065.	1406.	1.000	1.000	732.	17000.	4.
	498.	230.	282.	1065.	1405.	1.000	1.000	728.	17000.	4.
	498.	547.	-282.	1065.	1473.	1.000	1.000	1044.	17000.	6.
	498.	617.	282.	1065.	1495.	1.000	1.000	1114.	17000.	7.
	498.	1304.	0.	1065.	1801.	1.768	1.473	1801.	17000.	11.
	498.	885.	0.	1065.	1423.	1.000	1.000	1383.	17000.	8.
	498.	1447.	0.	1065.	1944.	1.000	1.000	1944.	17000.	11.
	498.	1447.	0.	1065.	1944.	1.000	1.000	1944.	17000.	11.
	498.	889.	0.	1065.	1427.	1.000	1.000	1387.	17000.	8.
	498.	176.	0.	1065.	1295.	1.000	1.000	673.	17000.	4.
	518.	0.	0.	1065.	1295.	1.768	1.473	518.	17000.	3.
	518.	0.	0.	1065.	1295.	1.000	1.000	518.	17000.	3.
	514.	0.	0.	1065.	1295.	1.000	1.000	514.	17000.	3.
	325.	0.	0.	667.	900.	1.000	1.000	325.	17000.	2.
	320.	0.	0.	667.	900.	1.000	1.000	320.	17000.	2.
	300.	244.	0.	667.	900.	1.000	1.000	544.	17000.	3.
	300.	0.	0.	667.	900.	1.000	1.000	300.	17000.	2.
	300.	244.	0.	667.	900.	1.000	1.000	544.	17000.	3.
	300.	0.	0.	667.	900.	1.000	1.000	300.	17000.	2.
	300.	324.	-443.	667.	1181.	1.222	1.296	624.	17000.	4.
	300.	1151.	479.	667.	1739.	1.000	1.000	1451.	17000.	9.
	498.	488.	-203.	1065.	1394.	1.000	1.000	986.	17000.	6.
	498.	253.	-83.	1065.	1307.	1.768	1.473	750.	17000.	4.
	498.	171.	83.	1065.	1306.	1.000	1.000	669.	17000.	4.
	498.	121.	-83.	1065.	1305.	1.000	1.000	619.	17000.	4.
	498.	112.	83.	1065.	1305.	1.000	1.000	610.	17000.	4.
	498.	5.	-488.	1065.	1509.	1.768	1.473	503.	17000.	3.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.i CODE STRESS	ALLOWAI STRE
3900	498.	3.	488.	1065.	1509.	1.000	1.000	501.	17000
3760	498.	638.	-488.	1065.	1681.	1.222	1.296	1135.	17000
3540	500.	0.	0.	1065.	1295.	1.222	1.296	500.	17000
3905	498.	0.	0.	1065.	1295.	1.000	1.000	498.	17000

SUMMARY
(EXP) D5(EXP)=01-D4

**** CODE STRESS CHECK FAILED

PIPING CODE: B31.3 -1993, July 31, 1993 Addendum

HIGHEST STRESSES: (lb./sq.in.)

CODE STRESS %:	108695.	@NODE 3020	ALLOWABLE:	35959.
BENDING STRESS:	108494.	@NODE 3020		
TORSIONAL STRESS:	5862.	@NODE 3090		
AXIAL STRESS:	93779.	@NODE 3505		
3D MAX INTENSITY:	171199.	@NODE 3020		

STRESS OPTIMIZATION PARAMETERS:

CODE STRESS PERCENTAGES SHOWN BELOW REPRESENT THE NUMBER OF NODES IN THE SYSTEM THAT WERE WITHIN THE PERCENTAGE GIVEN OF THE HIGHEST CODE STRESS IN THE SYSTEM.

AVG. CODE STRESS 7225.

	/BETWEEN/	/BELOW/
CODE STRESS 90-100%	0.31	99.69
CODE STRESS 80-90 %	0.00	99.69
CODE STRESS 70-80 %	0.31	99.38
CODE STRESS 60-70 %	0.00	99.38
CODE STRESS 50-60 %	0.93	98.46
CODE STRESS 25-50 %	3.70	94.75
CODE STRESS 0-25 %	94.75	

PIPE ELEMENTS ANALYZED: 162

SAMPLED POINTS: 324

STRESS REPORT, Stresses on Elements
CASE 5 (EXP) D5(EXP)=D1-D4

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in CODE STRESS	ALLOWAB STRE
3000	0.	0.	0.	0.	0.	1.000	1.000	0.	42002
3005	0.	0.	0.	0.	0.	1.000	1.000	0.	41829
3005	-62334.	0.	0.	0.	62334.	1.000	1.000	0.	41830
3010	-62334.	46703.	0.	0.	109036.	1.000	1.000	46703.	41255
3015	-62334.	55359.	0.	0.	117693.	1.000	1.000	55359.	40494
3020	-62334.	86932.	0.	0.	149266.	1.222	1.296	86932.	37140
3020	-62577.	108494.	-3307.	0.	171199.	1.222	1.296	108695.	35959
3022	-62577.	48850.	3307.	0.	111624.	1.000	1.000	49296.	36862
3022	109.	48850.	-3307.	0.	49404.	1.000	1.000	49296.	36862
3025	109.	41464.	3307.	0.	42096.	1.000	1.000	41988.	37927
3030	109.	18169.	-3307.	0.	19438.	1.768	1.473	19335.	41214
3035	15.	4937.	-1179.	0.	5484.	1.768	1.473	5471.	39810
3035	15.	3351.	1179.	0.	4109.	1.000	1.000	4097.	40550
3040	15.	11116.	-1179.	0.	11377.	1.000	1.000	11363.	40580
3045	15.	14444.	1179.	0.	14650.	1.000	1.000	14635.	40602
3050	15.	24432.	-1179.	0.	24560.	1.222	1.296	24545.	40330
3050	0.	5875.	0.	0.	5875.	1.222	1.296	5875.	38829
3055	0.	4730.	0.	0.	4730.	1.000	1.000	4730.	39784
3060	0.	4385.	0.	0.	4385.	1.000	1.000	4385.	40980
3065	0.	0.	0.	0.	0.	1.000	1.000	0.	42002
3050	-1713.	18761.	575.	0.	20507.	1.222	1.296	18796.	40008
3070	-1713.	15251.	-575.	0.	17003.	1.000	1.000	15294.	40679
3075	-1713.	15035.	575.	0.	16787.	1.000	1.000	15078.	41556
3080	-1713.	18982.	-575.	0.	20727.	1.222	1.296	19016.	41453
3080	0.	50.	0.	0.	50.	1.222	1.296	50.	40562
3085	0.	0.	0.	0.	0.	1.000	1.000	0.	42002
3080	8.	18204.	2215.	0.	18744.	1.222	1.296	18736.	40661
3090	-109.	8221.	-5862.	0.	14382.	1.768	1.473	14319.	41152
3090	-109.	5567.	5862.	0.	13026.	1.000	1.000	12978.	41488
3095	-109.	14053.	-5862.	0.	18385.	1.000	1.000	18301.	41662
3100	-109.	43186.	5862.	0.	44855.	1.000	1.000	44750.	41171
3105	-109.	59534.	-5862.	0.	60784.	1.222	1.296	60677.	40858

II Ver 3.21 Job: FRMC02 Date: JAN 21,1995 Time: 9:43 Page: 96
d To: FLUOR DANIEL ID 13692
REPORT, Stresses on Elements
(EXP) D5(EXP)=D1-D4

Stresses(lb./sq.in.)					STRESS INTENSIFICATION		Stress(lb./sq.in.)		
AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	IN-PLANE	OUT-PLANE	CODE STRESS	ALLOWABLE STRESS	%
-36005.	12674.	382.	0.	48685.	1.222	1.296	12697.	41351.	31.
-36005.	9935.	-382.	0.	45946.	1.000	1.000	9964.	41440.	24.
-36005.	11434.	382.	0.	47446.	1.000	1.000	11460.	41547.	28.
-36005.	23203.	-382.	0.	59213.	1.222	1.296	23216.	40647.	57.
-37718.	62702.	-18.	0.	100421.	1.222	1.296	62702.	41235.	152.*
-37718.	50166.	18.	0.	87884.	1.000	1.000	50166.	41384.	121.*
-37718.	50166.	-18.	0.	87884.	1.000	1.000	50166.	41384.	121.*
-37718.	45818.	18.	0.	83537.	1.000	1.000	45818.	41241.	111.*
-37718.	45818.	-18.	0.	83537.	1.000	1.000	45818.	41241.	111.*
-37718.	12969.	18.	0.	50687.	1.000	1.000	12969.	41432.	31.
-37718.	12969.	-18.	0.	50687.	1.000	1.000	12969.	41432.	31.
-37718.	19884.	18.	0.	57602.	1.000	1.000	19884.	40837.	49.
-55424.	19884.	-18.	0.	75308.	1.000	1.000	19884.	40826.	49.
-55424.	7354.	18.	0.	62778.	1.000	1.000	7354.	41407.	18.
-55424.	7354.	-18.	0.	62778.	1.000	1.000	7354.	41407.	18.
-55424.	5177.	18.	0.	60602.	1.000	1.000	5177.	41256.	13.
-55424.	5177.	-18.	0.	60602.	1.000	1.000	5177.	41256.	13.
-55424.	2145.	18.	0.	57570.	1.000	1.000	2146.	41852.	5.
-55424.	2145.	-18.	0.	57570.	1.000	1.000	2146.	41852.	5.
-55424.	886.	18.	0.	56311.	1.000	1.000	887.	39935.	2.
-55424.	886.	-18.	0.	56311.	1.000	1.000	887.	39935.	2.
-55424.	574.	18.	0.	55999.	1.000	1.000	575.	40438.	1.
-55424.	574.	-18.	0.	55999.	1.000	1.000	575.	40438.	1.
-55424.	263.	18.	0.	55687.	1.000	1.000	265.	38551.	1.
-55424.	263.	-18.	0.	55687.	1.000	1.000	265.	38551.	1.
-55424.	837.	18.	0.	56262.	1.000	1.000	838.	40114.	2.
-55424.	837.	-18.	0.	56262.	1.000	1.000	838.	40114.	2.
-55424.	1937.	18.	0.	57362.	1.000	1.000	1938.	40584.	5.
-27.	1937.	-18.	0.	1964.	1.000	1.000	1938.	40584.	5.
-88.	5961.	2.	0.	6049.	1.768	1.473	5961.	41993.	14.
-88.	3372.	-2.	0.	3460.	1.000	1.000	3372.	41996.	8.
-88.	1057.	2.	0.	1146.	1.000	1.000	1057.	41228.	3.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in. CODE STRESS	ALLOWABL STRES
3175	-260.	1057.	-2.	0.	1318.	1.000	1.000	1057.	41228.
3180	-33.	8140.	-1.	0.	8173.	1.768	1.473	8140.	41350.
3180	-33.	4605.	1.	0.	4638.	1.000	1.000	4605.	41560.
3185	-33.	5994.	-1.	0.	6028.	1.000	1.000	5994.	39704.
3185	-55424.	5994.	1.	0.	61419.	1.000	1.000	5994.	39704.
3190	-55424.	2240.	-1.	0.	57664.	1.000	1.000	2240.	40077.
3190	-55424.	2240.	1.	0.	57664.	1.000	1.000	2240.	40077.
3195	-55424.	1515.	-1.	0.	56940.	1.000	1.000	1515.	39506.
3195	-55424.	1515.	1.	0.	56940.	1.000	1.000	1515.	39506.
3200	-55424.	1709.	-1.	0.	57133.	1.000	1.000	1709.	41880.
3200	-55424.	1709.	1.	0.	57133.	1.000	1.000	1709.	41880.
3205	-55424.	1902.	-1.	0.	57326.	1.000	1.000	1902.	41630.
3205	-604.	1902.	1.	0.	2506.	1.000	1.000	1902.	41630.
3210	-83.	11008.	-14.	0.	11092.	1.768	1.473	11008.	41342.
3210	-83.	6228.	14.	0.	6311.	1.000	1.000	6228.	41554.
3215	-83.	5874.	-14.	0.	5958.	1.000	1.000	5874.	41127.
3215	-186.	5874.	14.	0.	6061.	1.000	1.000	5874.	41127.
3220	11.	3258.	-25.	0.	3270.	1.768	1.473	3258.	41221.
3220	11.	1843.	25.	0.	1855.	1.000	1.000	1844.	41472.
3225	11.	8625.	-25.	0.	8636.	1.000	1.000	8625.	39061.
3225	-56.	8625.	25.	0.	8681.	1.000	1.000	8625.	39060.
3230	72.	2813.	11.	0.	2885.	1.768	1.473	2813.	39656.
3230	72.	1592.	-11.	0.	1664.	1.000	1.000	1592.	40410.
3235	72.	1556.	11.	0.	1628.	1.000	1.000	1556.	40682.
3235	-55424.	1556.	-11.	0.	56980.	1.000	1.000	1556.	40682.
3240	-55424.	575.	11.	0.	55999.	1.000	1.000	575.	37877.
3240	-55424.	575.	-11.	0.	55999.	1.000	1.000	575.	37877.
3245	-55424.	673.	11.	0.	56098.	1.000	1.000	673.	36961.
3245	-55424.	673.	-11.	0.	56098.	1.000	1.000	673.	36961.
3250	-55424.	856.	11.	0.	56280.	1.000	1.000	856.	41674.
3250	-55424.	856.	-11.	0.	56280.	1.000	1.000	856.	41674.
3255	-55424.	2156.	11.	0.	57581.	1.000	1.000	2156.	39893.

000514

IT	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
	-55424.	2156.	-11.	0.	57581.	1.000	1.000	2156.	39893.	5.
	-55424.	2996.	11.	0.	58420.	1.000	1.000	2996.	40220.	7.
	-55424.	2996.	-11.	0.	58420.	1.000	1.000	2996.	40220.	7.
	-55424.	8144.	11.	0.	63568.	1.000	1.000	8144.	39854.	20.
	-4600.	8144.	-11.	0.	12744.	1.000	1.000	8144.	39970.	20.
	-295.	11192.	42.	0.	11488.	1.768	1.473	11192.	40876.	27.
	-295.	11192.	-42.	0.	11488.	1.768	1.473	11192.	40876.	27.
	-4600.	33063.	5.	0.	37663.	1.768	1.473	33063.	39680.	83.
	-4600.	18705.	-5.	0.	23304.	1.000	1.000	18705.	40737.	46.
	-4600.	11261.	5.	0.	15861.	1.000	1.000	11261.	40270.	28.
	-55424.	11261.	-5.	0.	66686.	1.000	1.000	11261.	40152.	28.
	-55424.	4116.	5.	0.	59541.	1.000	1.000	4116.	40252.	10.
	-55424.	4116.	-5.	0.	59541.	1.000	1.000	4116.	40252.	10.
	-55424.	3061.	5.	0.	58485.	1.000	1.000	3061.	38691.	8.
	-55424.	3061.	-5.	0.	58485.	1.000	1.000	3061.	38691.	8.
	-55424.	1209.	5.	0.	56634.	1.000	1.000	1210.	40438.	3.
	-55424.	1209.	-5.	0.	56634.	1.000	1.000	1210.	40438.	3.
	-55424.	1761.	5.	0.	57185.	1.000	1.000	1761.	39795.	4.
	-55424.	1761.	-5.	0.	57185.	1.000	1.000	1761.	39795.	4.
	-55424.	2437.	5.	0.	57862.	1.000	1.000	2437.	41475.	6.
	-55424.	2437.	-5.	0.	57862.	1.000	1.000	2437.	41475.	6.
	-55424.	6351.	5.	0.	61775.	1.000	1.000	6351.	39730.	16.
	-934.	6351.	-5.	0.	7284.	1.000	1.000	6351.	39730.	16.
	-767.	27816.	-15.	0.	28582.	1.768	1.473	27816.	41435.	67.
	-767.	15736.	15.	0.	16503.	1.000	1.000	15736.	41617.	38.
	-934.	18109.	-12.	0.	19043.	1.768	1.473	18109.	41533.	44.
	-934.	10245.	12.	0.	11179.	1.000	1.000	10245.	41684.	25.
	-934.	3584.	-12.	0.	4517.	1.000	1.000	3584.	40050.	9.
	-55424.	3584.	12.	0.	59008.	1.000	1.000	3584.	40051.	9.
	-55424.	1143.	-12.	0.	56567.	1.000	1.000	1143.	39870.	3.
	-55424.	1143.	12.	0.	56567.	1.000	1.000	1143.	39870.	3.
	-55424.	1298.	-12.	0.	56723.	1.000	1.000	1298.	39573.	3.

STRESS REPORT, Stresses on Elements
CASE 5 (EXP) D5(EXP)=D1-D4

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS
3325	-55424.	1298.	12.	0.	56723.	1.000	1.000	1298.	39573.
3330	-55424.	332.	-12.	0.	55756.	1.000	1.000	332.	41384.
3330	-55424.	332.	12.	0.	55756.	1.000	1.000	332.	41384.
3335	-55424.	635.	-12.	0.	56059.	1.000	1.000	635.	41034.
3335	-55424.	635.	12.	0.	56059.	1.000	1.000	635.	41034.
3338	-55424.	311.	-12.	0.	55736.	1.000	1.000	312.	40785.
3338	-55424.	311.	12.	0.	55736.	1.000	1.000	312.	40785.
3340	-55424.	1257.	-12.	0.	56681.	1.000	1.000	1257.	40542.
3340	-55424.	1257.	12.	0.	56681.	1.000	1.000	1257.	40542.
3342	-55424.	5355.	-12.	0.	60780.	1.000	1.000	5355.	41300.
3342	-2127.	5355.	12.	0.	7482.	1.000	1.000	5355.	41300.
3343	-2127.	16535.	-12.	0.	18663.	1.000	1.000	16536.	41754.
3343	-2127.	16535.	12.	0.	18663.	1.000	1.000	16536.	41754.
3345	-141.	11228.	-2.	0.	11369.	1.768	1.473	11228.	40978.
3345	-141.	6352.	2.	0.	6493.	1.000	1.000	6352.	41307.
3350	-141.	14269.	-2.	0.	14410.	1.000	1.000	14269.	41014.
3350	-55424.	14269.	2.	0.	69694.	1.000	1.000	14269.	41014.
3355	-55424.	5726.	-2.	0.	61150.	1.000	1.000	5726.	40094.
3355	-55424.	5726.	2.	0.	61150.	1.000	1.000	5726.	40094.
3360	-55424.	2818.	-2.	0.	58242.	1.000	1.000	2818.	38162.
3360	-55424.	2818.	2.	0.	58242.	1.000	1.000	2818.	38162.
3365	-55424.	2902.	-2.	0.	58326.	1.000	1.000	2902.	40068.
3365	-55424.	2902.	2.	0.	58326.	1.000	1.000	2902.	40068.
3370	-55424.	2986.	-2.	0.	58410.	1.000	1.000	2986.	41065.
3370	-88.	2986.	2.	0.	3074.	1.000	1.000	2986.	41065.
3375	-336.	12265.	-31.	0.	12602.	1.768	1.473	12265.	41996.
3375	-336.	6939.	31.	0.	7275.	1.000	1.000	6939.	41998.
3380	-336.	2128.	-31.	0.	2465.	1.000	1.000	2128.	41582.
3380	-55424.	2128.	31.	0.	57552.	1.000	1.000	2128.	41582.
3385	-55424.	812.	-31.	0.	56237.	1.000	1.000	815.	41952.
3385	-55424.	812.	31.	0.	56237.	1.000	1.000	815.	41952.
3390	-55424.	503.	-31.	0.	55928.	1.000	1.000	507.	39319.

NT	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
	-55424.	503.	31.	0.	55928.	1.000	1.000	507.	39319.	1.
	-55424.	28.	-31.	0.	55452.	1.000	1.000	69.	39962.	0.
	-55424.	28.	31.	0.	55452.	1.000	1.000	69.	39962.	0.
	-55424.	450.	-31.	0.	55875.	1.000	1.000	455.	40120.	1.
	-55424.	450.	31.	0.	55875.	1.000	1.000	455.	40120.	1.
	-55424.	628.	-31.	0.	56052.	1.000	1.000	631.	40744.	2.
	-55424.	628.	31.	0.	56052.	1.000	1.000	631.	40744.	2.
	-55424.	1705.	-31.	0.	57130.	1.000	1.000	1706.	39206.	4.
	-58.	1705.	31.	0.	1765.	1.000	1.000	1706.	39209.	4.
	-33.	986.	-27.	0.	1020.	1.768	1.473	987.	40660.	2.
	-33.	558.	27.	0.	593.	1.000	1.000	561.	41092.	1.
	-58.	217.	-38.	0.	286.	1.768	1.473	230.	39758.	1.
	-58.	123.	38.	0.	197.	1.000	1.000	145.	40480.	0.
	-58.	1405.	-38.	0.	1465.	1.000	1.000	1407.	39882.	4.
	-58.	1405.	38.	0.	1465.	1.000	1.000	1407.	39882.	4.
	-58.	2903.	-38.	0.	2962.	1.000	1.000	2904.	39689.	7.
	-58.	2903.	38.	0.	2962.	1.000	1.000	2904.	39689.	7.
	-12.	5659.	-392.	0.	5725.	1.768	1.473	5713.	41599.	14.
	-12.	3202.	392.	0.	3308.	1.000	1.000	3296.	41742.	8.
	-9.	1287.	-714.	0.	1929.	1.768	1.473	1923.	40853.	5.
	-9.	769.	714.	0.	1626.	1.000	1.000	1622.	41219.	4.
	-58.	2636.	162.	0.	2714.	1.768	1.473	2656.	40322.	7.
	-58.	1670.	-162.	0.	1758.	1.000	1.000	1701.	41052.	4.
	-58.	1524.	162.	0.	1615.	1.000	1.000	1558.	40820.	4.
	-472.	1524.	-162.	0.	2023.	1.000	1.000	1558.	40824.	4.
	-472.	2227.	162.	0.	2719.	1.000	1.000	2251.	40292.	6.
	-472.	2227.	-162.	0.	2719.	1.000	1.000	2251.	40292.	6.
	-472.	3059.	162.	0.	3547.	1.000	1.000	3077.	39621.	8.
	-472.	3059.	-162.	0.	3547.	1.000	1.000	3077.	39621.	8.
	-96.	10342.	-1820.	0.	11055.	1.768	1.473	10964.	41566.	26.
	-96.	5854.	1820.	0.	6975.	1.000	1.000	6893.	41760.	17.
	-6.	1314.	-3033.	0.	6208.	1.768	1.473	6206.	41968.	15.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABL STRES
3475	-6.	892.	3033.	0.	6132.	1.000	1.000	6131.	41981.
3480	-6.	1331.	-3033.	0.	6211.	1.000	1.000	6210.	41955.
3485	-6.	7238.	3033.	0.	9448.	1.000	1.000	9443.	41724.
3490	-6.	18764.	-3033.	0.	19726.	1.000	1.000	19720.	40743.
3490	-93192.	18764.	3033.	0.	112121.	1.000	1.000	19720.	40744.
3500	-93192.	14927.	-3033.	0.	108290.	1.222	1.296	16112.	41225.
3500	-93779.	28647.	2097.	0.	122498.	1.222	1.296	28952.	41313.
3505	-93779.	18914.	-2097.	0.	112771.	1.000	1.000	19374.	41136.
3510	-93658.	4878.	573.	0.	98543.	1.000	1.000	5011.	41666.
3515	-93658.	6798.	-573.	0.	100463.	1.000	1.000	6894.	41593.
3515	-72384.	6798.	573.	0.	79190.	1.000	1.000	6894.	41593.
3520	-72384.	5311.	-573.	0.	77703.	1.296	1.296	5433.	41744.
3520	-72384.	5311.	573.	0.	77703.	1.296	1.296	5433.	41744.
3525	-72384.	13426.	-573.	0.	85818.	1.000	1.000	13475.	41546.
3530	-72384.	20383.	573.	0.	92774.	1.000	1.000	20416.	41378.
3535	-72384.	23317.	-573.	0.	95708.	1.000	1.000	23345.	41296.
3535	-171.	23317.	573.	0.	23516.	1.000	1.000	23345.	41297.
3540	-171.	16833.	-573.	0.	17043.	1.222	1.296	16872.	41921.
3540	-1508.	16884.	275.	0.	18400.	1.222	1.296	16892.	41854.
3542	-1508.	7392.	-275.	0.	8917.	1.222	1.296	7413.	40238.
3542	-1521.	8053.	-387.	0.	9606.	1.222	1.296	8090.	40133.
3545	-1521.	4290.	387.	0.	5862.	1.000	1.000	4359.	40812.
3550	-1521.	3740.	-387.	0.	5318.	1.000	1.000	3819.	41159.
3555	-83.	5139.	-3442.	0.	8640.	1.768	1.473	8590.	40819.
3555	-83.	3123.	3442.	0.	7593.	1.000	1.000	7558.	41311.
3560	-83.	17600.	-3442.	0.	18975.	1.000	1.000	18898.	39649.
3570	-66.	9846.	3442.	0.	12068.	1.000	1.000	12014.	41540.
3575	-97.	9535.	-1197.	0.	9925.	1.768	1.473	9830.	41754.
3575	-97.	6172.	1197.	0.	6710.	1.000	1.000	6620.	41836.
3580	-251.	14615.	-396.	0.	14886.	1.768	1.473	14636.	41474.
3580	-251.	8342.	396.	0.	8629.	1.000	1.000	8380.	41706.
3585	-251.	5164.	-396.	0.	5472.	1.000	1.000	5224.	41995.

AR II Ver 3.21 Job: FRMCO2 Date: JAN 21,1995 Time: 9:43 Page: 102
nsed To: FLUOR DANIEL ID 13692
SS REPORT, Stresses on Elements
5 (EXP) D5(EXP)=D1-D4

ENT S	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
2	-16.	1802.	-335.	0.	1939.	1.222	1.296	1923.	38515.	5.
)	-16.	998.	335.	0.	1217.	1.000	1.000	1203.	39931.	3.
)	-16.	307.	-335.	0.	745.	1.000	1.000	738.	41502.	2.
;	-13.	1479.	-900.	0.	2339.	1.768	1.473	2330.	41646.	6.
;	-13.	992.	900.	0.	2062.	1.000	1.000	2056.	41790.	5.
)	-50.	3499.	38.	0.	3551.	1.768	1.473	3500.	41696.	8.
)	-50.	2193.	-38.	0.	2244.	1.000	1.000	2194.	41828.	5.
;	-50.	583.	38.	0.	638.	1.000	1.000	588.	40527.	1.
	-50.	583.	-38.	0.	638.	1.000	1.000	588.	40527.	1.
)	-39.	3202.	-755.	0.	3576.	1.768	1.473	3540.	41675.	8.
	-39.	1814.	755.	0.	2391.	1.000	1.000	2361.	41798.	6.
	-16.	2097.	-122.	0.	2127.	1.768	1.473	2111.	41717.	5.
	-16.	1364.	122.	0.	1402.	1.000	1.000	1386.	41840.	3.
	-16.	3235.	-122.	0.	3261.	1.000	1.000	3244.	41064.	8.
	-51.	3235.	122.	0.	3295.	1.000	1.000	3244.	41062.	8.
	-51.	1201.	-122.	0.	1275.	1.000	1.000	1225.	41738.	3.
	-51.	1201.	122.	0.	1275.	1.000	1.000	1225.	41738.	3.
	-51.	1089.	-122.	0.	1166.	1.000	1.000	1116.	41256.	3.
	-51.	1089.	122.	0.	1166.	1.000	1.000	1116.	41256.	3.
	-22.	5086.	580.	0.	5238.	1.768	1.473	5216.	41926.	12.
	-22.	2883.	-580.	0.	3128.	1.000	1.000	3107.	41952.	7.
	-22.	1210.	580.	0.	1692.	1.000	1.000	1676.	41341.	4.
	-22.	1210.	-580.	0.	1692.	1.000	1.000	1676.	41341.	4.
	-22.	3363.	580.	0.	3578.	1.000	1.000	3557.	41528.	9.
	-22.	3363.	-580.	0.	3578.	1.000	1.000	3557.	41528.	9.
	-22.	7271.	580.	0.	7385.	1.000	1.000	7363.	41219.	18.
	-150.	7271.	-580.	0.	7511.	1.000	1.000	7363.	41220.	18.
	-150.	4045.	580.	0.	4353.	1.000	1.000	4208.	41576.	10.
	-150.	3222.	-580.	0.	3566.	1.000	1.000	3425.	41408.	8.
	-1.	3949.	2789.	0.	6835.	1.768	1.473	6834.	41766.	16.
	-1.	2245.	-2789.	0.	6013.	1.000	1.000	6013.	41860.	14.
	-131.	8622.	790.	0.	8894.	1.768	1.473	8765.	41052.	21.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS
3685	-131.	5527.	-790.	0.	5875.	1.000	1.000	5749.	41479.
3690	-131.	8875.	790.	0.	9144.	1.000	1.000	9015.	41825.
3507	-102.	5664.	30.	0.	5766.	1.222	1.296	5664.	41841.
3700	-121.	6329.	215.	0.	6464.	1.768	1.473	6344.	41821.
3700	-121.	3587.	-215.	0.	3732.	1.000	1.000	3613.	41898.
3705	-56.	3484.	284.	0.	3585.	1.768	1.473	3530.	41788.
3705	-56.	1973.	-284.	0.	2107.	1.000	1.000	2053.	41856.
3710	-56.	1395.	284.	0.	1558.	1.000	1.000	1506.	41712.
3710	-11.	1395.	-284.	0.	1516.	1.000	1.000	1506.	41712.
3720	-13.	1066.	399.	0.	1341.	1.768	1.473	1331.	41691.
3720	-13.	680.	-399.	0.	1056.	1.000	1.000	1048.	41830.
3722	0.	1568.	117.	0.	1585.	1.768	1.473	1585.	41716.
3722	0.	975.	-117.	0.	1003.	1.000	1.000	1003.	41840.
3725	0.	1238.	117.	0.	1261.	1.222	1.296	1261.	41454.
3725	-9.	1074.	77.	0.	1094.	1.222	1.296	1085.	41975.
3730	-9.	682.	-77.	0.	708.	1.000	1.000	700.	41972.
3735	-11.	463.	119.	0.	531.	1.000	1.000	521.	41460.
3740	-11.	437.	-119.	0.	508.	1.000	1.000	498.	40414.
3745	-11.	999.	119.	0.	1037.	1.000	1.000	1027.	38897.
3750	-11.	1574.	-119.	0.	1603.	1.000	1.000	1592.	37200.
3755	-9.	715.	77.	0.	740.	1.000	1.000	731.	40659.
3760	-9.	812.	-77.	0.	835.	1.222	1.296	826.	40810.
3760	0.	1213.	169.	0.	1259.	1.222	1.296	1259.	39544.
3765	0.	665.	-169.	0.	747.	1.000	1.000	747.	41090.
3770	0.	468.	169.	0.	578.	1.000	1.000	578.	41622.
3775	0.	291.	-169.	0.	447.	1.000	1.000	447.	41942.
3780	0.	165.	169.	0.	377.	1.768	1.473	377.	41904.
3785	-16.	499.	0.	0.	515.	1.768	1.473	499.	41689.
3785	-16.	339.	0.	0.	355.	1.000	1.000	339.	41793.
3790	-16.	374.	0.	0.	390.	1.518	1.691	374.	41780.
3790	0.	263.	0.	0.	263.	1.518	1.691	263.	38700.
3800	0.	0.	0.	0.	0.	1.000	1.000	0.	41724.

000520

SAR II Ver 3.21 Job: FRMC02 Date: JAN 21,1995 Time: 9:43 Page: 10
ensed To: FLUOR DANIEL ID 13692
ESS REPORT, Stresses on Elements
E 5 (EXP) D5(EXP)=D1-D4

MENT ES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
90	0.	368.	0.	0.	368.	1.518	1.691	368.	38767.	1.
05	0.	0.	0.	0.	0.	1.000	1.000	0.	41724.	0.
10	-259.	15656.	150.	0.	15918.	1.222	1.296	15659.	41832.	37.
20	-586.	7103.	93.	0.	7692.	1.768	1.473	7106.	41882.	17.
20	-586.	4019.	-93.	0.	4608.	1.000	1.000	4023.	41930.	10.
25	-586.	858.	93.	0.	1456.	1.000	1.000	878.	41768.	2.
25	0.	858.	-93.	0.	878.	1.000	1.000	878.	41772.	2.
30	0.	789.	93.	0.	810.	1.000	1.000	810.	41456.	2.
35	0.	139.	-93.	0.	232.	1.000	1.000	232.	41386.	1.
40	0.	171.	0.	0.	171.	1.768	1.473	171.	40699.	0.
40	0.	116.	0.	0.	116.	1.000	1.000	116.	41117.	0.
45	0.	0.	0.	0.	0.	1.000	1.000	0.	40556.	0.
45	0.	0.	0.	0.	0.	1.000	1.000	0.	40556.	0.
50	0.	0.	0.	0.	0.	1.000	1.000	0.	41113.	0.
55	0.	0.	0.	0.	0.	1.000	1.000	0.	41827.	0.
60	0.	0.	0.	0.	0.	1.768	1.473	0.	41982.	0.
60	0.	0.	0.	0.	0.	1.000	1.000	0.	41982.	0.
65	0.	0.	0.	0.	0.	1.000	1.000	0.	41986.	0.
65	0.	0.	0.	0.	0.	1.000	1.000	0.	42175.	0.
70	0.	0.	0.	0.	0.	1.000	1.000	0.	42180.	0.
70	0.	0.	0.	0.	0.	1.000	1.000	0.	41956.	0.
75	0.	0.	0.	0.	0.	1.000	1.000	0.	42200.	0.
80	0.	0.	0.	0.	0.	1.000	1.000	0.	41956.	0.
80	0.	0.	0.	0.	0.	1.000	1.000	0.	42200.	0.
85	-1.	1199.	-34.	0.	1202.	1.222	1.296	1201.	41876.	3.
	-1.	337.	37.	0.	346.	1.000	1.000	345.	41049.	1.
	0.	143.	-15.	0.	147.	1.000	1.000	146.	41514.	0.
85	9.	13.	-47.	0.	97.	1.768	1.473	95.	41750.	0.
	9.	8.	47.	0.	96.	1.000	1.000	94.	41830.	0.
	9.	6.	-47.	0.	95.	1.000	1.000	94.	41881.	0.
	9.	67.	47.	0.	121.	1.000	1.000	115.	41890.	0.
	0.	178.	162.	0.	370.	1.768	1.473	370.	41997.	1.

STRESS REPORT, Stresses on Elements
CASE 5 (EXP) D5(EXP)=D1-D4

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS
3900	0.	120.	-162.	0.	346.	1.000	1.000	346.	41999.
3760	0.	296.	162.	0.	439.	1.222	1.296	439.	41364.
3540	0.	0.	0.	0.	0.	1.222	1.296	0.	42000.
3905	0.	0.	0.	0.	0.	1.000	1.000	0.	42002.

000522

**** CODE STRESS CHECK FAILED

PIPING CODE: B31.3 -1993, July 31, 1993 Addendum

HIGHEST STRESSES: (lb./sq.in.)

CODE STRESS %:	152131.	@NODE 3020	ALLOWABLE:	35959.
BENDING STRESS:	151849.	@NODE 3020		
TORSIONAL STRESS:	8204.	@NODE 3090		
AXIAL STRESS:	131254.	@NODE 3505		
3D MAX INTENSITY:	239613.	@NODE 3020		

STRESS OPTIMIZATION PARAMETERS:

CODE STRESS PERCENTAGES SHOWN BELOW REPRESENT THE NUMBER OF NODES IN THE SYSTEM THAT WERE WITHIN THE PERCENTAGE GIVEN OF THE HIGHEST CODE STRESS IN THE SYSTEM.

AVG. CODE STRESS 10014.

	/BETWEEN/	/BELOW/
CODE STRESS 90-100%	0.31	99.69
CODE STRESS 80-90 %	0.00	99.69
CODE STRESS 70-80 %	0.31	99.38
CODE STRESS 60-70 %	0.00	99.38
CODE STRESS 50-60 %	0.93	98.46
CODE STRESS 25-50 %	3.70	94.75
CODE STRESS 0-25 %	94.75	

PIPE ELEMENTS ANALYZED: 162

SAMPLED POINTS: 324

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS
3000	0.	0.	0.	0.	0.	1.000	1.000	0.	42002.
3005	0.	0.	0.	0.	0.	1.000	1.000	0.	41829.
3005	-87244.	0.	0.	0.	87244.	1.000	1.000	0.	41830.
3010	-87244.	65366.	0.	0.	152609.	1.000	1.000	65366.	41255.
3015	-87244.	77482.	0.	0.	164725.	1.000	1.000	77482.	40494.
3020	-87244.	121672.	0.	0.	208916.	1.222	1.296	121672.	37140.
3020	-87584.	151849.	-4629.	0.	239613.	1.222	1.296	152131.	35959.
3022	-87584.	68372.	4629.	0.	156230.	1.000	1.000	68996.	36862.
3022	153.	68372.	-4629.	0.	69148.	1.000	1.000	68996.	36862.
3025	153.	58033.	4629.	0.	58918.	1.000	1.000	58767.	37927.
3030	153.	25429.	-4629.	0.	27206.	1.768	1.473	27062.	41214.
3035	21.	6910.	-1650.	0.	7676.	1.768	1.473	7658.	39810.
3035	21.	4690.	1650.	0.	5751.	1.000	1.000	5735.	40550.
3040	21.	15558.	-1650.	0.	15924.	1.000	1.000	15904.	40580.
3045	21.	20216.	1650.	0.	20504.	1.000	1.000	20483.	40602.
3050	21.	34195.	-1650.	0.	34374.	1.222	1.296	34354.	40330.
3050	0.	8223.	0.	0.	8223.	1.222	1.296	8223.	38829.
3055	0.	6620.	0.	0.	6620.	1.000	1.000	6620.	39784.
3060	0.	6138.	0.	0.	6138.	1.000	1.000	6138.	40980.
3065	0.	0.	0.	0.	0.	1.000	1.000	0.	42002.
3050	-2398.	26259.	805.	0.	28702.	1.222	1.296	26308.	40008.
3070	-2398.	21346.	-805.	0.	23798.	1.000	1.000	21406.	40679.
3075	-2398.	21043.	805.	0.	23496.	1.000	1.000	21104.	41556.
3080	-2398.	26567.	-805.	0.	29010.	1.222	1.296	26616.	41453.
3080	0.	70.	0.	0.	70.	1.222	1.296	70.	40562.
3085	0.	0.	0.	0.	0.	1.000	1.000	0.	42002.
3080	11.	25479.	3100.	0.	26234.	1.222	1.296	26223.	40661.
3090	-153.	11506.	-8204.	0.	20129.	1.768	1.473	20041.	41152.
3090	-153.	7792.	8204.	0.	18231.	1.000	1.000	18165.	41488.
3095	-153.	19668.	-8204.	0.	25732.	1.000	1.000	25614.	41662.
3100	-153.	60444.	8204.	0.	62780.	1.000	1.000	62632.	41171.
3105	-153.	83324.	-8204.	0.	85075.	1.222	1.296	84924.	40858.

ESAR II Ver 3.21 Job: FRMC02 Date: JAN 21,1995 Time: 9:43 Page: 108
censed To: FLUOR DANIEL ID 13692
RESS REPORT, Stresses on Elements
SE 6 (EXP) D6(EXP)=D2-D4

EMENT ES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
105	-50393.	17739.	535.	0.	68140.	1.222	1.296	17771.	41351.	43.
106	-50393.	13905.	-535.	0.	64308.	1.000	1.000	13946.	41440.	34.
110	-50393.	16004.	535.	0.	66406.	1.000	1.000	16039.	41547.	39.
120	-50393.	32476.	-535.	0.	82876.	1.222	1.296	32493.	40647.	80.
105	-52791.	87760.	-25.	0.	140550.	1.222	1.296	87760.	41235.	213.*
20	-52791.	70213.	25.	0.	123004.	1.000	1.000	70213.	41384.	170.*
20	-52791.	70213.	-25.	0.	123004.	1.000	1.000	70213.	41384.	170.*
25	-52791.	64128.	25.	0.	116920.	1.000	1.000	64128.	41241.	155.*
25	-52791.	64128.	-25.	0.	116920.	1.000	1.000	64128.	41241.	155.*
30	-52791.	18152.	25.	0.	70942.	1.000	1.000	18152.	41432.	44.
30	-52791.	18152.	-25.	0.	70942.	1.000	1.000	18152.	41432.	44.
35	-52791.	27830.	25.	0.	80622.	1.000	1.000	27830.	40837.	68.
35	-77573.	27830.	-25.	0.	105404.	1.000	1.000	27830.	40826.	68.
40	-77573.	10292.	25.	0.	87866.	1.000	1.000	10292.	41407.	25.
40	-77573.	10292.	-25.	0.	87866.	1.000	1.000	10292.	41407.	25.
45	-77573.	7246.	25.	0.	84818.	1.000	1.000	7246.	41256.	18.
45	-77573.	7246.	-25.	0.	84818.	1.000	1.000	7246.	41256.	18.
50	-77573.	3003.	25.	0.	80576.	1.000	1.000	3003.	41852.	7.
50	-77573.	3003.	-25.	0.	80576.	1.000	1.000	3003.	41852.	7.
55	-77573.	1240.	25.	0.	78814.	1.000	1.000	1241.	39935.	3.
55	-77573.	1240.	-25.	0.	78814.	1.000	1.000	1241.	39935.	3.
60	-77573.	804.	25.	0.	78377.	1.000	1.000	805.	40438.	2.
60	-77573.	804.	-25.	0.	78377.	1.000	1.000	805.	40438.	2.
65	-77573.	367.	25.	0.	77940.	1.000	1.000	371.	38551.	1.
65	-77573.	367.	-25.	0.	77940.	1.000	1.000	371.	38551.	1.
66	-77573.	1172.	25.	0.	78745.	1.000	1.000	1173.	40114.	3.
66	-77573.	1172.	-25.	0.	78745.	1.000	1.000	1173.	40114.	3.
67	-77573.	2712.	25.	0.	80284.	1.000	1.000	2712.	40584.	7.
67	-37.	2712.	-25.	0.	2749.	1.000	1.000	2712.	40584.	7.
80	-123.	8342.	3.	0.	8466.	1.768	1.473	8342.	41993.	20.
80	-123.	4720.	-3.	0.	4843.	1.000	1.000	4720.	41996.	11.
85	-123.	1480.	3.	0.	1603.	1.000	1.000	1480.	41228.	4.

STRESS REPORT, Stresses on Elements
CASE 6 (EXP) D6(EXP)=D2-D4

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS
3175	-364.	1480.	-3.	0.	1844.	1.000	1.000	1480.	41228.
3180	-46.	11393.	-1.	0.	11440.	1.768	1.473	11393.	41350.
3180	-46.	6445.	1.	0.	6492.	1.000	1.000	6445.	41560.
3185	-46.	8390.	-1.	0.	8436.	1.000	1.000	8390.	39704.
3185	-77573.	8390.	1.	0.	85963.	1.000	1.000	8390.	39704.
3190	-77573.	3135.	-1.	0.	80708.	1.000	1.000	3135.	40077.
3190	-77573.	3135.	1.	0.	80708.	1.000	1.000	3135.	40077.
3195	-77573.	2121.	-1.	0.	79694.	1.000	1.000	2121.	39506.
3195	-77573.	2121.	1.	0.	79694.	1.000	1.000	2121.	39506.
3200	-77573.	2391.	-1.	0.	79964.	1.000	1.000	2391.	41880.
3200	-77573.	2391.	1.	0.	79964.	1.000	1.000	2391.	41880.
3205	-77573.	2662.	-1.	0.	80235.	1.000	1.000	2662.	41630.
3205	-845.	2662.	1.	0.	3508.	1.000	1.000	2662.	41630.
3210	-117.	15407.	-19.	0.	15524.	1.768	1.473	15408.	41342.
3210	-117.	8716.	19.	0.	8833.	1.000	1.000	8716.	41554.
3215	-117.	8222.	-19.	0.	8339.	1.000	1.000	8222.	41127.
3215	-261.	8222.	19.	0.	8482.	1.000	1.000	8222.	41127.
3220	16.	4560.	-34.	0.	4576.	1.768	1.473	4561.	41221.
3220	16.	2580.	34.	0.	2596.	1.000	1.000	2581.	41472.
3225	16.	12071.	-34.	0.	12087.	1.000	1.000	12072.	39061.
3225	-78.	12071.	34.	0.	12150.	1.000	1.000	12072.	39060.
3230	101.	3938.	15.	0.	4039.	1.768	1.473	3938.	39656.
3230	101.	2228.	-15.	0.	2329.	1.000	1.000	2228.	40410.
3235	101.	2177.	15.	0.	2279.	1.000	1.000	2178.	40682.
3235	-77573.	2177.	-15.	0.	79750.	1.000	1.000	2178.	40682.
3240	-77573.	805.	15.	0.	78378.	1.000	1.000	805.	37877.
3240	-77573.	805.	-15.	0.	78378.	1.000	1.000	805.	37877.
3245	-77573.	942.	15.	0.	78515.	1.000	1.000	943.	36961.
3245	-77573.	942.	-15.	0.	78515.	1.000	1.000	943.	36961.
3250	-77573.	1198.	15.	0.	78771.	1.000	1.000	1198.	41674.
3250	-77573.	1198.	-15.	0.	78771.	1.000	1.000	1198.	41674.
3255	-77573.	3018.	15.	0.	80591.	1.000	1.000	3018.	39893.

000528

S REPORT, Stresses on Elements
6 (EXP) D6(EXP)=D2-D4

NT	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
	-77573.	3018.	-15.	0.	80591.	1.000	1.000	3018.	39893.	8.
	-77573.	4193.	15.	0.	81766.	1.000	1.000	4193.	40220.	10.
	-77573.	4193.	-15.	0.	81766.	1.000	1.000	4193.	40220.	10.
	-77573.	11398.	15.	0.	88972.	1.000	1.000	11398.	39854.	29.
	-6438.	11398.	-15.	0.	17836.	1.000	1.000	11398.	39970.	29.
	-413.	15665.	59.	0.	16078.	1.768	1.473	15665.	40876.	38.
	-413.	15665.	-59.	0.	16078.	1.768	1.473	15665.	40876.	38.
	-6438.	46276.	7.	0.	52714.	1.768	1.473	46276.	39680.	117.*
	-6438.	26180.	-7.	0.	32617.	1.000	1.000	26180.	40737.	64.
	-6438.	15761.	7.	0.	22199.	1.000	1.000	15761.	40270.	39.
	-77573.	15761.	-7.	0.	93334.	1.000	1.000	15761.	40152.	39.
	-77573.	5761.	7.	0.	83334.	1.000	1.000	5761.	40252.	14.
	-77573.	5761.	-7.	0.	83334.	1.000	1.000	5761.	40252.	14.
	-77573.	4284.	7.	0.	81856.	1.000	1.000	4284.	38691.	11.
	-77573.	4284.	-7.	0.	81856.	1.000	1.000	4284.	38691.	11.
	-77573.	1693.	7.	0.	79266.	1.000	1.000	1693.	40438.	4.
	-77573.	1693.	-7.	0.	79266.	1.000	1.000	1693.	40438.	4.
	-77573.	2464.	7.	0.	80037.	1.000	1.000	2464.	39795.	6.
	-77573.	2464.	-7.	0.	80037.	1.000	1.000	2464.	39795.	6.
	-77573.	3411.	7.	0.	80984.	1.000	1.000	3411.	41475.	8.
	-77573.	3411.	-7.	0.	80984.	1.000	1.000	3411.	41475.	8.
	-77573.	8889.	7.	0.	86462.	1.000	1.000	8889.	39730.	22.
	-1307.	8889.	-7.	0.	10195.	1.000	1.000	8889.	39730.	22.
	-1073.	38931.	-21.	0.	40004.	1.768	1.473	38931.	41435.	94.
	-1073.	22024.	21.	0.	23098.	1.000	1.000	22024.	41617.	53.
	-1307.	25346.	-16.	0.	26653.	1.768	1.473	25346.	41533.	61.
	-1307.	14339.	16.	0.	15646.	1.000	1.000	14339.	41684.	34.
	-1307.	5016.	-16.	0.	6323.	1.000	1.000	5016.	40050.	13.
	-77573.	5016.	16.	0.	82588.	1.000	1.000	5016.	40051.	13.
	-77573.	1599.	-16.	0.	79172.	1.000	1.000	1600.	39870.	4.
	-77573.	1599.	16.	0.	79172.	1.000	1.000	1600.	39870.	4.
	-77573.	1817.	-16.	0.	79390.	1.000	1.000	1817.	39573.	5.

STRESS REPORT, Stresses on Elements
CASE 6 (EXP) D6(EXP)=D2-D4

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS
3325	-77573.	1817.	16.	0.	79390.	1.000	1.000	1817.	39573.
3330	-77573.	464.	-16.	0.	78037.	1.000	1.000	465.	41384.
3330	-77573.	464.	16.	0.	78037.	1.000	1.000	465.	41384.
3335	-77573.	889.	-16.	0.	78462.	1.000	1.000	889.	41034.
3335	-77573.	889.	16.	0.	78462.	1.000	1.000	889.	41034.
3338	-77573.	435.	-16.	0.	78008.	1.000	1.000	436.	40785.
3338	-77573.	435.	16.	0.	78008.	1.000	1.000	436.	40785.
3340	-77573.	1759.	-16.	0.	79332.	1.000	1.000	1759.	40542.
3340	-77573.	1759.	16.	0.	79332.	1.000	1.000	1759.	40542.
3342	-77573.	7495.	-16.	0.	85068.	1.000	1.000	7495.	41300.
3342	-2977.	7495.	16.	0.	10472.	1.000	1.000	7495.	41300.
3343	-2977.	23143.	-16.	0.	26120.	1.000	1.000	23143.	41754.
3343	-2977.	23143.	16.	0.	26120.	1.000	1.000	23143.	41754.
3345	-198.	15715.	-2.	0.	15912.	1.768	1.473	15715.	40978.
3345	-198.	8890.	2.	0.	9088.	1.000	1.000	8890.	41307.
3350	-198.	19972.	-2.	0.	20169.	1.000	1.000	19972.	41014.
3350	-77573.	19972.	2.	0.	97544.	1.000	1.000	19972.	41014.
3355	-77573.	8014.	-2.	0.	85587.	1.000	1.000	8014.	40094.
3355	-77573.	8014.	2.	0.	85587.	1.000	1.000	8014.	40094.
3360	-77573.	3944.	-2.	0.	81517.	1.000	1.000	3944.	38162.
3360	-77573.	3944.	2.	0.	81517.	1.000	1.000	3944.	38162.
3365	-77573.	4061.	-2.	0.	81634.	1.000	1.000	4061.	40068.
3365	-77573.	4061.	2.	0.	81634.	1.000	1.000	4061.	40068.
3370	-77573.	4179.	-2.	0.	81752.	1.000	1.000	4179.	41065.
3370	-123.	4179.	2.	0.	4303.	1.000	1.000	4179.	41065.
3375	-471.	17167.	-44.	0.	17638.	1.768	1.473	17167.	41996.
3375	-471.	9712.	44.	0.	10183.	1.000	1.000	9712.	41998.
3380	-471.	2978.	-44.	0.	3450.	1.000	1.000	2979.	41582.
3380	-77573.	2978.	44.	0.	80550.	1.000	1.000	2979.	41582.
3385	-77573.	1137.	-44.	0.	78710.	1.000	1.000	1140.	41952.
3385	-77573.	1137.	44.	0.	78710.	1.000	1.000	1140.	41952.
3390	-77573.	704.	-44.	0.	78277.	1.000	1.000	710.	39319.

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nsed To: FLUOR DANIEL ID 13692
SS REPORT, Stresses on Elements
6 (EXP) D6(EXP)=D2-D4

ENT	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
)	-77573.	704.	44.	0.	78277.	1.000	1.000	710.	39319.	2.
;	-77573.	39.	-44.	0.	77612.	1.000	1.000	96.	39962.	0.
;	-77573.	39.	44.	0.	77612.	1.000	1.000	96.	39962.	0.
'	-77573.	630.	-44.	0.	78204.	1.000	1.000	636.	40120.	2.
'	-77573.	630.	44.	0.	78204.	1.000	1.000	636.	40120.	2.
)	-77573.	878.	-44.	0.	78451.	1.000	1.000	883.	40744.	2.
)	-77573.	878.	44.	0.	78451.	1.000	1.000	883.	40744.	2.
;	-77573.	2387.	-44.	0.	79960.	1.000	1.000	2388.	39206.	6.
;	-82.	2387.	44.	0.	2470.	1.000	1.000	2388.	39209.	6.
)	-46.	1380.	-37.	0.	1428.	1.768	1.473	1382.	40660.	3.
)	-46.	781.	37.	0.	830.	1.000	1.000	785.	41092.	2.
	-82.	304.	-54.	0.	400.	1.768	1.473	322.	39758.	1.
	-82.	172.	54.	0.	275.	1.000	1.000	203.	40480.	1.
	-82.	1966.	-54.	0.	2050.	1.000	1.000	1969.	39882.	5.
	-82.	1966.	54.	0.	2050.	1.000	1.000	1969.	39882.	5.
	-82.	4063.	-54.	0.	4146.	1.000	1.000	4064.	39689.	10.
	-82.	4063.	54.	0.	4146.	1.000	1.000	4064.	39689.	10.
	-17.	7920.	-548.	0.	8013.	1.768	1.473	7996.	41599.	19.
	-17.	4481.	548.	0.	4629.	1.000	1.000	4613.	41742.	11.
	-13.	1799.	-999.	0.	2698.	1.768	1.473	2690.	40853.	7.
	-13.	1075.	999.	0.	2275.	1.000	1.000	2269.	41219.	6.
	-82.	3689.	226.	0.	3797.	1.768	1.473	3716.	40322.	9.
	-82.	2336.	-226.	0.	2460.	1.000	1.000	2380.	41052.	6.
	-82.	2132.	226.	0.	2260.	1.000	1.000	2180.	40820.	5.
	-662.	2132.	-226.	0.	2830.	1.000	1.000	2180.	40824.	5.
	-662.	3119.	226.	0.	3807.	1.000	1.000	3151.	40292.	8.
	-662.	3119.	-226.	0.	3807.	1.000	1.000	3151.	40292.	8.
	-662.	4284.	226.	0.	4966.	1.000	1.000	4308.	39621.	11.
	-662.	4284.	-226.	0.	4966.	1.000	1.000	4308.	39621.	11.
	-135.	14481.	-2548.	0.	15479.	1.768	1.473	15352.	41566.	37.
	-135.	8197.	2548.	0.	9766.	1.000	1.000	9652.	41760.	23.
	-9.	1839.	-4247.	0.	8694.	1.768	1.473	8692.	41968.	21.

STRESS REPORT, Stresses on Elements
CASE 6 (EXP) D6(EXP)=D2-D4

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS
3475	-9.	1248.	4247.	0.	8587.	1.000	1.000	8586.	41981.
3480	-9.	1866.	-4247.	0.	8699.	1.000	1.000	8697.	41955.
3485	-9.	10137.	4247.	0.	13233.	1.000	1.000	13226.	41724.
3490	-9.	26279.	-4247.	0.	27627.	1.000	1.000	27618.	40743.
3490	-130434.	26279.	4247.	0.	156943.	1.000	1.000	27618.	40744.
3500	-130434.	20809.	-4247.	0.	151481.	1.222	1.296	22476.	41225.
3500	-131254.	40057.	2943.	0.	171412.	1.222	1.296	40487.	41313.
3505	-131254.	26416.	-2943.	0.	157780.	1.000	1.000	27064.	41136.
3510	-131085.	6556.	817.	0.	137651.	1.000	1.000	6757.	41666.
3515	-131085.	9330.	-817.	0.	140425.	1.000	1.000	9472.	41593.
3515	-101310.	9330.	817.	0.	110652.	1.000	1.000	9472.	41593.
3520	-101310.	7432.	-817.	0.	108754.	1.296	1.296	7610.	41744.
3520	-101310.	7432.	817.	0.	108754.	1.296	1.296	7610.	41744.
3525	-101310.	18128.	-817.	0.	119448.	1.000	1.000	18201.	41546.
3530	-101310.	27495.	817.	0.	128815.	1.000	1.000	27544.	41378.
3535	-101310.	31450.	-817.	0.	132769.	1.000	1.000	31492.	41296.
3535	-223.	31450.	817.	0.	31714.	1.000	1.000	31492.	41297.
3540	-223.	22528.	-817.	0.	22810.	1.222	1.296	22588.	41921.
3540	-2028.	22608.	367.	0.	24647.	1.222	1.296	22620.	41854.
3542	-2028.	10399.	-367.	0.	12449.	1.222	1.296	10425.	40238.
3542	-2045.	11233.	-607.	0.	13334.	1.222	1.296	11298.	40133.
3545	-2045.	6222.	607.	0.	8356.	1.000	1.000	6339.	40812.
3550	-2045.	5542.	-607.	0.	7684.	1.000	1.000	5674.	41159.
3555	-120.	6070.	-4401.	0.	10760.	1.768	1.473	10692.	40819.
3555	-120.	3796.	4401.	0.	9634.	1.000	1.000	9586.	41311.
3560	-120.	22984.	-4401.	0.	24724.	1.000	1.000	24612.	39649.
3570	-81.	12990.	4401.	0.	15759.	1.000	1.000	15691.	41540.
3575	-129.	12170.	-1372.	0.	12601.	1.768	1.473	12476.	41754.
3575	-129.	7880.	1372.	0.	8465.	1.000	1.000	8344.	41836.
3580	-321.	18662.	-415.	0.	19001.	1.768	1.473	18680.	41474.
3580	-321.	10632.	415.	0.	10984.	1.000	1.000	10664.	41706.
3585	-321.	6718.	-415.	0.	7088.	1.000	1.000	6769.	41995.

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nsed To: FLUOR DANIEL ID 13692
SS REPORT, Stresses on Elements
6 (EXP) D6(EXP)=D2-D4

ENT	Stresses(lb./sq.in.)					STRESS INTENSIFICATION		Stress(lb./sq.in.)		
S	AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	IN-PLANE	OUT-PLANE	CODE STRESS	ALLOWABLE STRESS	%
2	-23.	2635.	-438.	0.	2799.	1.222	1.296	2777.	38515.	7.
)	-23.	1473.	438.	0.	1733.	1.000	1.000	1713.	39931.	4.
)	-23.	380.	-438.	0.	964.	1.000	1.000	954.	41502.	2.
;	-17.	1988.	-1256.	0.	3215.	1.768	1.473	3204.	41646.	8.
;	-17.	1333.	1256.	0.	2852.	1.000	1.000	2844.	41790.	7.
)	-72.	4840.	48.	0.	4913.	1.768	1.473	4841.	41696.	12.
)	-72.	3037.	-48.	0.	3111.	1.000	1.000	3039.	41828.	7.
;	-72.	839.	48.	0.	916.	1.000	1.000	845.	40527.	2.
	-72.	839.	-48.	0.	916.	1.000	1.000	845.	40527.	2.
)	-54.	4487.	-1080.	0.	5029.	1.768	1.473	4980.	41675.	12.
	-54.	2542.	1080.	0.	3377.	1.000	1.000	3335.	41798.	8.
	-23.	2979.	-198.	0.	3028.	1.768	1.473	3005.	41717.	7.
	-23.	1941.	198.	0.	2004.	1.000	1.000	1981.	41840.	5.
	-23.	4578.	-198.	0.	4618.	1.000	1.000	4595.	41064.	11.
	-70.	4578.	198.	0.	4665.	1.000	1.000	4595.	41062.	11.
	-70.	1666.	-198.	0.	1781.	1.000	1.000	1712.	41738.	4.
	-70.	1666.	198.	0.	1781.	1.000	1.000	1712.	41738.	4.
	-70.	1521.	-198.	0.	1640.	1.000	1.000	1572.	41256.	4.
	-70.	1521.	198.	0.	1640.	1.000	1.000	1572.	41256.	4.
	-32.	7139.	676.	0.	7297.	1.768	1.473	7266.	41926.	17.
	-32.	4048.	-676.	0.	4298.	1.000	1.000	4268.	41952.	10.
	-32.	1697.	676.	0.	2195.	1.000	1.000	2171.	41341.	5.
	-32.	1697.	-676.	0.	2195.	1.000	1.000	2171.	41341.	5.
	-32.	3900.	676.	0.	4158.	1.000	1.000	4128.	41528.	10.
	-32.	3900.	-676.	0.	4158.	1.000	1.000	4128.	41528.	10.
	-32.	8411.	676.	0.	8550.	1.000	1.000	8519.	41219.	21.
	-181.	8411.	-676.	0.	8698.	1.000	1.000	8519.	41220.	21.
	-181.	4929.	676.	0.	5286.	1.000	1.000	5112.	41576.	12.
	-181.	4106.	-676.	0.	4495.	1.000	1.000	4323.	41408.	10.
	3.	4947.	3257.	0.	8182.	1.768	1.473	8180.	41766.	20.
	3.	2811.	-3257.	0.	7097.	1.000	1.000	7096.	41860.	17.
	-149.	9923.	896.	0.	10230.	1.768	1.473	10083.	41052.	25.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS
3685	-149.	6374.	-896.	0.	6765.	1.000	1.000	6621.	41479.
3690	-149.	10919.	896.	0.	11212.	1.000	1.000	11065.	41825.
3507	-142.	7927.	46.	0.	8070.	1.222	1.296	7928.	41841.
3700	-169.	8869.	303.	0.	9058.	1.768	1.473	8889.	41821.
3700	-169.	5026.	-303.	0.	5231.	1.000	1.000	5063.	41898.
3705	-78.	4875.	398.	0.	5016.	1.768	1.473	4939.	41788.
3705	-78.	2760.	-398.	0.	2948.	1.000	1.000	2873.	41856.
3710	-78.	1948.	398.	0.	2177.	1.000	1.000	2105.	41712.
3710	-15.	1948.	-398.	0.	2119.	1.000	1.000	2105.	41712.
3720	-18.	1491.	556.	0.	1875.	1.768	1.473	1861.	41691.
3720	-18.	951.	-556.	0.	1476.	1.000	1.000	1464.	41830.
3722	0.	2192.	164.	0.	2216.	1.768	1.473	2216.	41716.
3722	0.	1363.	-164.	0.	1402.	1.000	1.000	1402.	41840.
3725	0.	1732.	164.	0.	1762.	1.222	1.296	1762.	41454.
3725	-12.	1502.	109.	0.	1530.	1.222	1.296	1518.	41975.
3730	-12.	954.	-109.	0.	990.	1.000	1.000	978.	41972.
3735	-15.	647.	168.	0.	742.	1.000	1.000	729.	41460.
3740	-15.	611.	-168.	0.	710.	1.000	1.000	697.	40414.
3745	-15.	1397.	168.	0.	1451.	1.000	1.000	1436.	38897.
3750	-15.	2202.	-168.	0.	2242.	1.000	1.000	2228.	37200.
3755	-12.	1000.	109.	0.	1035.	1.000	1.000	1023.	40659.
3760	-12.	1136.	-109.	0.	1168.	1.222	1.296	1156.	40810.
3760	0.	1697.	238.	0.	1762.	1.222	1.296	1762.	39544.
3765	0.	931.	-238.	0.	1045.	1.000	1.000	1045.	41090.
3770	0.	655.	238.	0.	809.	1.000	1.000	809.	41622.
3775	0.	407.	-238.	0.	626.	1.000	1.000	626.	41942.
3780	0.	231.	238.	0.	529.	1.768	1.473	529.	41904.
3785	-23.	700.	0.	0.	723.	1.768	1.473	700.	41689.
3785	-23.	475.	0.	0.	498.	1.000	1.000	475.	41793.
3790	-23.	525.	0.	0.	547.	1.518	1.691	525.	41780.
3790	0.	368.	0.	0.	368.	1.518	1.691	368.	38700.
3800	0.	0.	0.	0.	0.	1.000	1.000	0.	41724.

ENT S	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
0	0.	515.	0.	0.	515.	1.518	1.691	515.	38767.	1.
5	0.	0.	0.	0.	0.	1.000	1.000	0.	41724.	0.
0	-363.	21916.	208.	0.	22282.	1.222	1.296	21920.	41832.	52.
0	-821.	9944.	130.	0.	10767.	1.768	1.473	9947.	41882.	24.
0	-821.	5625.	-130.	0.	6451.	1.000	1.000	5631.	41930.	13.
5	-821.	1199.	130.	0.	2036.	1.000	1.000	1227.	41768.	3.
5	0.	1199.	-130.	0.	1227.	1.000	1.000	1227.	41772.	3.
0	0.	1102.	130.	0.	1132.	1.000	1.000	1132.	41456.	3.
5	0.	194.	-130.	0.	324.	1.000	1.000	324.	41386.	1.
0	0.	239.	0.	0.	239.	1.768	1.473	239.	40699.	1.
0	0.	162.	0.	0.	162.	1.000	1.000	162.	41117.	0.
5	0.	0.	0.	0.	0.	1.000	1.000	0.	40556.	0.
5	0.	0.	0.	0.	0.	1.000	1.000	0.	40556.	0.
1	0.	0.	0.	0.	0.	1.000	1.000	0.	41113.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	41827.	0.
1	0.	0.	0.	0.	0.	1.768	1.473	0.	41982.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	41982.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	41986.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	42175.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	42180.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	41956.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	42200.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	41956.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	42200.	0.
	-1.	1676.	-48.	0.	1679.	1.222	1.296	1679.	41876.	4.
	-1.	472.	51.	0.	484.	1.000	1.000	483.	41049.	1.
	-1.	200.	-22.	0.	205.	1.000	1.000	205.	41514.	0.
	12.	19.	-66.	0.	135.	1.768	1.473	133.	41750.	0.
	12.	12.	66.	0.	134.	1.000	1.000	132.	41830.	0.
	12.	9.	-66.	0.	134.	1.000	1.000	132.	41881.	0.
	12.	93.	66.	0.	169.	1.000	1.000	162.	41890.	0.
	1.	249.	227.	0.	518.	1.768	1.473	517.	41997.	1.

STRESS REPORT, Stresses on Elements
CASE 6 (EXP) D6(EXP)=D2-D4

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS
3900	1.	169.	-227.	0.	484.	1.000	1.000	484.	41999.
3760	1.	415.	227.	0.	615.	1.222	1.296	615.	41364.
3540	0.	0.	0.	0.	0.	1.222	1.296	0.	42000.
3905	0.	0.	0.	0.	0.	1.000	1.000	0.	42002.

**** CODE STRESS CHECK FAILED

PIPING CODE: B31.3 -1993, July 31, 1993 Addendum

HIGHEST STRESSES: (lb./sq.in.)

CODE STRESS %:	197859.	@NODE 3020	ALLOWABLE:	35959.
BENDING STRESS:	197492.	@NODE 3020		
TORSIONAL STRESS:	10671.	@NODE 3090		
AXIAL STRESS:	170707.	@NODE 3505		
3D MAX INTENSITY:	311634.	@NODE 3020		

STRESS OPTIMIZATION PARAMETERS:

CODE STRESS PERCENTAGES SHOWN BELOW REPRESENT THE NUMBER OF NODES IN THE SYSTEM THAT WERE WITHIN THE PERCENTAGE GIVEN OF THE HIGHEST CODE STRESS IN THE SYSTEM.

AVG. CODE STRESS 12952.

	/BETWEEN/	/BELOW/
CODE STRESS 90-100%	0.31	99.69
CODE STRESS 80-90 %	0.00	99.69
CODE STRESS 70-80 %	0.31	99.38
CODE STRESS 60-70 %	0.00	99.38
CODE STRESS 50-60 %	0.93	98.46
CODE STRESS 25-50 %	3.70	94.75
CODE STRESS 0-25 %	94.75	

PIPE ELEMENTS ANALYZED: 162

SAMPLED POINTS: 324

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in. CODE STRESS	ALLOWABL STRES
3000	0.	0.	0.	0.	0.	1.000	1.000	0.	42002.
3005	0.	0.	0.	0.	0.	1.000	1.000	0.	41829.
3005	-113467.	0.	0.	0.	113467.	1.000	1.000	0.	41830.
3010	-113467.	85014.	0.	0.	198480.	1.000	1.000	85014.	41255.
3015	-113467.	100771.	0.	0.	214238.	1.000	1.000	100771.	40494.
3020	-113467.	158244.	0.	0.	271710.	1.222	1.296	158244.	37140.
3020	-113910.	197492.	-6020.	0.	311634.	1.222	1.296	197859.	35959.
3022	-113910.	88923.	6020.	0.	203190.	1.000	1.000	89734.	36862.
3022	199.	88923.	-6020.	0.	89932.	1.000	1.000	89734.	36862.
3025	199.	75476.	6020.	0.	76628.	1.000	1.000	76431.	37927.
3030	199.	33073.	-6020.	0.	35384.	1.768	1.473	35196.	41214.
3035	27.	8988.	-2145.	0.	9983.	1.768	1.473	9959.	39810.
3035	27.	6100.	2145.	0.	7480.	1.000	1.000	7458.	40550.
3040	27.	20234.	-2145.	0.	20710.	1.000	1.000	20684.	40580.
3045	27.	26292.	2145.	0.	26667.	1.000	1.000	26640.	40602.
3050	27.	44473.	-2145.	0.	44706.	1.222	1.296	44680.	40330.
3050	0.	10695.	0.	0.	10695.	1.222	1.296	10695.	38829.
3055	0.	8610.	0.	0.	8610.	1.000	1.000	8610.	39784.
3060	0.	7983.	0.	0.	7983.	1.000	1.000	7983.	40980.
3065	0.	0.	0.	0.	0.	1.000	1.000	0.	42002.
3050	-3119.	34151.	1047.	0.	37329.	1.222	1.296	34216.	40008.
3070	-3119.	27762.	-1047.	0.	30951.	1.000	1.000	27841.	40679.
3075	-3119.	27368.	1047.	0.	30558.	1.000	1.000	27448.	41556.
3080	-3119.	34553.	-1047.	0.	37729.	1.222	1.296	34616.	41453.
3080	0.	91.	0.	0.	91.	1.222	1.296	91.	40562.
3085	0.	0.	0.	0.	0.	1.000	1.000	0.	42002.
3080	15.	33138.	4032.	0.	34119.	1.222	1.296	34104.	40661.
3090	-199.	14964.	-10671.	0.	26180.	1.768	1.473	26065.	41152.
3090	-199.	10134.	10671.	0.	23711.	1.000	1.000	23625.	41488.
3095	-199.	25580.	-10671.	0.	33467.	1.000	1.000	33314.	41662.
3100	-199.	78612.	10671.	0.	81650.	1.000	1.000	81458.	41171.
3105	-199.	108370.	-10671.	0.	110646.	1.222	1.296	110451.	40858.

ENT	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
	-65540.	23070.	696.	0.	88622.	1.222	1.296	23112.	41351.	56.
	-65540.	18085.	-696.	0.	83637.	1.000	1.000	18138.	41440.	44.
	-65540.	20814.	696.	0.	86366.	1.000	1.000	20860.	41547.	50.
	-65540.	42237.	-696.	0.	107786.	1.222	1.296	42260.	40647.	104.*
	-68659.	114138.	-32.	0.	182797.	1.222	1.296	114138.	41235.	277.*
	-68659.	91318.	32.	0.	159976.	1.000	1.000	91318.	41384.	221.*
	-68659.	91318.	-32.	0.	159976.	1.000	1.000	91318.	41384.	221.*
	-68659.	83404.	32.	0.	152063.	1.000	1.000	83404.	41241.	202.*
	-68659.	83404.	-32.	0.	152063.	1.000	1.000	83404.	41241.	202.*
	-68659.	23607.	32.	0.	92266.	1.000	1.000	23608.	41432.	57.
	-68659.	23607.	-32.	0.	92266.	1.000	1.000	23608.	41432.	57.
	-68659.	36196.	32.	0.	104854.	1.000	1.000	36196.	40837.	89.
	-100890.	36196.	-32.	0.	137085.	1.000	1.000	36196.	40826.	89.
	-100890.	13386.	32.	0.	114276.	1.000	1.000	13386.	41407.	32.
	-100890.	13386.	-32.	0.	114276.	1.000	1.000	13386.	41407.	32.
	-100890.	9424.	32.	0.	110314.	1.000	1.000	9424.	41256.	23.
	-100890.	9424.	-32.	0.	110314.	1.000	1.000	9424.	41256.	23.
	-100890.	3905.	32.	0.	104795.	1.000	1.000	3906.	41852.	9.
	-100890.	3905.	-32.	0.	104795.	1.000	1.000	3906.	41852.	9.
	-100890.	1613.	32.	0.	102503.	1.000	1.000	1614.	39935.	4.
	-100890.	1613.	-32.	0.	102503.	1.000	1.000	1614.	39935.	4.
	-100890.	1045.	32.	0.	101935.	1.000	1.000	1047.	40438.	3.
	-100890.	1045.	-32.	0.	101935.	1.000	1.000	1047.	40438.	3.
	-100890.	478.	32.	0.	101368.	1.000	1.000	482.	38551.	1.
	-100890.	478.	-32.	0.	101368.	1.000	1.000	482.	38551.	1.
	-100890.	1524.	32.	0.	102414.	1.000	1.000	1526.	40114.	4.
	-100890.	1524.	-32.	0.	102414.	1.000	1.000	1526.	40114.	4.
	-100890.	3527.	32.	0.	104416.	1.000	1.000	3527.	40584.	9.
	-48.	3527.	-32.	0.	3575.	1.000	1.000	3527.	40584.	9.
	-160.	10850.	4.	0.	11010.	1.768	1.473	10850.	41993.	26.
	-160.	6138.	-4.	0.	6298.	1.000	1.000	6138.	41996.	15.
	-160.	1925.	4.	0.	2085.	1.000	1.000	1925.	41228.	5.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS
3175	-474.	1925.	-4.	0.	2399.	1.000	1.000	1925.	41228.
3180	-60.	14818.	-1.	0.	14878.	1.768	1.473	14818.	41350.
3180	-60.	8383.	1.	0.	8443.	1.000	1.000	8383.	41560.
3185	-60.	10912.	-1.	0.	10972.	1.000	1.000	10912.	39704.
3185	-100890.	10912.	1.	0.	111802.	1.000	1.000	10912.	39704.
3190	-100890.	4077.	-1.	0.	104966.	1.000	1.000	4077.	40077.
3190	-100890.	4077.	1.	0.	104966.	1.000	1.000	4077.	40077.
3195	-100890.	2758.	-1.	0.	103648.	1.000	1.000	2758.	39506.
3195	-100890.	2758.	1.	0.	103648.	1.000	1.000	2758.	39506.
3200	-100890.	3110.	-1.	0.	104000.	1.000	1.000	3110.	41880.
3200	-100890.	3110.	1.	0.	104000.	1.000	1.000	3110.	41880.
3205	-100890.	3462.	-1.	0.	104352.	1.000	1.000	3462.	41630.
3205	-1100.	3462.	1.	0.	4562.	1.000	1.000	3462.	41630.
3210	-152.	20039.	-25.	0.	20190.	1.768	1.473	20039.	41342.
3210	-152.	11336.	25.	0.	11488.	1.000	1.000	11336.	41554.
3215	-152.	10693.	-25.	0.	10845.	1.000	1.000	10693.	41127.
3215	-339.	10693.	25.	0.	11032.	1.000	1.000	10693.	41127.
3220	20.	5931.	-45.	0.	5952.	1.768	1.473	5931.	41221.
3220	20.	3355.	45.	0.	3377.	1.000	1.000	3356.	41472.
3225	20.	15700.	-45.	0.	15720.	1.000	1.000	15700.	39061.
3225	-102.	15700.	45.	0.	15802.	1.000	1.000	15700.	39060.
3230	131.	5121.	20.	0.	5252.	1.768	1.473	5121.	39656.
3230	131.	2898.	-20.	0.	3029.	1.000	1.000	2898.	40410.
3235	131.	2832.	20.	0.	2963.	1.000	1.000	2832.	40682.
3235	-100890.	2832.	-20.	0.	103722.	1.000	1.000	2832.	40682.
3240	-100890.	1046.	20.	0.	101936.	1.000	1.000	1047.	37877.
3240	-100890.	1046.	-20.	0.	101936.	1.000	1.000	1047.	37877.
3245	-100890.	1225.	20.	0.	102115.	1.000	1.000	1226.	36961.
3245	-100890.	1225.	-20.	0.	102115.	1.000	1.000	1226.	36961.
3250	-100890.	1558.	20.	0.	102448.	1.000	1.000	1558.	41674.
3250	-100890.	1558.	-20.	0.	102448.	1.000	1.000	1558.	41674.
3255	-100890.	3925.	20.	0.	104815.	1.000	1.000	3925.	39893.

NT	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
	-100890.	3925.	-20.	0.	104815.	1.000	1.000	3925.	39893.	10.
	-100890.	5454.	20.	0.	106344.	1.000	1.000	5454.	40220.	14.
	-100890.	5454.	-20.	0.	106344.	1.000	1.000	5454.	40220.	14.
	-100890.	14824.	20.	0.	115714.	1.000	1.000	14825.	39854.	37.
	-8373.	14824.	-20.	0.	23198.	1.000	1.000	14825.	39970.	37.
	-538.	20373.	77.	0.	20911.	1.768	1.473	20374.	40876.	50.
	-538.	20373.	-77.	0.	20911.	1.768	1.473	20374.	40876.	50.
	-8373.	60186.	9.	0.	68558.	1.768	1.473	60186.	39680.	152.*
	-8373.	34048.	-9.	0.	42422.	1.000	1.000	34048.	40737.	84.
	-8373.	20498.	9.	0.	28871.	1.000	1.000	20498.	40270.	51.
	-100890.	20498.	-9.	0.	121388.	1.000	1.000	20498.	40152.	51.
	-100890.	7493.	9.	0.	108382.	1.000	1.000	7493.	40252.	19.
	-100890.	7493.	-9.	0.	108382.	1.000	1.000	7493.	40252.	19.
	-100890.	5571.	9.	0.	106461.	1.000	1.000	5571.	38691.	14.
	-100890.	5571.	-9.	0.	106461.	1.000	1.000	5571.	38691.	14.
	-100890.	2202.	9.	0.	103092.	1.000	1.000	2202.	40438.	5.
	-100890.	2202.	-9.	0.	103092.	1.000	1.000	2202.	40438.	5.
	-100890.	3205.	9.	0.	104094.	1.000	1.000	3205.	39795.	8.
	-100890.	3205.	-9.	0.	104094.	1.000	1.000	3205.	39795.	8.
	-100890.	4437.	9.	0.	105326.	1.000	1.000	4437.	41475.	11.
	-100890.	4437.	-9.	0.	105326.	1.000	1.000	4437.	41475.	11.
	-100890.	11560.	9.	0.	112450.	1.000	1.000	11560.	39730.	29.
	-1699.	11560.	-9.	0.	13260.	1.000	1.000	11560.	39730.	29.
	-1396.	50633.	-28.	0.	52029.	1.768	1.473	50633.	41435.	122.*
	-1396.	28644.	28.	0.	30040.	1.000	1.000	28644.	41617.	69.
	-1699.	32965.	-21.	0.	34664.	1.768	1.473	32965.	41533.	79.
	-1699.	18649.	21.	0.	20348.	1.000	1.000	18649.	41684.	45.
	-1699.	6523.	-21.	0.	8223.	1.000	1.000	6524.	40050.	16.
	-100890.	6523.	21.	0.	107413.	1.000	1.000	6524.	40051.	16.
	-100890.	2080.	-21.	0.	102970.	1.000	1.000	2080.	39870.	5.
	-100890.	2080.	21.	0.	102970.	1.000	1.000	2080.	39870.	5.
	-100890.	2363.	-21.	0.	103253.	1.000	1.000	2364.	39573.	6.

STRESS REPORT, Stresses on Elements
CASE 7 (EXP) D7(EXP)=D3-D4

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS
3325	-100890.	2363.	21.	0.	103253.	1.000	1.000	2364.	39573.
3330	-100890.	604.	-21.	0.	101494.	1.000	1.000	605.	41384.
3330	-100890.	604.	21.	0.	101494.	1.000	1.000	605.	41384.
3335	-100890.	1156.	-21.	0.	102046.	1.000	1.000	1156.	41034.
3335	-100890.	1156.	21.	0.	102046.	1.000	1.000	1156.	41034.
3338	-100890.	566.	-21.	0.	101456.	1.000	1.000	568.	40785.
3338	-100890.	566.	21.	0.	101456.	1.000	1.000	568.	40785.
3340	-100890.	2288.	-21.	0.	103178.	1.000	1.000	2288.	40542.
3340	-100890.	2288.	21.	0.	103178.	1.000	1.000	2288.	40542.
3342	-100890.	9748.	-21.	0.	110638.	1.000	1.000	9748.	41300.
3342	-3872.	9748.	21.	0.	13620.	1.000	1.000	9748.	41300.
3343	-3872.	30100.	-21.	0.	33972.	1.000	1.000	30100.	41754.
3343	-3872.	30100.	21.	0.	33972.	1.000	1.000	30100.	41754.
3345	-257.	20438.	-3.	0.	20695.	1.768	1.473	20438.	40978.
3345	-257.	11562.	3.	0.	11819.	1.000	1.000	11562.	41307.
3350	-257.	25975.	-3.	0.	26232.	1.000	1.000	25975.	41014.
3350	-100890.	25975.	3.	0.	126864.	1.000	1.000	25975.	41014.
3355	-100890.	10423.	-3.	0.	111312.	1.000	1.000	10423.	40094.
3355	-100890.	10423.	3.	0.	111312.	1.000	1.000	10423.	40094.
3360	-100890.	5130.	-3.	0.	106020.	1.000	1.000	5130.	38162.
3360	-100890.	5130.	3.	0.	106020.	1.000	1.000	5130.	38162.
3365	-100890.	5282.	-3.	0.	106172.	1.000	1.000	5282.	40068.
3365	-100890.	5282.	3.	0.	106172.	1.000	1.000	5282.	40068.
3370	-100890.	5435.	-3.	0.	106325.	1.000	1.000	5435.	41065.
3370	-161.	5435.	3.	0.	5596.	1.000	1.000	5435.	41065.
3375	-612.	22327.	-57.	0.	22939.	1.768	1.473	22327.	41996.
3375	-612.	12631.	57.	0.	13244.	1.000	1.000	12631.	41998.
3380	-612.	3873.	-57.	0.	4487.	1.000	1.000	3874.	41582.
3380	-100890.	3873.	57.	0.	104762.	1.000	1.000	3874.	41582.
3385	-100890.	1479.	-57.	0.	102368.	1.000	1.000	1483.	41952.
3385	-100890.	1479.	57.	0.	102368.	1.000	1.000	1483.	41952.
3390	-100890.	916.	-57.	0.	101806.	1.000	1.000	923.	39319.

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S REPORT, Stresses on Elements
7 (EXP) D7(EXP)=D3-D4

NT	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
	-100890.	916.	57.	0.	101806.	1.000	1.000	923.	39319.	2.
	-100890.	51.	-57.	0.	100940.	1.000	1.000	125.	39962.	0.
	-100890.	51.	57.	0.	100940.	1.000	1.000	125.	39962.	0.
	-100890.	820.	-57.	0.	101710.	1.000	1.000	828.	40120.	2.
	-100890.	820.	57.	0.	101710.	1.000	1.000	828.	40120.	2.
	-100890.	1142.	-57.	0.	102032.	1.000	1.000	1148.	40744.	3.
	-100890.	1142.	57.	0.	102032.	1.000	1.000	1148.	40744.	3.
	-100890.	3104.	-57.	0.	103994.	1.000	1.000	3106.	39206.	8.
	-106.	3104.	57.	0.	3212.	1.000	1.000	3106.	39209.	8.
	-60.	1795.	-49.	0.	1857.	1.768	1.473	1797.	40660.	4.
	-60.	1016.	49.	0.	1080.	1.000	1.000	1021.	41092.	2.
	-106.	395.	-70.	0.	520.	1.768	1.473	419.	39758.	1.
	-106.	224.	70.	0.	358.	1.000	1.000	263.	40480.	1.
	-106.	2557.	-70.	0.	2666.	1.000	1.000	2560.	39882.	6.
	-106.	2557.	70.	0.	2666.	1.000	1.000	2560.	39882.	6.
	-106.	5284.	-70.	0.	5392.	1.000	1.000	5286.	39689.	13.
	-106.	5284.	70.	0.	5392.	1.000	1.000	5286.	39689.	13.
	-22.	10301.	-713.	0.	10421.	1.768	1.473	10399.	41599.	25.
	-22.	5827.	713.	0.	6021.	1.000	1.000	6000.	41742.	14.
	-16.	2339.	-1300.	0.	3508.	1.768	1.473	3497.	40853.	9.
	-16.	1397.	1300.	0.	2959.	1.000	1.000	2951.	41219.	7.
	-106.	4797.	293.	0.	4938.	1.768	1.473	4832.	40322.	12.
	-106.	3038.	-293.	0.	3199.	1.000	1.000	3094.	41052.	8.
	-106.	2773.	293.	0.	2938.	1.000	1.000	2835.	40820.	7.
	-861.	2773.	-293.	0.	3681.	1.000	1.000	2835.	40824.	7.
	-861.	4057.	293.	0.	4953.	1.000	1.000	4099.	40292.	10.
	-861.	4057.	-293.	0.	4953.	1.000	1.000	4099.	40292.	10.
	-861.	5573.	293.	0.	6461.	1.000	1.000	5604.	39621.	14.
	-861.	5573.	-293.	0.	6461.	1.000	1.000	5604.	39621.	14.
	-175.	18839.	-3314.	0.	20136.	1.768	1.473	19971.	41566.	48.
	-175.	10664.	3314.	0.	12705.	1.000	1.000	12556.	41760.	30.
	-12.	2392.	-5526.	0.	11311.	1.768	1.473	11308.	41968.	27.

STRESS REPORT, Stresses on Elements
CASE 7 (EXP) D7(EXP)=D3-D4

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in. CODE STRESS	ALLOWABL STRES
3475	-12.	1623.	5526.	0.	11173.	1.000	1.000	11171.	41981.
3480	-12.	2429.	-5526.	0.	11319.	1.000	1.000	11316.	41955.
3485	-12.	13190.	5526.	0.	17217.	1.000	1.000	17208.	41724.
3490	-12.	34190.	-5526.	0.	35944.	1.000	1.000	35932.	40743.
3490	-169639.	34190.	5526.	0.	204129.	1.000	1.000	35932.	40744.
3500	-169639.	27001.	-5526.	0.	196951.	1.222	1.296	29176.	41225.
3500	-170707.	52068.	3833.	0.	222907.	1.222	1.296	52630.	41313.
3505	-170707.	34314.	-3833.	0.	205164.	1.000	1.000	35160.	41136.
3510	-170487.	8323.	1074.	0.	178823.	1.000	1.000	8596.	41666.
3515	-170487.	12000.	-1074.	0.	182499.	1.000	1.000	12191.	41593.
3515	-131760.	12000.	1074.	0.	143776.	1.000	1.000	12191.	41593.
3520	-131760.	9666.	-1074.	0.	141443.	1.296	1.296	9902.	41744.
3520	-131760.	9666.	1074.	0.	141443.	1.296	1.296	9902.	41744.
3525	-131760.	23077.	-1074.	0.	154852.	1.000	1.000	23177.	41546.
3530	-131760.	34983.	1074.	0.	166757.	1.000	1.000	35049.	41378.
3535	-131760.	40012.	-1074.	0.	171785.	1.000	1.000	40069.	41296.
3535	-277.	40012.	1074.	0.	40346.	1.000	1.000	40069.	41297.
3540	-277.	28524.	-1074.	0.	28882.	1.222	1.296	28605.	41921.
3540	-2575.	28635.	464.	0.	31224.	1.222	1.296	28650.	41854.
3542	-2575.	13567.	-464.	0.	16169.	1.222	1.296	13598.	40238.
3542	-2598.	14582.	-839.	0.	17262.	1.222	1.296	14679.	40133.
3545	-2598.	8257.	839.	0.	10983.	1.000	1.000	8426.	40812.
3550	-2598.	7446.	-839.	0.	10183.	1.000	1.000	7633.	41159.
3555	-159.	7167.	-5411.	0.	13069.	1.768	1.473	12980.	40819.
3555	-159.	4576.	5411.	0.	11813.	1.000	1.000	11750.	41311.
3560	-159.	28655.	-5411.	0.	30779.	1.000	1.000	30630.	39649.
3570	-97.	16301.	5411.	0.	19648.	1.000	1.000	19567.	41540.
3575	-162.	14945.	-1556.	0.	15424.	1.768	1.473	15266.	41754.
3575	-162.	9678.	1556.	0.	10320.	1.000	1.000	10166.	41836.
3580	-396.	22929.	-435.	0.	23341.	1.768	1.473	22946.	41474.
3580	-396.	13048.	435.	0.	13472.	1.000	1.000	13077.	41706.
3585	-396.	8374.	-435.	0.	8813.	1.000	1.000	8419.	41995.

NT	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
	-30.	3513.	-546.	0.	3707.	1.222	1.296	3679.	38515.	10.
	-30.	1973.	546.	0.	2281.	1.000	1.000	2254.	39931.	6.
	-30.	457.	-546.	0.	1195.	1.000	1.000	1183.	41502.	3.
	-22.	2523.	-1631.	0.	4138.	1.768	1.473	4124.	41646.	10.
	-22.	1691.	1631.	0.	3685.	1.000	1.000	3674.	41790.	9.
	-95.	6252.	58.	0.	6348.	1.768	1.473	6253.	41696.	15.
	-95.	3927.	-58.	0.	4023.	1.000	1.000	3928.	41828.	9.
	-95.	1109.	58.	0.	1209.	1.000	1.000	1115.	40527.	3.
	-95.	1109.	-58.	0.	1209.	1.000	1.000	1115.	40527.	3.
	-71.	5841.	-1421.	0.	6559.	1.768	1.473	6496.	41675.	16.
	-71.	3308.	1421.	0.	4416.	1.000	1.000	4362.	41798.	10.
	-30.	3909.	-278.	0.	3978.	1.768	1.473	3948.	41717.	9.
	-30.	2549.	278.	0.	2638.	1.000	1.000	2608.	41840.	6.
	-30.	5992.	-278.	0.	6048.	1.000	1.000	6017.	41064.	15.
	-91.	5992.	278.	0.	6108.	1.000	1.000	6017.	41062.	15.
	-91.	2157.	-278.	0.	2315.	1.000	1.000	2227.	41738.	5.
	-91.	2157.	278.	0.	2315.	1.000	1.000	2227.	41738.	5.
	-91.	1980.	-278.	0.	2144.	1.000	1.000	2057.	41256.	5.
	-91.	1980.	278.	0.	2144.	1.000	1.000	2057.	41256.	5.
	-41.	9301.	778.	0.	9471.	1.768	1.473	9430.	41926.	22.
	-41.	5275.	-778.	0.	5540.	1.000	1.000	5500.	41952.	13.
	-41.	2212.	778.	0.	2738.	1.000	1.000	2704.	41341.	7.
	-41.	2212.	-778.	0.	2738.	1.000	1.000	2704.	41341.	7.
	-41.	4468.	778.	0.	4770.	1.000	1.000	4731.	41528.	11.
	-41.	4468.	-778.	0.	4770.	1.000	1.000	4731.	41528.	11.
	-41.	9659.	778.	0.	9824.	1.000	1.000	9783.	41219.	24.
	-213.	9659.	-778.	0.	9994.	1.000	1.000	9783.	41220.	24.
	-213.	5900.	778.	0.	6308.	1.000	1.000	6102.	41576.	15.
	-213.	5056.	-778.	0.	5494.	1.000	1.000	5290.	41408.	13.
	7.	5997.	3750.	0.	9608.	1.768	1.473	9604.	41766.	23.
	7.	3408.	-3750.	0.	8242.	1.000	1.000	8239.	41860.	20.
	-168.	11294.	1008.	0.	11637.	1.768	1.473	11472.	41052.	28.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS
3685	-168.	7266.	-1008.	0.	7702.	1.000	1.000	7541.	41479.
3690	-168.	13071.	1008.	0.	13391.	1.000	1.000	13225.	41825.
3507	-185.	10310.	63.	0.	10496.	1.222	1.296	10311.	41841.
3700	-220.	11542.	396.	0.	11789.	1.768	1.473	11569.	41821.
3700	-220.	6542.	-396.	0.	6808.	1.000	1.000	6589.	41898.
3705	-102.	6338.	518.	0.	6523.	1.768	1.473	6423.	41788.
3705	-102.	3589.	-518.	0.	3834.	1.000	1.000	3736.	41856.
3710	-102.	2531.	518.	0.	2830.	1.000	1.000	2735.	41712.
3710	-20.	2531.	-518.	0.	2753.	1.000	1.000	2735.	41712.
3720	-23.	1939.	722.	0.	2436.	1.768	1.473	2418.	41691.
3720	-23.	1238.	-722.	0.	1917.	1.000	1.000	1902.	41830.
3722	0.	2849.	212.	0.	2881.	1.768	1.473	2881.	41716.
3722	0.	1772.	-212.	0.	1822.	1.000	1.000	1822.	41840.
3725	0.	2251.	212.	0.	2291.	1.222	1.296	2291.	41454.
3725	-16.	1953.	141.	0.	1989.	1.222	1.296	1974.	41975.
3730	-16.	1240.	-141.	0.	1288.	1.000	1.000	1272.	41972.
3735	-19.	840.	218.	0.	965.	1.000	1.000	947.	41460.
3740	-19.	793.	-218.	0.	923.	1.000	1.000	906.	40414.
3745	-19.	1816.	218.	0.	1887.	1.000	1.000	1868.	38897.
3750	-19.	2864.	-218.	0.	2916.	1.000	1.000	2897.	37200.
3755	-16.	1300.	141.	0.	1346.	1.000	1.000	1331.	40659.
3760	-16.	1477.	-141.	0.	1519.	1.222	1.296	1503.	40810.
3760	0.	2206.	309.	0.	2291.	1.222	1.296	2291.	39544.
3765	0.	1211.	-309.	0.	1360.	1.000	1.000	1360.	41090.
3770	0.	851.	309.	0.	1052.	1.000	1.000	1052.	41622.
3775	0.	530.	-309.	0.	815.	1.000	1.000	815.	41942.
3780	0.	301.	309.	0.	688.	1.768	1.473	688.	41904.
3785	-29.	912.	0.	0.	941.	1.768	1.473	912.	41689.
3785	-29.	619.	0.	0.	648.	1.000	1.000	619.	41793.
3790	-29.	683.	0.	0.	712.	1.518	1.691	683.	41780.
3790	0.	479.	0.	0.	479.	1.518	1.691	479.	38700.
3800	0.	0.	0.	0.	0.	1.000	1.000	0.	41724.

ENT	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
)	0.	670.	0.	0.	670.	1.518	1.691	670.	38767.	2.
)	0.	0.	0.	0.	0.	1.000	1.000	0.	41724.	0.
)	-472.	28505.	269.	0.	28982.	1.222	1.296	28510.	41832.	68.
)	-1067.	12934.	168.	0.	14005.	1.768	1.473	12938.	41882.	31.
)	-1067.	7317.	-168.	0.	8391.	1.000	1.000	7325.	41930.	17.
	-1067.	1558.	168.	0.	2647.	1.000	1.000	1594.	41768.	4.
	0.	1558.	-168.	0.	1594.	1.000	1.000	1594.	41772.	4.
	0.	1432.	168.	0.	1471.	1.000	1.000	1471.	41456.	4.
	0.	253.	-168.	0.	421.	1.000	1.000	421.	41386.	1.
	0.	310.	0.	0.	310.	1.768	1.473	310.	40699.	1.
	0.	211.	0.	0.	211.	1.000	1.000	211.	41117.	1.
	0.	0.	0.	0.	0.	1.000	1.000	0.	40556.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	40556.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	41113.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	41827.	0.
	0.	0.	0.	0.	0.	1.768	1.473	0.	41982.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	41982.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	41986.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	42175.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	42180.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	41956.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	42200.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	41956.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	42200.	0.
	-1.	2178.	-62.	0.	2183.	1.222	1.296	2182.	41876.	5.
	-1.	614.	67.	0.	630.	1.000	1.000	629.	41049.	2.
	-1.	260.	-28.	0.	267.	1.000	1.000	267.	41514.	1.
	16.	25.	-86.	0.	176.	1.768	1.473	173.	41750.	0.
	16.	15.	86.	0.	174.	1.000	1.000	172.	41830.	0.
	16.	12.	-86.	0.	174.	1.000	1.000	172.	41881.	0.
	16.	121.	86.	0.	220.	1.000	1.000	210.	41890.	1.
	1.	324.	295.	0.	673.	1.768	1.473	673.	41997.	2.

STRESS REPORT, Stresses on Elements
CASE 7 (EXP) D7(EXP)=D3-D4

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in CODE STRESS	ALLOWAB STRE
3900	1.	219.	-295.	0.	630.	1.000	1.000	629.	41999
3760	1.	539.	295.	0.	800.	1.222	1.296	799.	41364
3540	0.	0.	0.	0.	0.	1.222	1.296	0.	42000
3905	0.	0.	0.	0.	0.	1.000	1.000	0.	42002

RESTRAINT SUMMARY REPORT

LOAD CASE DEFINITION KEY

CASE 1 (OPE) W+DIS+T1+P1
CASE 2 (OPE) W+DIS+T2+P1
CASE 3 (OPE) W+DIS+T3+P1
CASE 4 (SUS) W+P1
CASE 5 (EXP) D5(EXP)=D1-D4
CASE 6 (EXP) D6(EXP)=D2-D4
CASE 7 (EXP) D7(EXP)=D3-D4

RESTRAINT REPORT, Loads on Restraints
RESTRAINT SUMMARY

NODE	CASE	TYPE	Forces(lb.) FX	FY	FZ	RESULTANT	Moments(ft.lb.) MX	MY	MZ	RESULTANT
3005			Rigid Y	Rigid X	Rigid Z					
	1	OPE	1134.	-41.	-138910.	138915.	0.	0.	0.	0.
	2	OPE	1587.	-38.	-194420.	194426.	0.	0.	0.	0.
	3	OPE	2064.	-35.	-252859.	252867.	0.	0.	0.	0.
	4	SUS	0.	-48.	-1.	48.	0.	0.	0.	0.
	5	EXP	1134.	7.	-138909.	138914.	0.	0.	0.	0.
	6	EXP	1587.	10.	-194419.	194425.	0.	0.	0.	0.
	7	EXP	2064.	12.	-252858.	252866.	0.	0.	0.	0.
		MAX.	2064./ 7	48./ 4	252859./ 3	252867./ 3	0./ 1	0./ 1	0./ 1	0./ 1
3022			Rigid X	Rigid Y	Rigid Z					
	1	OPE	82946.	-969.	139697.	162469.	0.	0.	0.	0.
	2	OPE	116082.	-1026.	195522.	227387.	0.	0.	0.	0.
	3	OPE	150966.	-1086.	254291.	295729.	0.	0.	0.	0.
	4	SUS	26.	-826.	2.	826.	0.	0.	0.	0.
	5	EXP	82920.	-143.	139695.	162451.	0.	0.	0.	0.
	6	EXP	116056.	-200.	195520.	227370.	0.	0.	0.	0.
	7	EXP	150940.	-260.	254289.	295712.	0.	0.	0.	0.
		MAX.	150966./ 3	1086./ 3	254291./ 3	295729./ 3	0./ 1	0./ 1	0./ 1	0./ 1
3065			Rigid Y							
	1	OPE	0.	-31.	0.	31.	0.	0.	0.	0.
	2	OPE	0.	-13.	0.	13.	0.	0.	0.	0.
	3	OPE	0.	6.	0.	6.	0.	0.	0.	0.
	4	SUS	0.	-76.	0.	76.	0.	0.	0.	0.
	5	EXP	0.	45.	0.	45.	0.	0.	0.	0.
	6	EXP	0.	63.	0.	63.	0.	0.	0.	0.
	7	EXP	0.	82.	0.	82.	0.	0.	0.	0.
		MAX.	0./ 1	82./ 7	0./ 1	82./ 7	0./ 1	0./ 1	0./ 1	0./ 1
3085			Rigid Y							
	1	OPE	0.	-170.	0.	170.	0.	0.	0.	0.
	2	OPE	0.	-167.	0.	167.	0.	0.	0.	0.
	3	OPE	0.	-165.	0.	165.	0.	0.	0.	0.
	4	SUS	0.	-176.	0.	176.	0.	0.	0.	0.
	5	EXP	0.	6.	0.	6.	0.	0.	0.	0.
	6	EXP	0.	8.	0.	8.	0.	0.	0.	0.
	7	EXP	0.	11.	0.	11.	0.	0.	0.	0.
		MAX.	0./ 1	176./ 4	0./ 1	176./ 4	0./ 1	0./ 1	0./ 1	0./ 1

000548

CASE	TYPE	Forces(lb.) FX	FY	FZ	RESULTANT	Moments(ft.lb.) MX	MY	MZ	RESULTANT
25		Rigid Y							
1	OPE	0.	-41.	0.	41.	0.	0.	0.	0.
2	OPE	0.	-17.	0.	17.	0.	0.	0.	0.
3	OPE	0.	8.	0.	8.	0.	0.	0.	0.
4	SUS	0.	-101.	0.	101.	0.	0.	0.	0.
5	EXP	0.	60.	0.	60.	0.	0.	0.	0.
6	EXP	0.	84.	0.	84.	0.	0.	0.	0.
7	EXP	0.	109.	0.	109.	0.	0.	0.	0.
	MAX.	0./ 1	109./ 7	0./ 1	109./ 7	0./ 1	0./ 1	0./ 1	0./ 1
35		Rigid X Rigid Y Rigid Z							
1	OPE	39432.	-127.	-1087.	39447.	0.	0.	0.	0.
2	OPE	55200.	-115.	-1521.	55221.	0.	0.	0.	0.
3	OPE	71800.	-101.	-1978.	71827.	0.	0.	0.	0.
4	SUS	-26.	-159.	-1.	161.	0.	0.	0.	0.
5	EXP	39458.	32.	-1086.	39473.	0.	0.	0.	0.
6	EXP	55226.	44.	-1520.	55247.	0.	0.	0.	0.
7	EXP	71826.	58.	-1977.	71853.	0.	0.	0.	0.
	MAX.	71826./ 7	159./ 4	1978./ 3	71853./ 7	0./ 1	0./ 1	0./ 1	0./ 1
5		Rigid X Rigid Y Rigid Z							
1	OPE	0.	-136.	373.	397.	0.	0.	0.	0.
2	OPE	0.	-140.	522.	540.	0.	0.	0.	0.
3	OPE	0.	-143.	679.	694.	0.	0.	0.	0.
4	SUS	0.	-128.	0.	128.	0.	0.	0.	0.
5	EXP	0.	-8.	373.	373.	0.	0.	0.	0.
6	EXP	0.	-12.	521.	522.	0.	0.	0.	0.
7	EXP	0.	-15.	678.	678.	0.	0.	0.	0.
	MAX.	0./ 7	143./ 3	679./ 3	694./ 3	0./ 1	0./ 1	0./ 1	0./ 1
5		Rigid X Rigid Y Rigid Z							
1	OPE	0.	-203.	-77.	217.	0.	0.	0.	0.
2	OPE	0.	-202.	-108.	229.	0.	0.	0.	0.
3	OPE	0.	-201.	-140.	245.	0.	0.	0.	0.
4	SUS	0.	-205.	0.	205.	0.	0.	0.	0.
5	EXP	0.	2.	-77.	77.	0.	0.	0.	0.
6	EXP	0.	3.	-108.	108.	0.	0.	0.	0.
7	EXP	0.	3.	-140.	140.	0.	0.	0.	0.
	MAX.	0./ 5	205./ 4	140./ 3	245./ 3	0./ 1	0./ 1	0./ 1	0./ 1

RESTRAINT REPORT, Loads on Restraints
RESTRAINT SUMMARY

NODE	CASE	TYPE	Forces(lb.) FX	FY	FZ	RESULTANT	Moments(ft.lb.) MX	MY	MZ	RESULTANT
3165			Rigid X	Rigid Y	Rigid Z					
	1	OPE	0.	-273.	-11.	273.	0.	0.	0.	0.
	2	OPE	0.	-273.	-16.	274.	0.	0.	0.	0.
	3	OPE	0.	-273.	-21.	274.	0.	0.	0.	0.
	4	SUS	0.	-273.	0.	273.	0.	0.	0.	0.
	5	EXP	0.	0.	-11.	11.	0.	0.	0.	0.
	6	EXP	0.	0.	-16.	16.	0.	0.	0.	0.
	7	EXP	0.	0.	-21.	21.	0.	0.	0.	0.
		MAX.	0./ 3	273./ 3	21./ 7	274./ 3	0./ 1	0./ 1	0./ 1	0./ 1
3167			Rigid X	Rigid Y	Rigid Z					
	1	OPE	-123452.	-178.	212.	123453.	0.	0.	0.	0.
	2	OPE	-172786.	-178.	297.	172786.	0.	0.	0.	0.
	3	OPE	-224722.	-179.	386.	224722.	0.	0.	0.	0.
	4	SUS	0.	-177.	0.	177.	0.	0.	0.	0.
	5	EXP	-123452.	-1.	212.	123453.	0.	0.	0.	0.
	6	EXP	-172786.	-1.	297.	172786.	0.	0.	0.	0.
	7	EXP	-224722.	-1.	386.	224722.	0.	0.	0.	0.
		MAX.	224722./ 3	179./ 3	386./ 7	224722./ 3	0./ 1	0./ 1	0./ 1	0./ 1
3175			Rigid X	Rigid Y	Rigid Z					
	1	OPE	15.	-145.	384.	411.	0.	0.	0.	0.
	2	OPE	20.	-145.	537.	557.	0.	0.	0.	0.
	3	OPE	26.	-145.	699.	714.	0.	0.	0.	0.
	4	SUS	0.	-146.	0.	146.	0.	0.	0.	0.
	5	EXP	15.	1.	384.	384.	0.	0.	0.	0.
	6	EXP	20.	1.	537.	538.	0.	0.	0.	0.
	7	EXP	26.	1.	699.	699.	0.	0.	0.	0.
		MAX.	26./ 3	146./ 4	699./ 3	714./ 3	0./ 1	0./ 1	0./ 1	0./ 1

000559

CASE	TYPE	Forces(lb.) FX	FY	FZ	RESULTANT	Moments(ft.lb.) MX	MY	MZ	RESULTANT
5		Rigid X Rigid Y Rigid Z							
1	OPE	123438.	-241.	-634.	123440.	0.	0.	0.	0.
2	OPE	172766.	-240.	-887.	172768.	0.	0.	0.	0.
3	OPE	224696.	-240.	-1154.	224699.	0.	0.	0.	0.
4	SUS	0.	-241.	0.	241.	0.	0.	0.	0.
5	EXP	123438.	0.	-634.	123440.	0.	0.	0.	0.
6	EXP	172766.	0.	-887.	172768.	0.	0.	0.	0.
7	EXP	224696.	0.	-1154.	224699.	0.	0.	0.	0.
	MAX.	224696./ 3	241./ 4	1154./ 3	224699./ 3	0./ 1	0./ 1	0./ 1	0./ 1
5		Rigid X Rigid Y Rigid Z							
1	OPE	0.	-226.	49.	231.	0.	0.	0.	0.
2	OPE	0.	-226.	69.	236.	0.	0.	0.	0.
3	OPE	0.	-226.	90.	243.	0.	0.	0.	0.
4	SUS	0.	-226.	0.	226.	0.	0.	0.	0.
5	EXP	0.	0.	49.	49.	0.	0.	0.	0.
6	EXP	0.	0.	69.	69.	0.	0.	0.	0.
7	EXP	0.	0.	90.	90.	0.	0.	0.	0.
	MAX.	0./ 3	226./ 3	90./ 3	243./ 3	0./ 1	0./ 1	0./ 1	0./ 1
		Rigid X Rigid Y Rigid Z							
1	OPE	-122166.	-124.	191.	122166.	0.	0.	0.	0.
2	OPE	-170985.	-123.	267.	170985.	0.	0.	0.	0.
3	OPE	-222379.	-123.	347.	222379.	0.	0.	0.	0.
4	SUS	0.	-124.	0.	124.	0.	0.	0.	0.
5	EXP	-122166.	1.	191.	122166.	0.	0.	0.	0.
6	EXP	-170985.	1.	267.	170985.	0.	0.	0.	0.
7	EXP	-222379.	1.	347.	222379.	0.	0.	0.	0.
	MAX.	222379./ 3	124./ 4	347./ 3	222379./ 3	0./ 1	0./ 1	0./ 1	0./ 1

RESTRAINT REPORT, Loads on Restraints
RESTRAINT SUMMARY

NODE	CASE	TYPE	Forces(lb.) FX	FY	FZ	RESULTANT	Moments(ft.lb.) MX	MY	MZ	RESULTANT
3215			Rigid X	Rigid Y	Rigid Z					
	1	OPE	-1371.	-155.	229.	1399.	0.	0.	0.	0.
	2	OPE	-1919.	-156.	321.	1952.	0.	0.	0.	0.
	3	OPE	-2496.	-156.	417.	2535.	0.	0.	0.	0.
	4	SUS	0.	-154.	0.	154.	0.	0.	0.	0.
	5	EXP	-1371.	-1.	229.	1390.	0.	0.	0.	0.
	6	EXP	-1919.	-1.	321.	1946.	0.	0.	0.	0.
	7	EXP	-2496.	-2.	417.	2530.	0.	0.	0.	0.
		MAX.	2496./ 3	156./ 3	417./ 3	2535./ 3	0./ 1	0./ 1	0./ 1	0./ 1
3225			Rigid X	Rigid Y	Rigid Z					
	1	OPE	149.	-271.	-576.	653.	0.	0.	0.	0.
	2	OPE	209.	-271.	-806.	875.	0.	0.	0.	0.
	3	OPE	272.	-271.	-1048.	1116.	0.	0.	0.	0.
	4	SUS	0.	-271.	0.	271.	0.	0.	0.	0.
	5	EXP	150.	0.	-576.	595.	0.	0.	0.	0.
	6	EXP	209.	-1.	-806.	832.	0.	0.	0.	0.
	7	EXP	272.	-1.	-1048.	1082.	0.	0.	0.	0.
		MAX.	272./ 7	271./ 3	1048./ 3	1116./ 3	0./ 1	0./ 1	0./ 1	0./ 1
3235			Rigid X	Rigid Y	Rigid Z					
	1	OPE	-135.	-149.	123672.	123673.	0.	0.	0.	0.
	2	OPE	-190.	-147.	173094.	173094.	0.	0.	0.	0.
	3	OPE	-247.	-146.	225122.	225122.	0.	0.	0.	0.
	4	SUS	0.	-153.	0.	153.	0.	0.	0.	0.
	5	EXP	-136.	4.	123672.	123673.	0.	0.	0.	0.
	6	EXP	-190.	5.	173094.	173094.	0.	0.	0.	0.
	7	EXP	-247.	7.	225122.	225122.	0.	0.	0.	0.
		MAX.	247./ 7	153./ 4	225122./ 3	225122./ 3	0./ 1	0./ 1	0./ 1	0./ 1

000552

AINT REPORT, Loads on Restraints
AINT SUMMARY

CASE	TYPE	Forces(lb.) FX	FY	FZ	RESULTANT	Moments(ft.lb.) MX	MY	MZ	RESULTANT
5		Rigid X Rigid Y Rigid Z							
1	OPE	15.	-345.	0.	345.	0.	0.	0.	0.
2	OPE	21.	-354.	0.	355.	0.	0.	0.	0.
3	OPE	28.	-364.	0.	365.	0.	0.	0.	0.
4	SUS	-1.	-322.	0.	322.	0.	0.	0.	0.
5	EXP	16.	-23.	0.	28.	0.	0.	0.	0.
6	EXP	22.	-32.	0.	39.	0.	0.	0.	0.
7	EXP	29.	-42.	0.	51.	0.	0.	0.	0.
	MAX.	29./ 7	364./ 3	0./ 3	365./ 3	0./ 1	0./ 1	0./ 1	0./ 1
;		Rigid X Rigid Y Rigid Z							
1	OPE	-3.	-116.	0.	116.	0.	0.	0.	0.
2	OPE	-5.	-77.	0.	77.	0.	0.	0.	0.
3	OPE	-8.	-36.	0.	37.	0.	0.	0.	0.
4	SUS	3.	-214.	0.	214.	0.	0.	0.	0.
5	EXP	-6.	98.	0.	98.	0.	0.	0.	0.
6	EXP	-8.	137.	0.	137.	0.	0.	0.	0.
7	EXP	-11.	178.	0.	178.	0.	0.	0.	0.
	MAX.	11./ 7	214./ 4	0./ 7	214./ 4	0./ 1	0./ 1	0./ 1	0./ 1
		Rigid X Rigid Y Rigid Z							
1	OPE	-5.	-945.	-113000.	113004.	0.	0.	0.	0.
2	OPE	-3.	-1239.	-158262.	158267.	0.	0.	0.	0.
3	OPE	-2.	-1549.	-205910.	205916.	0.	0.	0.	0.
4	SUS	-8.	-209.	261.	334.	0.	0.	0.	0.
5	EXP	4.	-736.	-113262.	113264.	0.	0.	0.	0.
6	EXP	5.	-1030.	-158522.	158525.	0.	0.	0.	0.
7	EXP	7.	-1340.	-206171.	206175.	0.	0.	0.	0.
	MAX.	8./ 4	1549./ 3	206171./ 7	206175./ 7	0./ 1	0./ 1	0./ 1	0./ 1

RESTRAINT REPORT, Loads on Restraints
RESTRAINT SUMMARY

NODE	CASE	TYPE	Forces(lb.) FX	FY	FZ	RESULTANT	Moments(ft.lb.) MX	MY	MZ	RESULTANT
3275			Rigid X	Rigid Y	Rigid Z					
	1	OPE	2.	391.	113000.	113001.	0.	0.	0.	0.
	2	OPE	-1.	613.	158262.	158263.	0.	0.	0.	0.
	3	OPE	-3.	846.	205910.	205912.	0.	0.	0.	0.
	4	SUS	8.	-165.	-261.	309.	0.	0.	0.	0.
	5	EXP	-6.	555.	113262.	113263.	0.	0.	0.	0.
	6	EXP	-8.	777.	158522.	158524.	0.	0.	0.	0.
	7	EXP	-11.	1011.	206171.	206173.	0.	0.	0.	0.
		MAX.	11./ 7	1011./ 7	206171./ 7	206173./ 7	0./ 1	0./ 1	0./ 1	0./
3285			Rigid X	Rigid Y	Rigid Z					
	1	OPE	15.	-136.	0.	137.	0.	0.	0.	0.
	2	OPE	22.	-84.	0.	87.	0.	0.	0.	0.
	3	OPE	30.	-29.	0.	41.	0.	0.	0.	0.
	4	SUS	-2.	-267.	0.	267.	0.	0.	0.	0.
	5	EXP	18.	131.	0.	132.	0.	0.	0.	0.
	6	EXP	25.	183.	0.	185.	0.	0.	0.	0.
	7	EXP	32.	238.	0.	240.	0.	0.	0.	0.
		MAX.	32./ 7	267./ 4	0./ 7	267./ 4	0./ 1	0./ 1	0./ 1	0./
3295			Rigid X	Rigid Y	Rigid Z					
	1	OPE	-84.	-253.	0.	266.	0.	0.	0.	0.
	2	OPE	-118.	-268.	0.	293.	0.	0.	0.	0.
	3	OPE	-153.	-284.	0.	323.	0.	0.	0.	0.
	4	SUS	1.	-215.	0.	215.	0.	0.	0.	0.
	5	EXP	-85.	-38.	0.	93.	0.	0.	0.	0.
	6	EXP	-118.	-53.	0.	130.	0.	0.	0.	0.
	7	EXP	-154.	-69.	0.	169.	0.	0.	0.	0.
		MAX.	154./ 7	284./ 3	0./ 3	323./ 3	0./ 1	0./ 1	0./ 1	0./

RAINT REPORT, Loads on Restraints
RAINT SUMMARY

CASE	TYPE	Forces(lb.) FX	FY	FZ	RESULTANT	Moments(ft.lb.) MX	MY	MZ	RESULTANT
00		Rigid X	Rigid Y	Rigid Z					
1	OPE	407.	-189.	-121432.	121432.	0.	0.	0.	0.
2	OPE	570.	-184.	-169957.	169958.	0.	0.	0.	0.
3	OPE	741.	-179.	-221043.	221044.	0.	0.	0.	0.
4	SUS	0.	-201.	0.	201.	0.	0.	0.	0.
5	EXP	407.	12.	-121431.	121432.	0.	0.	0.	0.
6	EXP	570.	17.	-169957.	169958.	0.	0.	0.	0.
7	EXP	741.	21.	-221042.	221043.	0.	0.	0.	0.
	MAX.	741./ 7	201./ 4	221043./ 3	221044./ 3	0./ 1	0./ 1	0./ 1	0./ 1
15		Rigid X	Rigid Y	Rigid Z					
1	OPE	-301.	-223.	121432.	121432.	0.	0.	0.	0.
2	OPE	-422.	-224.	169957.	169958.	0.	0.	0.	0.
3	OPE	-548.	-225.	221043.	221044.	0.	0.	0.	0.
4	SUS	0.	-221.	0.	221.	0.	0.	0.	0.
5	EXP	-301.	-2.	121431.	121431.	0.	0.	0.	0.
6	EXP	-422.	-3.	169957.	169958.	0.	0.	0.	0.
7	EXP	-549.	-4.	221043.	221044.	0.	0.	0.	0.
	MAX.	549./ 7	225./ 3	221043./ 3	221044./ 3	0./ 1	0./ 1	0./ 1	0./ 1
25		Rigid X	Rigid Y	Rigid Z					
1	OPE	-63.	-210.	0.	220.	0.	0.	0.	0.
2	OPE	-88.	-210.	0.	228.	0.	0.	0.	0.
3	OPE	-114.	-210.	0.	239.	0.	0.	0.	0.
4	SUS	0.	-211.	0.	211.	0.	0.	0.	0.
5	EXP	-63.	0.	0.	63.	0.	0.	0.	0.
6	EXP	-88.	1.	0.	88.	0.	0.	0.	0.
7	EXP	-114.	1.	0.	114.	0.	0.	0.	0.
	MAX.	114./ 3	211./ 4	0./ 3	239./ 3	0./ 1	0./ 1	0./ 1	0./ 1

RESTRAINT REPORT, Loads on Restraints
RESTRAINT SUMMARY

NODE	CASE	TYPE	Forces(lb.) FX	FY	FZ	RESULTANT	Moments(ft.lb.) MX	MY	MZ	RESULTANT
3335			Rigid X	Rigid Y	Rigid Z					
	1	OPE	46.	-130.	0.	138.	0.	0.	0.	0.
	2	OPE	64.	-130.	0.	145.	0.	0.	0.	0.
	3	OPE	84.	-130.	0.	154.	0.	0.	0.	0.
	4	SUS	0.	-130.	0.	130.	0.	0.	0.	0.
	5	EXP	46.	0.	0.	46.	0.	0.	0.	0.
	6	EXP	64.	0.	0.	64.	0.	0.	0.	0.
	7	EXP	84.	0.	0.	84.	0.	0.	0.	0.
		MAX.	84./ 3	130./ 3	0./ 3	154./ 3	0./ 1	0./ 1	0./ 1	0./
3340			Rigid X	Rigid Y	Rigid Z					
	1	OPE	-113.	-171.	0.	205.	0.	0.	0.	0.
	2	OPE	-158.	-171.	0.	233.	0.	0.	0.	0.
	3	OPE	-206.	-171.	0.	267.	0.	0.	0.	0.
	4	SUS	0.	-171.	0.	171.	0.	0.	0.	0.
	5	EXP	-113.	0.	0.	113.	0.	0.	0.	0.
	6	EXP	-158.	0.	0.	158.	0.	0.	0.	0.
	7	EXP	-206.	0.	0.	206.	0.	0.	0.	0.
		MAX.	206./ 3	171./ 4	0./ 3	267./ 3	0./ 1	0./ 1	0./ 1	0./
3342			Rigid X	Rigid Y	Rigid Z					
	1	OPE	410.	-127.	-118772.	118772.	0.	0.	0.	0.
	2	OPE	573.	-127.	-166234.	166235.	0.	0.	0.	0.
	3	OPE	745.	-127.	-216201.	216202.	0.	0.	0.	0.
	4	SUS	0.	-127.	0.	127.	0.	0.	0.	0.
	5	EXP	410.	0.	-118772.	118772.	0.	0.	0.	0.
	6	EXP	573.	0.	-166234.	166235.	0.	0.	0.	0.
	7	EXP	745.	0.	-216201.	216202.	0.	0.	0.	0.
		MAX.	745./ 3	127./ 3	216201./ 3	216202./ 3	0./ 1	0./ 1	0./ 1	0./

CASE	TYPE	Forces(lb.) FX	FY	FZ	RESULTANT	Moments(ft.lb.) MX	MY	MZ	RESULTANT
D		Rigid X	Rigid Y	Rigid Z					
1	OPE	123198.	-175.	-4863.	123294.	0.	0.	0.	0.
2	OPE	172429.	-175.	-6806.	172563.	0.	0.	0.	0.
3	OPE	224257.	-175.	-8852.	224432.	0.	0.	0.	0.
4	SUS	0.	-175.	0.	175.	0.	0.	0.	0.
5	EXP	123198.	0.	-4863.	123293.	0.	0.	0.	0.
6	EXP	172429.	0.	-6806.	172563.	0.	0.	0.	0.
7	EXP	224257.	0.	-8852.	224432.	0.	0.	0.	0.
	MAX.	224257./ 3	175./ 3	8852./ 3	224432./ 3	0./ 1	0./ 1	0./ 1	0./ 1
D		Rigid X	Rigid Y	Rigid Z					
1	OPE	0.	-289.	122.	313.	0.	0.	0.	0.
2	OPE	0.	-289.	170.	335.	0.	0.	0.	0.
3	OPE	0.	-288.	221.	363.	0.	0.	0.	0.
4	SUS	0.	-290.	0.	290.	0.	0.	0.	0.
5	EXP	0.	1.	122.	122.	0.	0.	0.	0.
6	EXP	0.	1.	170.	170.	0.	0.	0.	0.
7	EXP	0.	2.	221.	221.	0.	0.	0.	0.
	MAX.	0./ 7	290./ 4	221./ 3	363./ 3	0./ 1	0./ 1	0./ 1	0./ 1
)		Rigid X	Rigid Y	Rigid Z					
1	OPE	-123315.	-181.	751.	123317.	0.	0.	0.	0.
2	OPE	-172594.	-181.	1051.	172597.	0.	0.	0.	0.
3	OPE	-224472.	-181.	1367.	224476.	0.	0.	0.	0.
4	SUS	0.	-181.	0.	181.	0.	0.	0.	0.
5	EXP	-123315.	0.	751.	123317.	0.	0.	0.	0.
6	EXP	-172594.	0.	1051.	172597.	0.	0.	0.	0.
7	EXP	-224472.	0.	1367.	224476.	0.	0.	0.	0.
	MAX.	224472./ 3	181./ 3	1367./ 3	224476./ 3	0./ 1	0./ 1	0./ 1	0./ 1

RESTRAINT REPORT, Loads on Restraints
RESTRAINT SUMMARY

NODE	CASE	TYPE	Forces(lb.) FX	FY	FZ	RESULTANT	Moments(ft.lb.) MX	MY	MZ	RESULTANT
3380			Rigid X	Rigid Y	Rigid Z					
	1	OPE	-235.	-50.	122762.	122762.	0.	0.	0.	0.
	2	OPE	-328.	-51.	171820.	171820.	0.	0.	0.	0.
	3	OPE	-427.	-51.	223465.	223465.	0.	0.	0.	0.
	4	SUS	0.	-50.	0.	50.	0.	0.	0.	0.
	5	EXP	-234.	-1.	122762.	122762.	0.	0.	0.	0.
	6	EXP	-328.	-1.	171820.	171820.	0.	0.	0.	0.
	7	EXP	-427.	-1.	223465.	223465.	0.	0.	0.	0.
		MAX.	427./ 3	51./ 3	223465./ 3	223465./ 3	0./ 1	0./ 1	0./ 1	0./ 1
3390			Rigid X	Rigid Y	Rigid Z					
	1	OPE	45.	-237.	0.	241.	0.	0.	0.	0.
	2	OPE	63.	-237.	0.	245.	0.	0.	0.	0.
	3	OPE	81.	-237.	0.	250.	0.	0.	0.	0.
	4	SUS	0.	-237.	0.	237.	0.	0.	0.	0.
	5	EXP	45.	0.	0.	45.	0.	0.	0.	0.
	6	EXP	62.	0.	0.	62.	0.	0.	0.	0.
	7	EXP	81.	0.	0.	81.	0.	0.	0.	0.
		MAX.	81./ 3	237./ 4	0./ 3	250./ 3	0./ 1	0./ 1	0./ 1	0./ 1
3397			Rigid X	Rigid Y	Rigid Z					
	1	OPE	-39.	-165.	0.	170.	0.	0.	0.	0.
	2	OPE	-54.	-164.	0.	173.	0.	0.	0.	0.
	3	OPE	-70.	-163.	0.	178.	0.	0.	0.	0.
	4	SUS	-1.	-167.	0.	167.	0.	0.	0.	0.
	5	EXP	-38.	2.	0.	38.	0.	0.	0.	0.
	6	EXP	-53.	3.	0.	53.	0.	0.	0.	0.
	7	EXP	-69.	4.	0.	69.	0.	0.	0.	0.
		MAX.	70./ 3	167./ 4	0./ 7	178./ 3	0./ 1	0./ 1	0./ 1	0./ 1

000558

RAINT REPORT, Loads on Restraints
RAINT SUMMARY

CASE	TYPE	Forces(lb.) FX	FY	FZ	RESULTANT	Moments(ft.lb.) MX	MY	MZ	RESULTANT
05		Rigid X	Rigid Y	Rigid Z					
1	OPE	60.	-217.	-123377.	123377.	0.	0.	0.	0.
2	OPE	83.	-219.	-172682.	172682.	0.	0.	0.	0.
3	OPE	107.	-221.	-224588.	224588.	0.	0.	0.	0.
4	SUS	2.	-213.	5.	213.	0.	0.	0.	0.
5	EXP	58.	-5.	-123382.	123382.	0.	0.	0.	0.
6	EXP	81.	-7.	-172687.	172687.	0.	0.	0.	0.
7	EXP	105.	-9.	-224593.	224593.	0.	0.	0.	0.
	MAX.	107./ 3	221./ 3	224593./ 7	224593./ 7	0./ 1	0./ 1	0./ 1	0./ 1
25		Rigid Y							
1	OPE	0.	-232.	0.	232.	0.	0.	0.	0.
2	OPE	0.	-239.	0.	239.	0.	0.	0.	0.
3	OPE	0.	-247.	0.	247.	0.	0.	0.	0.
4	SUS	0.	-215.	0.	215.	0.	0.	0.	0.
5	EXP	0.	-17.	0.	17.	0.	0.	0.	0.
6	EXP	0.	-24.	0.	24.	0.	0.	0.	0.
7	EXP	0.	-32.	0.	32.	0.	0.	0.	0.
	MAX.	0./ 1	247./ 3	0./ 1	247./ 3	0./ 1	0./ 1	0./ 1	0./ 1
45		Rigid Y	Rigid X	Rigid Z					
1	OPE	-42.	-144.	933.	945.	0.	0.	0.	0.
2	OPE	-58.	-137.	1303.	1311.	0.	0.	0.	0.
3	OPE	-76.	-131.	1692.	1698.	0.	0.	0.	0.
4	SUS	-1.	-160.	10.	160.	0.	0.	0.	0.
5	EXP	-41.	16.	923.	924.	0.	0.	0.	0.
6	EXP	-58.	22.	1293.	1294.	0.	0.	0.	0.
7	EXP	-75.	29.	1682.	1684.	0.	0.	0.	0.
	MAX.	76./ 3	160./ 4	1692./ 3	1698./ 3	0./ 1	0./ 1	0./ 1	0./ 1
65		Rigid Y							
1	OPE	0.	-432.	0.	432.	0.	0.	0.	0.
2	OPE	0.	-517.	0.	517.	0.	0.	0.	0.
3	OPE	0.	-605.	0.	605.	0.	0.	0.	0.
4	SUS	0.	-223.	0.	223.	0.	0.	0.	0.
5	EXP	0.	-210.	0.	210.	0.	0.	0.	0.
6	EXP	0.	-294.	0.	294.	0.	0.	0.	0.
7	EXP	0.	-382.	0.	382.	0.	0.	0.	0.
	MAX.	0./ 1	605./ 3	0./ 1	605./ 3	0./ 1	0./ 1	0./ 1	0./ 1

RESTRAINT REPORT, Loads on Restraints
RESTRAINT SUMMARY

NODE	CASE	TYPE	Forces(lb.) FX	FY	FZ	RESULTANT	Moments(ft.lb.) MX	MY	MZ	RESULTANT
3490			Rigid X	Rigid Y	Rigid Z					
	1	OPE	-207665.	-365.	-1907.	207674.	0.	0.	0.	0.
	2	OPE	-290650.	-387.	-2662.	290662.	0.	0.	0.	0.
	3	OPE	-378012.	-411.	-3458.	378028.	0.	0.	0.	0.
	4	SUS	-2.	-282.	-23.	283.	0.	0.	0.	0.
	5	EXP	-207663.	-83.	-1884.	207672.	0.	0.	0.	0.
	6	EXP	-290648.	-105.	-2639.	290660.	0.	0.	0.	0.
	7	EXP	-378010.	-128.	-3434.	378026.	0.	0.	0.	0.
		MAX.	378012./ 3	411./ 3	3458./ 3	378028./ 3	0./ 1	0./ 1	0./ 1	0./ 1
3515			Rigid X	Rigid Y	Rigid Z					
	1	OPE	47410.	704.	1469.	47438.	0.	0.	0.	0.
	2	OPE	66356.	1021.	2077.	66396.	0.	0.	0.	0.
	3	OPE	86300.	1355.	2716.	86353.	0.	0.	0.	0.
	4	SUS	0.	-250.	-30.	251.	0.	0.	0.	0.
	5	EXP	47410.	954.	1499.	47443.	0.	0.	0.	0.
	6	EXP	66355.	1271.	2107.	66401.	0.	0.	0.	0.
	7	EXP	86300.	1605.	2746.	86359.	0.	0.	0.	0.
		MAX.	86300./ 3	1605./ 7	2746./ 7	86359./ 7	0./ 1	0./ 1	0./ 1	0./ 1
3535			Rigid X	Rigid Y	Rigid Z					
	1	OPE	160921.	-4434.	-264.	160982.	0.	0.	0.	0.
	2	OPE	225267.	-5940.	-424.	225346.	0.	0.	0.	0.
	3	OPE	293006.	-7526.	-592.	293103.	0.	0.	0.	0.
	4	SUS	-1.	-68.	100.	121.	0.	0.	0.	0.
	5	EXP	160923.	-4366.	-365.	160983.	0.	0.	0.	0.
	6	EXP	225268.	-5872.	-524.	225345.	0.	0.	0.	0.
	7	EXP	293006.	-7457.	-692.	293102.	0.	0.	0.	0.
		MAX.	293006./ 3	7526./ 3	692./ 7	293103./ 3	0./ 1	0./ 1	0./ 1	0./ 1

000560

CASE	TYPE	Forces(lb.) FX	FY	FZ	RESULTANT	Moments(ft.lb.) MX	MY	MZ	RESULTANT
)		Rigid Y	Rigid X	Rigid Z					
1	OPE	724.	3314.	-30.	3393.	0.	0.	0.	0.
2	OPE	957.	4641.	19.	4739.	0.	0.	0.	0.
3	OPE	1203.	6038.	70.	6157.	0.	0.	0.	0.
4	SUS	14.	-633.	-67.	637.	0.	0.	0.	0.
5	EXP	710.	3948.	37.	4011.	0.	0.	0.	0.
6	EXP	943.	5274.	86.	5359.	0.	0.	0.	0.
7	EXP	1189.	6671.	138.	6777.	0.	0.	0.	0.
	MAX.	1203./ 3	6671./ 7	138./ 7	6777./ 7	0./ 1	0./ 1	0./ 1	0./ 1
)		Displ.	Reaction						
1	OPE	-223.	-685.	147.	735.	701.	-107.	271.	759.
2	OPE	-294.	-843.	180.	910.	884.	-112.	410.	981.
3	OPE	-368.	-1009.	215.	1095.	1077.	-118.	556.	1218.
4	SUS	-7.	-127.	-1.	127.	9.	7.	3.	11.
5	EXP	-216.	-558.	148.	617.	692.	-114.	268.	751.
6	EXP	-287.	-716.	181.	792.	875.	-119.	407.	973.
7	EXP	-361.	-882.	216.	978.	1068.	-125.	553.	1210.
	MAX.	368./ 3	1009./ 3	216./ 7	1095./ 3	1077./ 3	125./ 7	556./ 3	1218./ 3
		Rigid Y							
1	OPE	0.	-278.	0.	278.	0.	0.	0.	0.
2	OPE	0.	-324.	0.	324.	0.	0.	0.	0.
3	OPE	0.	-371.	0.	371.	0.	0.	0.	0.
4	SUS	0.	-164.	0.	164.	0.	0.	0.	0.
5	EXP	0.	-115.	0.	115.	0.	0.	0.	0.
6	EXP	0.	-160.	0.	160.	0.	0.	0.	0.
7	EXP	0.	-207.	0.	207.	0.	0.	0.	0.
	MAX.	0./ 1	371./ 3	0./ 1	371./ 3	0./ 1	0./ 1	0./ 1	0./ 1
		Rigid Y	Rigid Z	Rigid X					
1	OPE	-169.	-7.	71.	183.	0.	0.	0.	0.
2	OPE	-238.	43.	99.	261.	0.	0.	0.	0.
3	OPE	-310.	95.	129.	349.	0.	0.	0.	0.
4	SUS	-7.	-127.	-6.	128.	0.	0.	0.	0.
5	EXP	-162.	120.	76.	216.	0.	0.	0.	0.
6	EXP	-231.	170.	105.	305.	0.	0.	0.	0.
7	EXP	-303.	222.	134.	399.	0.	0.	0.	0.
	MAX.	310./ 3	222./ 7	134./ 7	399./ 7	0./ 1	0./ 1	0./ 1	0./ 1

NODE	CASE	TYPE	Forces(lb.) FX	FY	FZ	RESULTANT	Moments(ft.lb.) MX	MY	MZ	RESULTANT
3650			Rigid Y							
	1	OPE	0.	-185.	0.	185.	0.	0.	0.	0.
	2	OPE	0.	-209.	0.	209.	0.	0.	0.	0.
	3	OPE	0.	-233.	0.	233.	0.	0.	0.	0.
	4	SUS	0.	-120.	0.	120.	0.	0.	0.	0.
	5	EXP	0.	-65.	0.	65.	0.	0.	0.	0.
	6	EXP	0.	-89.	0.	89.	0.	0.	0.	0.
	7	EXP	0.	-114.	0.	114.	0.	0.	0.	0.
		MAX.	0./ 1	233./ 3	0./ 1	233./ 3	0./ 1	0./ 1	0./ 1	0./
3660			Rigid Y							
	1	OPE	0.	-215.	0.	215.	0.	0.	0.	0.
	2	OPE	0.	-218.	0.	218.	0.	0.	0.	0.
	3	OPE	0.	-221.	0.	221.	0.	0.	0.	0.
	4	SUS	0.	-77.	0.	77.	0.	0.	0.	0.
	5	EXP	0.	-138.	0.	138.	0.	0.	0.	0.
	6	EXP	0.	-141.	0.	141.	0.	0.	0.	0.
	7	EXP	0.	-144.	0.	144.	0.	0.	0.	0.
		MAX.	0./ 1	221./ 3	0./ 1	221./ 3	0./ 1	0./ 1	0./ 1	0./
3675			Rigid Y	Rigid Z	Rigid X					
	1	OPE	-287.	332.	-97.	450.	0.	0.	0.	0.
	2	OPE	-335.	384.	-149.	531.	0.	0.	0.	0.
	3	OPE	-385.	438.	-204.	618.	0.	0.	0.	0.
	4	SUS	-2.	-130.	14.	130.	0.	0.	0.	0.
	5	EXP	-285.	462.	-111.	554.	0.	0.	0.	0.
	6	EXP	-333.	513.	-163.	633.	0.	0.	0.	0.
	7	EXP	-383.	568.	-218.	719.	0.	0.	0.	0.
		MAX.	385./ 3	568./ 7	218./ 7	719./ 7	0./ 1	0./ 1	0./ 1	0./
3690			Displ.	Reaction						
	1	OPE	339.	-435.	-11.	551.	435.	217.	-1227.	1320.
	2	OPE	407.	-474.	-2.	625.	539.	248.	-1502.	1615.
	3	OPE	479.	-516.	7.	704.	647.	280.	-1792.	1925.
	4	SUS	3.	-142.	-9.	143.	29.	-10.	-18.	36.
	5	EXP	335.	-292.	-2.	445.	406.	227.	-1209.	1295.
	6	EXP	403.	-332.	7.	522.	509.	258.	-1484.	1590.
	7	EXP	475.	-374.	16.	605.	618.	290.	-1773.	1900.
		MAX.	479./ 3	516./ 3	16./ 7	704./ 3	647./ 3	290./ 7	1792./ 3	1925./

AINT REPORT, Loads on Restraints
AINT SUMMARY

CASE	TYPE	Forces(lb.) FX	FY	FZ	RESULTANT	Moments(ft.lb.) MX	MY	MZ	RESULTANT
)		Rigid Z Rigid X Rigid Y							
1	OPE	262.	166.	99.	325.	0.	0.	0.	0.
2	OPE	370.	268.	140.	478.	0.	0.	0.	0.
3	OPE	484.	375.	182.	639.	0.	0.	0.	0.
4	SUS	-7.	-89.	-1.	89.	0.	0.	0.	0.
5	EXP	269.	255.	101.	384.	0.	0.	0.	0.
6	EXP	377.	357.	141.	538.	0.	0.	0.	0.
7	EXP	491.	464.	183.	700.	0.	0.	0.	0.
	MAX.	491./ 7	464./ 7	183./ 7	700./ 7	0./ 1	0./ 1	0./ 1	0./ 1
)		Rigid Y Rigid Z							
1	OPE	0.	-406.	25.	407.	0.	0.	0.	0.
2	OPE	0.	-363.	34.	365.	0.	0.	0.	0.
3	OPE	0.	-319.	44.	322.	0.	0.	0.	0.
4	SUS	0.	-512.	1.	512.	0.	0.	0.	0.
5	EXP	0.	106.	24.	109.	0.	0.	0.	0.
6	EXP	0.	149.	34.	153.	0.	0.	0.	0.
7	EXP	0.	194.	44.	199.	0.	0.	0.	0.
	MAX.	0./ 1	512./ 4	44./ 3	512./ 4	0./ 1	0./ 1	0./ 1	0./ 1
		Rigid Y							
1	OPE	0.	-329.	0.	329.	0.	0.	0.	0.
2	OPE	0.	-334.	0.	334.	0.	0.	0.	0.
3	OPE	0.	-340.	0.	340.	0.	0.	0.	0.
4	SUS	0.	-315.	0.	315.	0.	0.	0.	0.
5	EXP	0.	-14.	0.	14.	0.	0.	0.	0.
6	EXP	0.	-20.	0.	20.	0.	0.	0.	0.
7	EXP	0.	-26.	0.	26.	0.	0.	0.	0.
	MAX.	0./ 1	340./ 3	0./ 1	340./ 3	0./ 1	0./ 1	0./ 1	0./ 1
		Rigid Y							
1	OPE	0.	-335.	0.	335.	0.	0.	0.	0.
2	OPE	0.	-343.	0.	343.	0.	0.	0.	0.
3	OPE	0.	-352.	0.	352.	0.	0.	0.	0.
4	SUS	0.	-313.	0.	313.	0.	0.	0.	0.
5	EXP	0.	-22.	0.	22.	0.	0.	0.	0.
6	EXP	0.	-30.	0.	30.	0.	0.	0.	0.
7	EXP	0.	-39.	0.	39.	0.	0.	0.	0.
	MAX.	0./ 1	352./ 3	0./ 1	352./ 3	0./ 1	0./ 1	0./ 1	0./ 1

RESTRAINT REPORT, Loads on Restraints
RESTRAINT SUMMARY

NODE	CASE	TYPE	Forces(lb.) FX	FY	FZ	RESULTANT	Moments(ft.lb.) MX	MY	MZ	RESULTANT
3825			Rigid Z	Rigid X	Rigid Y					
	1	OPE	-1297.	46.	-569.	1417.	0.	0.	0.	0.
	2	OPE	-1820.	104.	-800.	1990.	0.	0.	0.	0.
	3	OPE	-2370.	166.	-1043.	2594.	0.	0.	0.	0.
	4	SUS	9.	-102.	8.	103.	0.	0.	0.	0.
	5	EXP	-1306.	148.	-577.	1436.	0.	0.	0.	0.
	6	EXP	-1829.	206.	-808.	2010.	0.	0.	0.	0.
	7	EXP	-2379.	267.	-1051.	2614.	0.	0.	0.	0.
		MAX.	2379./ 7	267./ 7	1051./ 7	2614./ 7	0./ 1	0./ 1	0./ 1	0./
3845			Rigid Y							
	1	OPE	0.	-323.	0.	323.	0.	0.	0.	0.
	2	OPE	0.	-334.	0.	334.	0.	0.	0.	0.
	3	OPE	0.	-345.	0.	345.	0.	0.	0.	0.
	4	SUS	0.	-296.	0.	296.	0.	0.	0.	0.
	5	EXP	0.	-27.	0.	27.	0.	0.	0.	0.
	6	EXP	0.	-37.	0.	37.	0.	0.	0.	0.
	7	EXP	0.	-48.	0.	48.	0.	0.	0.	0.
		MAX.	0./ 1	345./ 3	0./ 1	345./ 3	0./ 1	0./ 1	0./ 1	0./
3881			Rigid Y							
	1	OPE	0.	-302.	0.	302.	0.	0.	0.	0.
	2	OPE	0.	-341.	0.	341.	0.	0.	0.	0.
	3	OPE	0.	-383.	0.	383.	0.	0.	0.	0.
	4	SUS	0.	-203.	0.	203.	0.	0.	0.	0.
	5	EXP	0.	-99.	0.	99.	0.	0.	0.	0.
	6	EXP	0.	-138.	0.	138.	0.	0.	0.	0.
	7	EXP	0.	-180.	0.	180.	0.	0.	0.	0.
		MAX.	0./ 1	383./ 3	0./ 1	383./ 3	0./ 1	0./ 1	0./ 1	0./

000564

FLUOR DANIEL

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
US DEPARTMENT OF ENERGY

STRESS ANALYSIS FOR 3" CARBON STEEL NEUTRALIZED UNH TRANSFER LINE

REPORT NO. FERMCO-PS-3

000565

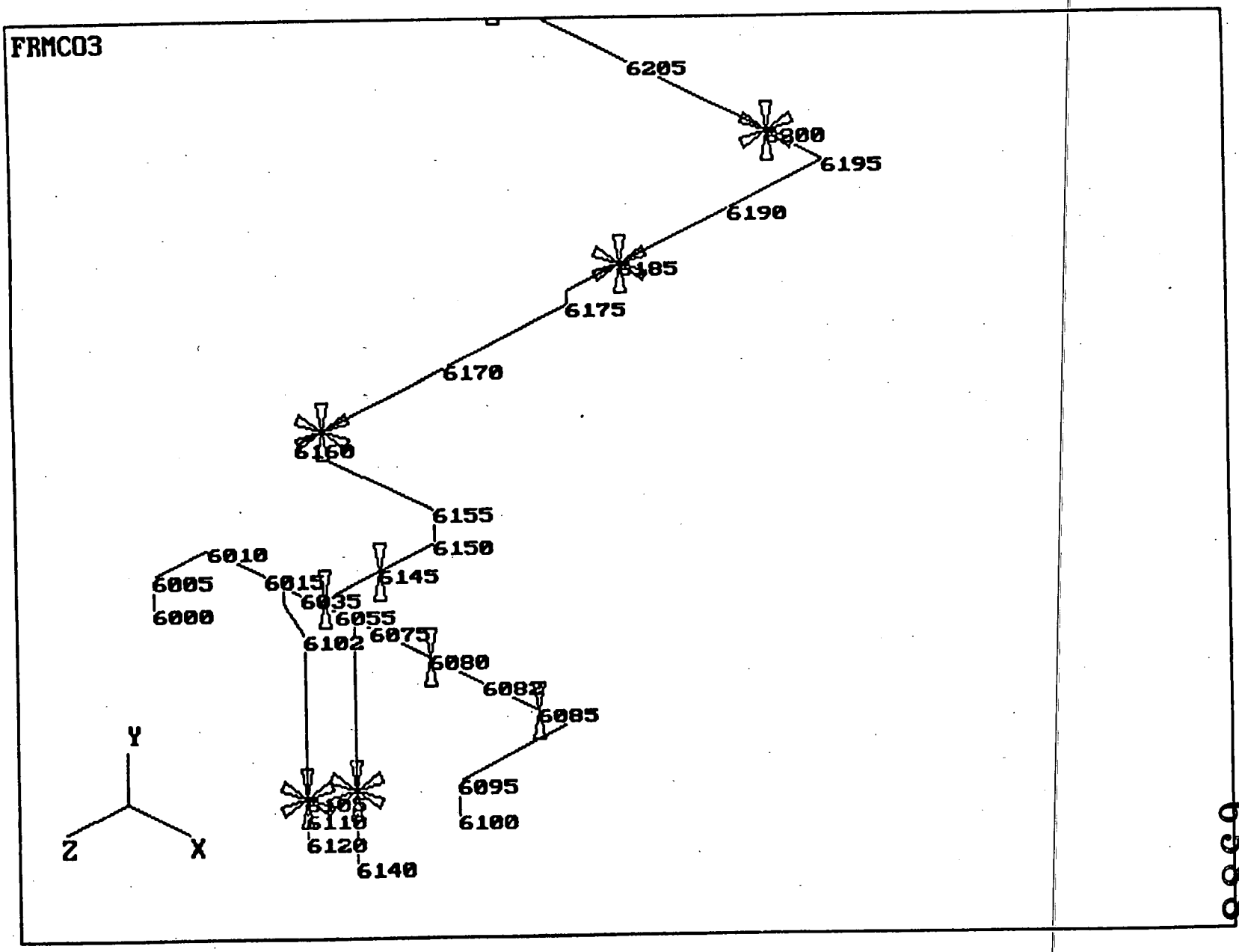
Analysis of 3" carbon steel piping between neutralized UNH pumps J-102 and 103 (at Tanks 25 and 26) and Filter Feed Tanks F-43-203 & 203A

The piping was analyzed for weight and thermal expansion loads. The temperatures used for thermal expansion analyses are 50°F, 150°F, and 250°F.

The as installed piping system does not fully meet the requirements of ANSI B31.3 Code. In certain portions of the piping system the stresses exceed the code allowables. The maximum code stresses in the piping for each load case is found on the "stress summary" page of the computer output (see page i of the computer output). In addition, a number U-bolts experience thermal expansion loads above their rated capacity. The support loads are documented in the "restraint summary" portion of the computer output.

However, caution shall be exercised in the interpretation of the results. The calculation of the loads on the supports and stresses in the piping system are based on a mathematical model which assumed idealized conditions. For example, it is assumed that a tight U-bolt acts as rigid restraint in three directions. However, as the load on the U-bolt increases beyond its capacity, this assumption may no longer be valid. Under such conditions, the pipe may slide through the U-bolt or the U-bolt may yield locally (but not fail). Such occurrences, in our judgment, would allow the pipe to expand with less constraint than as modeled, resulting in lower than calculated piping stresses and pipe support loads.

In order to reduce the support loads and piping stresses, a number supports need to be modified. An analysis of the piping system with the recommended changes is documented in a separate report.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6000
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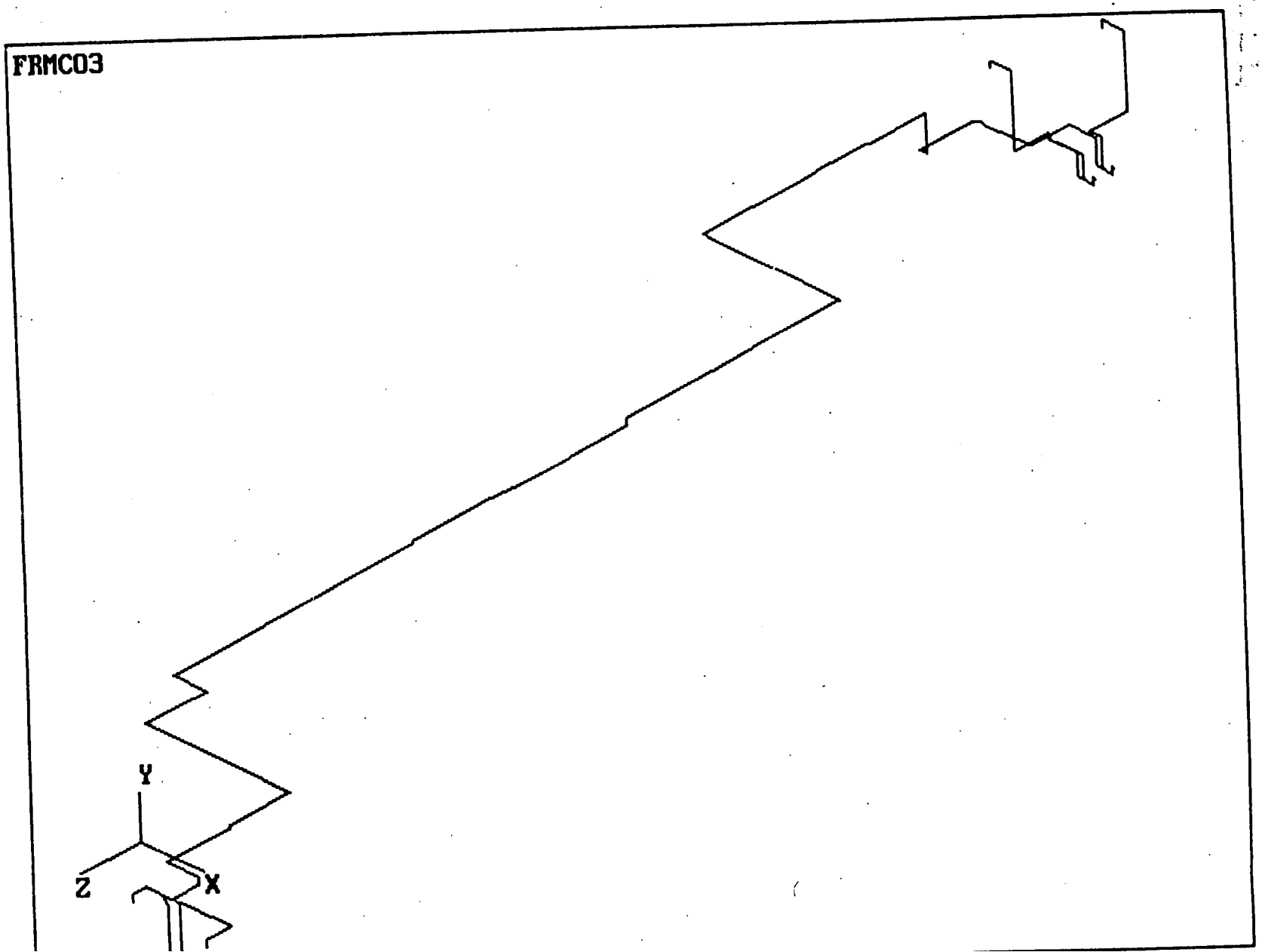
Y
Z
X

6588



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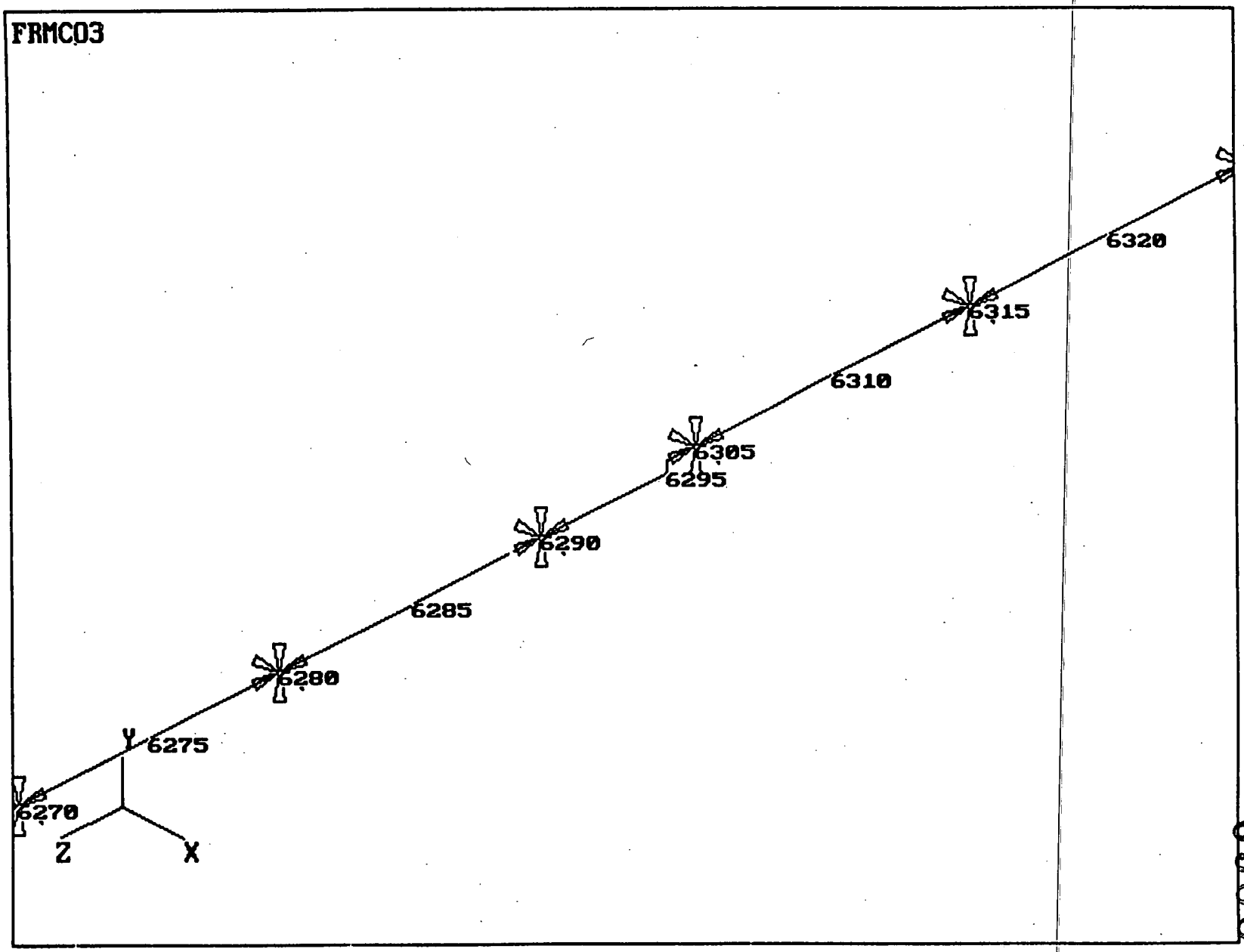
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Y
Z
X

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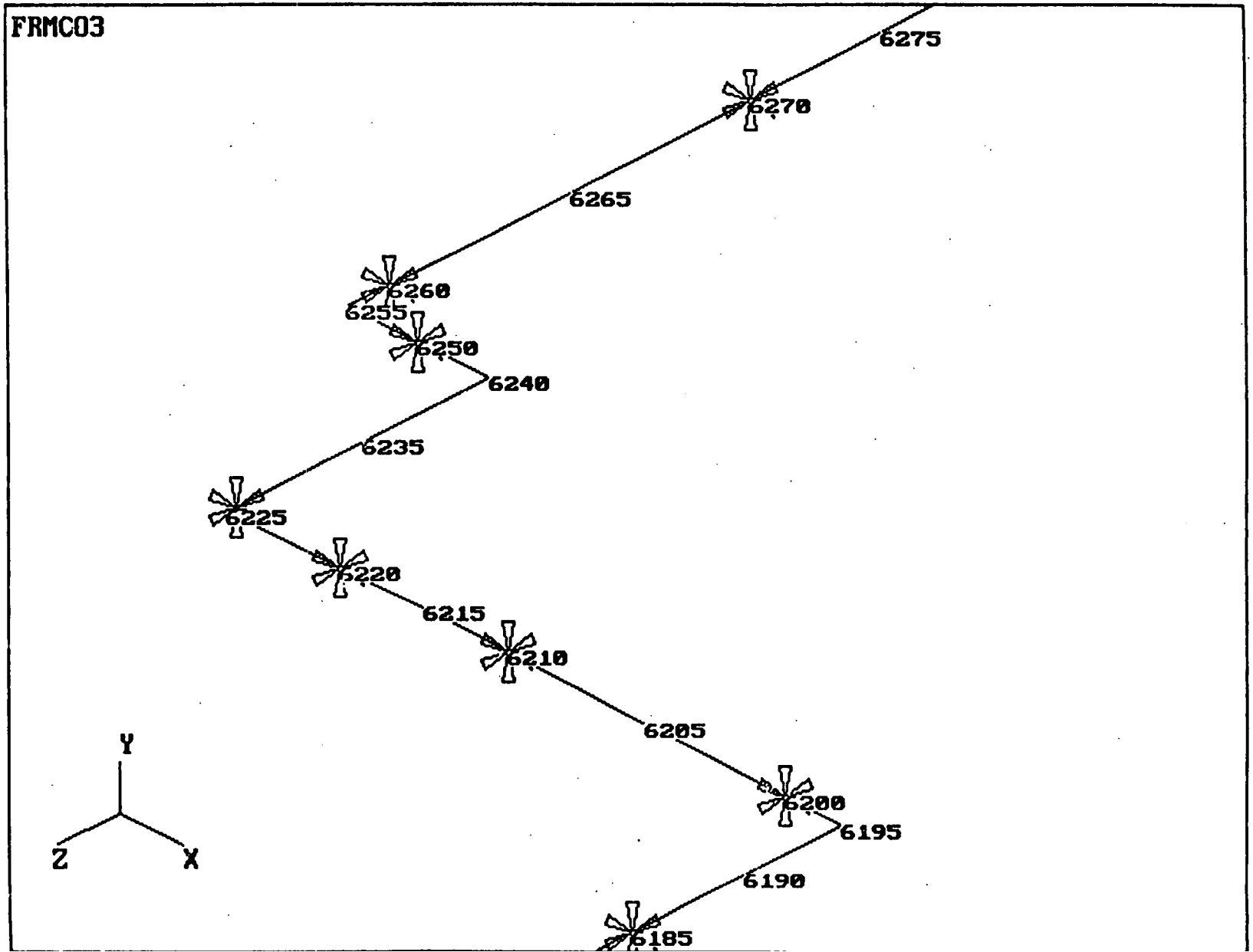
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6200
6195
6190
6185
Y
Z
X

FRMC03
6500
6470
6465
6460
6455
6450
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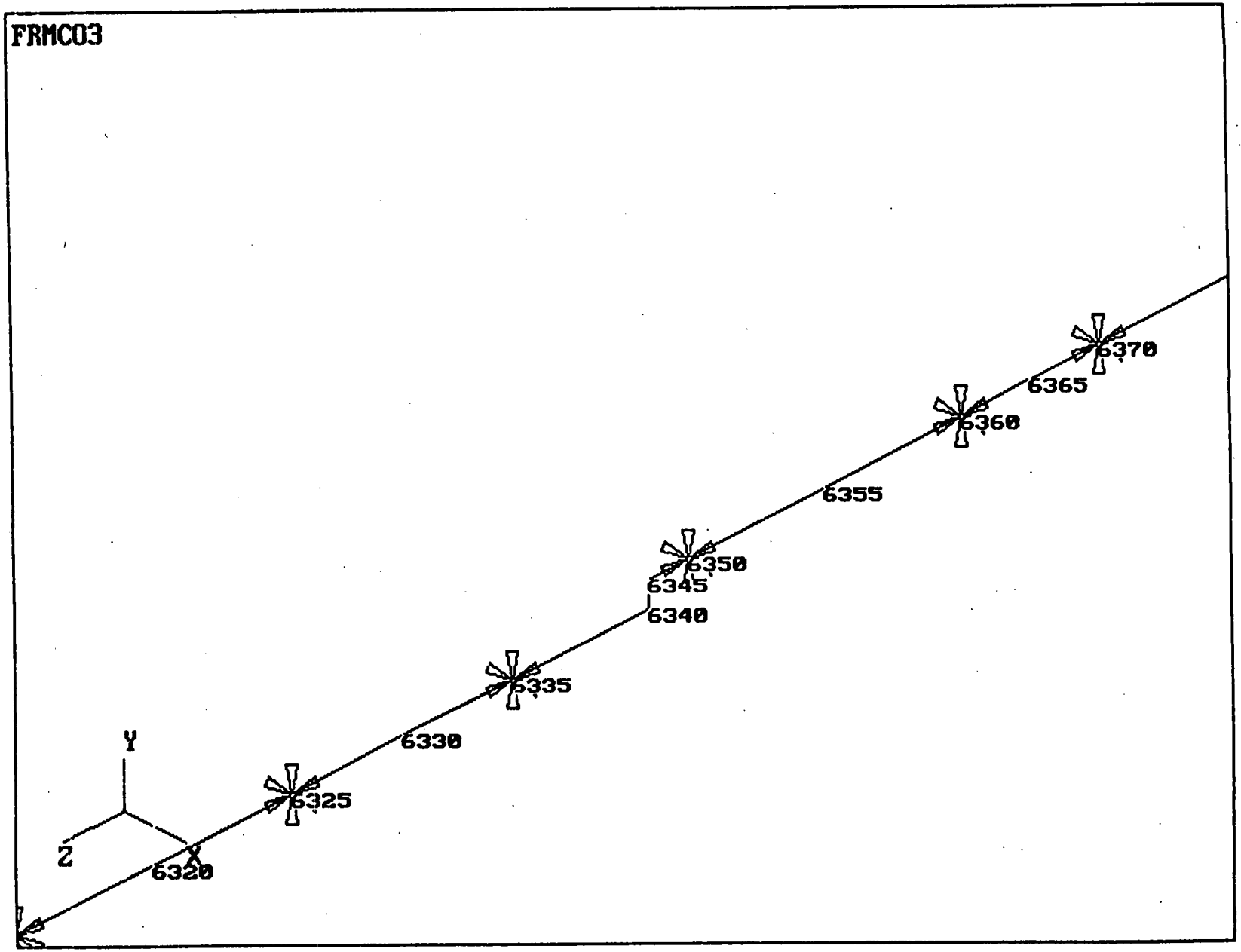
X

6588

000242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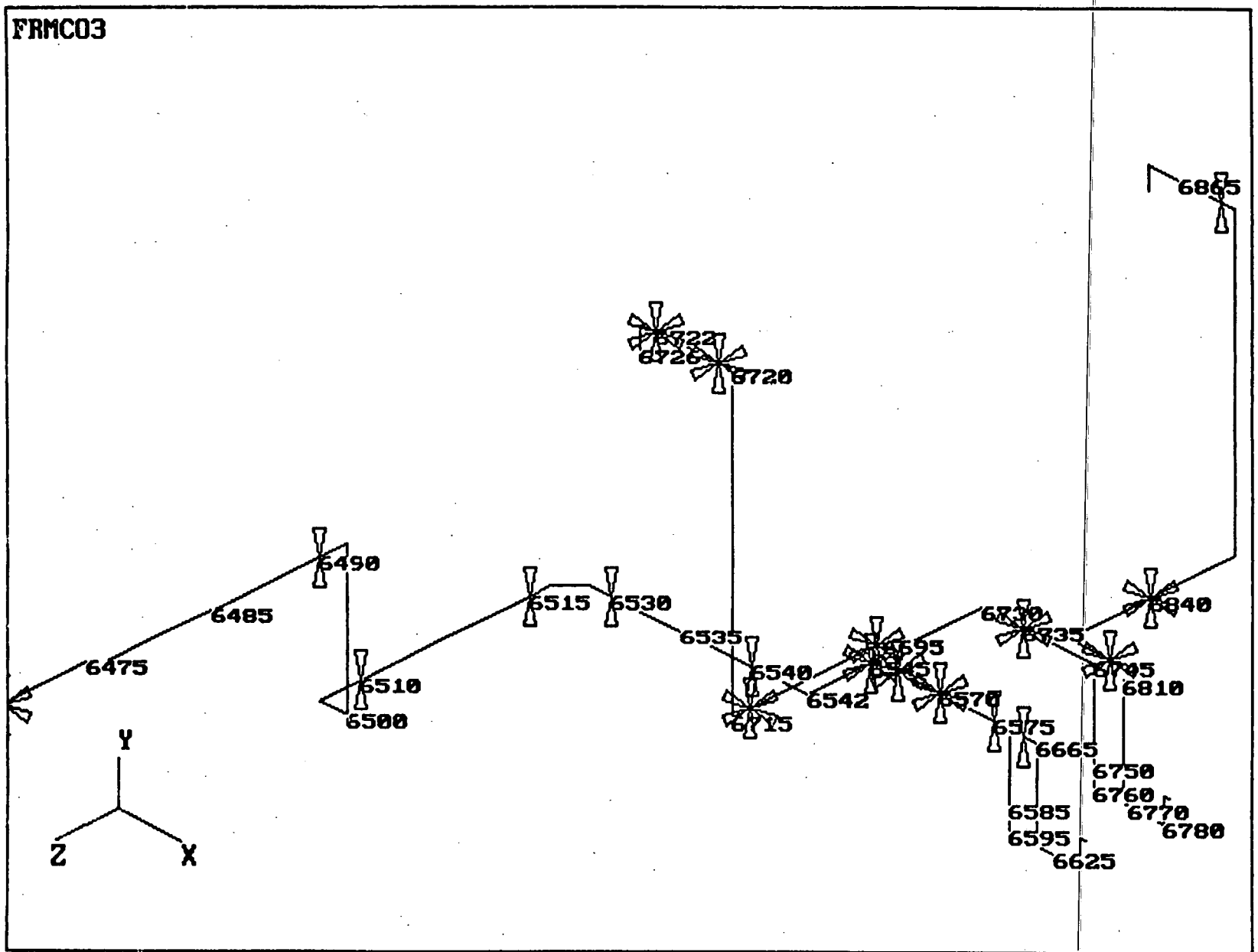
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6695
6570
6575
6665
6585
6595
6625
6730
6735
6745
6810
6840
6750
6760
6770
6780
Y
Z
X

6588

000573

LISTING OF STATIC LOAD CASES FOR THIS ANALYSIS
CASE --------TITLE---------

1 (OPE)W+DIS+T1+P1
2 (OPE)W+DIS+T2+P1
3 (OPE)W+DIS+T3+P1
4 (SUS)W+P1
5 (EXP)D5=D1-D4
6 (EXP)D6=D2-D4
7 (EXP)D7=D3-D4

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STRESS SUMMARY	CASE 2 (OPE) W+DIS+T2+P1	57
STRESS REPORT, Stresses on Elements	CASE 2 (OPE) W+DIS+T2+P1	58
STRESS SUMMARY	CASE 3 (OPE) W+DIS+T3+P1	68
STRESS REPORT, Stresses on Elements	CASE 3 (OPE) W+DIS+T3+P1	69
STRESS SUMMARY	CASE 4 (SUS) W+P1	79
STRESS REPORT, Stresses on Elements	CASE 4 (SUS) W+P1	80
STRESS SUMMARY	CASE 5 (EXP) D5(EXP)=D1-D4	90
STRESS REPORT, Stresses on Elements	CASE 5 (EXP) D5(EXP)=D1-D4	91
STRESS SUMMARY	CASE 6 (EXP) D6(EXP)=D2-D4	101
STRESS REPORT, Stresses on Elements	CASE 6 (EXP) D6(EXP)=D2-D4	102
STRESS SUMMARY	CASE 7 (EXP) D7(EXP)=D3-D4	112
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S A R I I VERS 3.21 JOBNAME:FRMC03 JAN 21,1995 10:52am Page 1
sed To: FLUOR DANIEL ID: 13692

escription:

JECT: FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

ENT : UNITED STATES DEPARTMENT OF ENERGY

LYST: Jos Kaliyadan

ES : FROM PUMPS J-102 & 103 TO FILTER FEED TANKS F-43-203 & 203A

PIPE DATA

From 6000 To 6005 DY= 2.000 ft.
PIPE
Dia= 3.500 in. Wall= .216 in. Insul= 1.500 in.
GENERAL
T1= 50 F T2= 100 F T3= 250 F P1= 150.0000 lb./sq.in.
Mat= (1)LOW CARBON STEEL E= 29,500,000 lb./sq.in. v = .292
Density= .2964 lb./cu.in. Insul= .0041 lb./cu.in.
Fluid= .03972222 lb./cu.in.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000
ALLOWABLE STRESSES
B31.3 (1993) Sc= 17,000 lb./sq.in. Sh1= 17,000 lb./sq.in.
Sh2= 17,000 lb./sq.in. Sh3= 17,000 lb./sq.in. F1= 1.00 F2= 1.00
F3= 1.00

From 6005 To 6010 DZ= -4.000 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 6010 To 6015 DX= 4.190 ft.

From 6015 To 6020 DX= .971 ft.
RIGID Weight= 98.00 lb.

From 6020 To 6025 DX= .260 ft.
SIF's & TEE's
Node 6025 Welding Tee

From 6025 To 6030 DX= .260 ft.

From 6030 To 6035 DX= 1.096 ft.
RIGID Weight= 113.00 lb.

From 6035 To 6040 DX= .971 ft.
RIGID Weight= 98.00 lb.

From 6040 To 6045 DX= .260 ft.
SIF's & TEE's
Node 6045 Welding Tee

From 6045 To 6050 DX= .260 ft.

From 6050 To 6055 DX= .971 ft.
RIGID Weight= 98.00 lb.

From 6055 To 6060 DX= 1.096 ft.
RIGID Weight= 113.00 lb.

From 6060 To 6065 DX= .260 ft.
SIF's & TEE's
Node 6065 Welding Tee

ATA

6065 To 6070 DX= .260 ft.

6070 To 6075 DX= .971 ft.
Weight= 98.00 lb.

6075 To 6080 DX= 4.189 ft.
INTS
le 6080 Y

6080 To 6082 DX= 4.000 ft.

6082 To 6085 DX= 4.000 ft.
INTS
le 6085 Y

6085 To 6090 DX= 2.000 ft.
t "TO" end
lius= 4.500 in. (LONG) Bend Angle= 90.000

6090 To 6095 DZ= 8.000 ft.
t "TO" end
lius= 4.500 in. (LONG) Bend Angle= 90.000

6095 To 6100 DY= -2.000 ft.
INTS
le 6100 ANC

6025 To 6101 DY= -1.000 ft.

= 1.315 in. Wall= .179 in. Insul= 1.500 in.
t "TO" end
lius= 1.500 in. (LONG) Bend Angle= 45.000

6101 To 6102 DX= 1.500 ft. DY= -1.500 ft.
t "TO" end
lius= 1.500 in. (LONG) Bend Angle= 45.000

6102 To 6105 DY= -9.500 ft.
INTS
le 6105 X
le 6105 Y
le 6105 Z

6105 To 6110 DY= -1.000 ft.

6110 To 6115 DY= -.666 ft.
Weight= 25.00 lb.

6115 To 6120 DY= -.666 ft.
Weight= 25.00 lb.

PIPE DATA

From 6065 To 6125 DY= -10.000 ft.
RESTRAINTS
Node 6125 X
Node 6125 Y
Node 6125 Z

From 6125 To 6130 DY= -3.000 ft.

From 6130 To 6135 DY= -.666 ft.
RIGID Weight= 25.00 lb.

From 6135 To 6140 DY= -.666 ft.
RIGID Weight= 25.00 lb.

From 6045 To 6142 DZ= -.500 ft.
PIPE
Dia= 3.500 in. Wall= .216 in. Insul= 1.500 in.
RESTRAINTS
Node 6142 Y

From 6142 To 6145 DZ= -4.000 ft.
RESTRAINTS
Node 6145 Y

From 6145 To 6150 DZ= -4.000 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 6150 To 6155 DY= 2.000 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 6155 To 6160 DX= -10.000 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 6160 To 6165 DZ= -2.000 ft.
RESTRAINTS
Node 6165 X
Node 6165 Y
Node 6165 Z

From 6165 To 6170 DZ= -9.000 ft.

From 6170 To 6175 DZ= -9.000 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 6175 To 6180 DY= .750 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

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80 To 6185 DZ= -4.000 ft.

ITS
6185 X
6185 Y
6185 Z

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85 To 6190 DZ= -8.000 ft.

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90 To 6195 DZ= -7.000 ft.
"TO", end
s= 4.500 in. (LONG) Bend Angle= 90.000

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95 To 6200 DX= -4.000 ft.

ITS
6200 X
6200 Y
6200 Z

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00 To 6205 DX= -10.000 ft.

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05 To 6210 DX= -10.000 ft.

ITS
6210 X
6210 Y
6210 Z

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10 To 6215 DX= -6.000 ft.

---

15 To 6220 DX= -6.000 ft.

ITS
6220 X
6220 Y
6220 Z

---

20 To 6225 DX= -8.000 ft.
"TO" end
s= 4.500 in. (LONG) Bend Angle= 90.000

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25 To 6230 DZ= -.666 ft.

NTS
6230 X
6230 Y
6230 Z

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30 To 6235 DZ= -9.000 ft.

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35 To 6240 DZ= -9.000 ft.
"TO" end
s= 4.500 in. (LONG) Bend Angle= 90.000

PIPE DATA

From 6240 To 6250 DX= -5.000 ft.
RESTRAINTS
Node 6250 X
Node 6250 Y
Node 6250 Z

From 6250 To 6255 DX= -5.000 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 6255 To 6260 DZ= -3.000 ft.
RESTRAINTS
Node 6260 X
Node 6260 Y
Node 6260 Z

From 6260 To 6265 DZ= -13.000 ft.

From 6265 To 6270 DZ= -13.000 ft.
RESTRAINTS
Node 6270 X
Node 6270 Y
Node 6270 Z

From 6270 To 6275 DZ= -9.500 ft.

From 6275 To 6280 DZ= -9.500 ft.
RESTRAINTS
Node 6280 X
Node 6280 Y
Node 6280 Z

From 6280 To 6285 DZ= -9.500 ft.

From 6285 To 6290 DZ= -9.500 ft.
RESTRAINTS
Node 6290 X
Node 6290 Y
Node 6290 Z

From 6290 To 6295 DZ= -9.000 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 6295 To 6300 DY= .750 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 6300 To 6305 DZ= -2.000 ft.
RESTRAINTS
Node 6305 X
Node 6305 Y

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  6305  Z
-------------------------------------------------------------------------
305  To  6310  DZ= -10.000 ft.
-------------------------------------------------------------------------
310  To  6315  DZ= -10.000 ft.
NTS
  6315  X
  6315  Y
  6315  Z
-------------------------------------------------------------------------
315  To  6320  DZ= -10.000 ft.
-------------------------------------------------------------------------
320  To  6325  DZ= -10.000 ft.
NTS
  6325  X
  6325  Y
  6325  Z
-------------------------------------------------------------------------
325  To  6330  DZ= -8.000 ft.
-------------------------------------------------------------------------
330  To  6335  DZ= -8.000 ft.
NTS
  6335  X
  6335  Y
  6335  Z
-------------------------------------------------------------------------
335  To  6340  DZ= -10.000 ft.
  "TO" end
ius= 4.500 in. (LONG)   Bend Angle= 45.000
-------------------------------------------------------------------------
340  To  6345  DX= -2.120 ft.  DZ= -2.120 ft.
  "TO" end
ius= 4.500 in. (LONG)   Bend Angle= 45.000
-------------------------------------------------------------------------
345  To  6350  DZ= -3.000 ft.
INTS
e  6350  X
e  6350  Y
e  6350  Z
-------------------------------------------------------------------------
6350  To  6355  DZ= -10.000 ft.
-------------------------------------------------------------------------
6355  To  6360  DZ= -10.000 ft.
INTS
e  6360  X
e  6360  Y
e  6360  Z
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PIPE DATA

From 6360 To 6365 DZ= -5.000 ft.

From 6365 To 6370 DZ= -5.000 ft.
RESTRAINTS
  Node 6370 X
  Node 6370 Y
  Node 6370 Z

From 6370 To 6375 DZ= -8.000 ft.

From 6375 To 6380 DZ= -7.000 ft.
RESTRAINTS
  Node 6380 X
  Node 6380 Y
  Node 6380 Z

From 6380 To 6385 DZ= -10.000 ft.

From 6385 To 6390 DZ= -10.000 ft.
RESTRAINTS
  Node 6390 X
  Node 6390 Y
  Node 6390 Z

From 6390 To 6395 DZ= -1.000 ft.
BEND at "TO" end
  Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 6395 To 6405 DX= -1.000 ft.
RESTRAINTS
  Node 6405 X
  Node 6405 Y
  Node 6405 Z

From 6405 To 6410 DX= -10.000 ft.

From 6410 To 6415 DX= -10.000 ft.
RESTRAINTS
  Node 6415 X
  Node 6415 Y
  Node 6415 Z

From 6415 To 6420 DX= -10.000 ft.

From 6420 To 6425 DX= -10.000 ft.
RESTRAINTS
  Node 6425 X
  Node 6425 Y
  Node 6425 Z

)ATA

6425 To 6430 DX= -1.000 ft.

at "TO" end
dius= 4.500 in. (LONG) Bend Angle= 90.000

6430 To 6440 DZ= -6.000 ft.

AINTS
de 6440 X
de 6440 Y
de 6440 Z

6440 To 6445 DZ= -5.000 ft.

6445 To 6450 DZ= -5.000 ft.

AINTS
de 6450 X
de 6450 Y
de 6450 Z

6450 To 6455 DZ= -10.000 ft.

6455 To 6460 DZ= -10.000 ft.

AINTS
de 6460 X
de 6460 Y
de 6460 Z

6460 To 6465 DZ= -5.000 ft.

6465 To 6470 DZ= -5.000 ft.

AINTS
de 6470 X
de 6470 Y
de 6470 Z

6470 To 6475 DZ= -6.000 ft.

at "TO" end
dius= 4.500 in. (LONG) Bend Angle= 45.000

6475 To 6480 DX= .707 ft. DZ= -.707 ft.

at "TO" end
dius= 4.500 in. (LONG) Bend Angle= 45.000

6480 To 6485 DZ= -7.500 ft.

6485 To 6490 DZ= -7.500 ft.

RAINTS
ode 6490 Y

6490 To 6495 DZ= -2.000 ft.

at "TO" end
adius= 4.500 in. (LONG) Bend Angle= 90.000

PIPE DATA

From 6495 To 6500 DY= -10.000 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 6500 To 6505 DX= -2.000 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 6505 To 6510 DZ= -3.000 ft.
RESTRAINTS
Node 6510 Y

From 6510 To 6515 DZ= -12.000 ft.
RESTRAINTS
Node 6515 Y

From 6515 To 6520 DZ= -1.500 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 45.000

From 6520 To 6525 DX= 1.414 ft. DZ= -1.414 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 45.000

From 6525 To 6530 DX= 1.500 ft.
RESTRAINTS
Node 6530 Y

From 6530 To 6535 DX= 5.000 ft.

From 6535 To 6540 DX= 5.000 ft.
RESTRAINTS
Node 6540 Y

From 6540 To 6542 DX= 4.000 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 6542 To 6545 DZ= -4.500 ft.
RESTRAINTS
Node 6545 X
Node 6545 Y
Node 6545 Z

From 6545 To 6550 DZ= -.604 ft.

From 6550 To 6555 DZ= -.791 ft.
RIGID Weight= 75.00 lb.

From 6555 To 6560 DZ= -.604 ft.
SIF's & TEE's
Node 6560 Welding Tee

ATA

5560 To 6565 DY= -1.333 ft.
t "TO" end
ius= 4.500 in. (LONG) Bend Angle= 90.000

5565 To 6570 DX= 3.000 ft.
INTS
e 6570 Y
e 6570 X
e 6570 Z

5570 To 6575 DX= 3.833 ft.
INTS
e 6575 Y

5575 To 6580 DX= 1.083 ft.
t "TO" end
ius= 4.500 in. (LONG) Bend Angle= 90.000

5580 To 6585 DY= -4.416 ft.

5585 To 6590 DY= -.791 ft.
Weight= 75.00 lb.

5590 To 6595 DY= -.625 ft.
t "TO" end
ius= 4.500 in. (LONG) Bend Angle= 90.000

5595 To 6600 DX= 2.000 ft.
& TEE's
e 6600 Welding Tee

6600 To 6620 DX= .437 ft.

= 3.500 in. Wall= .216 in. Insul= 1.500 in.

6620 To 6625 DX= .791 ft.
Weight= 75.00 lb.

6625 To 6630 DX= 1.770 ft.
t "TO" end
ius= 4.500 in. (LONG) Bend Angle= 90.000

6630 To 6635 DY= 1.666 ft.
t "TO" end
ius= 4.500 in. (LONG) Bend Angle= 90.000

6635 To 6640 DX= .416 ft.

6600 Tc 6650 DY= .625 ft.

PIPE DATA

From 6650 To 6655 DY= .791 ft.
RIGID Weight= 75.00 lb.

From 6655 To 6660 DY= 1.500 ft.
SIF's & TEE's
Node 6660 Welding Tee

From 6660 To 6665 DY= 2.916 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 6665 To 6670 DX= -1.000 ft.
RESTRAINTS
Node 6670 Y

From 6670 To 6675 DX= -5.000 ft.

From 6675 To 6685 DX= -4.000 ft.
RESTRAINTS
Node 6685 X
Node 6685 Y
Node 6685 Z

From 6685 To 6690 DX= -1.000 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 6690 To 6695 DY= 1.333 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 6695 To 6700 DZ= .500 ft.
RESTRAINTS
Node 6700 X
Node 6700 Y
Node 6700 Z

From 6700 To 6710 DZ= 9.000 ft.
RESTRAINTS
Node 6710 X
Node 6710 Y
Node 6710 Z

From 6710 To 6715 DZ= 1.250 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 6715 To 6720 DY= 20.000 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

:TA

:720 To 6721 DX= -1.000 ft.

NTS
: 6721 X
: 6721 Y
: 6721 Z

:721 To 6722 DX= -4.500 ft.

NTS
: 6722 X
: 6722 Y
: 6722 Z

:722 To 6723 DX= -.416 ft.

:723 To 6724 DX= -.083 ft.
Weight= 24.00 lb.

:724 To 6725 DX= -.500 ft.
: "TO" end
ius= 4.500 in. (LONG) Bend Angle= 90.000

:725 To 6726 DY= -1.500 ft.
:EMENTS
: 6726 DX= .053 in. DY= .150 in. DZ= .053 in. RX= .000
.000 RZ= .000

:560 To 6730 DZ= -6.000 ft.
: "TO" end
ius= 4.500 in. (LONG) Bend Angle= 90.000

:730 To 6735 DX= 3.000 ft.
INTS
: 6735 Y
: 6735 X
: 6735 Z

:735 To 6745 DX= 5.000 ft.
: "TO" end
ius= 4.500 in. (LONG) Bend Angle= 90.000

:745 To 6750 DY= -5.750 ft.

:750 To 6755 DY= -.791 ft.
Weight= 75.00 lb.

:755 To 6760 DY= -.625 ft.
: "TO" end
ius= 4.500 in. (LONG) Bend Angle= 90.000

6760 To 6765 DX= 2.000 ft.
& TEE's
e 6765 Welding Tee

PIPE DATA

From 6765 To 6770 DX= .437 ft.
PIPE
Dia= 3.500 in. Wall= .216 in. Insul= 1.500 in.

From 6770 To 6775 DX= .791 ft.
RIGID Weight= 75.00 lb.

From 6775 To 6780 DX= 1.770 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 6780 To 6785 DY= 1.666 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 6785 To 6790 DX= .416 ft.

From 6765 To 6795 DY= .625 ft.

From 6795 To 6800 DY= .791 ft.
RIGID Weight= 75.00 lb.

From 6800 To 6805 DY= 1.250 ft.
SIF's & TEE's
Node 6805 Welding Tee

From 6805 To 6810 DY= 4.250 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 6810 To 6812 DX= -1.060 ft. DZ= -1.060 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 44.994

From 6812 To 6815 DX= -1.000 ft.
RESTRAINTS
Node 6815 Y
Node 6815 X
Node 6815 Z

From 6815 To 6820 DX= -3.000 ft.
BEND at "TO" end
Radius= 4.500 in. (LONG) Bend Angle= 90.000

From 6820 To 6840 DZ= -6.000 ft.
RESTRAINTS
Node 6840 X
Node 6840 Y
Node 6840 Z

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5840 To 6850 DZ= -6.000 ft.

t "TO" end

ius= 4.500 in. (LONG) Bend Angle= 90.000

5850 To 6855 DY= 20.000 ft.

t "TO" end

ius= 4.500 in. (LONG) Bend Angle= 90.000

6855 To 6860 DX= -1.000 ft.

INTS

e 6860 Y

6860 To 6865 DX= -3.000 ft.

6865 To 6870 DX= -.083 ft.

Weight= 24.00 lb.

6870 To 6875 DX= -2.083 ft.

t "TO" end

ius= 4.500 in. (LONG) Bend Angle= 90.000

6875 To 6880 DY= -1.500 ft.

CEMENTS

e 6880 DX= -.053 in. DY= .150 in. DZ= -.053 in. RX= .000

.000 RZ= .000

MATERIAL Changes:
6000 6005 Mat= (1)LOW CARBON STEEL E= 29,500,000 lb./sq.in. v = .292
Density= .2964 lb./cu.in.

EMENTS

005	Radius= 4.500 in.	(LONG)	Bend Angle= 90.000
010	Radius= 4.500 in.	(LONG)	Bend Angle= 90.000
090	Radius= 4.500 in.	(LONG)	Bend Angle= 90.000
095	Radius= 4.500 in.	(LONG)	Bend Angle= 90.000
101	Radius= 1.500 in.	(LONG)	Bend Angle= 45.000
102	Radius= 1.500 in.	(LONG)	Bend Angle= 45.000
150	Radius= 4.500 in.	(LONG)	Bend Angle= 90.000
155	Radius= 4.500 in.	(LONG)	Bend Angle= 90.000
160	Radius= 4.500 in.	(LONG)	Bend Angle= 90.000
175	Radius= 4.500 in.	(LONG)	Bend Angle= 90.000
180	Radius= 4.500 in.	(LONG)	Bend Angle= 90.000
195	Radius= 4.500 in.	(LONG)	Bend Angle= 90.000
225	Radius= 4.500 in.	(LONG)	Bend Angle= 90.000
240	Radius= 4.500 in.	(LONG)	Bend Angle= 90.000
255	Radius= 4.500 in.	(LONG)	Bend Angle= 90.000
295	Radius= 4.500 in.	(LONG)	Bend Angle= 90.000
300	Radius= 4.500 in.	(LONG)	Bend Angle= 90.000
340	Radius= 4.500 in.	(LONG)	Bend Angle= 45.000
345	Radius= 4.500 in.	(LONG)	Bend Angle= 45.000
395	Radius= 4.500 in.	(LONG)	Bend Angle= 90.000
430	Radius= 4.500 in.	(LONG)	Bend Angle= 90.000
475	Radius= 4.500 in.	(LONG)	Bend Angle= 45.000
480	Radius= 4.500 in.	(LONG)	Bend Angle= 45.000
495	Radius= 4.500 in.	(LONG)	Bend Angle= 90.000
500	Radius= 4.500 in.	(LONG)	Bend Angle= 90.000
505	Radius= 4.500 in.	(LONG)	Bend Angle= 90.000
520	Radius= 4.500 in.	(LONG)	Bend Angle= 45.000
525	Radius= 4.500 in.	(LONG)	Bend Angle= 45.000
542	Radius= 4.500 in.	(LONG)	Bend Angle= 90.000
565	Radius= 4.500 in.	(LONG)	Bend Angle= 90.000
580	Radius= 4.500 in.	(LONG)	Bend Angle= 90.000
595	Radius= 4.500 in.	(LONG)	Bend Angle= 90.000
630	Radius= 4.500 in.	(LONG)	Bend Angle= 90.000
635	Radius= 4.500 in.	(LONG)	Bend Angle= 90.000
665	Radius= 4.500 in.	(LONG)	Bend Angle= 90.000
690	Radius= 4.500 in.	(LONG)	Bend Angle= 90.000
695	Radius= 4.500 in.	(LONG)	Bend Angle= 90.000
715	Radius= 4.500 in.	(LONG)	Bend Angle= 90.000
720	Radius= 4.500 in.	(LONG)	Bend Angle= 90.000
725	Radius= 4.500 in.	(LONG)	Bend Angle= 90.000
730	Radius= 4.500 in.	(LONG)	Bend Angle= 90.000
745	Radius= 4.500 in.	(LONG)	Bend Angle= 90.000
760	Radius= 4.500 in.	(LONG)	Bend Angle= 90.000
780	Radius= 4.500 in.	(LONG)	Bend Angle= 90.000
785	Radius= 4.500 in.	(LONG)	Bend Angle= 90.000
810	Radius= 4.500 in.	(LONG)	Bend Angle= 90.000
812	Radius= 4.500 in.	(LONG)	Bend Angle= 44.994
820	Radius= 4.500 in.	(LONG)	Bend Angle= 90.000

BEND ELEMENTS

6840 6850	Radius= 4.500 in. (LONG)	Bend Angle= 90.000
6850 6855	Radius= 4.500 in. (LONG)	Bend Angle= 90.000
6870 6875	Radius= 4.500 in. (LONG)	Bend Angle= 90.000

020 RIGID Weight= 98.00 lb.
035 RIGID Weight= 113.00 lb.
040 RIGID Weight= 98.00 lb.
055 RIGID Weight= 98.00 lb.
060 RIGID Weight= 113.00 lb.
075 RIGID Weight= 98.00 lb.
115 RIGID Weight= 25.00 lb.
120 RIGID Weight= 25.00 lb.
135 RIGID Weight= 25.00 lb.
140 RIGID Weight= 25.00 lb.
555 RIGID Weight= 75.00 lb.
590 RIGID Weight= 75.00 lb.
625 RIGID Weight= 75.00 lb.
655 RIGID Weight= 75.00 lb.
724 RIGID Weight= 24.00 lb.
755 RIGID Weight= 75.00 lb.
775 RIGID Weight= 75.00 lb.
800 RIGID Weight= 75.00 lb.
870 RIGID Weight= 24.00 lb.

RESTRAINTS

NODE	TYPE	CNODE	STIF1	Len GAP STIF2	MU YIELD FORCE	Dir Vectors		
6080	Y					.000	1.000	.000
6085	Y					.000	1.000	.000
6100	ANC					.000	.000	.000
6105	X					1.000	.000	.000
6105	Y					.000	1.000	.000
6105	Z					.000	.000	1.000
6125	X					1.000	.000	.000
6125	Y					.000	1.000	.000
6125	Z					.000	.000	1.000
6142	Y					.000	1.000	.000
6145	Y					.000	1.000	.000
6165	X					1.000	.000	.000
6165	Y					.000	1.000	.000
6165	Z					.000	.000	1.000
6185	X					1.000	.000	.000
6185	Y					.000	1.000	.000
6185	Z					.000	.000	1.000
6200	X					1.000	.000	.000
6200	Y					.000	1.000	.000
6200	Z					.000	.000	1.000
6210	X					1.000	.000	.000
6210	Y					.000	1.000	.000
6210	Z					.000	.000	1.000
6220	X					1.000	.000	.000
6220	Y					.000	1.000	.000
6220	Z					.000	.000	1.000
6230	X					1.000	.000	.000
6230	Y					.000	1.000	.000
6230	Z					.000	.000	1.000
6250	X					1.000	.000	.000
6250	Y					.000	1.000	.000
6250	Z					.000	.000	1.000
6260	X					1.000	.000	.000
6260	Y					.000	1.000	.000
6260	Z					.000	.000	1.000
6270	X					1.000	.000	.000
6270	Y					.000	1.000	.000
6270	Z					.000	.000	1.000
6280	X					1.000	.000	.000
6280	Y					.000	1.000	.000
6280	Z					.000	.000	1.000
6290	X					1.000	.000	.000
6290	Y					.000	1.000	.000
6290	Z					.000	.000	1.000
6305	X					1.000	.000	.000
6305	Y					.000	1.000	.000
6305	Z					.000	.000	1.000

NTS TYPE	CNODE	STIF1	Len GAP STIF2	MU YIELD FORCE	Dir Vectors		
X					1.000	.000	.000
Y					.000	1.000	.000
Z					.000	.000	1.000
X					1.000	.000	.000
Y					.000	1.000	.000
Z					.000	.000	1.000
X					1.000	.000	.000
Y					.000	1.000	.000
Z					.000	.000	1.000
X					1.000	.000	.000
Y					.000	1.000	.000
Z					.000	.000	1.000
X					1.000	.000	.000
Y					.000	1.000	.000
Z					.000	.000	1.000
X					1.000	.000	.000
Y					.000	1.000	.000
Z					.000	.000	1.000
X					1.000	.000	.000
Y					.000	1.000	.000
Z					.000	.000	1.000
X					1.000	.000	.000
Y					.000	1.000	.000
Z					.000	.000	1.000
X					1.000	.000	.000
Y					.000	1.000	.000
Z					.000	.000	1.000
X					1.000	.000	.000
Y					.000	1.000	.000
Z					.000	.000	1.000
X					1.000	.000	.000
Y					.000	1.000	.000
Z					.000	.000	1.000
X					1.000	.000	.000
Y					.000	1.000	.000
Z					.000	.000	1.000
X					1.000	.000	.000
Y					.000	1.000	.000
Z					.000	.000	1.000
X					1.000	.000	.000
Y					.000	1.000	.000
Z					.000	.000	1.000
X					1.000	.000	.000
Y					.000	1.000	.000
Z					.000	.000	1.000
X					1.000	.000	.000
Y					.000	1.000	.000
Z					.000	.000	1.000
Y					.000	1.000	.000
Y					.000	1.000	.000

RESTRAINTS

NODE	TYPE	CNODE	STIF1	Len GAP STIF2	MU YIELD FORCE	Dir Vectors		
6515	Y					.000	1.000	.000
6530	Y					.000	1.000	.000
6540	Y					.000	1.000	.000
6545	X					1.000	.000	.000
6545	Y					.000	1.000	.000
6545	Z					.000	.000	1.000
6570	Y					.000	1.000	.000
6570	X					1.000	.000	.000
6570	Z					.000	.000	1.000
6575	Y					.000	1.000	.000
6670	Y					.000	1.000	.000
6685	X					1.000	.000	.000
6685	Y					.000	1.000	.000
6685	Z					.000	.000	1.000
6700	X					1.000	.000	.000
6700	Y					.000	1.000	.000
6700	Z					.000	.000	1.000
6710	X					1.000	.000	.000
6710	Y					.000	1.000	.000
6710	Z					.000	.000	1.000
6721	X					1.000	.000	.000
6721	Y					.000	1.000	.000
6721	Z					.000	.000	1.000
6722	X					1.000	.000	.000
6722	Y					.000	1.000	.000
6722	Z					.000	.000	1.000
6735	Y					.000	1.000	.000
6735	X					1.000	.000	.000
6735	Z					.000	.000	1.000
6815	Y					.000	1.000	.000
6815	X					1.000	.000	.000
6815	Z					.000	.000	1.000
6840	X					1.000	.000	.000
6840	Y					.000	1.000	.000
6840	Z					.000	.000	1.000
6860	Y					.000	1.000	.000

ACEMENTS

6726 Node 6726 DX= .053 in. DY= .150 in. DZ= .053 in. RX= .000
RY= .000 RZ= .000

6880 Node 6880 DX= -.053 in. DY= .150 in. DZ= -.053 in.
RX= .000 RY= .000 RZ= .000

ALLOWABLE STRESS Changes

6000 6005 B31.3 (1993) Sc= 17,000 lb./sq.in. Sh1= 17,000 lb./sq.in.
Sh2= 17,000 lb./sq.in. Sh3= 17,000 lb./sq.in. F1= 1.00
F2= 1.00 F3= 1.00

& TEE's

6025	Node	6025	Welding Tee
6045	Node	6045	Welding Tee
6065	Node	6065	Welding Tee
6560	Node	6560	Welding Tee
6600	Node	6600	Welding Tee
6660	Node	6660	Welding Tee
6765	Node	6765	Welding Tee
6805	Node	6805	Welding Tee

HANGER CONTROL AND LOCATION DATA

No. of Hanger Design Load Cases = 1 Actual Cold Load Flag = 0.0
Short Range Spring Flag = 0.0 Default Hanger Table = 1

NITS USED...

ENGLISH NOM/SCH INPUT= ON

ENGTH	inches	x	1.000	=	in.
ORCE	pounds	x	1.000	=	lb.
ASS(dynamics)	pounds	x	1.000	=	lbm
OMENTS(INPUT)	inch-pounds	x	1.000	=	in.lb.
OMENTS(OUTPUT)	inch-pounds	x	0.083	=	ft.lb.
TRESS	lbs./sq.in.	x	1.000	=	lb./sq.in.
EMP. SCALE	degrees F.	x	1.000	=	F
RESSURE	psig	x	1.000	=	lb./sq.in.
LASTIC MODULUS	lbs./sq.in.	x	1.000	=	lb./sq.in.
IPE DENSITY	lbs./cu.in.	x	1.000	=	lb./cu.in.
NSULATION DENS.	lbs./cu.in.	x	1.000	=	lb./cu.in.
LUID DENSITY	lbs./cu.in.	x	1.000	=	lb./cu.in.
RANSL. STIF	lbs./in.	x	1.000	=	lb./in.
OTATIONAL STIF	in.lb./deg.	x	1.000	=	in.lb./deg
NIFORM LOAD	lb./in.	x	1.000	=	lb./in.
LOAD	g's	x	1.000	=	g's
IND LOAD	lbs./sq.in.	x	144.000	=	lb./sq.ft.
LEVATION	inches	x	0.083	=	ft.
OMPOUND LENGTH	inches	x	0.083	=	ft.
IAMETER	inches	x	1.000	=	in.
ALL THICKNESS	inches	x	1.000	=	in.

SETUP FILE PARAMETERS

CONNECT_GEOMETRY_THRU_CNODES =	YES
MIN_ALLOWED_BEND_ANGLE =	.5000000E+01
MAX_ALLOWED_BEND_ANGLE =	.9500000E+02
BEND_LENGTH_ATTACHMENT_PERCENT =	.5000000E+01
MIN_ANGLE_TO_ADJACENT_BEND_PT =	.5000000E+01
LOOP_CLOSURE_TOLERANCE =	0.1000000E+01 in.
THERMAL_BOWING_HORZ_TOLERANCE =	.1000000E-03
USE_PRESSURE_STIFFENING =	DEFAULT
USE_PD/4T	NO
BASE_HOOP_STRESS_ON_OD	NO
ALPHA_TOLERANCE =	.5000000E-01
RESLD-FORCE =	NO
HGR_DEF_RESWGT_STIF =	0.1000000E+13 lb./in.
DECOMP_SNG_TOL =	.1000000E+11
BEND_AXIAL_SHAPE =	NO
FRICT_STIF =	0.5000000E+05 lb./in.
FRICT_NORM_FORCE_VAR =	.2500000E+00
FRICT_ANGLE_VAR =	.3000000E+02
FRICT_SLIDE_MULT =	.1000000E+01
ROD_TOLERANCE =	.1000000E+01
ROD_INC =	.2000000E+01
INCORE_NUMERICAL_CHECK =	NO
OUTCORE_NUMERICAL_CHECK =	NO
DEFAULT_TRANS_RESTRAINT_STIFF=	0.1000000E+13 lb./in.
DEFAULT_ROT_RESTRAINT_STIFF=	0.1000000E+13 in.lb./deg
IGNORE_SPRING_HANGER_STIFFNESS =	NO
MISSING_MASS_ZPA =	EXTRACTED
MIN_WALL_MILL_TOLERANCE =	.1250000E+02
REDUCED_INTERSECTION =	B31.1(POST1980)
USE_WRC329	NO
NO_REDUCED_SIF_FOR_RFT_AND_WLT	NO
B31.1_REDUCED_Z_FIX =	YES
CLASS_1_BRANCH_FLEX	NO
ALL_STRESS_CASES_CORRODED =	NO
ADD_TORSION_IN_SL_STRESS =	DEFAULT
ADD_F/A_IN_STRESS =	DEFAULT
OCCASIONAL_LOAD_FACTOR =	.0000000E+00
DEFAULT_CODE =	B31.3
B31.3_SUS_CASE_SIF_FACTOR =	.1000000E+01
ALLOW_USERS_BEND_SIF =	NO
USE_SCHNEIDER	NO
PRINTER_TYPE =	LASER_JET
PRINTER_PORT =	LPT1
PRINTER_NORMAL_FMT_STRING =	LaserJet_80/6
PRINTER_COMPRESS_FMT_STRING =	LaserJet_132/6
PRINTER_RESET_FMT_STRING =	LaserJetReset1
DISABLE_PRINTER_CHECKS =	NO
PAGE_LENGTH =	US
LINES_PER_PAGE =	.5700000E+02

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FILE PARAMETERS

R_TYPE =	HPGL
DBASE=	AISC89.BIN
&_FLANGE=	GENERIC.VHD
ION_JT_DBASE=	PATHWAY.JHD
_SIZE_SPECIFICATION	ANSI
EXIT_SCREENS	OFF
)/ARE_YOU_SURE_PROMPTS	OFF
_REPORTS_BY_LOAD_CASE	YES
CEMENT_NODAL_SORTING	YES
C_INPUT_EXAMPLE_TEXT	MAX
IST_ANIMATE	YES
_TABLE_OF_CONTENTS	ON
FUNCTION_KEYS_DISPLAYED	YES

EXECUTION CONTROL PARAMETERS

Rigid/ExpJt Print Flag	.000	
Thermal/Weight Print Flag ..	.000	
Bourdon Option	.000	
Loop Closure Flag	.000	
Liberal Allowable Flag	1.000	
Uniform Load Option	.000	
Thermal Bowing Delta Temp ..	.000	F
Ambient Temperature	70.000	F
Plastic Coefficient	.000	
Eqn Optimizer	.000	
Node Selection	.000	
Eqn Ordering	.000	
Collins	.000	
Degree Determination	.000	
User Eqn Control	.000	

000604

ATE REPORT

/----------(in.)----------/

X	Y	Z
.0000	.0000	.0000
.0000	24.0000	.0000
.0000	24.0000	-48.0000
50.2800	24.0000	-48.0000
61.9400	24.0000	-48.0000
65.0650	24.0000	-48.0000
68.1900	24.0000	-48.0000
81.3500	24.0000	-48.0000
93.0100	24.0000	-48.0000
96.1350	24.0000	-48.0000
99.2600	24.0000	-48.0000
110.9200	24.0000	-48.0000
124.0800	24.0000	-48.0000
127.2050	24.0000	-48.0000
130.3300	24.0000	-48.0000
141.9900	24.0000	-48.0000
192.2580	24.0000	-48.0000
240.2580	24.0000	-48.0000
288.2580	24.0000	-48.0000
312.2580	24.0000	-48.0000
312.2580	24.0000	48.0000
312.2580	.0000	48.0000
65.0650	24.0000	-48.0000
65.0650	12.0000	-48.0000
83.0650	-6.0000	-48.0000
83.0650	-120.0000	-48.0000
83.0650	-132.0000	-48.0000
83.0650	-140.0000	-48.0000
83.0650	-148.0000	-48.0000
127.2050	24.0000	-48.0000
127.2050	-96.0000	-48.0000
127.2050	-132.0000	-48.0000
127.2050	-140.0000	-48.0000
127.2050	-148.0000	-48.0000
96.1350	24.0000	-48.0000
96.1350	24.0000	-54.0000
96.1350	24.0000	-102.0000
96.1350	24.0000	-150.0000
96.1350	48.0000	-150.0000
-23.8649	48.0000	-150.0000
-23.8649	48.0000	-174.0000
-23.8649	48.0000	-282.0000
-23.8649	48.0000	-390.0000
-23.8649	57.0000	-390.0000
-23.8649	57.0000	-438.0000
-23.8649	57.0000	-534.0000
-23.8649	57.0000	-618.0000
-71.8649	57.0000	-618.0000

COORDINATE REPORT

NODE	X (in.)	Y (in.)	Z (in.)
6205	-191.8650	57.0000	-618.0000
6210	-311.8650	57.0000	-618.0000
6215	-383.8650	57.0000	-618.0000
6220	-455.8650	57.0000	-618.0000
6225	-551.8650	57.0000	-618.0000
6230	-551.8650	57.0000	-626.0000
6235	-551.8650	57.0000	-734.0000
6240	-551.8650	57.0000	-842.0000
6250	-611.8650	57.0000	-842.0000
6255	-671.8650	57.0000	-842.0000
6260	-671.8650	57.0000	-878.0000
6265	-671.8650	57.0000	-1034.0000
6270	-671.8650	57.0000	-1190.0000
6275	-671.8650	57.0000	-1304.0000
6280	-671.8650	57.0000	-1418.0000
6285	-671.8650	57.0000	-1532.0000
6290	-671.8650	57.0000	-1646.0000
6295	-671.8650	57.0000	-1754.0000
6300	-671.8650	66.0000	-1754.0000
6305	-671.8650	66.0000	-1778.0000
6310	-671.8650	66.0000	-1898.0000
6315	-671.8650	66.0000	-2018.0000
6320	-671.8650	66.0000	-2138.0000
6325	-671.8650	66.0000	-2258.0000
6330	-671.8650	66.0000	-2354.0000
6335	-671.8650	66.0000	-2450.0000
6340	-671.8650	66.0000	-2570.0000
6345	-697.3050	66.0000	-2595.4400
6350	-697.3050	66.0000	-2631.4400
6355	-697.3050	66.0000	-2751.4400
6360	-697.3050	66.0000	-2871.4400
6365	-697.3050	66.0000	-2931.4400
6370	-697.3050	66.0000	-2991.4400
6375	-697.3050	66.0000	-3087.4400
6380	-697.3050	66.0000	-3171.4400
6385	-697.3050	66.0000	-3291.4400
6390	-697.3050	66.0000	-3411.4400
6395	-697.3050	66.0000	-3423.4400
6405	-709.3050	66.0000	-3423.4400
6410	-829.3050	66.0000	-3423.4400
6415	-949.3050	66.0000	-3423.4400
6420	-1069.3050	66.0000	-3423.4400
6425	-1189.3050	66.0000	-3423.4400
6430	-1201.3050	66.0000	-3423.4400
6440	-1201.3050	66.0000	-3495.4400
6445	-1201.3050	66.0000	-3555.4400
6450	-1201.3050	66.0000	-3615.4400
6455	-1201.3050	66.0000	-3735.4400

000606

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ATE REPORT

/----------(in.)----------/

X	Y	Z
-1201.3050	66.0000	-3855.4400
-1201.3050	66.0000	-3915.4400
-1201.3050	66.0000	-3975.4400
-1201.3050	66.0000	-4047.4400
-1192.8210	66.0000	-4055.9240
-1192.8210	66.0000	-4145.9240
-1192.8210	66.0000	-4235.9240
-1192.8210	66.0000	-4259.9240
-1192.8210	-54.0000	-4259.9240
-1216.8210	-54.0000	-4259.9240
-1216.8210	-54.0000	-4295.9240
-1216.8210	-54.0000	-4439.9240
-1216.8210	-54.0000	-4457.9240
-1199.8530	-54.0000	-4474.8920
-1181.8530	-54.0000	-4474.8920
-1121.8530	-54.0000	-4474.8920
-1061.8530	-54.0000	-4474.8920
-1013.8530	-54.0000	-4474.8920
-1013.8530	-54.0000	-4528.8920
-1013.8530	-54.0000	-4536.1420
-1013.8530	-54.0000	-4545.6420
-1013.8530	-54.0000	-4552.8920
-1013.8530	-70.0000	-4552.8920
-977.3529	-70.0000	-4552.8920
-931.8529	-70.0000	-4552.8920
-918.8529	-70.0000	-4552.8920
-918.8529	-123.0000	-4552.8920
-918.8529	-132.5000	-4552.8920
-918.8529	-140.0000	-4552.8920
-894.8529	-140.0000	-4552.8920
-889.6029	-140.0000	-4552.8920
-880.1029	-140.0000	-4552.8920
-858.8529	-140.0000	-4552.8920
-858.8529	-120.0000	-4552.8920
-853.8529	-120.0000	-4552.8920
-894.8529	-140.0000	-4552.8920
-894.8529	-132.5000	-4552.8920
-894.8529	-123.0000	-4552.8920
-894.8529	-105.0000	-4552.8920
-894.8529	-70.0000	-4552.8920
-906.8529	-70.0000	-4552.8920
-966.8529	-70.0000	-4552.8920
-1014.8530	-70.0000	-4552.8920
-1026.8530	-70.0000	-4552.8920
-1026.8530	-54.0000	-4552.8920
-1026.8530	-54.0000	-4546.8920
-1026.8530	-54.0000	-4438.8920
-1026.8530	-54.0000	-4423.8920

COORDINATE REPORT

NODE	X (in.)	Y (in.)	Z (in.)
6720	-1026.8530	186.0000	-4423.8920
6721	-1038.8530	186.0000	-4423.8920
6722	-1092.8530	186.0000	-4423.8920
6723	-1097.8530	186.0000	-4423.8920
6724	-1098.8530	186.0000	-4423.8920
6725	-1104.8530	186.0000	-4423.8920
6726	-1104.8530	168.0000	-4423.8920
6560	-1013.8530	-54.0000	-4552.8920
6730	-1013.8530	-54.0000	-4624.8920
6735	-977.8529	-54.0000	-4624.8920
6745	-917.8529	-54.0000	-4624.8920
6750	-917.8529	-123.0000	-4624.8920
6755	-917.8529	-132.5000	-4624.8920
6760	-917.8529	-140.0000	-4624.8920
6765	-893.8529	-140.0000	-4624.8920
6770	-888.6029	-140.0000	-4624.8920
6775	-879.1029	-140.0000	-4624.8920
6780	-857.8529	-140.0000	-4624.8920
6785	-857.8529	-120.0000	-4624.8920
6790	-852.8529	-120.0000	-4624.8920
6765	-893.8529	-140.0000	-4624.8920
6795	-893.8529	-132.5000	-4624.8920
6800	-893.8529	-123.0000	-4624.8920
6805	-893.8529	-108.0000	-4624.8920
6810	-893.8529	-57.0000	-4624.8920
6812	-906.5813	-57.0000	-4637.6180
6815	-918.5813	-57.0000	-4637.6180
6820	-954.5813	-57.0000	-4637.6180
6840	-954.5813	-57.0000	-4709.6180
6850	-954.5813	-57.0000	-4781.6180
6855	-954.5813	183.0000	-4781.6180
6860	-966.5813	183.0000	-4781.6180
6865	-1002.5810	183.0000	-4781.6180
6870	-1003.5810	183.0000	-4781.6180
6875	-1028.5810	183.0000	-4781.6180
6880	-1028.5810	165.0000	-4781.6180

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BEND SIF & FLEXIBILITY VALUES

TYPE KEY:
- No Flanges SIFs IN/OUT of Plane
- 1 Flange Flexibilities IN/OUT of plane
- 2 Flanges

TYPE	SIFi	SIFo	Ki	Ko
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.01663	1.00000	1.98137	1.98137
0	1.01663	1.00000	1.98137	1.98137
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473
0	1.76765	1.47304	4.55473	4.55473

----- BEND SIF & FLEXIBILITY VALUES

6810.	0	1.76765	1.47304	4.55473	4.55473
6812.	0	1.76765	1.47304	4.55473	4.55473
6820.	0	1.76765	1.47304	4.55473	4.55473
6850.	0	1.76765	1.47304	4.55473	4.55473
6855.	0	1.76765	1.47304	4.55473	4.55473
6875.	0	1.76765	1.47304	4.55473	4.55473

000640

INTERSECTION SIF VALUES

TYPE KEY:
- Reinforced Fabricated Tee
- Unreinforced Fabricated Tee
- Welding Tee
- Sweepolet
- Weldolet
- Extruded Welding Tee

TYPE	HEADER SIFo	HEADER SIFi	BRANCH THICK (in.)	BRANCH SIFo	BRANCH SIFi
3	1.29585	1.22188	0.21600	1.29585	1.22188
3	1.29585	1.22188	0.00000	1.29585	1.22188
3	1.29585	1.22188	0.21600	1.29585	1.22188
3	1.29585	1.22188	0.00000	1.29585	1.22188
3	1.29585	1.22188	0.00000	1.29585	1.22188
3	1.29585	1.22188	0.00000	1.29585	1.22188
3	1.29585	1.22188	0.00000	1.29585	1.22188
3	1.29585	1.22188	0.00000	1.29585	1.22188

----- PIPE PROPERTIES #1

FROM	TO	ALPHA1	ALPHA2	ALPHA3	PIPE WT	INSUL WT	FLUID WT
		/--THERMAL EXPANSION (in./in.) --//			----- WEIGHTS (lb./ft.) -----/		
6000.	6005.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6005.	6010.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6010.	6015.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6015.	6020.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6020.	6025.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6025.	6030.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6030.	6035.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6035.	6040.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6040.	6045.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6045.	6050.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6050.	6055.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6055.	6060.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6060.	6065.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6065.	6070.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6070.	6075.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6075.	6080.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6080.	6082.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6082.	6085.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6085.	6090.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6090.	6095.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6095.	6100.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6025.	6101.	-0.000121	0.000184	0.001168	2.2722	0.6527	0.3429
6101.	6102.	-0.000121	0.000184	0.001168	2.2722	0.6527	0.3429
6102.	6105.	-0.000121	0.000184	0.001168	2.2722	0.6527	0.3429
6105.	6110.	-0.000121	0.000184	0.001168	2.2722	0.6527	0.3429
6110.	6115.	-0.000121	0.000184	0.001168	2.2722	0.6527	0.3429
6115.	6120.	-0.000121	0.000184	0.001168	2.2722	0.6527	0.3429
6065.	6125.	-0.000121	0.000184	0.001168	2.2722	0.6527	0.3429
6125.	6130.	-0.000121	0.000184	0.001168	2.2722	0.6527	0.3429
6130.	6135.	-0.000121	0.000184	0.001168	2.2722	0.6527	0.3429
6135.	6140.	-0.000121	0.000184	0.001168	2.2722	0.6527	0.3429
6045.	6142.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6142.	6145.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6145.	6150.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6150.	6155.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6155.	6160.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6160.	6165.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6165.	6170.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6170.	6175.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6175.	6180.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6180.	6185.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6185.	6190.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6190.	6195.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6195.	6200.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6200.	6205.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6205.	6210.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6210.	6215.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6215.	6220.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6220.	6225.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238

PIPE PROPERTIES #1

. 6230.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6235.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6240.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6250.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6255.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6260.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6265.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6270.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6275.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6280.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6285.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6290.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6295.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6300.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6305.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6310.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6315.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6320.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6325.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6330.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6335.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6340.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6345.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6350.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6355.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6360.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6365.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6370.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6375.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6380.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6385.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6390.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6395.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6405.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6410.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6415.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6420.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6425.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6430.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6440.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6445.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6450.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6455.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6460.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6465.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6470.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6475.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6480.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6485.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6490.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
. 6495.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238

----- PIPE PROPERTIES #1

6495. 6500.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6500. 6505.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6505. 6510.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6510. 6515.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6515. 6520.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6520. 6525.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6525. 6530.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6530. 6535.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6535. 6540.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6540. 6542.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6542. 6545.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6545. 6550.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6550. 6555.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6555. 6560.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6560. 6565.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6565. 6570.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6570. 6575.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6575. 6580.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6580. 6585.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6585. 6590.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6590. 6595.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6595. 6600.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6600. 6620.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6620. 6625.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6625. 6630.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6630. 6635.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6635. 6640.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6600. 6650.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6650. 6655.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6655. 6660.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6660. 6665.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6665. 6670.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6670. 6675.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6675. 6685.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6685. 6690.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6690. 6695.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6695. 6700.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6700. 6710.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6710. 6715.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6715. 6720.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6720. 6721.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6721. 6722.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6722. 6723.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6723. 6724.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6724. 6725.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6725. 6726.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6560. 6730.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6730. 6735.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6735. 6745.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6745. 6750.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
6750. 6755.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238

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· PIPE PROPERTIES #1

5. 6760.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
0. 6765.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
5. 6770.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
0. 6775.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
5. 6780.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
0. 6785.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
5. 6790.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
5. 6795.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
5. 6800.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
0. 6805.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
5. 6810.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
0. 6812.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
2. 6815.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
5. 6820.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
0. 6840.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
0. 6850.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
0. 6855.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
5. 6860.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
0. 6865.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
5. 6870.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
0. 6875.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238
5. 6880.	-0.000121	0.000184	0.001168	7.9262	1.1592	3.5238

----- PIPE PROPERTIES #2
Thermal Bowing Alphas, Thickness Parameter, and
Minimum Required Wall Thickness
NOTE: Minimum wall thickness based on straight pipes only.
No considerations for area replacement of tees have been made.

FROM	TO	TB ALPHA1	TB ALPHA2	TB ALPHA3	y PARM	MIN THK
		/--THERMAL BOWING EXP(in./in./F) --/				(in.)
6000.	6005.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6005.	6010.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6010.	6015.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6015.	6020.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
6020.	6025.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6025.	6030.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6030.	6035.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
6035.	6040.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
6040.	6045.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6045.	6050.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6050.	6055.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
6055.	6060.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
6060.	6065.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6065.	6070.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6070.	6075.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
6075.	6080.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6080.	6082.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6082.	6085.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6085.	6090.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6090.	6095.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6095.	6100.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6025.	6101.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0065
6101.	6102.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0065
6102.	6105.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0065
6105.	6110.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0065
6110.	6115.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
6115.	6120.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
6065.	6125.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0065
6125.	6130.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0065
6130.	6135.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
6135.	6140.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
6045.	6142.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6142.	6145.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6145.	6150.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6150.	6155.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6155.	6160.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6160.	6165.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6165.	6170.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6170.	6175.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6175.	6180.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6180.	6185.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6185.	6190.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6190.	6195.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6195.	6200.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6200.	6205.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173

PIPE PROPERTIES #2
mal Bowing Alphas, Thickness Parameter, and
mum Required Wall Thickness
: Minimum wall thickness based on straight pipes only.
No considerations for area replacement of tees have been made.

6210.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6215.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6220.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6225.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6230.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6235.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6240.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6250.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6255.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6260.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6265.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6270.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6275.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6280.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6285.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6290.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6295.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6300.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6305.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6310.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6315.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6320.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6325.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6330.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6335.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6340.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6345.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6350.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6355.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6360.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6365.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6370.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6375.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6380.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6385.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6390.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6395.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6405.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6410.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6415.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6420.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6425.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6430.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6440.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6445.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6450.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6455.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6460.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6465.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173

6465.	6470.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6470.	6475.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173

PIPE PROPERTIES #2
rmal Bowing Alphas, Thickness Parameter, and
imum Required Wall Thickness
E: Minimum wall thickness based on straight pipes only.
No considerations for area replacement of tees have been made.

. 6480.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 6485.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 6490.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 6495.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 6500.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 6505.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 6510.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 6515.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 6520.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 6525.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 6530.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 6535.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 6540.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 6542.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 6545.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 6550.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 6555.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
. 6560.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 6565.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 6570.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 6575.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 6580.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 6585.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 6590.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
. 6595.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 6600.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 6620.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 6625.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
. 6630.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 6635.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 6640.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 6650.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 6655.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
. 6660.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 6665.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 6670.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 6675.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 6685.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 6690.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 6695.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 6700.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 6710.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 6715.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 6720.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 6721.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 6722.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 6723.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
. 6724.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
. 6725.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173

6725.	6726.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6560.	6730.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173

IPE PROPERTIES #2
al Bowing Alphas, Thickness Parameter, and
um-Required-Wall-Thickness

Minimum wall thickness based on straight pipes only.
No considerations for area replacement of tees have been made.

6735.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6745.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6750.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6755.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
6760.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6765.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6770.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6775.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
6780.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6785.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6790.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6795.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6800.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
6805.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6810.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6812.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6815.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6820.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6840.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6850.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6855.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6860.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6865.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6870.	0.000000E+00	0.000000E+00	0.000000E+00	NA	NA
6875.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173
6880.	0.000000E+00	0.000000E+00	0.000000E+00	0.4000	0.0173

STRESS SUMMARY
CASE 1 (OPE) W+DIS+T1+P1

**** NO CODE STRESS CHECK PROCESSED

PIPING CODE: B31.3 -1993, July 31, 1993 Addendum

HIGHEST STRESSES: (lb./sq.in.)

OPE STRESS %:	62136.	@NODE 6726	ALLOWABLE:	0.
BENDING STRESS:	56754.	@NODE 6726		
TORSIONAL STRESS:	1922.	@NODE 6725		
AXIAL STRESS:	5252.	@NODE 6726		
3D MAX INTENSITY:	63119.	@NODE 6726		

STRESS OPTIMIZATION PARAMETERS:

OPE STRESS PERCENTAGES SHOWN BELOW REPRESENT THE NUMBER OF NODES IN THE SYSTEM THAT WERE WITHIN THE PERCENTAGE GIVEN OF THE HIGHEST OPE STRESS IN THE SYSTEM.

AVG. OPE STRESS 3748.

	/BETWEEN/	/BELOW/
OPE STRESS 90-100%	0.32	99.68
OPE STRESS 80-90 %	0.00	99.68
OPE STRESS 70-80 %	0.32	99.35
OPE STRESS 60-70 %	0.65	98.70
OPE STRESS 50-60 %	0.00	98.70
OPE STRESS 25-50 %	0.32	98.38
OPE STRESS 0-25 %	98.38	

PIPE ELEMENTS ANALYZED: 154

SAMPLED POINTS: 308

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq. STRESS	ALL(S
6000	498.	0.	0.	1065.	1295.	1.000	1.000	498.	
6005	498.	116.	0.	1065.	1295.	1.768	1.473	614.	
6005	498.	66.	0.	1065.	1295.	1.000	1.000	563.	
6010	498.	283.	-674.	1065.	1719.	1.768	1.473	1875.	
6010	498.	192.	674.	1065.	1693.	1.000	1.000	1859.	
6015	498.	2858.	-674.	1065.	3616.	1.000	1.000	3657.	
6020	498.	4049.	674.	1065.	4742.	1.000	1.000	4765.	
6025	498.	5455.	-674.	1065.	6103.	1.222	1.296	6117.	
6025	498.	5501.	641.	1065.	6135.	1.222	1.296	6147.	
6030	498.	4908.	-641.	1065.	5555.	1.000	1.000	5571.	
6040	498.	9761.	641.	1065.	10339.	1.000	1.000	10343.	
6045	498.	13704.	-641.	1065.	14259.	1.222	1.296	14262.	
6045	500.	13504.	217.	1065.	14010.	1.222	1.296	14011.	
6050	500.	9126.	-217.	1065.	9631.	1.000	1.000	9636.	
6060	500.	457.	217.	1065.	1398.	1.000	1.000	1131.	
6065	500.	525.	-217.	1065.	1415.	1.222	1.296	1182.	
6065	500.	525.	177.	1065.	1382.	1.222	1.296	1133.	
6070	500.	576.	-177.	1065.	1395.	1.000	1.000	1176.	
6075	500.	763.	177.	1065.	1460.	1.000	1.000	1341.	
6080	500.	707.	-177.	1065.	1438.	1.000	1.000	1290.	
6080	500.	707.	177.	1065.	1436.	1.000	1.000	1290.	
6082	500.	64.	-177.	1065.	1333.	1.000	1.000	859.	
6082	500.	64.	177.	1065.	1333.	1.000	1.000	859.	
6085	500.	587.	-177.	1065.	1398.	1.000	1.000	1185.	
6085	500.	587.	177.	1065.	1397.	1.000	1.000	1185.	
6090	498.	662.	39.	1065.	1309.	1.768	1.473	1164.	
6090	498.	448.	-39.	1065.	1300.	1.000	1.000	953.	
6095	468.	705.	95.	1065.	1354.	1.768	1.473	1198.	
6095	468.	400.	-95.	1065.	1319.	1.000	1.000	911.	
6100	459.	405.	95.	1065.	1315.	1.000	1.000	906.	
6025	155.	765.	-32.	401.	922.	1.222	1.296	925.	
6101	153.	719.	-198.	401.	986.	1.017	1.000	974.	

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ELEMENT NODES	AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	STRESS INTENSIFICATION OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS	%
	----------Stresses(lb./sq.in.)----------									
6101	153.	713.	198.	401.	953.	1.000	1.000	969.	0.	0.
6102	138.	1227.	0.	401.	1426.	1.017	1.000	1366.	0.	0.
6102	138.	1211.	0.	401.	1350.	1.000	1.000	1350.	0.	0.
6105	90.	0.	0.	401.	638.	1.000	1.000	90.	0.	0.
6105	255.	0.	0.	401.	638.	1.000	1.000	255.	0.	0.
6110	250.	0.	0.	401.	638.	1.000	1.000	250.	0.	0.
6065	802.	830.	0.	401.	1632.	1.222	1.296	1632.	0.	0.
6125	751.	0.	0.	401.	901.	1.000	1.000	751.	0.	0.
6125	266.	0.	0.	401.	638.	1.000	1.000	266.	0.	0.
6130	250.	0.	0.	401.	638.	1.000	1.000	250.	0.	0.
6045	499.	1100.	-77.	1065.	1624.	1.222	1.296	1609.	0.	0.
6142	499.	4920.	77.	1065.	5419.	1.000	1.000	5422.	0.	0.
6142	499.	4920.	-77.	1065.	5421.	1.000	1.000	5422.	0.	0.
6145	499.	2530.	77.	1065.	3031.	1.000	1.000	3034.	0.	0.
6145	499.	2530.	-77.	1065.	3033.	1.000	1.000	3034.	0.	0.
6150	463.	781.	-64.	1065.	1371.	1.768	1.473	1254.	0.	0.
6150	463.	451.	64.	1065.	1309.	1.000	1.000	931.	0.	0.
6155	499.	638.	-226.	1065.	1454.	1.768	1.473	1281.	0.	0.
6155	499.	367.	226.	1065.	1388.	1.000	1.000	1081.	0.	0.
6160	499.	422.	-30.	1065.	1298.	1.768	1.473	925.	0.	0.
6160	499.	284.	30.	1065.	1297.	1.000	1.000	789.	0.	0.
6165	499.	624.	-30.	1065.	1302.	1.000	1.000	1126.	0.	0.
6165	1196.	624.	30.	1065.	1894.	1.000	1.000	1823.	0.	0.
6170	1196.	929.	-30.	1065.	2161.	1.000	1.000	2127.	0.	0.
6170	1196.	929.	30.	1065.	2161.	1.000	1.000	2127.	0.	0.
6175	564.	1005.	16.	1065.	1596.	1.768	1.473	1570.	0.	0.
6175	564.	1005.	-16.	1065.	1595.	1.768	1.473	1570.	0.	0.
6180	1196.	5475.	-30.	1065.	6146.	1.768	1.473	6672.	0.	0.
6180	1196.	3097.	30.	1065.	4294.	1.000	1.000	4294.	0.	0.
6185	1196.	1405.	-30.	1065.	2578.	1.000	1.000	2602.	0.	0.
6185	507.	1405.	30.	1065.	1913.	1.000	1.000	1913.	0.	0.
6190	507.	1563.	-30.	1065.	2053.	1.000	1.000	2071.	0.	0.

STRESS REPORT, Stresses on Elements
CASE 1 (OPE) W+DIS+T1+P1

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq AL STRESS
6190	507.	1563.	30.	1065.	2071.	1.000	1.000	2071.
6195	499.	593.	230.	1065.	1443.	1.768	1.473	1250.
6195	499.	370.	-230.	1065.	1392.	1.000	1.000	1090.
6200	499.	3098.	230.	1065.	3623.	1.000	1.000	3631.
6200	4052.	3098.	-230.	1065.	7165.	1.000	1.000	7184.
6205	4052.	1714.	230.	1065.	5714.	1.000	1.000	5827.
6205	4052.	1714.	-230.	1065.	5785.	1.000	1.000	5827.
6210	4052.	2272.	230.	1065.	6202.	1.000	1.000	6370.
6210	4052.	2272.	-230.	1065.	6341.	1.000	1.000	6370.
6215	4052.	253.	230.	1065.	4437.	1.000	1.000	4577.
6215	4052.	253.	-230.	1065.	4442.	1.000	1.000	4577.
6220	4052.	622.	230.	1065.	4759.	1.000	1.000	4826.
6220	750.	622.	-230.	1065.	1501.	1.000	1.000	1524.
6225	513.	800.	582.	1065.	1841.	1.768	1.473	1925.
6225	513.	534.	-582.	1065.	1717.	1.000	1.000	1793.
6230	513.	1142.	582.	1065.	2022.	1.000	1.000	2144.
6230	502.	1142.	-582.	1065.	2014.	1.000	1.000	2132.
6235	502.	2254.	582.	1065.	2983.	1.000	1.000	3038.
6235	502.	2254.	-582.	1065.	2991.	1.000	1.000	3038.
6240	494.	1240.	1068.	1065.	2756.	1.768	1.473	2964.
6240	494.	840.	-1068.	1065.	2518.	1.000	1.000	2789.
6250	494.	4266.	1068.	1065.	5225.	1.000	1.000	5265.
6250	505.	4266.	-1068.	1065.	5228.	1.000	1.000	5276.
6255	495.	2804.	45.	1065.	3306.	1.768	1.473	3301.
6255	495.	1901.	-45.	1065.	2398.	1.000	1.000	2398.
6260	495.	556.	45.	1065.	1304.	1.000	1.000	1059.
6260	4052.	556.	-45.	1065.	4691.	1.000	1.000	4616.
6265	4052.	4479.	45.	1065.	8129.	1.000	1.000	8532.
6265	4052.	4479.	-45.	1065.	8532.	1.000	1.000	8532.
6270	4052.	5333.	45.	1065.	8877.	1.000	1.000	9386.
6270	4052.	5333.	-45.	1065.	9385.	1.000	1.000	9386.
6275	4052.	189.	45.	1065.	4369.	1.000	1.000	4262.

NT	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS	%
	4052.	189.	-45.	1065.	4369.	1.000	1.000	4262.	0.	0.
	4052.	2212.	45.	1065.	6142.	1.000	1.000	6266.	0.	0.
	4052.	2212.	-45.	1065.	6265.	1.000	1.000	6266.	0.	0.
	4052.	2023.	45.	1065.	5976.	1.000	1.000	6077.	0.	0.
	4052.	2023.	-45.	1065.	6076.	1.000	1.000	6077.	0.	0.
	4052.	1685.	45.	1065.	5680.	1.000	1.000	5740.	0.	0.
	672.	1685.	-45.	1065.	2360.	1.000	1.000	2360.	0.	0.
	527.	1840.	-61.	1065.	2312.	1.768	1.473	2371.	0.	0.
	527.	1840.	61.	1065.	2370.	1.768	1.473	2371.	0.	0.
	672.	413.	61.	1065.	1317.	1.768	1.473	1103.	0.	0.
	672.	245.	-61.	1065.	1300.	1.000	1.000	946.	0.	0.
	672.	1163.	61.	1065.	1847.	1.000	1.000	1842.	0.	0.
	4052.	1163.	-61.	1065.	5223.	1.000	1.000	5222.	0.	0.
	4052.	2043.	61.	1065.	5994.	1.000	1.000	6099.	0.	0.
	4052.	2043.	-61.	1065.	6097.	1.000	1.000	6099.	0.	0.
	4052.	3547.	61.	1065.	7312.	1.000	1.000	7602.	0.	0.
	4052.	3547.	-61.	1065.	7601.	1.000	1.000	7602.	0.	0.
	4052.	1506.	61.	1065.	5523.	1.000	1.000	5563.	0.	0.
	4052.	1506.	-61.	1065.	5559.	1.000	1.000	5563.	0.	0.
	4052.	2222.	61.	1065.	6151.	1.000	1.000	6278.	0.	0.
	4052.	2222.	-61.	1065.	6276.	1.000	1.000	6278.	0.	0.
	4052.	633.	61.	1065.	4758.	1.000	1.000	4697.	0.	0.
	4052.	633.	-61.	1065.	4759.	1.000	1.000	4697.	0.	0.
	4052.	2212.	61.	1065.	6142.	1.000	1.000	6268.	0.	0.
	565.	2212.	-61.	1065.	2780.	1.000	1.000	2780.	0.	0.
	553.	1935.	-87.	1065.	2404.	1.768	1.473	2496.	0.	0.
	553.	1109.	87.	1065.	1681.	1.000	1.000	1675.	0.	0.
	565.	1347.	-273.	1065.	1980.	1.768	1.473	2019.	0.	0.
	565.	789.	273.	1065.	1524.	1.000	1.000	1525.	0.	0.
	565.	2045.	-273.	1065.	2554.	1.000	1.000	2682.	0.	0.
	4052.	2045.	273.	1065.	6122.	1.000	1.000	6170.	0.	0.
	4052.	2104.	-273.	1065.	6058.	1.000	1.000	6226.	0.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq. STRESS	ALI
6355	4052.	2104.	273.	1065.	6180.	1.000	1.000	6226.	
6360	4052.	2543.	-273.	1065.	6442.	1.000	1.000	6653.	
6360	4052.	2543.	273.	1065.	6618.	1.000	1.000	6653.	
6365	4052.	390.	-273.	1065.	4562.	1.000	1.000	4724.	
6365	4052.	390.	273.	1065.	4569.	1.000	1.000	4724.	
6370	4052.	431.	-273.	1065.	4598.	1.000	1.000	4749.	
6370	4052.	431.	273.	1065.	4605.	1.000	1.000	4749.	
6375	4052.	508.	-273.	1065.	4664.	1.000	1.000	4799.	
6375	4052.	508.	273.	1065.	4672.	1.000	1.000	4799.	
6380	4052.	3280.	-273.	1065.	7087.	1.000	1.000	7377.	
6380	4052.	3280.	273.	1065.	7352.	1.000	1.000	7377.	
6385	4052.	2412.	-273.	1065.	6328.	1.000	1.000	6526.	
6385	4052.	2412.	273.	1065.	6487.	1.000	1.000	6526.	
6390	4052.	685.	-273.	1065.	4819.	1.000	1.000	4929.	
6390	543.	685.	273.	1065.	1493.	1.000	1.000	1419.	
6395	548.	924.	140.	1065.	1564.	1.768	1.473	1513.	
6395	548.	571.	-140.	1065.	1354.	1.000	1.000	1184.	
6405	548.	230.	140.	1065.	1330.	1.000	1.000	910.	
6405	4052.	230.	-140.	1065.	4411.	1.000	1.000	4415.	
6410	4052.	2168.	140.	1065.	6106.	1.000	1.000	6239.	
6410	4052.	2168.	-140.	1065.	6227.	1.000	1.000	6239.	
6415	4052.	4219.	140.	1065.	7903.	1.000	1.000	8281.	
6415	4052.	4219.	-140.	1065.	8276.	1.000	1.000	8281.	
6420	4052.	2064.	140.	1065.	6014.	1.000	1.000	6135.	
6420	4052.	2064.	-140.	1065.	6122.	1.000	1.000	6135.	
6425	4052.	696.	140.	1065.	4817.	1.000	1.000	4802.	
6425	510.	696.	-140.	1065.	1395.	1.000	1.000	1260.	
6430	593.	1567.	-20.	1065.	2117.	1.768	1.473	2161.	
6430	593.	890.	20.	1065.	1524.	1.000	1.000	1484.	
6440	593.	491.	-20.	1065.	1298.	1.000	1.000	1085.	
6440	4052.	491.	20.	1065.	4632.	1.000	1.000	4544.	
6445	4052.	98.	-20.	1065.	4288.	1.000	1.000	4158.	

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STRESS REPORT, Stresses on Elements
CASE 1 (OPE) W+DIS+T1+P1

	Stresses(lb./sq.in.)					STRESS		--Stress(lb./sq.in.)--		
ELEMENT NODES	AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	INTENSIFICATION IN-PLANE	OUT-PLANE	STRESS	ALLOWABLE STRESS	%
6445	4052.	98.	20.	1065.	4288.	1.000	1.000	4158.	0.	0.
6450	4052.	2726.	-20.	1065.	6592.	1.000	1.000	6779.	0.	0.
6450	4052.	2726.	20.	1065.	6778.	1.000	1.000	6779.	0.	0.
6455	4052.	2069.	-20.	1065.	6016.	1.000	1.000	6122.	0.	0.
6455	4052.	2069.	20.	1065.	6122.	1.000	1.000	6122.	0.	0.
6460	4052.	1912.	-20.	1065.	5879.	1.000	1.000	5965.	0.	0.
6460	4052.	1912.	20.	1065.	5965.	1.000	1.000	5965.	0.	0.
6465	4052.	1272.	-20.	1065.	5318.	1.000	1.000	5325.	0.	0.
6465	4052.	1272.	20.	1065.	5325.	1.000	1.000	5325.	0.	0.
6470	4052.	2826.	-20.	1065.	6680.	1.000	1.000	6879.	0.	0.
6470	498.	2826.	20.	1065.	3325.	1.000	1.000	3325.	0.	0.
6475	498.	1570.	471.	1065.	2272.	1.768	1.473	2329.	0.	0.
6475	498.	1066.	-471.	1065.	1875.	1.000	1.000	1921.	0.	0.
6480	498.	2512.	-159.	1065.	3025.	1.768	1.473	3030.	0.	0.
6480	498.	1705.	159.	1065.	2226.	1.000	1.000	2233.	0.	0.
6485	498.	1820.	-159.	1065.	2339.	1.000	1.000	2346.	0.	0.
6485	498.	1820.	159.	1065.	2340.	1.000	1.000	2346.	0.	0.
6490	498.	2948.	-159.	1065.	3459.	1.000	1.000	3463.	0.	0.
6490	498.	2948.	159.	1065.	3461.	1.000	1.000	3463.	0.	0.
6495	574.	804.	-3.	1065.	1429.	1.768	1.473	1378.	0.	0.
6495	574.	487.	3.	1065.	1295.	1.000	1.000	1061.	0.	0.
6500	498.	317.	236.	1065.	1388.	1.768	1.473	1066.	0.	0.
6500	498.	179.	-236.	1065.	1371.	1.000	1.000	1003.	0.	0.
6505	498.	599.	113.	1065.	1351.	1.768	1.473	1139.	0.	0.
6505	498.	406.	-113.	1065.	1326.	1.000	1.000	963.	0.	0.
6510	498.	289.	113.	1065.	1319.	1.000	1.000	865.	0.	0.
6510	498.	289.	-113.	1065.	1319.	1.000	1.000	865.	0.	0.
6515	498.	715.	113.	1065.	1385.	1.000	1.000	1248.	0.	0.
6515	498.	715.	-113.	1065.	1384.	1.000	1.000	1248.	0.	0.
6520	498.	468.	-14.	1065.	1296.	1.768	1.473	966.	0.	0.
6520	498.	316.	14.	1065.	1296.	1.000	1.000	815.	0.	0.
6525	498.	58.	-30.	1065.	1296.	1.768	1.473	581.	0.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq. STRESS	ALL(S
6525	498.	34.	30.	1065.	1296.	1.000	1.000	566.	
6530	498.	33.	-30.	1065.	1296.	1.000	1.000	565.	
6530	498.	33.	30.	1065.	1296.	1.000	1.000	565.	
6535	498.	658.	-30.	1065.	1304.	1.000	1.000	1158.	
6535	498.	658.	30.	1065.	1304.	1.000	1.000	1158.	
6540	498.	857.	-30.	1065.	1405.	1.000	1.000	1357.	
6540	498.	857.	30.	1065.	1405.	1.000	1.000	1357.	
6542	498.	241.	-17.	1065.	1296.	1.768	1.473	741.	
6542	498.	138.	17.	1065.	1296.	1.000	1.000	640.	
6545	498.	687.	-17.	1065.	1300.	1.000	1.000	1186.	
6545	511.	687.	17.	1065.	1299.	1.000	1.000	1199.	
6550	511.	58.	-17.	1065.	1296.	1.000	1.000	578.	
6555	511.	664.	17.	1065.	1298.	1.000	1.000	1176.	
6560	511.	1243.	-17.	1065.	1751.	1.222	1.296	1754.	
6560	511.	587.	163.	1065.	1383.	1.222	1.296	1183.	
6565	516.	381.	-3.	1065.	1295.	1.768	1.473	897.	
6565	516.	257.	3.	1065.	1295.	1.000	1.000	773.	
6570	516.	268.	-3.	1065.	1295.	1.000	1.000	784.	
6570	489.	268.	3.	1065.	1295.	1.000	1.000	757.	
6575	489.	678.	-3.	1065.	1295.	1.000	1.000	1167.	
6575	489.	678.	3.	1065.	1295.	1.000	1.000	1167.	
6580	514.	484.	26.	1065.	1298.	1.768	1.473	1001.	
6580	514.	274.	-26.	1065.	1296.	1.000	1.000	793.	
6585	491.	341.	26.	1065.	1297.	1.000	1.000	836.	
6590	455.	454.	-26.	1065.	1298.	1.000	1.000	912.	
6595	489.	399.	118.	1065.	1327.	1.768	1.473	952.	
6595	489.	227.	-118.	1065.	1318.	1.000	1.000	816.	
6600	489.	1314.	118.	1065.	1836.	1.222	1.296	1824.	
6600	498.	1550.	0.	1065.	2048.	1.222	1.296	2048.	
6620	498.	883.	0.	1065.	1422.	1.000	1.000	1381.	
6625	498.	419.	0.	1065.	1295.	1.000	1.000	917.	
6630	489.	15.	0.	1065.	1295.	1.768	1.473	504.	

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STRESS REPORT, Stresses on Elements
CASE 1 (OPE) W+DIS+T1+P1

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS	%
6630	489.	8.	0.	1065.	1295.	1.000	1.000	497.	0.	0.
6635	498.	0.	0.	1065.	1295.	1.768	1.473	498.	0.	0.
6635	498.	0.	0.	1065.	1295.	1.000	1.000	498.	0.	0.
6640	498.	0.	0.	1065.	1295.	1.000	1.000	498.	0.	0.
6600	612.	388.	-16.	1065.	1296.	1.222	1.296	1001.	0.	0.
6650	615.	236.	16.	1065.	1296.	1.000	1.000	853.	0.	0.
6655	651.	178.	-16.	1065.	1295.	1.000	1.000	831.	0.	0.
6660	659.	315.	16.	1065.	1296.	1.296	1.296	976.	0.	0.
6660	659.	315.	-16.	1065.	1296.	1.296	1.296	976.	0.	0.
6665	507.	735.	3.	1065.	1302.	1.768	1.473	1242.	0.	0.
6665	507.	416.	-3.	1065.	1295.	1.000	1.000	923.	0.	0.
6670	507.	2174.	3.	1065.	2662.	1.000	1.000	2680.	0.	0.
6670	507.	2174.	-3.	1065.	2680.	1.000	1.000	2680.	0.	0.
6675	507.	509.	3.	1065.	1295.	1.000	1.000	1015.	0.	0.
6675	507.	509.	-3.	1065.	1295.	1.000	1.000	1015.	0.	0.
6685	507.	1058.	3.	1065.	1584.	1.000	1.000	1565.	0.	0.
6685	567.	1058.	-3.	1065.	1644.	1.000	1.000	1625.	0.	0.
6690	647.	1555.	40.	1065.	2161.	1.768	1.473	2204.	0.	0.
6690	647.	885.	-40.	1065.	1574.	1.000	1.000	1535.	0.	0.
6695	468.	2770.	-78.	1065.	3301.	1.768	1.473	3242.	0.	0.
6695	468.	1589.	78.	1065.	2077.	1.000	1.000	2064.	0.	0.
6700	468.	1919.	-78.	1065.	2452.	1.000	1.000	2393.	0.	0.
6700	4052.	1919.	78.	1065.	5973.	1.000	1.000	5978.	0.	0.
6710	4052.	4919.	-78.	1065.	8515.	1.000	1.000	8974.	0.	0.
6710	510.	4919.	78.	1065.	5431.	1.000	1.000	5431.	0.	0.
6715	891.	4501.	-59.	1065.	4988.	1.768	1.473	5394.	0.	0.
6715	891.	2548.	59.	1065.	3441.	1.000	1.000	3441.	0.	0.
6720	494.	6984.	635.	1065.	7593.	1.768	1.473	7593.	0.	0.
6720	494.	3953.	-635.	1065.	4624.	1.000	1.000	4646.	0.	0.
6721	494.	8872.	635.	1065.	9459.	1.000	1.000	9456.	0.	0.
6721	4052.	8872.	-635.	1065.	12987.	1.000	1.000	13015.	0.	0.
6722	4052.	38973.	635.	1065.	42049.	1.000	1.000	43046.	0.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq. STRESS	ALL(S
6722	-4046.	38973.	-635.	1065.	43037.	1.000	1.000	43039.	
6723	-4046.	2194.	635.	1065.	7346.	1.000	1.000	6581.	
6724	-4046.	5866.	-635.	1065.	10367.	1.000	1.000	10048.	
6725	-5246.	42395.	1922.	1065.	48788.	1.768	1.473	47815.	
6725	-5246.	24014.	-1922.	1065.	29511.	1.000	1.000	29566.	
6726	-5252.	56754.	1922.	1065.	63119.	1.000	1.000	62136.	
6560	499.	795.	-176.	1065.	1475.	1.222	1.296	1368.	
6730	499.	792.	257.	1065.	1546.	1.768	1.473	1443.	
6730	499.	515.	-257.	1065.	1443.	1.000	1.000	1227.	
6735	499.	1564.	257.	1065.	2124.	1.000	1.000	2145.	
6735	476.	1564.	-257.	1065.	2104.	1.000	1.000	2123.	
6745	487.	2062.	10.	1065.	2570.	1.768	1.473	2548.	
6745	487.	1198.	-10.	1065.	1709.	1.000	1.000	1685.	
6750	456.	731.	10.	1065.	1330.	1.000	1.000	1187.	
6755	421.	970.	-10.	1065.	1575.	1.000	1.000	1391.	
6760	476.	1203.	101.	1065.	1734.	1.768	1.473	1696.	
6760	476.	681.	-101.	1065.	1370.	1.000	1.000	1186.	
6765	476.	1835.	101.	1065.	2362.	1.222	1.296	2322.	
6765	498.	1550.	0.	1065.	2048.	1.222	1.296	2048.	
6770	498.	883.	0.	1065.	1422.	1.000	1.000	1381.	
6775	498.	419.	0.	1065.	1295.	1.000	1.000	917.	
6780	489.	15.	0.	1065.	1295.	1.768	1.473	504.	
6780	489.	8.	0.	1065.	1295.	1.000	1.000	497.	
6785	498.	0.	0.	1065.	1295.	1.768	1.473	498.	
6785	498.	0.	0.	1065.	1295.	1.000	1.000	498.	
6790	498.	0.	0.	1065.	1295.	1.000	1.000	498.	
6765	647.	382.	54.	1065.	1300.	1.222	1.296	1044.	
6795	650.	491.	-54.	1065.	1320.	1.000	1.000	1153.	
6800	686.	744.	54.	1065.	1491.	1.000	1.000	1437.	
6805	693.	1493.	-54.	1065.	2154.	1.296	1.296	2190.	
6805	693.	1493.	54.	1065.	2188.	1.296	1.296	2190.	
6810	515.	1533.	708.	1065.	2462.	1.768	1.473	2602.	

T	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS	%
	515.	873.	-708.	1065.	1983.	1.000	1.000	2179.	0.	0.
	519.	2608.	1579.	1065.	4414.	1.768	1.473	4615.	0.	0.
	519.	1750.	-1579.	1065.	3889.	1.000	1.000	4130.	0.	0.
	519.	4731.	1579.	1065.	6091.	1.000	1.000	6208.	0.	0.
	493.	4731.	-1579.	1065.	6105.	1.000	1.000	6182.	0.	0.
	509.	4011.	-373.	1065.	4559.	1.768	1.473	4590.	0.	0.
	509.	2720.	373.	1065.	3314.	1.000	1.000	3330.	0.	0.
	509.	2579.	-373.	1065.	3154.	1.000	1.000	3194.	0.	0.
	500.	2579.	373.	1065.	3167.	1.000	1.000	3184.	0.	0.
	547.	1289.	-66.	1065.	1834.	1.768	1.473	1843.	0.	0.
	547.	825.	66.	1065.	1426.	1.000	1.000	1383.	0.	0.
	506.	1528.	-78.	1065.	2023.	1.768	1.473	2042.	0.	0.
	506.	867.	78.	1065.	1433.	1.000	1.000	1387.	0.	0.
	506.	737.	-78.	1065.	1367.	1.000	1.000	1259.	0.	0.
	506.	737.	78.	1065.	1359.	1.000	1.000	1259.	0.	0.
	506.	1007.	-78.	1065.	1557.	1.000	1.000	1525.	0.	0.
	506.	1033.	78.	1065.	1567.	1.000	1.000	1551.	0.	0.
	459.	3707.	-28.	1065.	4243.	1.768	1.473	4167.	0.	0.
	459.	2099.	28.	1065.	2558.	1.000	1.000	2559.	0.	0.
	453.	2239.	-28.	1065.	2782.	1.000	1.000	2693.	0.	0.

STRESS SUMMARY
CASE 2 (OPE) W+DIS+T2+P1

**** NO CODE STRESS CHECK PROCESSED

PIPING CODE: B31.3 -1993, July 31, 1993 Addendum

HIGHEST STRESSES: (lb./sq.in.)

OPE STRESS %:	65022.	@NODE 6726	ALLOWABLE:	0.
BENDING STRESS:	59549.	@NODE 6726		
TORSIONAL STRESS:	1849.	@NODE 6725		
AXIAL STRESS:	5358.	@NODE 6726		
3D MAX INTENSITY:	66006.	@NODE 6726		

STRESS OPTIMIZATION PARAMETERS:

OPE STRESS PERCENTAGES SHOWN BELOW REPRESENT THE NUMBER OF NODES IN THE SYSTEM THAT WERE WITHIN THE PERCENTAGE GIVEN OF THE HIGHEST OPE STRESS IN THE SYSTEM.

AVG. OPE STRESS 3981.

	/BETWEEN/	/BELOW/
OPE STRESS 90-100%	0.32	99.68
OPE STRESS 80-90 %	0.00	99.68
OPE STRESS 70-80 %	0.32	99.35
OPE STRESS 60-70 %	0.65	98.70
OPE STRESS 50-60 %	0.00	98.70
OPE STRESS 25-50 %	0.32	98.38
OPE STRESS 0-25 %	98.38	

PIPE ELEMENTS ANALYZED: 154

SAMPLED POINTS: 308

CAESAR II Ver 3.21 Job: FRMC03 Date: JAN 21,1995 Time: 10:56 Page: 58
Licensed To: FLUOR DANIEL ID 13692
STRESS REPORT, Stresses on Elements
CASE 2 (OPE) W+DIS+T2+P1

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS	%
6000	498.	0.	0.	1065.	1295.	1.000	1.000	498.	0.	0.
6005	498.	116.	0.	1065.	1295.	1.768	1.473	614.	0.	0.
6005	498.	66.	0.	1065.	1295.	1.000	1.000	563.	0.	0.
6010	498.	283.	-674.	1065.	1719.	1.768	1.473	1875.	0.	0.
6010	498.	192.	674.	1065.	1693.	1.000	1.000	1859.	0.	0.
6015	498.	2858.	-674.	1065.	3616.	1.000	1.000	3657.	0.	0.
6020	498.	4049.	674.	1065.	4742.	1.000	1.000	4765.	0.	0.
6025	498.	5455.	-674.	1065.	6103.	1.222	1.296	6117.	0.	0.
6025	500.	5829.	650.	1065.	6461.	1.222	1.296	6472.	0.	0.
6030	500.	5087.	-650.	1065.	5732.	1.000	1.000	5750.	0.	0.
6040	500.	9230.	650.	1065.	9816.	1.000	1.000	9821.	0.	0.
6045	500.	12900.	-650.	1065.	13459.	1.222	1.296	13465.	0.	0.
6045	491.	12050.	165.	1065.	12545.	1.222	1.296	12545.	0.	0.
6050	491.	8689.	-165.	1065.	9200.	1.000	1.000	9186.	0.	0.
6060	491.	5434.	165.	1065.	5934.	1.000	1.000	5935.	0.	0.
6065	491.	6394.	-165.	1065.	6906.	1.222	1.296	6893.	0.	0.
6065	491.	6362.	139.	1065.	6858.	1.222	1.296	6859.	0.	0.
6070	491.	4715.	-139.	1065.	5227.	1.000	1.000	5214.	0.	0.
6075	491.	3256.	139.	1065.	3757.	1.000	1.000	3759.	0.	0.
6080	491.	835.	-139.	1065.	1462.	1.000	1.000	1371.	0.	0.
6080	491.	835.	139.	1065.	1471.	1.000	1.000	1371.	0.	0.
6082	491.	745.	-139.	1065.	1416.	1.000	1.000	1286.	0.	0.
6082	491.	745.	139.	1065.	1423.	1.000	1.000	1286.	0.	0.
6085	491.	829.	-139.	1065.	1458.	1.000	1.000	1365.	0.	0.
6085	491.	829.	139.	1065.	1467.	1.000	1.000	1365.	0.	0.
6090	493.	1021.	-28.	1065.	1548.	1.768	1.473	1515.	0.	0.
6090	493.	613.	28.	1065.	1301.	1.000	1.000	1109.	0.	0.
6095	468.	657.	-157.	1065.	1392.	1.768	1.473	1197.	0.	0.
6095	468.	372.	157.	1065.	1350.	1.000	1.000	955.	0.	0.
6100	459.	297.	-157.	1065.	1336.	1.000	1.000	891.	0.	0.
6025	77.	2984.	-23.	401.	3062.	1.222	1.296	3063.	0.	0.
6101	96.	3540.	-142.	401.	3793.	1.017	1.000	3647.	0.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.i ALLO STRESS	ST
6101	96.	3483.	142.	401.	3590.	1.000	1.000	3590.	
6102	61.	3236.	0.	401.	3513.	1.017	1.000	3297.	
6102	61.	3184.	0.	401.	3245.	1.000	1.000	3245.	
6105	13.	0.	0.	401.	638.	1.000	1.000	13.	
6105	255.	0.	0.	401.	638.	1.000	1.000	255.	
6110	250.	0.	0.	401.	638.	1.000	1.000	250.	
6065	-82.	600.	0.	401.	1006.	1.222	1.296	682.	
6125	-133.	0.	0.	401.	638.	1.000	1.000	133.	
6125	266.	0.	0.	401.	638.	1.000	1.000	266.	
6130	250.	0.	0.	401.	638.	1.000	1.000	250.	
6045	494.	1571.	-342.	1065.	2175.	1.222	1.296	2207.	
6142	494.	3631.	342.	1065.	4189.	1.000	1.000	4189.	
6142	494.	3631.	-342.	1065.	4181.	1.000	1.000	4189.	
6145	494.	3024.	342.	1065.	3592.	1.000	1.000	3594.	
6145	494.	3024.	-342.	1065.	3584.	1.000	1.000	3594.	
6150	465.	1027.	204.	1065.	1621.	1.768	1.473	1571.	
6150	465.	678.	-204.	1065.	1464.	1.000	1.000	1257.	
6155	489.	1115.	174.	1065.	1677.	1.768	1.473	1657.	
6155	489.	666.	-174.	1065.	1423.	1.000	1.000	1240.	
6160	494.	846.	-104.	1065.	1442.	1.768	1.473	1365.	
6160	494.	563.	104.	1065.	1338.	1.000	1.000	1094.	
6165	494.	1496.	-104.	1065.	2008.	1.000	1.000	2004.	
6165	300.	1496.	104.	1065.	2166.	1.000	1.000	1810.	
6170	300.	3455.	-104.	1065.	4156.	1.000	1.000	3762.	
6170	300.	3455.	104.	1065.	3877.	1.000	1.000	3762.	
6175	540.	398.	-53.	1065.	1303.	1.768	1.473	952.	
6175	540.	398.	53.	1065.	1302.	1.768	1.473	952.	
6180	300.	2235.	-101.	1065.	2938.	1.768	1.473	2544.	
6180	300.	1266.	101.	1065.	1967.	1.000	1.000	1582.	
6185	300.	4397.	-101.	1065.	5096.	1.000	1.000	4701.	
6185	483.	4397.	101.	1065.	4884.	1.000	1.000	4884.	
6190	483.	281.	-101.	1065.	1313.	1.000	1.000	829.	

ENT S	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS	%
0	483.	281.	101.	1065.	1315.	1.000	1.000	829.	0.	0.
5	495.	859.	184.	1065.	1516.	1.768	1.473	1430.	0.	0.
5	495.	523.	-184.	1065.	1388.	1.000	1.000	1135.	0.	0.
0	495.	2444.	184.	1065.	2967.	1.000	1.000	2967.	0.	0.
0	-4938.	2444.	-184.	1065.	8229.	1.000	1.000	7409.	0.	0.
5	-4938.	1946.	184.	1065.	7888.	1.000	1.000	6918.	0.	0.
5	-4938.	1946.	-184.	1065.	7793.	1.000	1.000	6918.	0.	0.
0	-4938.	2498.	184.	1065.	8439.	1.000	1.000	7463.	0.	0.
0	-4938.	2498.	-184.	1065.	8276.	1.000	1.000	7463.	0.	0.
5	-4938.	291.	184.	1065.	6346.	1.000	1.000	5407.	0.	0.
5	-4938.	291.	-184.	1065.	6343.	1.000	1.000	5407.	0.	0.
0	-4938.	676.	184.	1065.	6683.	1.000	1.000	5708.	0.	0.
0	111.	676.	-184.	1065.	1692.	1.000	1.000	881.	0.	0.
5	474.	745.	579.	1065.	1793.	1.768	1.473	1850.	0.	0.
5	474.	482.	-579.	1065.	1712.	1.000	1.000	1728.	0.	0.
0	474.	1593.	579.	1065.	2411.	1.000	1.000	2443.	0.	0.
0	491.	1593.	-579.	1065.	2384.	1.000	1.000	2460.	0.	0.
5	491.	2355.	579.	1065.	3084.	1.000	1.000	3115.	0.	0.
5	491.	2355.	-579.	1065.	3072.	1.000	1.000	3115.	0.	0.
0	503.	1243.	1070.	1065.	2755.	1.768	1.473	2978.	0.	0.
0	503.	839.	-1070.	1065.	2526.	1.000	1.000	2802.	0.	0.
0	503.	4320.	1070.	1065.	5267.	1.000	1.000	5325.	0.	0.
0	487.	4320.	-1070.	1065.	5262.	1.000	1.000	5309.	0.	0.
5	501.	2827.	47.	1065.	3322.	1.768	1.473	3330.	0.	0.
5	501.	1912.	-47.	1065.	2415.	1.000	1.000	2415.	0.	0.
0	501.	553.	47.	1065.	1305.	1.000	1.000	1062.	0.	0.
0	-4938.	553.	-47.	1065.	6568.	1.000	1.000	5499.	0.	0.
5	-4938.	4448.	47.	1065.	10381.	1.000	1.000	9387.	0.	0.
5	-4938.	4448.	-47.	1065.	9982.	1.000	1.000	9387.	0.	0.
0	-4938.	5411.	47.	1065.	11344.	1.000	1.000	10350.	0.	0.
0	-4938.	5411.	-47.	1065.	10826.	1.000	1.000	10350.	0.	0.
5	-4938.	327.	-47.	1065.	6370.	1.000	1.000	5278.	0.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq AL STRESS
6275	-4938.	327.	-47.	1065.	6370.	1.000	1.000	5278.
6280	-4938.	1862.	47.	1065.	7795.	1.000	1.000	6802.
6280	-4938.	1862.	-47.	1065.	7715.	1.000	1.000	6802.
6285	-4938.	1538.	47.	1065.	7472.	1.000	1.000	6479.
6285	-4938.	1538.	-47.	1065.	7431.	1.000	1.000	6479.
6290	-4938.	2998.	47.	1065.	8931.	1.000	1.000	7937.
6290	-74.	2998.	-47.	1065.	3847.	1.000	1.000	3073.
6295	479.	161.	-54.	1065.	1299.	1.768	1.473	673.
6295	479.	161.	54.	1065.	1300.	1.768	1.473	673.
6300	-74.	5726.	61.	1065.	6796.	1.768	1.473	5801.
6300	-74.	3240.	-61.	1065.	4060.	1.000	1.000	3316.
6305	-74.	2978.	61.	1065.	4048.	1.000	1.000	3054.
6305	-4938.	2978.	-61.	1065.	8693.	1.000	1.000	7918.
6310	-4938.	1378.	61.	1065.	7312.	1.000	1.000	6321.
6310	-4938.	1378.	-61.	1065.	7291.	1.000	1.000	6321.
6315	-4938.	3054.	61.	1065.	8988.	1.000	1.000	7994.
6315	-4938.	3054.	-61.	1065.	8761.	1.000	1.000	7994.
6320	-4938.	1681.	61.	1065.	7615.	1.000	1.000	6623.
6320	-4938.	1681.	-61.	1065.	7557.	1.000	1.000	6623.
6325	-4938.	2367.	61.	1065.	8300.	1.000	1.000	7308.
6325	-4938.	2367.	-61.	1065.	8158.	1.000	1.000	7308.
6330	-4938.	612.	61.	1065.	6620.	1.000	1.000	5562.
6330	-4938.	612.	-61.	1065.	6620.	1.000	1.000	5562.
6335	-4938.	2232.	61.	1065.	8166.	1.000	1.000	7173.
6335	395.	2232.	-61.	1065.	2709.	1.000	1.000	2630.
6340	414.	2905.	-90.	1065.	3491.	1.768	1.473	3325.
6340	414.	1653.	90.	1065.	2187.	1.000	1.000	2077.
6345	395.	1955.	-275.	1065.	2614.	1.768	1.473	2425.
6345	395.	1124.	275.	1065.	1842.	1.000	1.000	1647.
6350	395.	2069.	-275.	1065.	2726.	1.000	1.000	2536.
6350	-4938.	2069.	275.	1065.	7906.	1.000	1.000	7079.
6355	-4938.	2104.	-275.	1065.	8056.	1.000	1.000	7113.

T	AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	STRESS INTENSIFICATION OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS	%
	-4938.	2104.	275.	1065.	7936.	1.000	1.000	7113.	0.	0.
	-4938.	2543.	-275.	1065.	8494.	1.000	1.000	7540.	0.	0.
	-4938.	2543.	275.	1065.	8321.	1.000	1.000	7540.	0.	0.
	-4938.	391.	-275.	1065.	6444.	1.000	1.000	5613.	0.	0.
	-4938.	391.	275.	1065.	6437.	1.000	1.000	5613.	0.	0.
	-4938.	433.	-275.	1065.	6481.	1.000	1.000	5638.	0.	0.
	-4938.	433.	275.	1065.	6474.	1.000	1.000	5638.	0.	0.
	-4938.	508.	-275.	1065.	6546.	1.000	1.000	5687.	0.	0.
	-4938.	508.	275.	1065.	6540.	1.000	1.000	5687.	0.	0.
	-4938.	3278.	-275.	1065.	9227.	1.000	1.000	8262.	0.	0.
	-4938.	3278.	275.	1065.	8964.	1.000	1.000	8262.	0.	0.
	-4938.	2410.	-275.	1065.	8361.	1.000	1.000	7410.	0.	0.
	-4938.	2410.	275.	1065.	8204.	1.000	1.000	7410.	0.	0.
	-4938.	705.	-275.	1065.	6718.	1.000	1.000	5832.	0.	0.
	428.	705.	275.	1065.	1557.	1.000	1.000	1323.	0.	0.
	421.	1223.	141.	1065.	1820.	1.768	1.473	1676.	0.	0.
	421.	730.	-141.	1065.	1457.	1.000	1.000	1203.	0.	0.
	421.	235.	141.	1065.	1323.	1.000	1.000	788.	0.	0.
	-4938.	235.	-141.	1065.	6292.	1.000	1.000	5304.	0.	0.
	-4938.	2165.	141.	1065.	8102.	1.000	1.000	7121.	0.	0.
	-4938.	2165.	-141.	1065.	7983.	1.000	1.000	7121.	0.	0.
	-4938.	4234.	141.	1065.	10171.	1.000	1.000	9181.	0.	0.
	-4938.	4234.	-141.	1065.	9796.	1.000	1.000	9181.	0.	0.
	-4938.	2096.	141.	1065.	8034.	1.000	1.000	7052.	0.	0.
	-4938.	2096.	-141.	1065.	7922.	1.000	1.000	7052.	0.	0.
	-4938.	903.	141.	1065.	6879.	1.000	1.000	5883.	0.	0.
	478.	903.	-141.	1065.	1524.	1.000	1.000	1424.	0.	0.
	352.	2385.	7.	1065.	3028.	1.768	1.473	2736.	0.	0.
	352.	1351.	-7.	1065.	1978.	1.000	1.000	1703.	0.	0.
	352.	558.	7.	1065.	1295.	1.000	1.000	910.	0.	0.
	-4938.	558.	-7.	1065.	6572.	1.000	1.000	5496.	0.	0.
	-4938.	139.	7.	1065.	6204.	1.000	1.000	5077.	0.	0.

STRESS REPORT, Stresses on Elements
CASE 2 (OPE) W+DIS+T2+P1

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq. STRESS	ALL(S
6445	-4938.	139.	-7.	1065.	6204.	1.000	1.000	5077.	
6450	-4938.	2728.	7.	1065.	8661.	1.000	1.000	7666.	
6450	-4938.	2728.	-7.	1065.	8474.	1.000	1.000	7666.	
6455	-4938.	2069.	7.	1065.	8002.	1.000	1.000	7006.	
6455	-4938.	2069.	-7.	1065.	7896.	1.000	1.000	7006.	
6460	-4938.	1912.	7.	1065.	7844.	1.000	1.000	6849.	
6460	-4938.	1912.	-7.	1065.	7759.	1.000	1.000	6849.	
6465	-4938.	1272.	7.	1065.	7205.	1.000	1.000	6209.	
6465	-4938.	1272.	-7.	1065.	7198.	1.000	1.000	6209.	
6470	-4938.	2826.	7.	1065.	8759.	1.000	1.000	7764.	
6470	496.	2826.	-7.	1065.	3322.	1.000	1.000	3322.	
6475	496.	1526.	494.	1065.	2252.	1.768	1.473	2313.	
6475	496.	1036.	-494.	1065.	1878.	1.000	1.000	1927.	
6480	496.	2528.	-133.	1065.	3039.	1.768	1.473	3038.	
6480	496.	1716.	133.	1065.	2228.	1.000	1.000	2233.	
6485	496.	1844.	-133.	1065.	2358.	1.000	1.000	2359.	
6485	496.	1844.	133.	1065.	2355.	1.000	1.000	2359.	
6490	496.	2912.	-133.	1065.	3422.	1.000	1.000	3420.	
6490	496.	2912.	133.	1065.	3418.	1.000	1.000	3420.	
6495	567.	1043.	16.	1065.	1632.	1.768	1.473	1610.	
6495	567.	608.	-16.	1065.	1296.	1.000	1.000	1176.	
6500	498.	367.	151.	1065.	1342.	1.768	1.473	973.	
6500	498.	209.	-151.	1065.	1330.	1.000	1.000	865.	
6505	496.	435.	9.	1065.	1295.	1.768	1.473	931.	
6505	496.	290.	-9.	1065.	1295.	1.000	1.000	786.	
6510	496.	465.	9.	1065.	1295.	1.000	1.000	961.	
6510	496.	465.	-9.	1065.	1295.	1.000	1.000	961.	
6515	496.	598.	9.	1065.	1296.	1.000	1.000	1094.	
6515	496.	598.	-9.	1065.	1296.	1.000	1.000	1094.	
6520	496.	286.	-67.	1065.	1304.	1.768	1.473	812.	
6520	496.	177.	67.	1065.	1302.	1.000	1.000	719.	
6525	497.	240.	-33.	1065.	1297.	1.768	1.473	746.	

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SS REPORT, Stresses on Elements
2 (OPE) W+DIS+T2+P1

ENT	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS	%
5	497.	152.	33.	1065.	1297.	1.000	1.000	663.	0.	0.
0	497.	70.	-33.	1065.	1297.	1.000	1.000	593.	0.	0.
0	497.	70.	33.	1065.	1297.	1.000	1.000	593.	0.	0.
5	497.	648.	-33.	1065.	1304.	1.000	1.000	1148.	0.	0.
5	497.	648.	33.	1065.	1305.	1.000	1.000	1148.	0.	0.
0	497.	976.	-33.	1065.	1507.	1.000	1.000	1476.	0.	0.
0	497.	976.	33.	1065.	1507.	1.000	1.000	1476.	0.	0.
2	496.	540.	9.	1065.	1296.	1.768	1.473	1036.	0.	0.
2	496.	306.	-9.	1065.	1295.	1.000	1.000	803.	0.	0.
5	496.	690.	9.	1065.	1297.	1.000	1.000	1186.	0.	0.
5	465.	690.	-9.	1065.	1299.	1.000	1.000	1156.	0.	0.
0	465.	181.	9.	1065.	1295.	1.000	1.000	647.	0.	0.
5	465.	341.	-9.	1065.	1295.	1.000	1.000	807.	0.	0.
0	465.	650.	9.	1065.	1296.	1.222	1.296	1116.	0.	0.
0	495.	408.	-142.	1065.	1342.	1.222	1.296	993.	0.	0.
5	489.	829.	0.	1065.	1383.	1.768	1.473	1319.	0.	0.
5	489.	491.	0.	1065.	1295.	1.000	1.000	980.	0.	0.
0	489.	346.	0.	1065.	1295.	1.000	1.000	836.	0.	0.
0	489.	346.	0.	1065.	1295.	1.000	1.000	836.	0.	0.
5	489.	654.	0.	1065.	1295.	1.000	1.000	1144.	0.	0.
5	489.	654.	0.	1065.	1295.	1.000	1.000	1144.	0.	0.
0	512.	511.	6.	1065.	1295.	1.768	1.473	1023.	0.	0.
0	512.	289.	-6.	1065.	1295.	1.000	1.000	801.	0.	0.
5	489.	245.	6.	1065.	1295.	1.000	1.000	735.	0.	0.
0	454.	347.	-6.	1065.	1295.	1.000	1.000	801.	0.	0.
5	489.	249.	49.	1065.	1299.	1.768	1.473	757.	0.	0.
5	489.	141.	-49.	1065.	1299.	1.000	1.000	661.	0.	0.
0	489.	1468.	49.	1065.	1976.	1.222	1.296	1960.	0.	0.
0	498.	1550.	0.	1065.	2048.	1.222	1.296	2048.	0.	0.
0	498.	883.	0.	1065.	1422.	1.000	1.000	1381.	0.	0.
5	498.	419.	0.	1065.	1295.	1.000	1.000	917.	0.	0.
0	489.	15.	0.	1065.	1295.	1.768	1.473	504.	0.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.i STRESS	ALLC ST
6630	489.	8.	0.	1065.	1295.	1.000	1.000	497.	
6635	498.	0.	0.	1065.	1295.	1.768	1.473	498.	
6635	498.	0.	0.	1065.	1295.	1.000	1.000	498.	
6640	498.	0.	0.	1065.	1295.	1.000	1.000	498.	
6600	614.	151.	-11.	1065.	1295.	1.222	1.296	766.	
6650	617.	88.	11.	1065.	1295.	1.000	1.000	708.	
6655	653.	137.	-11.	1065.	1295.	1.000	1.000	792.	
6660	661.	406.	11.	1065.	1296.	1.296	1.296	1068.	
6660	661.	406.	-11.	1065.	1295.	1.296	1.296	1068.	
6665	506.	639.	0.	1065.	1295.	1.768	1.473	1145.	
6665	506.	362.	0.	1065.	1295.	1.000	1.000	867.	
6670	506.	2136.	0.	1065.	2625.	1.000	1.000	2642.	
6670	506.	2136.	0.	1065.	2642.	1.000	1.000	2642.	
6675	506.	99.	0.	1065.	1295.	1.000	1.000	605.	
6675	506.	99.	0.	1065.	1295.	1.000	1.000	605.	
6685	506.	144.	0.	1065.	1295.	1.000	1.000	650.	
6685	487.	144.	0.	1065.	1295.	1.000	1.000	632.	
6690	471.	791.	108.	1065.	1400.	1.768	1.473	1291.	
6690	471.	454.	-108.	1065.	1330.	1.000	1.000	973.	
6695	474.	667.	-138.	1065.	1381.	1.768	1.473	1197.	
6695	474.	387.	138.	1065.	1340.	1.000	1.000	950.	
6700	474.	344.	-138.	1065.	1331.	1.000	1.000	915.	
6700	-4938.	344.	138.	1065.	6387.	1.000	1.000	5378.	
6710	-4938.	90.	-138.	1065.	6167.	1.000	1.000	5228.	
6710	502.	90.	138.	1065.	1320.	1.000	1.000	793.	
6715	539.	1107.	-60.	1065.	1667.	1.768	1.473	1652.	
6715	539.	639.	60.	1065.	1314.	1.000	1.000	1189.	
6720	490.	5412.	437.	1065.	5982.	1.768	1.473	5972.	
6720	490.	3063.	-437.	1065.	3659.	1.000	1.000	3675.	
6721	490.	4569.	437.	1065.	5149.	1.000	1.000	5141.	
6721	-4938.	4569.	-437.	1065.	10104.	1.000	1.000	9589.	
6722	-4938.	38642.	437.	1065.	44584.	1.000	1.000	43590.	

NT	AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) STRESS	ALLOWABLE STRESS	%
	-4253.	38642.	-437.	1065.	42904.	1.000	1.000	42906.	0.	0.
	-4253.	1603.	437.	1065.	6907.	1.000	1.000	6079.	0.	0.
	-4253.	6993.	-437.	1065.	11543.	1.000	1.000	11301.	0.	0.
	-5352.	43748.	1849.	1065.	50232.	1.768	1.473	49256.	0.	0.
	-5352.	24787.	-1849.	1065.	30364.	1.000	1.000	30413.	0.	0.
	-5358.	59549.	1849.	1065.	66006.	1.000	1.000	65022.	0.	0.
	469.	716.	-162.	1065.	1441.	1.222	1.296	1255.	0.	0.
	490.	986.	291.	1065.	1675.	1.768	1.473	1635.	0.	0.
	490.	604.	-291.	1065.	1501.	1.000	1.000	1329.	0.	0.
	490.	1628.	291.	1065.	2211.	1.000	1.000	2219.	0.	0.
	472.	1628.	-291.	1065.	2180.	1.000	1.000	2202.	0.	0.
	482.	2461.	-115.	1065.	2982.	1.768	1.473	2954.	0.	0.
	482.	1424.	115.	1065.	1928.	1.000	1.000	1925.	0.	0.
	452.	804.	-115.	1065.	1413.	1.000	1.000	1288.	0.	0.
	416.	1117.	115.	1065.	1732.	1.000	1.000	1557.	0.	0.
	472.	1561.	-59.	1065.	2087.	1.768	1.473	2037.	0.	0.
	472.	889.	59.	1065.	1468.	1.000	1.000	1369.	0.	0.
	472.	1735.	-59.	1065.	2261.	1.222	1.296	2211.	0.	0.
	498.	1550.	0.	1065.	2048.	1.222	1.296	2048.	0.	0.
	498.	883.	0.	1065.	1422.	1.000	1.000	1381.	0.	0.
	498.	419.	0.	1065.	1295.	1.000	1.000	917.	0.	0.
	489.	15.	0.	1065.	1295.	1.768	1.473	504.	0.	0.
	489.	8.	0.	1065.	1295.	1.000	1.000	497.	0.	0.
	498.	0.	0.	1065.	1295.	1.768	1.473	498.	0.	0.
	498.	0.	0.	1065.	1295.	1.000	1.000	498.	0.	0.
	498.	0.	0.	1065.	1295.	1.000	1.000	498.	0.	0.
	651.	238.	-18.	1065.	1296.	1.222	1.296	892.	0.	0.
	655.	401.	18.	1065.	1297.	1.000	1.000	1057.	0.	0.
	690.	709.	-18.	1065.	1462.	1.000	1.000	1400.	0.	0.
	697.	1568.	18.	1065.	2222.	1.296	1.296	2266.	0.	0.
	697.	1568.	-18.	1065.	2266.	1.296	1.296	2266.	0.	0.
	520.	1995.	820.	1065.	2965.	1.768	1.473	3103.	0.	0.

CAESAR II Ver 3.21 Job: FRMC03 Date: JAN 21,1995 Time: 10:56 P

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STRESS REPORT, Stresses on Elements

CASE 2 (OPE) W+DIS+T2+P1

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq ALL STRESS
6810	520.	1129.	-820.	1065.	2326.	1.000	1.000	2511.
6812	523.	2136.	1589.	1065.	4111.	1.768	1.473	4352.
6812	523.	1440.	-1589.	1065.	3734.	1.000	1.000	4011.
6815	523.	4491.	1589.	1065.	5893.	1.000	1.000	6024.
6815	484.	4491.	-1589.	1065.	5903.	1.000	1.000	5985.
6820	489.	4179.	-447.	1065.	4769.	1.768	1.473	4763.
6820	489.	2819.	447.	1065.	3427.	1.000	1.000	3447.
6840	489.	1878.	-447.	1065.	2545.	1.000	1.000	2569.
6840	497.	1878.	447.	1065.	2538.	1.000	1.000	2577.
6850	533.	1254.	-40.	1065.	1785.	1.768	1.473	1790.
6850	533.	849.	40.	1065.	1429.	1.000	1.000	1386.
6855	506.	1715.	-15.	1065.	2204.	1.768	1.473	2222.
6855	506.	971.	15.	1065.	1508.	1.000	1.000	1478.
6860	506.	490.	-15.	1065.	1296.	1.000	1.000	998.
6860	506.	490.	15.	1065.	1296.	1.000	1.000	998.
6865	506.	976.	-15.	1065.	1513.	1.000	1.000	1483.
6870	506.	1008.	15.	1065.	1540.	1.000	1.000	1515.
6875	455.	3913.	51.	1065.	4455.	1.768	1.473	4369.
6875	455.	2214.	-51.	1065.	2671.	1.000	1.000	2671.
6880	448.	2367.	51.	1065.	2915.	1.000	1.000	2817.

S SUMMARY
3 (OPE) W+DIS+T3+P1

----****-NO-CODE-STRESS-CHECK-PROCESSED----

PIPING CODE: B31.3 -1993, July 31, 1993 Addendum

HIGHEST STRESSES: (lb./sq.in.)

OPE STRESS %:	74390.	@NODE 6726	ALLOWABLE:	0.
BENDING STRESS:	68615.	@NODE 6726		
TORSIONAL STRESS:	1618.	@NODE 6812		
AXIAL STRESS:	33964.	@NODE 6205		
3D MAX INTENSITY:	75378.	@NODE 6726		

STRESS OPTIMIZATION PARAMETERS:

OPE STRESS PERCENTAGES SHOWN BELOW REPRESENT THE NUMBER OF NODES IN THE SYSTEM THAT WERE WITHIN THE PERCENTAGE GIVEN OF THE HIGHEST OPE STRESS IN THE SYSTEM.

AVG. OPE STRESS 12914.

	/BETWEEN/	/BELOW/
OPE STRESS 90-100%	0.65	99.35
OPE STRESS 80-90 %	0.00	99.35
OPE STRESS 70-80 %	0.32	99.03
OPE STRESS 60-70 %	0.32	98.70
OPE STRESS 50-60 %	5.52	93.18
OPE STRESS 25-50 %	19.81	73.38
OPE STRESS 0-25 %	73.38	

PIPE ELEMENTS ANALYZED: 154

SAMPLED POINTS: 308

STRESS REPORT, Stresses on Elements
CASE 3 (OPE) W+DIS+T3+P1

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq. STRESS	ALL(S1
6000	498.	0.	0.	1065.	1295.	1.000	1.000	498.	
6005	498.	116.	0.	1065.	1295.	1.768	1.473	614.	
6005	498.	66.	0.	1065.	1295.	1.000	1.000	563.	
6010	498.	283.	-674.	1065.	1719.	1.768	1.473	1875.	
6010	498.	192.	674.	1065.	1693.	1.000	1.000	1859.	
6015	498.	2858.	-674.	1065.	3616.	1.000	1.000	3657.	
6020	498.	4049.	674.	1065.	4742.	1.000	1.000	4765.	
6025	498.	5455.	-674.	1065.	6103.	1.222	1.296	6117.	
6025	504.	6887.	680.	1065.	7515.	1.222	1.296	7524.	
6030	504.	5664.	-680.	1065.	6304.	1.000	1.000	6329.	
6040	504.	7516.	680.	1065.	8134.	1.000	1.000	8142.	
6045	504.	10305.	-680.	1065.	10882.	1.222	1.296	10898.	
6045	462.	8336.	-2.	1065.	8797.	1.222	1.296	8797.	
6050	462.	7890.	2.	1065.	8424.	1.000	1.000	8351.	
6060	462.	21525.	-2.	1065.	21986.	1.000	1.000	21986.	
6065	462.	28732.	2.	1065.	29266.	1.222	1.296	29194.	
6065	462.	28596.	16.	1065.	29058.	1.222	1.296	29058.	
6070	462.	21794.	-16.	1065.	22326.	1.000	1.000	22256.	
6075	462.	16217.	16.	1065.	16679.	1.000	1.000	16679.	
6080	462.	5771.	-16.	1065.	6304.	1.000	1.000	6233.	
6080	462.	5771.	16.	1065.	6233.	1.000	1.000	6233.	
6082	462.	2985.	-16.	1065.	3518.	1.000	1.000	3448.	
6082	462.	2985.	16.	1065.	3448.	1.000	1.000	3448.	
6085	462.	2165.	-16.	1065.	2698.	1.000	1.000	2628.	
6085	462.	2165.	16.	1065.	2628.	1.000	1.000	2628.	
6090	477.	3950.	-244.	1065.	4496.	1.768	1.473	4457.	
6090	477.	2236.	244.	1065.	2756.	1.000	1.000	2766.	
6095	470.	670.	-972.	1065.	2281.	1.768	1.473	2526.	
6095	470.	410.	972.	1065.	2133.	1.000	1.000	2456.	
6100	461.	650.	-972.	1065.	2275.	1.000	1.000	2510.	
6025	-172.	11280.	6.	401.	11451.	1.222	1.296	11451.	
6101	-91.	13280.	37.	401.	13709.	1.017	1.000	13371.	

NT	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS	%
	-91.	13062.	-37.	401.	13154.	1.000	1.000	13154.	0.	0.
	-188.	10051.	0.	401.	10576.	1.017	1.000	10239.	0.	0.
	-188.	9886.	0.	401.	10074.	1.000	1.000	10074.	0.	0.
	-236.	0.	0.	401.	724.	1.000	1.000	236.	0.	0.
	255.	0.	0.	401.	638.	1.000	1.000	255.	0.	0.
	250.	0.	0.	401.	638.	1.000	1.000	250.	0.	0.
	-2935.	1145.	0.	401.	4256.	1.222	1.296	4080.	0.	0.
	-2986.	0.	0.	401.	3474.	1.000	1.000	2986.	0.	0.
	266.	0.	0.	401.	638.	1.000	1.000	266.	0.	0.
	250.	0.	0.	401.	638.	1.000	1.000	250.	0.	0.
	476.	4558.	-1198.	1065.	5575.	1.222	1.296	5626.	0.	0.
	476.	3216.	1198.	1065.	4438.	1.000	1.000	4487.	0.	0.
	476.	3216.	-1198.	1065.	4402.	1.000	1.000	4487.	0.	0.
	476.	4630.	1198.	1065.	5679.	1.000	1.000	5690.	0.	0.
	476.	4630.	-1198.	1065.	5640.	1.000	1.000	5690.	0.	0.
	472.	5284.	1070.	1065.	6189.	1.768	1.473	6174.	0.	0.
	472.	3217.	-1070.	1065.	4266.	1.000	1.000	4337.	0.	0.
	455.	3627.	1465.	1065.	5093.	1.768	1.473	5117.	0.	0.
	455.	2335.	-1465.	1065.	4046.	1.000	1.000	4202.	0.	0.
	476.	4931.	-345.	1065.	5493.	1.768	1.473	5455.	0.	0.
	476.	3291.	345.	1065.	3831.	1.000	1.000	3839.	0.	0.
	476.	4311.	-345.	1065.	4879.	1.000	1.000	4843.	0.	0.
	-2594.	4311.	345.	1065.	7533.	1.000	1.000	6960.	0.	0.
	-2594.	11615.	-345.	1065.	15219.	1.000	1.000	14229.	0.	0.
	-2594.	11615.	345.	1065.	14225.	1.000	1.000	14229.	0.	0.
	461.	4437.	-279.	1065.	5002.	1.768	1.473	4933.	0.	0.
	461.	4437.	279.	1065.	4929.	1.768	1.473	4933.	0.	0.
	-2594.	27118.	-331.	1065.	30714.	1.768	1.473	29719.	0.	0.
	-2594.	15344.	331.	1065.	17950.	1.000	1.000	17952.	0.	0.
	-2594.	14066.	-331.	1065.	17667.	1.000	1.000	16675.	0.	0.
	406.	14066.	331.	1065.	14487.	1.000	1.000	14488.	0.	0.
	406.	4319.	-331.	1065.	4952.	1.000	1.000	4776.	0.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq. STRESS	ALI
6190	406.	4319.	331.	1065.	4771.	1.000	1.000	4776.	
6195	482.	4356.	37.	1065.	4870.	1.768	1.473	4838.	
6195	482.	2483.	-37.	1065.	2966.	1.000	1.000	2966.	
6200	482.	2723.	37.	1065.	3238.	1.000	1.000	3206.	
6200	-33964.	2723.	-37.	1065.	37497.	1.000	1.000	36688.	
6205	-33964.	2939.	37.	1065.	37898.	1.000	1.000	36904.	
6205	-33964.	2939.	-37.	1065.	37686.	1.000	1.000	36904.	
6210	-33964.	3238.	37.	1065.	38197.	1.000	1.000	37202.	
6210	-33964.	3238.	-37.	1065.	37947.	1.000	1.000	37202.	
6215	-33964.	1725.	37.	1065.	36684.	1.000	1.000	35691.	
6215	-33964.	1725.	-37.	1065.	36622.	1.000	1.000	35691.	
6220	-33964.	3194.	37.	1065.	38154.	1.000	1.000	37160.	
6220	-1953.	3194.	-37.	1065.	5899.	1.000	1.000	5148.	
6225	345.	2572.	569.	1065.	3417.	1.768	1.473	3158.	
6225	345.	1457.	-569.	1065.	2320.	1.000	1.000	2194.	
6230	345.	9639.	569.	1065.	10351.	1.000	1.000	10051.	
6230	457.	9639.	-569.	1065.	10160.	1.000	1.000	10163.	
6235	457.	5079.	569.	1065.	5731.	1.000	1.000	5662.	
6235	457.	5079.	-569.	1065.	5652.	1.000	1.000	5662.	
6240	534.	1972.	1076.	1065.	3248.	1.768	1.473	3454.	
6240	534.	1200.	-1076.	1065.	2765.	1.000	1.000	2999.	
6250	534.	5786.	1076.	1065.	6607.	1.000	1.000	6708.	
6250	430.	5786.	-1076.	1065.	6578.	1.000	1.000	6604.	
6255	520.	4003.	53.	1065.	4479.	1.768	1.473	4525.	
6255	520.	2496.	-53.	1065.	3018.	1.000	1.000	3019.	
6260	520.	1226.	53.	1065.	1750.	1.000	1.000	1751.	
6260	-33964.	1226.	-53.	1065.	36184.	1.000	1.000	35194.	
6265	-33964.	4366.	53.	1065.	39326.	1.000	1.000	38332.	
6265	-33964.	4366.	-53.	1065.	38937.	1.000	1.000	38332.	
6270	-33964.	5674.	53.	1065.	40634.	1.000	1.000	39639.	
6270	-33964.	5674.	-53.	1065.	40083.	1.000	1.000	39639.	
6275	-33964.	776.	53.	1065.	35790.	1.000	1.000	34748.	

IT	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS	%
	-33964.	776.	-53.	1065.	35790.	1.000	1.000	34748.	0.	0.
	-33964.	734.	53.	1065.	35753.	1.000	1.000	34706.	0.	0.
	-33964.	734.	-53.	1065.	35753.	1.000	1.000	34706.	0.	0.
	-33964.	121.	53.	1065.	35216.	1.000	1.000	34125.	0.	0.
	-33964.	121.	-53.	1065.	35216.	1.000	1.000	34125.	0.	0.
	-33964.	7257.	53.	1065.	42216.	1.000	1.000	41222.	0.	0.
	-2483.	7257.	-53.	1065.	9989.	1.000	1.000	9740.	0.	0.
	324.	5846.	-31.	1065.	6517.	1.768	1.473	6170.	0.	0.
	324.	5846.	31.	1065.	6170.	1.768	1.473	6170.	0.	0.
	-2483.	23039.	64.	1065.	26517.	1.768	1.473	25522.	0.	0.
	-2483.	13034.	-64.	1065.	15517.	1.000	1.000	15517.	0.	0.
	-2483.	8870.	64.	1065.	12349.	1.000	1.000	11354.	0.	0.
	-33964.	8870.	-64.	1065.	42885.	1.000	1.000	42835.	0.	0.
	-33964.	797.	64.	1065.	35803.	1.000	1.000	34771.	0.	0.
	-33964.	797.	-64.	1065.	35808.	1.000	1.000	34771.	0.	0.
	-33964.	1481.	64.	1065.	36440.	1.000	1.000	35451.	0.	0.
	-33964.	1481.	-64.	1065.	36408.	1.000	1.000	35451.	0.	0.
	-33964.	2274.	64.	1065.	37233.	1.000	1.000	36241.	0.	0.
)	-33964.	2274.	-64.	1065.	37102.	1.000	1.000	36241.	0.	0.
)	-33964.	2988.	64.	1065.	37947.	1.000	1.000	36955.	0.	0.
;	-33964.	2988.	-64.	1065.	37728.	1.000	1.000	36954.	0.	0.
)	-33964.	1609.	64.	1065.	36569.	1.000	1.000	35579.	0.	0.
)	-33964.	1609.	-64.	1065.	36520.	1.000	1.000	35579.	0.	0.
;	-33964.	4573.	64.	1065.	39532.	1.000	1.000	38539.	0.	0.
;	-155.	4573.	-64.	1065.	5309.	1.000	1.000	4730.	0.	0.
)	-34.	18191.	-97.	1065.	19221.	1.768	1.473	18226.	0.	0.
)	-34.	10293.	97.	1065.	10328.	1.000	1.000	10328.	0.	0.
;	-155.	11932.	-281.	1065.	13094.	1.768	1.473	12100.	0.	0.
;	-155.	6753.	281.	1065.	7230.	1.000	1.000	6931.	0.	0.
0	-155.	3143.	-281.	1065.	4330.	1.000	1.000	3348.	0.	0.
0	-33964.	3143.	281.	1065.	37866.	1.000	1.000	37157.	0.	0.
5	-33964.	2234.	-281.	1065.	37198.	1.000	1.000	36268.	0.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.i ALLO STRESS	ST
6355	-33964.	2234.	281.	1065.	37069.	1.000	1.000	36268.	
6360	-33964.	2671.	-281.	1065.	37634.	1.000	1.000	36694.	
6360	-33964.	2671.	281.	1065.	37452.	1.000	1.000	36694.	
6365	-33964.	476.	-281.	1065.	35530.	1.000	1.000	34700.	
6365	-33964.	476.	281.	1065.	35528.	1.000	1.000	34700.	
6370	-33964.	521.	-281.	1065.	35569.	1.000	1.000	34730.	
6370	-33964.	521.	281.	1065.	35568.	1.000	1.000	34730.	
6375	-33964.	516.	-281.	1065.	35566.	1.000	1.000	34727.	
6375	-33964.	516.	281.	1065.	35564.	1.000	1.000	34727.	
6380	-33964.	3296.	-281.	1065.	38260.	1.000	1.000	37308.	
6380	-33964.	3296.	281.	1065.	38000.	1.000	1.000	37308.	
6385	-33964.	2435.	-281.	1065.	37399.	1.000	1.000	36464.	
6385	-33964.	2435.	281.	1065.	37246.	1.000	1.000	36464.	
6390	-33964.	1382.	-281.	1065.	36346.	1.000	1.000	35456.	
6390	59.	1382.	281.	1065.	2355.	1.000	1.000	1551.	
6395	12.	6736.	142.	1065.	7725.	1.768	1.473	6754.	
6395	12.	3818.	-142.	1065.	4485.	1.000	1.000	3840.	
6405	12.	508.	142.	1065.	1599.	1.000	1.000	594.	
6405	-33964.	508.	-142.	1065.	35555.	1.000	1.000	34546.	
6410	-33964.	2291.	142.	1065.	37251.	1.000	1.000	36272.	
6410	-33964.	2291.	-142.	1065.	37118.	1.000	1.000	36272.	
6415	-33964.	4429.	142.	1065.	39389.	1.000	1.000	38402.	
6415	-33964.	4429.	-142.	1065.	38992.	1.000	1.000	38402.	
6420	-33964.	2912.	142.	1065.	37872.	1.000	1.000	36890.	
6420	-33964.	2912.	-142.	1065.	37662.	1.000	1.000	36890.	
6425	-33964.	5134.	142.	1065.	40094.	1.000	1.000	39106.	
6425	376.	5134.	-142.	1065.	5518.	1.000	1.000	5518.	
6430	-428.	15063.	92.	1065.	16487.	1.768	1.473	15492.	
6430	-428.	8522.	-92.	1065.	9044.	1.000	1.000	8952.	
6440	-428.	2122.	92.	1065.	3549.	1.000	1.000	2557.	
6440	-33964.	2122.	-92.	1065.	36969.	1.000	1.000	36094.	
6445	-33964.	842.	92.	1065.	35848.	1.000	1.000	34826.	

iT	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS	%
	-33964.	842.	-92.	1065.	35848.	1.000	1.000	34826.	0.	0.
	-33964.	2761.	92.	1065.	37721.	1.000	1.000	36731.	0.	0.
	-33964.	2761.	-92.	1065.	37530.	1.000	1.000	36731.	0.	0.
	-33964.	2070.	92.	1065.	37030.	1.000	1.000	36043.	0.	0.
	-33964.	2070.	-92.	1065.	36924.	1.000	1.000	36043.	0.	0.
	-33964.	1913.	92.	1065.	36873.	1.000	1.000	35886.	0.	0.
	-33964.	1913.	-92.	1065.	36786.	1.000	1.000	35886.	0.	0.
	-33964.	1273.	92.	1065.	36233.	1.000	1.000	35251.	0.	0.
	-33964.	1273.	-92.	1065.	36226.	1.000	1.000	35251.	0.	0.
	-33964.	2826.	92.	1065.	37786.	1.000	1.000	36796.	0.	0.
	488.	2826.	-92.	1065.	3320.	1.000	1.000	3320.	0.	0.
	491.	1382.	566.	1065.	2200.	1.768	1.473	2277.	0.	0.
	491.	938.	-566.	1065.	1890.	1.000	1.000	1960.	0.	0.
	488.	2586.	-49.	1065.	3094.	1.768	1.473	3076.	0.	0.
	488.	1755.	49.	1065.	2246.	1.000	1.000	2246.	0.	0.
	488.	1920.	-49.	1065.	2429.	1.000	1.000	2411.	0.	0.
	488.	1920.	49.	1065.	2410.	1.000	1.000	2411.	0.	0.
	488.	2799.	-49.	1065.	3307.	1.000	1.000	3289.	0.	0.
	488.	2799.	49.	1065.	3289.	1.000	1.000	3289.	0.	0.
	543.	1981.	80.	1065.	2438.	1.768	1.473	2530.	0.	0.
	543.	1122.	-80.	1065.	1683.	1.000	1.000	1676.	0.	0.
	498.	597.	-125.	1065.	1359.	1.768	1.473	1145.	0.	0.
	498.	357.	125.	1065.	1328.	1.000	1.000	934.	0.	0.
	488.	817.	-329.	1065.	1615.	1.768	1.473	1536.	0.	0.
	488.	469.	329.	1065.	1492.	1.000	1.000	1297.	0.	0.
	488.	1112.	-329.	1065.	1784.	1.000	1.000	1781.	0.	0.
	488.	1112.	329.	1065.	1797.	1.000	1.000	1781.	0.	0.
	488.	671.	-329.	1065.	1552.	1.000	1.000	1429.	0.	0.
	488.	671.	329.	1065.	1560.	1.000	1.000	1429.	0.	0.
	491.	1339.	-240.	1065.	1905.	1.768	1.473	1913.	0.	0.
	491.	799.	240.	1065.	1537.	1.000	1.000	1422.	0.	0.
	497.	1174.	-44.	1065.	1680.	1.768	1.473	1674.	0.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq STRESS	AL
6525	497.	735.	44.	1065.	1332.	1.000	1.000	1237.	
6530	497.	399.	-44.	1065.	1300.	1.000	1.000	905.	
6530	497.	399.	44.	1065.	1300.	1.000	1.000	905.	
6535	497.	741.	-44.	1065.	1334.	1.000	1.000	1243.	
6535	497.	741.	44.	1065.	1335.	1.000	1.000	1243.	
6540	497.	1721.	-44.	1065.	2221.	1.000	1.000	2220.	
6540	497.	1721.	44.	1065.	2219.	1.000	1.000	2220.	
6542	488.	3020.	92.	1065.	3532.	1.768	1.473	3514.	
6542	488.	1709.	-92.	1065.	2205.	1.000	1.000	2207.	
6545	488.	1715.	92.	1065.	2229.	1.000	1.000	2213.	
6545	317.	1715.	-92.	1065.	2337.	1.000	1.000	2042.	
6550	317.	585.	92.	1065.	1351.	1.000	1.000	930.	
6555	317.	1227.	-92.	1065.	1914.	1.000	1.000	1558.	
6560	317.	3155.	92.	1065.	3838.	1.222	1.296	3478.	
6560	445.	1434.	-1128.	1065.	2936.	1.222	1.296	3118.	
6565	404.	4033.	13.	1065.	4624.	1.768	1.473	4437.	
6565	404.	2516.	-13.	1065.	2946.	1.000	1.000	2920.	
6570	404.	1252.	13.	1065.	1844.	1.000	1.000	1657.	
6570	491.	1252.	-13.	1065.	1752.	1.000	1.000	1744.	
6575	491.	627.	13.	1065.	1296.	1.000	1.000	1119.	
6575	491.	627.	-13.	1065.	1297.	1.000	1.000	1119.	
6580	507.	598.	-61.	1065.	1316.	1.768	1.473	1117.	
6580	507.	338.	61.	1065.	1303.	1.000	1.000	866.	
6585	484.	265.	-61.	1065.	1302.	1.000	1.000	775.	
6590	448.	335.	61.	1065.	1304.	1.000	1.000	804.	
6595	491.	266.	-176.	1065.	1346.	1.768	1.473	933.	
6595	491.	160.	176.	1065.	1339.	1.000	1.000	878.	
6600	491.	1965.	-176.	1065.	2494.	1.222	1.296	2488.	
6600	498.	1550.	0.	1065.	2048.	1.222	1.296	2048.	
6620	498.	883.	0.	1065.	1422.	1.000	1.000	1381.	
6625	498.	419.	0.	1065.	1295.	1.000	1.000	917.	
6630	489.	15.	0.	1065.	1295.	1.768	1.473	504.	

IT	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS	%
	489.	8.	0.	1065.	1295.	1.000	1.000	497.	0.	0.
	498.	0.	0.	1065.	1295.	1.768	1.473	498.	0.	0.
	498.	0.	0.	1065.	1295.	1.000	1.000	498.	0.	0.
	498.	0.	0.	1065.	1295.	1.000	1.000	498.	0.	0.
	619.	616.	4.	1065.	1309.	1.222	1.296	1236.	0.	0.
	623.	506.	-4.	1065.	1295.	1.000	1.000	1129.	0.	0.
	658.	541.	4.	1065.	1295.	1.000	1.000	1199.	0.	0.
	667.	827.	-4.	1065.	1542.	1.296	1.296	1494.	0.	0.
	667.	827.	4.	1065.	1542.	1.296	1.296	1494.	0.	0.
	504.	328.	-13.	1065.	1296.	1.768	1.473	833.	0.	0.
	504.	186.	13.	1065.	1295.	1.000	1.000	691.	0.	0.
	504.	2014.	-13.	1065.	2506.	1.000	1.000	2518.	0.	0.
	504.	2014.	13.	1065.	2518.	1.000	1.000	2518.	0.	0.
	504.	1786.	-13.	1065.	2278.	1.000	1.000	2290.	0.	0.
	504.	1786.	13.	1065.	2290.	1.000	1.000	2290.	0.	0.
	504.	3175.	-13.	1065.	3667.	1.000	1.000	3679.	0.	0.
	230.	3175.	13.	1065.	3698.	1.000	1.000	3406.	0.	0.
	-98.	8193.	327.	1065.	9309.	1.768	1.473	8317.	0.	0.
	-98.	4635.	-327.	1065.	5326.	1.000	1.000	4779.	0.	0.
	497.	6137.	-331.	1065.	6668.	1.768	1.473	6669.	0.	0.
	497.	3507.	331.	1065.	4058.	1.000	1.000	4066.	0.	0.
	497.	4748.	-331.	1065.	5288.	1.000	1.000	5290.	0.	0.
	-33964.	4748.	331.	1065.	39274.	1.000	1.000	38758.	0.	0.
	-33964.	15530.	-331.	1065.	50494.	1.000	1.000	49508.	0.	0.
	478.	15530.	331.	1065.	16021.	1.000	1.000	16021.	0.	0.
	-598.	10094.	-62.	1065.	11688.	1.768	1.473	10693.	0.	0.
	-598.	5718.	62.	1065.	6756.	1.000	1.000	6318.	0.	0.
	476.	338.	-205.	1065.	1368.	1.768	1.473	1007.	0.	0.
	476.	191.	205.	1065.	1357.	1.000	1.000	928.	0.	0.
	476.	9328.	-205.	1065.	9855.	1.000	1.000	9813.	0.	0.
	-33964.	9328.	205.	1065.	43294.	1.000	1.000	43301.	0.	0.
	-33964.	37578.	-205.	1065.	72538.	1.000	1.000	71544.	0.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq AL STRESS
6722	-4922.	37578.	205.	1065.	42503.	1.000	1.000	42503.
6723	-4922.	2986.	-205.	1065.	8913.	1.000	1.000	7937.
6724	-4922.	10643.	205.	1065.	15571.	1.000	1.000	15573.
6725	-5693.	48132.	1611.	1065.	54915.	1.768	1.473	53933.
6725	-5693.	27294.	-1611.	1065.	33144.	1.000	1.000	33176.
6726	-5700.	68615.	1611.	1065.	75378.	1.000	1.000	74390.
6560	375.	495.	-115.	1065.	1300.	1.222	1.296	921.
6730	463.	4602.	399.	1065.	5196.	1.768	1.473	5134.
6730	463.	2609.	-399.	1065.	3174.	1.000	1.000	3191.
6735	463.	2668.	399.	1065.	3298.	1.000	1.000	3248.
6735	459.	2668.	-399.	1065.	3227.	1.000	1.000	3243.
6745	468.	3758.	-520.	1065.	4409.	1.768	1.473	4367.
6745	468.	2160.	520.	1065.	2826.	1.000	1.000	2865.
6750	438.	1420.	-520.	1065.	2234.	1.000	1.000	2197.
6755	402.	1940.	520.	1065.	2602.	1.000	1.000	2603.
6760	459.	2953.	-573.	1065.	3673.	1.768	1.473	3626.
6760	459.	1749.	573.	1065.	2488.	1.000	1.000	2550.
6765	459.	1566.	-573.	1065.	2395.	1.222	1.296	2399.
6765	498.	1550.	0.	1065.	2048.	1.222	1.296	2048.
6770	498.	883.	0.	1065.	1422.	1.000	1.000	1381.
6775	498.	419.	0.	1065.	1295.	1.000	1.000	917.
6780	489.	15.	0.	1065.	1295.	1.768	1.473	504.
6780	489.	8.	0.	1065.	1295.	1.000	1.000	497.
6785	498.	0.	0.	1065.	1295.	1.768	1.473	498.
6785	498.	0.	0.	1065.	1295.	1.000	1.000	498.
6790	498.	0.	0.	1065.	1295.	1.000	1.000	498.
6765	665.	1491.	-248.	1065.	2213.	1.222	1.296	2237.
6795	669.	1015.	248.	1065.	1802.	1.000	1.000	1799.
6800	704.	1072.	-248.	1065.	1846.	1.000	1.000	1886.
6805	711.	2029.	248.	1065.	2675.	1.296	1.296	2801.
6805	711.	2029.	-248.	1065.	2785.	1.296	1.296	2801.
6810	537.	3608.	1181.	1065.	4702.	1.768	1.473	4850.

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Licensed To: FLUOR DANIEL ID 13692
STRESS REPORT, Stresses on Elements
CASE 3 (OPE) W+DIS+T3+P1

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	3D MAX SHEAR INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	--Stress(lb./sq.in.)-- STRESS	ALLOWABLE STRESS	%
6810	537.	2054.	-1181.	1065.	3506.	1.000	1.000	3668.	0.	0.
6812	536.	791.	1618.	1065.	3470.	1.768	1.473	3868.	0.	0.
6812	536.	522.	-1618.	1065.	3406.	1.000	1.000	3815.	0.	0.
6815	536.	3768.	1618.	1065.	5324.	1.000	1.000	5504.	0.	0.
6815	454.	3768.	-1618.	1065.	5320.	1.000	1.000	5422.	0.	0.
6820	425.	6521.	-685.	1065.	7222.	1.768	1.473	7088.	0.	0.
6820	425.	4042.	685.	1065.	4672.	1.000	1.000	4692.	0.	0.
6840	425.	1316.	-685.	1065.	2331.	1.000	1.000	2324.	0.	0.
6840	490.	1316.	685.	1065.	2266.	1.000	1.000	2389.	0.	0.
6850	487.	3781.	44.	1065.	4290.	1.768	1.473	4270.	0.	0.
6850	487.	2258.	-44.	1065.	2747.	1.000	1.000	2747.	0.	0.
6855	508.	2335.	188.	1065.	2847.	1.768	1.473	2873.	0.	0.
6855	508.	1321.	-188.	1065.	1867.	1.000	1.000	1882.	0.	0.
6860	508.	316.	188.	1065.	1359.	1.000	1.000	999.	0.	0.
6860	508.	316.	-188.	1065.	1356.	1.000	1.000	999.	0.	0.
6865	508.	931.	188.	1065.	1572.	1.000	1.000	1512.	0.	0.
6870	508.	981.	-188.	1065.	1589.	1.000	1.000	1559.	0.	0.
6875	440.	4625.	305.	1065.	5216.	1.768	1.473	5105.	0.	0.
6875	440.	2623.	-305.	1065.	3123.	1.000	1.000	3133.	0.	0.
6880	434.	2794.	305.	1065.	3410.	1.000	1.000	3293.	0.	0.

**** CODE STRESS CHECK PASSED

PIPING CODE: B31.3 -1993, July 31, 1993 Addendum

HIGHEST STRESSES: (lb./sq.in.)

CODE STRESS %:	13885.	@NODE 6045	ALLOWABLE:	17000.
BENDING STRESS:	13386.	@NODE 6045		
TORSIONAL STRESS:	1587.	@NODE 6812		
AXIAL STRESS:	842.	@NODE 6170		
3D MAX INTENSITY:	13942.	@NODE 6045		

STRESS OPTIMIZATION PARAMETERS:

CODE STRESS PERCENTAGES SHOWN BELOW REPRESENT THE NUMBER OF NODES IN THE SYSTEM THAT WERE WITHIN THE PERCENTAGE GIVEN OF THE HIGHEST CODE STRESS IN THE SYSTEM.

AVG. CODE STRESS 1833.

	/BETWEEN/	/BELOW/
CODE STRESS 90-100%	0.65	99.35
CODE STRESS 80-90 %	0.00	99.35
CODE STRESS 70-80 %	0.32	99.03
CODE STRESS 60-70 %	0.32	98.70
CODE STRESS 50-60 %	0.00	98.70
CODE STRESS 25-50 %	6.82	91.88
CODE STRESS 0-25 %	91.88	

PIPE ELEMENTS ANALYZED: 154

SAMPLED POINTS: 308

NT	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
)	498.	0.	0.	1065.	1295.	1.000	1.000	498.	17000.	3.
;	498.	116.	0.	1065.	1295.	1.768	1.473	614.	17000.	4.
;	498.	66.	0.	1065.	1295.	1.000	1.000	563.	17000.	3.
)	498.	283.	-674.	1065.	1719.	1.768	1.473	781.	17000.	5.
)	498.	192.	674.	1065.	1693.	1.000	1.000	690.	17000.	4.
;	498.	2858.	-674.	1065.	3616.	1.000	1.000	3355.	17000.	20.
)	498.	4049.	674.	1065.	4742.	1.000	1.000	4506.	17000.	27.
;	498.	5455.	-674.	1065.	6103.	1.222	1.296	5953.	17000.	35.
;	499.	5631.	645.	1065.	6264.	1.222	1.296	6130.	17000.	36.
)	499.	4978.	-645.	1065.	5625.	1.000	1.000	5477.	17000.	32.
)	499.	9551.	645.	1065.	10132.	1.000	1.000	10050.	17000.	59.
;	499.	13386.	-645.	1065.	13942.	1.222	1.296	13885.	17000.	82.
;	496.	12918.	197.	1065.	13420.	1.222	1.296	13415.	17000.	79.
)	496.	8944.	-197.	1065.	9452.	1.000	1.000	9440.	17000.	56.
)	496.	2422.	197.	1065.	2944.	1.000	1.000	2918.	17000.	17.
5	496.	2211.	-197.	1065.	2739.	1.222	1.296	2707.	17000.	16.
5	496.	2199.	162.	1065.	2714.	1.222	1.296	2695.	17000.	16.
0	496.	1517.	-162.	1065.	2042.	1.000	1.000	2014.	17000.	12.
5	496.	832.	162.	1065.	1485.	1.000	1.000	1329.	17000.	8.
0	496.	135.	-162.	1065.	1331.	1.000	1.000	632.	17000.	4.
0	496.	135.	162.	1065.	1331.	1.000	1.000	632.	17000.	4.
2	496.	327.	-162.	1065.	1344.	1.000	1.000	823.	17000.	5.
2	496.	327.	162.	1065.	1344.	1.000	1.000	823.	17000.	5.
5	496.	655.	-162.	1065.	1404.	1.000	1.000	1151.	17000.	7.
5	496.	655.	162.	1065.	1406.	1.000	1.000	1151.	17000.	7.
0	496.	675.	12.	1065.	1297.	1.768	1.473	1171.	17000.	7.
0	496.	446.	-12.	1065.	1296.	1.000	1.000	942.	17000.	6.
5	468.	684.	-5.	1065.	1295.	1.768	1.473	1152.	17000.	7.
5	468.	387.	5.	1065.	1295.	1.000	1.000	855.	17000.	5.
0	459.	352.	-5.	1065.	1295.	1.000	1.000	810.	17000.	5.
5	124.	1508.	-29.	401.	1633.	1.222	1.296	1632.	17000.	10.
1	130.	1755.	-176.	401.	1993.	1.017	1.000	1885.	17000.	11.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABL STRES
6101	130.	1728.	176.	401.	1892.	1.000	1.000	1858.	17000.
6102	108.	1993.	0.	401.	2223.	1.017	1.000	2101.	17000.
6102	108.	1963.	0.	401.	2071.	1.000	1.000	2071.	17000.
6105	60.	0.	0.	401.	638.	1.000	1.000	60.	17000.
6105	255.	0.	0.	401.	638.	1.000	1.000	255.	17000.
6110	250.	0.	0.	401.	638.	1.000	1.000	250.	17000.
6065	453.	723.	0.	401.	1176.	1.222	1.296	1176.	17000.
6125	401.	0.	0.	401.	638.	1.000	1.000	401.	17000.
6125	266.	0.	0.	401.	638.	1.000	1.000	266.	17000.
6130	250.	0.	0.	401.	638.	1.000	1.000	250.	17000.
6045	497.	1207.	-182.	1065.	1761.	1.222	1.296	1704.	17000.
6142	497.	4391.	182.	1065.	4903.	1.000	1.000	4887.	17000.
6142	497.	4391.	-182.	1065.	4901.	1.000	1.000	4887.	17000.
6145	497.	2725.	182.	1065.	3244.	1.000	1.000	3222.	17000.
6145	497.	2725.	-182.	1065.	3242.	1.000	1.000	3222.	17000.
6150	464.	584.	42.	1065.	1303.	1.768	1.473	1047.	17000.
6150	464.	382.	-42.	1065.	1300.	1.000	1.000	846.	17000.
6155	495.	759.	-68.	1065.	1363.	1.768	1.473	1254.	17000.
6155	495.	432.	68.	1065.	1308.	1.000	1.000	927.	17000.
6160	497.	87.	-59.	1065.	1300.	1.768	1.473	584.	17000.
6160	497.	55.	59.	1065.	1300.	1.000	1.000	552.	17000.
6165	497.	969.	-59.	1065.	1509.	1.000	1.000	1465.	17000.
6165	842.	969.	59.	1065.	1844.	1.000	1.000	1810.	17000.
6170	842.	1928.	-59.	1065.	2683.	1.000	1.000	2769.	17000.
6170	842.	1928.	59.	1065.	2772.	1.000	1.000	2769.	17000.
6175	554.	532.	-11.	1065.	1296.	1.768	1.473	1087.	17000.
6175	554.	532.	11.	1065.	1296.	1.768	1.473	1087.	17000.
6180	842.	2429.	-58.	1065.	3122.	1.768	1.473	3271.	17000.
6180	842.	1374.	58.	1065.	2219.	1.000	1.000	2216.	17000.
6185	842.	2587.	-58.	1065.	3261.	1.000	1.000	3429.	17000.
6185	497.	2587.	58.	1065.	3087.	1.000	1.000	3084.	17000.
6190	497.	1025.	-58.	1065.	1556.	1.000	1.000	1522.	17000.

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NT	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
	497.	1025.	58.	1065.	1556.	1.000	1.000	1522.	17000.	9.
	497.	455.	212.	1065.	1394.	1.768	1.473	953.	17000.	6.
	497.	309.	-212.	1065.	1371.	1.000	1.000	806.	17000.	5.
	497.	2817.	212.	1065.	3342.	1.000	1.000	3314.	17000.	19.
	498.	2817.	-212.	1065.	3341.	1.000	1.000	3314.	17000.	19.
	498.	1799.	212.	1065.	2336.	1.000	1.000	2297.	17000.	14.
	498.	1799.	-212.	1065.	2336.	1.000	1.000	2297.	17000.	14.
	498.	2361.	212.	1065.	2890.	1.000	1.000	2858.	17000.	17.
	498.	2361.	-212.	1065.	2890.	1.000	1.000	2858.	17000.	17.
	498.	150.	212.	1065.	1355.	1.000	1.000	648.	17000.	4.
	498.	150.	-212.	1065.	1355.	1.000	1.000	648.	17000.	4.
	498.	498.	212.	1065.	1403.	1.000	1.000	995.	17000.	6.
	498.	498.	-212.	1065.	1403.	1.000	1.000	995.	17000.	6.
	498.	704.	581.	1065.	1789.	1.768	1.473	1201.	17000.	7.
	498.	478.	-581.	1065.	1702.	1.000	1.000	975.	17000.	6.
	498.	529.	581.	1065.	1720.	1.000	1.000	1026.	17000.	6.
	498.	529.	-581.	1065.	1720.	1.000	1.000	1026.	17000.	6.
	498.	2221.	581.	1065.	2957.	1.000	1.000	2719.	17000.	16.
	498.	2221.	-581.	1065.	2957.	1.000	1.000	2719.	17000.	16.
	498.	1225.	1069.	1065.	2745.	1.768	1.473	1722.	17000.	10.
	498.	831.	-1069.	1065.	2517.	1.000	1.000	1329.	17000.	8.
	498.	4261.	1069.	1065.	5216.	1.000	1.000	4758.	17000.	28.
	498.	4261.	-1069.	1065.	5217.	1.000	1.000	4758.	17000.	28.
	498.	2790.	46.	1065.	3288.	1.768	1.473	3287.	17000.	19.
	498.	1894.	-46.	1065.	2393.	1.000	1.000	2391.	17000.	14.
	498.	536.	46.	1065.	1304.	1.000	1.000	1033.	17000.	6.
	498.	536.	-46.	1065.	1304.	1.000	1.000	1033.	17000.	6.
	498.	4466.	46.	1065.	4965.	1.000	1.000	4964.	17000.	29.
	498.	4466.	-46.	1065.	4965.	1.000	1.000	4964.	17000.	29.
	498.	5363.	46.	1065.	5862.	1.000	1.000	5861.	17000.	34.
	498.	5363.	-46.	1065.	5862.	1.000	1.000	5861.	17000.	34.
	498.	243.	46.	1065.	1299.	1.000	1.000	741.	17000.	4.

CAESAR II Ver 3.21 Job: FRMC03 Date: JAN 21,1995 Time: 10:56
Licensed To: FLUOR DANIEL ID
STRESS REPORT, Stresses on Elements
CASE 4 (SUS) W+P1

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb. CODE STRESS	A
6275	498.	243.	-46.	1065.	1299.	1.000	1.000	741.	
6280	498.	2074.	46.	1065.	2573.	1.000	1.000	2571.	
6280	498.	2074.	-46.	1065.	2573.	1.000	1.000	2571.	
6285	498.	1831.	46.	1065.	2331.	1.000	1.000	2329.	
6285	498.	1831.	-46.	1065.	2331.	1.000	1.000	2329.	
6290	498.	2203.	46.	1065.	2702.	1.000	1.000	2701.	
6290	377.	2203.	-46.	1065.	2700.	1.000	1.000	2581.	
6295	508.	1127.	-58.	1065.	1653.	1.768	1.473	1635.	
6295	508.	1127.	58.	1065.	1649.	1.768	1.473	1635.	
6300	377.	2488.	61.	1065.	3108.	1.768	1.473	2866.	
6300	377.	1410.	-61.	1065.	2007.	1.000	1.000	1787.	
6305	377.	1878.	61.	1065.	2499.	1.000	1.000	2255.	
6305	498.	1878.	-61.	1065.	2379.	1.000	1.000	2376.	
6310	498.	1780.	61.	1065.	2281.	1.000	1.000	2277.	
6310	498.	1780.	-61.	1065.	2281.	1.000	1.000	2277.	
6315	498.	3352.	61.	1065.	3852.	1.000	1.000	3850.	
6315	498.	3352.	-61.	1065.	3852.	1.000	1.000	3850.	
6320	498.	1574.	61.	1065.	2076.	1.000	1.000	2072.	
6320	498.	1574.	-61.	1065.	2076.	1.000	1.000	2072.	
6325	498.	2276.	61.	1065.	2776.	1.000	1.000	2773.	
6325	498.	2276.	-61.	1065.	2776.	1.000	1.000	2773.	
6330	498.	592.	61.	1065.	1314.	1.000	1.000	1089.	
6330	498.	592.	-61.	1065.	1314.	1.000	1.000	1089.	
6335	498.	2157.	61.	1065.	2658.	1.000	1.000	2655.	
6335	498.	2157.	-61.	1065.	2658.	1.000	1.000	2655.	
6340	498.	470.	-88.	1065.	1318.	1.768	1.473	968.	
6340	498.	319.	88.	1065.	1311.	1.000	1.000	817.	
6345	498.	544.	-274.	1065.	1465.	1.768	1.473	1041.	
6345	498.	369.	274.	1065.	1423.	1.000	1.000	867.	
6350	498.	2032.	-274.	1065.	2589.	1.000	1.000	2530.	
6350	498.	2032.	274.	1065.	2589.	1.000	1.000	2530.	
6355	498.	2102.	-274.	1065.	2656.	1.000	1.000	2599.	

000559

SS REPORT, Stresses on Elements
4 (SUS) W+P1

ENT S	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
5	498.	2102.	274.	1065.	2656.	1.000	1.000	2599.	17000.	15.
0	498.	2541.	-274.	1065.	3087.	1.000	1.000	3038.	17000.	18.
0	498.	2541.	274.	1065.	3087.	1.000	1.000	3038.	17000.	18.
5	498.	389.	-274.	1065.	1427.	1.000	1.000	886.	17000.	5.
5	498.	389.	274.	1065.	1427.	1.000	1.000	886.	17000.	5.
0	498.	430.	-274.	1065.	1436.	1.000	1.000	928.	17000.	5.
0	498.	430.	274.	1065.	1436.	1.000	1.000	928.	17000.	5.
5	498.	508.	-274.	1065.	1455.	1.000	1.000	1006.	17000.	6.
5	498.	508.	274.	1065.	1455.	1.000	1.000	1006.	17000.	6.
0	498.	3279.	-274.	1065.	3816.	1.000	1.000	3776.	17000.	22.
0	498.	3279.	274.	1065.	3816.	1.000	1.000	3776.	17000.	22.
5	498.	2411.	-274.	1065.	2960.	1.000	1.000	2908.	17000.	17.
5	498.	2411.	274.	1065.	2960.	1.000	1.000	2908.	17000.	17.
0	498.	676.	-274.	1065.	1510.	1.000	1.000	1174.	17000.	7.
0	498.	676.	274.	1065.	1510.	1.000	1.000	1174.	17000.	7.
5	498.	613.	140.	1065.	1375.	1.768	1.473	1111.	17000.	7.
5	498.	416.	-140.	1065.	1341.	1.000	1.000	914.	17000.	5.
5	498.	225.	140.	1065.	1327.	1.000	1.000	722.	17000.	4.
5	498.	225.	-140.	1065.	1327.	1.000	1.000	722.	17000.	4.
0	498.	2164.	140.	1065.	2677.	1.000	1.000	2662.	17000.	16.
0	498.	2164.	-140.	1065.	2677.	1.000	1.000	2662.	17000.	16.
5	498.	4223.	140.	1065.	4729.	1.000	1.000	4720.	17000.	28.
5	498.	4223.	-140.	1065.	4729.	1.000	1.000	4720.	17000.	28.
0	498.	2061.	140.	1065.	2574.	1.000	1.000	2559.	17000.	15.
0	498.	2061.	-140.	1065.	2574.	1.000	1.000	2559.	17000.	15.
5	498.	432.	140.	1065.	1343.	1.000	1.000	929.	17000.	5.
5	498.	432.	-140.	1065.	1343.	1.000	1.000	929.	17000.	5.
0	498.	209.	-9.	1065.	1295.	1.768	1.473	706.	17000.	4.
0	498.	142.	9.	1065.	1295.	1.000	1.000	639.	17000.	4.
0	498.	446.	-9.	1065.	1295.	1.000	1.000	944.	17000.	6.
0	498.	446.	9.	1065.	1295.	1.000	1.000	944.	17000.	6.
5	498.	43.	-9.	1065.	1295.	1.000	1.000	541.	17000.	3.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./s CODE STRESS	ALL
6445	498.	43.	9.	1065.	1295.	1.000	1.000	541.	1
6450	498.	2726.	-9.	1065.	3224.	1.000	1.000	3224.	1
6450	498.	2726.	9.	1065.	3224.	1.000	1.000	3224.	1
6455	498.	2069.	-9.	1065.	2567.	1.000	1.000	2567.	1
6455	498.	2069.	9.	1065.	2567.	1.000	1.000	2567.	1
6460	498.	1912.	-9.	1065.	2410.	1.000	1.000	2410.	1
6460	498.	1912.	9.	1065.	2410.	1.000	1.000	2410.	1
6465	498.	1272.	-9.	1065.	1770.	1.000	1.000	1770.	1
6465	498.	1272.	9.	1065.	1770.	1.000	1.000	1770.	1
6470	498.	2826.	-9.	1065.	3324.	1.000	1.000	3324.	1
6470	497.	2826.	9.	1065.	3323.	1.000	1.000	3323.	1
6475	497.	1552.	480.	1065.	2264.	1.768	1.473	2050.	1
6475	497.	1054.	-480.	1065.	1876.	1.000	1.000	1551.	1
6480	497.	2518.	-149.	1065.	3031.	1.768	1.473	3015.	1
6480	497.	1709.	149.	1065.	2227.	1.000	1.000	2207.	1
6485	497.	1829.	-149.	1065.	2346.	1.000	1.000	2327.	1
6485	497.	1829.	149.	1065.	2346.	1.000	1.000	2327.	1
6490	497.	2934.	-149.	1065.	3445.	1.000	1.000	3431.	1
6490	497.	2934.	149.	1065.	3444.	1.000	1.000	3431.	1
6495	571.	893.	5.	1065.	1504.	1.768	1.473	1464.	1
6495	571.	531.	-5.	1065.	1295.	1.000	1.000	1102.	1
6500	498.	335.	202.	1065.	1369.	1.768	1.473	832.	1
6500	498.	189.	-202.	1065.	1353.	1.000	1.000	687.	1
6505	497.	523.	72.	1065.	1314.	1.768	1.473	1020.	1
6505	497.	355.	-72.	1065.	1307.	1.000	1.000	852.	1
6510	497.	354.	72.	1065.	1307.	1.000	1.000	852.	1
6510	497.	354.	-72.	1065.	1307.	1.000	1.000	852.	1
6515	497.	662.	72.	1065.	1333.	1.000	1.000	1159.	1
6515	497.	662.	-72.	1065.	1333.	1.000	1.000	1159.	1
6520	497.	356.	-35.	1065.	1298.	1.768	1.473	854.	1
6520	497.	241.	35.	1065.	1297.	1.000	1.000	739.	1
6525	498.	67.	-31.	1065.	1296.	1.768	1.473	564.	1

ENT ES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
25	498.	44.	31.	1065.	1296.	1.000	1.000	542.	17000.	3.
30	498.	10.	-31.	1065.	1296.	1.000	1.000	507.	17000.	3.
30	498.	10.	31.	1065.	1296.	1.000	1.000	507.	17000.	3.
35	498.	655.	-31.	1065.	1304.	1.000	1.000	1152.	17000.	7.
35	498.	655.	31.	1065.	1304.	1.000	1.000	1152.	17000.	7.
40	498.	884.	-31.	1065.	1428.	1.000	1.000	1382.	17000.	8.
40	498.	884.	31.	1065.	1428.	1.000	1.000	1382.	17000.	8.
42	497.	99.	-6.	1065.	1295.	1.768	1.473	597.	17000.	4.
42	497.	61.	6.	1065.	1295.	1.000	1.000	559.	17000.	3.
45	497.	670.	-6.	1065.	1296.	1.000	1.000	1167.	17000.	7.
45	489.	670.	6.	1065.	1296.	1.000	1.000	1159.	17000.	7.
50	489.	114.	-6.	1065.	1295.	1.000	1.000	603.	17000.	4.
55	489.	482.	6.	1065.	1295.	1.000	1.000	972.	17000.	6.
60	489.	874.	-6.	1065.	1422.	1.222	1.296	1363.	17000.	8.
60	504.	446.	36.	1065.	1299.	1.222	1.296	950.	17000.	6.
65	504.	356.	3.	1065.	1295.	1.768	1.473	861.	17000.	5.
65	504.	204.	-3.	1065.	1295.	1.000	1.000	709.	17000.	4.
70	504.	192.	3.	1065.	1295.	1.000	1.000	696.	17000.	4.
70	488.	192.	-3.	1065.	1295.	1.000	1.000	680.	17000.	4.
75	488.	695.	3.	1065.	1295.	1.000	1.000	1183.	17000.	7.
75	488.	695.	-3.	1065.	1295.	1.000	1.000	1183.	17000.	7.
80	513.	557.	4.	1065.	1295.	1.768	1.473	1070.	17000.	6.
80	513.	315.	-4.	1065.	1295.	1.000	1.000	828.	17000.	5.
85	490.	275.	4.	1065.	1295.	1.000	1.000	764.	17000.	4.
90	454.	390.	-4.	1065.	1295.	1.000	1.000	844.	17000.	5.
95	488.	367.	12.	1065.	1296.	1.768	1.473	855.	17000.	5.
95	488.	208.	-12.	1065.	1295.	1.000	1.000	696.	17000.	4.
00	488.	1371.	12.	1065.	1878.	1.222	1.296	1860.	17000.	11.
00	498.	1550.	0.	1065.	2048.	1.222	1.296	2048.	17000.	12.
20	498.	883.	0.	1065.	1422.	1.000	1.000	1381.	17000.	8.
25	498.	419.	0.	1065.	1295.	1.000	1.000	917.	17000.	5.
30	489.	15.	0.	1065.	1295.	1.768	1.473	504.	17000.	3.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./ CODE STRESS	AL
6630	489.	8.	0.	1065.	1295.	1.000	1.000	497.	
6635	498.	0.	0.	1065.	1295.	1.768	1.473	498.	
6635	498.	0.	0.	1065.	1295.	1.000	1.000	498.	
6640	498.	0.	0.	1065.	1295.	1.000	1.000	498.	
6600	613.	182.	0.	1065.	1295.	1.222	1.296	795.	
6650	617.	60.	0.	1065.	1295.	1.000	1.000	676.	
6655	652.	63.	0.	1065.	1295.	1.000	1.000	715.	
6660	661.	362.	0.	1065.	1295.	1.296	1.296	1022.	
6660	661.	362.	0.	1065.	1295.	1.296	1.296	1022.	
6665	507.	602.	-3.	1065.	1295.	1.768	1.473	1109.	
6665	507.	341.	3.	1065.	1295.	1.000	1.000	848.	
6670	507.	2111.	-3.	1065.	2599.	1.000	1.000	2618.	
6670	507.	2111.	3.	1065.	2618.	1.000	1.000	2618.	
6675	507.	50.	-3.	1065.	1295.	1.000	1.000	557.	
6675	507.	50.	3.	1065.	1295.	1.000	1.000	557.	
6685	507.	193.	-3.	1065.	1295.	1.000	1.000	700.	
6685	501.	193.	3.	1065.	1295.	1.000	1.000	694.	
6690	519.	129.	7.	1065.	1295.	1.768	1.473	648.	
6690	519.	74.	-7.	1065.	1295.	1.000	1.000	593.	
6695	495.	404.	13.	1065.	1296.	1.768	1.473	899.	
6695	495.	229.	-13.	1065.	1296.	1.000	1.000	724.	
6700	495.	286.	13.	1065.	1296.	1.000	1.000	780.	
6700	498.	286.	-13.	1065.	1296.	1.000	1.000	783.	
6710	498.	909.	13.	1065.	1445.	1.000	1.000	1407.	
6710	497.	909.	-13.	1065.	1446.	1.000	1.000	1406.	
6715	448.	261.	0.	1065.	1295.	1.768	1.473	708.	
6715	448.	148.	0.	1065.	1295.	1.000	1.000	596.	
6720	498.	327.	-15.	1065.	1296.	1.768	1.473	825.	
6720	498.	185.	15.	1065.	1296.	1.000	1.000	683.	
6721	498.	807.	-15.	1065.	1358.	1.000	1.000	1305.	
6721	498.	807.	15.	1065.	1358.	1.000	1.000	1304.	
6722	498.	133.	-15.	1065.	1296.	1.000	1.000	630.	

IT	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
	494.	133.	15.	1065.	1296.	1.000	1.000	627.	17000.	4.
	494.	106.	-15.	1065.	1296.	1.000	1.000	601.	17000.	4.
	494.	92.	15.	1065.	1296.	1.000	1.000	587.	17000.	3.
	477.	57.	-5.	1065.	1295.	1.768	1.473	534.	17000.	3.
	477.	34.	5.	1065.	1295.	1.000	1.000	512.	17000.	3.
	471.	28.	-5.	1065.	1295.	1.000	1.000	499.	17000.	3.
	487.	796.	-164.	1065.	1473.	1.222	1.296	1284.	17000.	8.
	495.	642.	264.	1065.	1487.	1.768	1.473	1137.	17000.	7.
	495.	435.	-264.	1065.	1430.	1.000	1.000	931.	17000.	5.
	495.	1576.	264.	1065.	2142.	1.000	1.000	2071.	17000.	12.
	475.	1576.	-264.	1065.	2118.	1.000	1.000	2051.	17000.	12.
	485.	2197.	-38.	1065.	2708.	1.768	1.473	2682.	17000.	16.
	485.	1274.	38.	1065.	1779.	1.000	1.000	1759.	17000.	10.
	455.	746.	-38.	1065.	1346.	1.000	1.000	1201.	17000.	7.
	419.	1013.	38.	1065.	1618.	1.000	1.000	1432.	17000.	8.
	475.	1328.	38.	1065.	1850.	1.768	1.473	1803.	17000.	11.
	475.	752.	-38.	1065.	1350.	1.000	1.000	1227.	17000.	7.
	475.	1790.	38.	1065.	2311.	1.222	1.296	2265.	17000.	13.
	498.	1550.	0.	1065.	2048.	1.222	1.296	2048.	17000.	12.
	498.	883.	0.	1065.	1422.	1.000	1.000	1381.	17000.	8.
	498.	419.	0.	1065.	1295.	1.000	1.000	917.	17000.	5.
	489.	15.	0.	1065.	1295.	1.768	1.473	504.	17000.	3.
	489.	8.	0.	1065.	1295.	1.000	1.000	497.	17000.	3.
	498.	0.	0.	1065.	1295.	1.768	1.473	498.	17000.	3.
	498.	0.	0.	1065.	1295.	1.000	1.000	498.	17000.	3.
	498.	0.	0.	1065.	1295.	1.000	1.000	498.	17000.	3.
	648.	257.	25.	1065.	1296.	1.222	1.296	906.	17000.	5.
	652.	431.	-25.	1065.	1299.	1.000	1.000	1083.	17000.	6.
	687.	714.	25.	1065.	1464.	1.000	1.000	1402.	17000.	8.
	694.	1506.	-25.	1065.	2165.	1.296	1.296	2200.	17000.	13.
	694.	1506.	25.	1065.	2201.	1.296	1.296	2200.	17000.	13.
	517.	1676.	751.	1065.	2626.	1.768	1.473	2192.	17000.	13.

CAESAR II Ver 3.21 Job: FRMC03 Date: JAN 21,1995 Time: 10:56 P
Licensed To: FLUOR DANIEL ID
STRESS REPORT, Stresses on Elements
CASE 4 (SUS) W+P1

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./ CODE STRESS	AL
6810	517.	951.	-751.	1065.	2099.	1.000	1.000	1467.	
6812	520.	2438.	1587.	1065.	4308.	1.768	1.473	2958.	
6812	520.	1639.	-1587.	1065.	3839.	1.000	1.000	2159.	
6815	520.	4645.	1587.	1065.	6024.	1.000	1.000	5165.	
6815	494.	4645.	-1587.	1065.	6040.	1.000	1.000	5139.	
6820	503.	4009.	-310.	1065.	4544.	1.768	1.473	4512.	
6820	503.	2722.	310.	1065.	3284.	1.000	1.000	3225.	
6840	503.	2593.	-310.	1065.	3147.	1.000	1.000	3096.	
6840	499.	2593.	310.	1065.	3153.	1.000	1.000	3092.	
6850	547.	1023.	-33.	1065.	1596.	1.768	1.473	1570.	
6850	547.	666.	33.	1065.	1302.	1.000	1.000	1213.	
6855	502.	535.	-30.	1065.	1299.	1.768	1.473	1037.	
6855	502.	304.	30.	1065.	1297.	1.000	1.000	806.	
6860	502.	1880.	-30.	1065.	2375.	1.000	1.000	2382.	
6860	502.	1880.	30.	1065.	2383.	1.000	1.000	2382.	
6865	502.	197.	-30.	1065.	1297.	1.000	1.000	699.	
6870	502.	168.	30.	1065.	1297.	1.000	1.000	670.	
6875	501.	288.	-23.	1065.	1296.	1.768	1.473	789.	
6875	501.	166.	23.	1065.	1296.	1.000	1.000	667.	
6880	495.	92.	-23.	1065.	1296.	1.000	1.000	587.	

**** CODE STRESS CHECK FAILED

PIPING CODE: B31.3 -1993, July 31, 1993 Addendum

HIGHEST STRESSES: (lb./sq.in.)

CODE STRESS %:	56859.	@NODE 6726	ALLOWABLE:	42001.
BENDING STRESS:	56728.	@NODE 6726		
TORSIONAL STRESS:	1928.	@NODE 6725		
AXIAL STRESS:	5723.	@NODE 6725		
3D MAX INTENSITY:	62570.	@NODE 6726		

STRESS OPTIMIZATION PARAMETERS:

CODE STRESS PERCENTAGES SHOWN BELOW REPRESENT THE NUMBER OF NODES IN THE SYSTEM THAT WERE WITHIN THE PERCENTAGE GIVEN OF THE HIGHEST CODE STRESS IN THE SYSTEM.

AVG. CODE STRESS 1192.

	/BETWEEN/	/BELOW/
CODE STRESS 90-100%	0.32	99.68
CODE STRESS 80-90 %	0.00	99.68
CODE STRESS 70-80 %	0.32	99.35
CODE STRESS 60-70 %	0.65	98.70
CODE STRESS 50-60 %	0.00	98.70
CODE STRESS 25-50 %	0.32	98.38
CODE STRESS 0-25 %	98.38	

PIPE ELEMENTS ANALYZED: 154

SAMPLED POINTS: 308

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./ CODE STRESS	AL
6000	0.	0.	0.	0.	0.	1.000	1.000	0.	
6005	0.	0.	0.	0.	0.	1.768	1.473	0.	
6005	0.	0.	0.	0.	0.	1.000	1.000	0.	
6010	0.	0.	0.	0.	0.	1.768	1.473	0.	
6010	0.	0.	0.	0.	0.	1.000	1.000	0.	
6015	0.	0.	0.	0.	0.	1.000	1.000	0.	
6020	0.	0.	0.	0.	0.	1.000	1.000	0.	
6025	0.	0.	0.	0.	0.	1.222	1.296	0.	
6025	-1.	130.	-4.	0.	130.	1.222	1.296	130.	
6030	-1.	71.	4.	0.	72.	1.000	1.000	71.	
6040	-1.	210.	-4.	0.	211.	1.000	1.000	210.	
6045	-1.	318.	4.	0.	318.	1.222	1.296	318.	
6045	4.	712.	21.	0.	717.	1.222	1.296	713.	
6050	4.	369.	-21.	0.	375.	1.000	1.000	371.	
6060	4.	1971.	21.	0.	1975.	1.000	1.000	1971.	
6065	4.	2736.	-21.	0.	2740.	1.222	1.296	2736.	
6065	3.	2723.	15.	0.	2727.	1.222	1.296	2723.	
6070	3.	2092.	-15.	0.	2095.	1.000	1.000	2092.	
6075	3.	1587.	15.	0.	1591.	1.000	1.000	1588.	
6080	3.	605.	-15.	0.	609.	1.000	1.000	606.	
6080	3.	605.	15.	0.	609.	1.000	1.000	606.	
6082	3.	274.	-15.	0.	280.	1.000	1.000	276.	
6082	3.	274.	15.	0.	280.	1.000	1.000	276.	
6085	3.	182.	-15.	0.	188.	1.000	1.000	185.	
6085	3.	182.	15.	0.	188.	1.000	1.000	185.	
6090	2.	380.	26.	0.	386.	1.768	1.473	384.	
6090	2.	216.	-26.	0.	224.	1.000	1.000	222.	
6095	0.	51.	100.	0.	206.	1.768	1.473	206.	
6095	0.	34.	-100.	0.	202.	1.000	1.000	202.	
6100	0.	81.	100.	0.	216.	1.000	1.000	215.	
6025	31.	1023.	-4.	0.	1054.	1.222	1.296	1023.	
6101	23.	1196.	-22.	0.	1220.	1.017	1.000	1197.	

ENT	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
5										
1	23.	1177.	22.	0.	1201.	1.000	1.000	1178.	40642.	3.
2	31.	840.	0.	0.	870.	1.017	1.000	840.	40399.	2.
2	31.	826.	0.	0.	857.	1.000	1.000	826.	40429.	2.
5	31.	0.	0.	0.	31.	1.000	1.000	0.	42440.	0.
5	0.	0.	0.	0.	0.	1.000	1.000	0.	42244.	0.
0	0.	0.	0.	0.	0.	1.000	1.000	0.	42250.	0.
5	349.	152.	0.	0.	501.	1.222	1.296	152.	41324.	0.
5	349.	0.	0.	0.	349.	1.000	1.000	0.	42098.	0.
5	0.	0.	0.	0.	0.	1.000	1.000	0.	42234.	0.
0	0.	0.	0.	0.	0.	1.000	1.000	0.	42250.	0.
5	2.	404.	105.	0.	457.	1.222	1.296	455.	40796.	1.
2	2.	612.	-105.	0.	649.	1.000	1.000	647.	37612.	2.
2	2.	612.	105.	0.	649.	1.000	1.000	647.	37612.	2.
5	2.	198.	-105.	0.	290.	1.000	1.000	289.	39278.	1.
5	2.	198.	105.	0.	290.	1.000	1.000	289.	39278.	1.
0	-1.	540.	-106.	0.	581.	1.768	1.473	580.	41453.	1.
0	-1.	322.	106.	0.	386.	1.000	1.000	386.	41654.	1.
5	4.	325.	-158.	0.	456.	1.768	1.473	453.	41246.	1.
5	4.	214.	158.	0.	384.	1.000	1.000	382.	41573.	1.
0	2.	500.	30.	0.	506.	1.768	1.473	504.	41916.	1.
0	2.	334.	-30.	0.	341.	1.000	1.000	339.	41948.	1.
5	2.	345.	30.	0.	352.	1.000	1.000	350.	41034.	1.
5	354.	345.	-30.	0.	702.	1.000	1.000	350.	40690.	1.
0	354.	999.	30.	0.	1355.	1.000	1.000	1001.	39730.	3.
0	354.	999.	-30.	0.	1355.	1.000	1.000	1001.	39730.	3.
5	10.	505.	28.	0.	518.	1.768	1.473	508.	41413.	1.
5	10.	505.	-28.	0.	518.	1.768	1.473	508.	41413.	1.
0	354.	3047.	28.	0.	3402.	1.768	1.473	3048.	39229.	8.
0	354.	1724.	-28.	0.	2079.	1.000	1.000	1725.	40284.	4.
5	354.	1184.	28.	0.	1540.	1.000	1.000	1186.	39071.	3.
5	9.	1184.	-28.	0.	1195.	1.000	1.000	1186.	39416.	3.
0	9.	548.	28.	0.	560.	1.000	1.000	551.	40978.	1.

000668

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./ CODE STRESS	AL
6190	9.	548.	-28.	0.	560.	1.000	1.000	551.	
6195	2.	441.	18.	0.	444.	1.768	1.473	442.	
6195	2.	250.	-18.	0.	254.	1.000	1.000	253.	
6200	2.	388.	18.	0.	391.	1.000	1.000	390.	
6200	3555.	388.	-18.	0.	3943.	1.000	1.000	390.	
6205	3555.	155.	18.	0.	3710.	1.000	1.000	160.	
6205	3555.	155.	-18.	0.	3710.	1.000	1.000	160.	
6210	3555.	93.	18.	0.	3648.	1.000	1.000	100.	
6210	3555.	93.	-18.	0.	3648.	1.000	1.000	100.	
6215	3555.	180.	18.	0.	3735.	1.000	1.000	183.	
6215	3555.	180.	-18.	0.	3735.	1.000	1.000	183.	
6220	3555.	330.	18.	0.	3885.	1.000	1.000	332.	
6220	253.	330.	-18.	0.	584.	1.000	1.000	332.	
6225	16.	269.	1.	0.	265.	1.768	1.473	269.	
6225	16.	154.	-1.	0.	169.	1.000	1.000	154.	
6230	16.	995.	1.	0.	1010.	1.000	1.000	995.	
6230	4.	995.	-1.	0.	999.	1.000	1.000	995.	
6235	4.	463.	1.	0.	467.	1.000	1.000	463.	
6235	4.	463.	-1.	0.	467.	1.000	1.000	463.	
6240	-4.	163.	-1.	0.	167.	1.768	1.473	163.	
6240	-4.	92.	1.	0.	96.	1.000	1.000	92.	
6250	-4.	390.	-1.	0.	394.	1.000	1.000	390.	
6250	7.	390.	1.	0.	397.	1.000	1.000	390.	
6255	-2.	295.	-1.	0.	298.	1.768	1.473	295.	
6255	-2.	167.	1.	0.	169.	1.000	1.000	167.	
6260	-2.	118.	-1.	0.	120.	1.000	1.000	118.	
6260	3555.	118.	1.	0.	3672.	1.000	1.000	118.	
6265	3555.	42.	-1.	0.	3597.	1.000	1.000	43.	
6265	3555.	42.	1.	0.	3597.	1.000	1.000	43.	
6270	3555.	48.	-1.	0.	3602.	1.000	1.000	48.	
6270	3555.	48.	1.	0.	3602.	1.000	1.000	48.	
6275	3555.	55.	-1.	0.	3610.	1.000	1.000	55.	

000669

ENT	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
5	3555.	55.	1.	0.	3610.	1.000	1.000	55.	41759.	0.
D	3555.	139.	-1.	0.	3693.	1.000	1.000	139.	39928.	0.
D	3555.	139.	1.	0.	3693.	1.000	1.000	139.	39928.	0.
5	3555.	192.	-1.	0.	3747.	1.000	1.000	192.	40171.	0.
5	3555.	192.	1.	0.	3747.	1.000	1.000	192.	40171.	0.
D	3555.	522.	-1.	0.	4077.	1.000	1.000	522.	39799.	1.
D	295.	522.	1.	0.	817.	1.000	1.000	522.	39919.	1.
5	19.	718.	-3.	0.	737.	1.768	1.473	718.	40865.	2.
5	19.	718.	3.	0.	737.	1.768	1.473	718.	40865.	2.
D	295.	2121.	0.	0.	2416.	1.768	1.473	2121.	39634.	5.
D	295.	1200.	0.	0.	1495.	1.000	1.000	1200.	40713.	3.
5	295.	722.	0.	0.	1017.	1.000	1.000	722.	40244.	2.
5	3555.	722.	0.	0.	4277.	1.000	1.000	722.	40124.	2.
D	3555.	264.	0.	0.	3819.	1.000	1.000	264.	40222.	1.
D	3555.	264.	0.	0.	3819.	1.000	1.000	264.	40222.	1.
5	3555.	196.	0.	0.	3751.	1.000	1.000	196.	38650.	1.
5	3555.	196.	0.	0.	3751.	1.000	1.000	196.	38650.	1.
D	3555.	78.	0.	0.	3633.	1.000	1.000	78.	40428.	0.
D	3555.	78.	0.	0.	3633.	1.000	1.000	78.	40423.	0.
5	3555.	116.	0.	0.	3671.	1.000	1.000	116.	39726.	0.
5	3555.	116.	0.	0.	3671.	1.000	1.000	116.	39726.	0.
D	3555.	162.	0.	0.	3717.	1.000	1.000	162.	41410.	0.
D	3555.	162.	0.	0.	3717.	1.000	1.000	162.	41410.	0.
5	3555.	423.	0.	0.	3978.	1.000	1.000	423.	39845.	1.
5	67.	423.	0.	0.	491.	1.000	1.000	423.	39845.	1.
D	55.	1876.	1.	0.	1931.	1.768	1.473	1876.	41532.	5.
D	55.	1061.	-1.	0.	1116.	1.000	1.000	1061.	41683.	3.
5	67.	1230.	1.	0.	1297.	1.768	1.473	1230.	41458.	3.
5	67.	696.	-1.	0.	763.	1.000	1.000	696.	41633.	2.
D	67.	246.	1.	0.	313.	1.000	1.000	246.	39970.	1.
D	3555.	246.	-1.	0.	3801.	1.000	1.000	246.	39970.	1.
5	3555.	80.	1.	0.	3634.	1.000	1.000	80.	39901.	0.

CAESAR II Ver 3.21 Job: FRHC03 Date: JAN 21,1995 Time: 10:56

Licensed To: FLUOR DANIEL

STRESS REPORT, Stresses on Elements

CASE 5 (EXP) D5(EXP)=D1-D4

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb., CODE STRESS	A
6355	3555.	80.	-1.	0.	3634.	1.000	1.000	80.	
6360	3555.	87.	1.	0.	3641.	1.000	1.000	87.	
6360	3555.	87.	-1.	0.	3641.	1.000	1.000	87.	
6365	3555.	29.	1.	0.	3583.	1.000	1.000	29.	
6365	3555.	29.	-1.	0.	3583.	1.000	1.000	29.	
6370	3555.	30.	1.	0.	3584.	1.000	1.000	30.	
6370	3555.	30.	-1.	0.	3584.	1.000	1.000	30.	
6375	3555.	8.	1.	0.	3563.	1.000	1.000	8.	
6375	3555.	8.	-1.	0.	3563.	1.000	1.000	8.	
6380	3555.	41.	1.	0.	3596.	1.000	1.000	41.	
6380	3555.	41.	-1.	0.	3596.	1.000	1.000	41.	
6385	3555.	41.	1.	0.	3596.	1.000	1.000	41.	
6385	3555.	41.	-1.	0.	3596.	1.000	1.000	41.	
6390	3555.	123.	1.	0.	3673.	1.000	1.000	123.	
6390	45.	123.	-1.	0.	168.	1.000	1.000	123.	
6395	50.	692.	0.	0.	742.	1.768	1.473	692.	
6395	50.	391.	0.	0.	442.	1.000	1.000	391.	
6405	50.	47.	0.	0.	97.	1.000	1.000	47.	
6405	3555.	47.	0.	0.	3602.	1.000	1.000	47.	
6410	3555.	84.	0.	0.	3639.	1.000	1.000	84.	
6410	3555.	84.	0.	0.	3639.	1.000	1.000	84.	
6415	3555.	120.	0.	0.	3675.	1.000	1.000	120.	
6415	3555.	120.	0.	0.	3675.	1.000	1.000	120.	
6420	3555.	204.	0.	0.	3759.	1.000	1.000	204.	
6420	3555.	204.	0.	0.	3759.	1.000	1.000	204.	
6425	3555.	529.	0.	0.	4084.	1.000	1.000	529.	
6425	13.	529.	0.	0.	542.	1.000	1.000	529.	
6430	95.	1554.	-11.	0.	1649.	1.768	1.473	1554.	
6430	95.	879.	11.	0.	975.	1.000	1.000	879.	
6440	95.	213.	-11.	0.	309.	1.000	1.000	214.	
6440	3555.	213.	11.	0.	3768.	1.000	1.000	214.	
6445	3555.	87.	-11.	0.	3642.	1.000	1.000	89.	

SS REPORT, Stresses on Elements
5 (EXP) D5(EXP)=D1-D4

ENT S	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
5	3555.	87.	11.	0.	3642.	1.000	1.000	89.	41959.	0.
D	3555.	39.	-11.	0.	3594.	1.000	1.000	45.	39276.	0.
D	3555.	39.	11.	0.	3594.	1.000	1.000	45.	39276.	0.
5	3555.	14.	-11.	0.	3568.	1.000	1.000	25.	39933.	0.
5	3555.	14.	11.	0.	3568.	1.000	1.000	25.	39933.	0.
0	3555.	12.	-11.	0.	3567.	1.000	1.000	24.	40090.	0.
0	3555.	12.	11.	0.	3567.	1.000	1.000	24.	40090.	0.
5	3555.	9.	-11.	0.	3564.	1.000	1.000	23.	40730.	0.
5	3555.	9.	11.	0.	3564.	1.000	1.000	23.	40730.	0.
0	3555.	7.	-11.	0.	3562.	1.000	1.000	22.	39176.	0.
0	1.	7.	11.	0.	22.	1.000	1.000	22.	39176.	0.
5	1.	18.	-9.	0.	25.	1.768	1.473	25.	40450.	0.
5	1.	12.	9.	0.	22.	1.000	1.000	21.	40948.	0.
0	1.	15.	-10.	0.	26.	1.768	1.473	26.	39484.	0.
0	1.	9.	10.	0.	23.	1.000	1.000	22.	40293.	0.
5	1.	9.	-10.	0.	23.	1.000	1.000	23.	40173.	0.
5	1.	9.	10.	0.	23.	1.000	1.000	23.	40173.	0.
0	1.	19.	-10.	0.	28.	1.000	1.000	28.	39068.	0.
0	1.	19.	10.	0.	28.	1.000	1.000	28.	39068.	0.
5	3.	128.	-8.	0.	132.	1.768	1.473	129.	41036.	0.
5	3.	73.	8.	0.	78.	1.000	1.000	75.	41398.	0.
0	0.	35.	34.	0.	77.	1.768	1.473	77.	41668.	0.
0	0.	23.	-34.	0.	72.	1.000	1.000	72.	41813.	0.
5	1.	109.	41.	0.	138.	1.768	1.473	137.	41480.	0.
5	1.	68.	-41.	0.	108.	1.000	1.000	107.	41648.	0.
10	1.	82.	41.	0.	118.	1.000	1.000	117.	41648.	0.
10	1.	82.	-41.	0.	118.	1.000	1.000	117.	41648.	0.
15	1.	83.	41.	0.	118.	1.000	1.000	117.	41340.	0.
15	1.	83.	-41.	0.	118.	1.000	1.000	117.	41340.	0.
20	1.	157.	21.	0.	163.	1.768	1.473	162.	41646.	0.
20	1.	97.	-21.	0.	107.	1.000	1.000	106.	41761.	0.
25	0.	113.	2.	0.	113.	1.768	1.473	113.	41936.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./ CODE STRESS	AL
6525	0.	70.	-2.	0.	71.	1.000	1.000	70.	
6530	0.	38.	2.	0.	39.	1.000	1.000	39.	
6530	0.	38.	-2.	0.	39.	1.000	1.000	39.	
6535	0.	45.	2.	0.	45.	1.000	1.000	45.	
6535	0.	45.	-2.	0.	45.	1.000	1.000	45.	
6540	0.	121.	2.	0.	121.	1.000	1.000	121.	
6540	0.	121.	-2.	0.	121.	1.000	1.000	121.	
6542	1.	307.	-11.	0.	309.	1.768	1.473	308.	
6542	1.	174.	11.	0.	176.	1.000	1.000	175.	
6545	1.	168.	-11.	0.	171.	1.000	1.000	170.	
6545	22.	168.	11.	0.	191.	1.000	1.000	170.	
6550	22.	63.	-11.	0.	87.	1.000	1.000	66.	
6555	22.	202.	11.	0.	224.	1.000	1.000	203.	
6560	22.	443.	-11.	0.	465.	1.222	1.296	443.	
6560	7.	258.	128.	0.	368.	1.222	1.296	363.	
6565	11.	396.	-6.	0.	407.	1.768	1.473	396.	
6565	11.	248.	6.	0.	260.	1.000	1.000	249.	
6570	11.	261.	-6.	0.	273.	1.000	1.000	262.	
6570	0.	261.	6.	0.	262.	1.000	1.000	262.	
6575	0.	90.	-6.	0.	91.	1.000	1.000	90.	
6575	0.	90.	6.	0.	91.	1.000	1.000	90.	
6580	1.	74.	22.	0.	87.	1.768	1.473	86.	
6580	1.	42.	-22.	0.	62.	1.000	1.000	61.	
6585	1.	159.	22.	0.	166.	1.000	1.000	165.	
6590	1.	189.	-22.	0.	195.	1.000	1.000	194.	
6595	0.	53.	106.	0.	219.	1.768	1.473	219.	
6595	0.	35.	-106.	0.	215.	1.000	1.000	215.	
6600	0.	71.	106.	0.	224.	1.222	1.296	224.	
6600	0.	0.	0.	0.	0.	1.222	1.296	0.	
6620	0.	0.	0.	0.	0.	1.000	1.000	0.	
6625	0.	0.	0.	0.	0.	1.000	1.000	0.	
6630	0.	0.	0.	0.	0.	1.768	1.473	0.	

NT	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
)	0.	0.	0.	0.	0.	1.000	1.000	0.	42002.	0.
;	0.	0.	0.	0.	0.	1.768	1.473	0.	42002.	0.
;	0.	0.	0.	0.	0.	1.000	1.000	0.	42002.	0.
)	0.	0.	0.	0.	0.	1.000	1.000	0.	42002.	0.
)	-1.	281.	-16.	0.	284.	1.222	1.296	283.	41705.	1.
)	-1.	195.	16.	0.	199.	1.000	1.000	198.	41824.	0.
;	-1.	168.	-16.	0.	172.	1.000	1.000	171.	41785.	0.
)	-1.	155.	16.	0.	159.	1.296	1.296	158.	41478.	0.
)	-1.	155.	-16.	0.	159.	1.296	1.296	158.	41478.	0.
;	0.	135.	6.	0.	136.	1.768	1.473	135.	41390.	0.
;	0.	77.	-6.	0.	78.	1.000	1.000	78.	41652.	0.
)	0.	63.	6.	0.	65.	1.000	1.000	64.	39882.	0.
)	0.	63.	-6.	0.	65.	1.000	1.000	64.	39882.	0.
;	0.	459.	6.	0.	460.	1.000	1.000	459.	41943.	1.
;	0.	459.	-6.	0.	460.	1.000	1.000	459.	41943.	1.
;	0.	870.	6.	0.	871.	1.000	1.000	870.	41800.	2.
;	66.	870.	-6.	0.	936.	1.000	1.000	870.	41806.	2.
)	127.	1427.	33.	0.	1556.	1.768	1.473	1429.	41852.	3.
;	127.	811.	-33.	0.	941.	1.000	1.000	814.	41906.	2.
;	-27.	2370.	-91.	0.	2404.	1.768	1.473	2377.	41601.	6.
;	-27.	1364.	91.	0.	1402.	1.000	1.000	1376.	41776.	3.
)	-27.	1640.	-91.	0.	1677.	1.000	1.000	1650.	41720.	4.
)	3555.	1640.	91.	0.	5198.	1.000	1.000	1650.	41716.	4.
)	3555.	5827.	-91.	0.	9384.	1.000	1.000	5830.	41093.	14.
)	13.	5827.	91.	0.	5843.	1.000	1.000	5830.	41094.	14.
;	443.	4761.	-58.	0.	5206.	1.768	1.473	4763.	41792.	11.
;	443.	2695.	58.	0.	3140.	1.000	1.000	2697.	41904.	6.
)	-4.	6658.	650.	0.	6788.	1.768	1.473	6783.	41674.	16.
)	-4.	3768.	-650.	0.	3990.	1.000	1.000	3986.	41816.	10.
1	-4.	8066.	650.	0.	8175.	1.000	1.000	8170.	41195.	20.
1	3555.	8066.	-650.	0.	11693.	1.000	1.000	8170.	41196.	20.
2	3555.	38843.	650.	0.	42418.	1.000	1.000	38865.	41870.	93.

STRESS REPORT, Stresses on Elements
CASE 5 (EXP) D5(EXP)=D1-D4

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq CODE STRESS	ALLO S
6722	-4540.	38843.	-650.	0.	43403.	1.000	1.000	38865.	41
6723	-4540.	2120.	650.	0.	6785.	1.000	1.000	2486.	41
6724	-4540.	5958.	-650.	0.	10578.	1.000	1.000	6098.	41
6725	-5723.	42346.	1928.	0.	48224.	1.768	1.473	42521.	41
6725	-5723.	23986.	-1928.	0.	29958.	1.000	1.000	24293.	41
6726	-5723.	56728.	1928.	0.	62570.	1.000	1.000	56859.	42
6560	11.	41.	-11.	0.	57.	1.222	1.296	47.	41
6730	3.	463.	-7.	0.	466.	1.768	1.473	463.	41
6730	3.	262.	7.	0.	266.	1.000	1.000	262.	41
6735	3.	197.	-7.	0.	200.	1.000	1.000	197.	40
6735	2.	197.	7.	0.	199.	1.000	1.000	197.	40
6745	1.	141.	49.	0.	173.	1.768	1.473	172.	39
6745	1.	80.	-49.	0.	127.	1.000	1.000	126.	40
6750	1.	109.	49.	0.	147.	1.000	1.000	146.	41
6755	1.	131.	-49.	0.	164.	1.000	1.000	163.	41
6760	2.	182.	63.	0.	223.	1.768	1.473	221.	40
6760	2.	114.	-63.	0.	171.	1.000	1.000	170.	41
6765	2.	86.	63.	0.	154.	1.222	1.296	153.	40
6765	0.	0.	0.	0.	0.	1.222	1.296	0.	40
6770	0.	0.	0.	0.	0.	1.000	1.000	0.	41
6775	0.	0.	0.	0.	0.	1.000	1.000	0.	41
6780	0.	0.	0.	0.	0.	1.768	1.473	0.	41
6780	0.	0.	0.	0.	0.	1.000	1.000	0.	42
6785	0.	0.	0.	0.	0.	1.768	1.473	0.	42
6785	0.	0.	0.	0.	0.	1.000	1.000	0.	42
6790	0.	0.	0.	0.	0.	1.000	1.000	0.	42
6765	-1.	169.	29.	0.	180.	1.222	1.296	179.	41
6795	-1.	116.	-29.	0.	131.	1.000	1.000	130.	41
6800	-1.	99.	29.	0.	116.	1.000	1.000	115.	41
6805	-1.	104.	-29.	0.	120.	1.296	1.296	119.	40
6805	-1.	104.	29.	0.	120.	1.296	1.296	119.	40
6810	-2.	177.	-42.	0.	198.	1.768	1.473	197.	40

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Licensed To: FLUOR DANIEL ID 13692
STRESS REPORT, Stresses on Elements
CASE 5 (EXP) D5(EXP)=D1-D4

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
6810	-2.	105.	42.	0.	137.	1.000	1.000	135.	41032.	0.
6812	-2.	179.	-8.	0.	181.	1.768	1.473	180.	39542.	0.
6812	-2.	116.	8.	0.	118.	1.000	1.000	117.	40340.	0.
6815	-2.	110.	-8.	0.	112.	1.000	1.000	111.	37334.	0.
6815	-1.	110.	8.	0.	112.	1.000	1.000	111.	37361.	0.
6820	6.	392.	-63.	0.	417.	1.768	1.473	412.	37988.	1.
6820	6.	222.	63.	0.	260.	1.000	1.000	255.	39275.	1.
6840	6.	329.	-63.	0.	358.	1.000	1.000	352.	39404.	1.
6840	1.	329.	63.	0.	353.	1.000	1.000	352.	39408.	1.
6850	1.	295.	-33.	0.	303.	1.768	1.473	302.	40930.	1.
6850	1.	176.	33.	0.	189.	1.000	1.000	188.	41287.	0.
6855	4.	2048.	-48.	0.	2054.	1.768	1.473	2050.	41463.	5.
6855	4.	1159.	48.	0.	1167.	1.000	1.000	1163.	41694.	3.
6360	4.	1151.	-48.	0.	1159.	1.000	1.000	1155.	40118.	3.
6860	4.	1151.	48.	0.	1159.	1.000	1.000	1155.	40118.	3.
6365	4.	811.	-48.	0.	820.	1.000	1.000	816.	41801.	2.
6870	4.	865.	48.	0.	874.	1.000	1.000	870.	41830.	2.
6875	-42.	3980.	-4.	0.	4022.	1.768	1.473	3980.	41711.	10.
6875	-42.	2252.	4.	0.	2294.	1.000	1.000	2252.	41833.	5.
6880	-42.	2324.	-4.	0.	2366.	1.000	1.000	2324.	41912.	6.

STRESS SUMMARY
CASE 6 (EXP) D6(EXP)=D2-D4

**** CODE STRESS CHECK FAILED

PIPING CODE: B31.3 -1993, July 31, 1993 Addendum

HIGHEST STRESSES: (lb./sq.in.)

CODE STRESS %:	59638.	@NODE 6726	ALLOWABLE:	42001.
BENDING STRESS:	59522.	@NODE 6726		
TORSIONAL STRESS:	1854.	@NODE 6725		
AXIAL STRESS:	5829.	@NODE 6725		
3D MAX INTENSITY:	65457.	@NODE 6726		

STRESS OPTIMIZATION PARAMETERS:

CODE STRESS PERCENTAGES SHOWN BELOW REPRESENT THE NUMBER OF NODES IN THE SYSTEM THAT WERE WITHIN THE PERCENTAGE GIVEN OF THE HIGHEST CODE STRESS IN THE SYSTEM.

AVG. CODE STRESS 1237.

	/BETWEEN/	/BELOW/
CODE STRESS 90-100%	0.32	99.68
CODE STRESS 80-90 %	0.00	99.68
CODE STRESS 70-80 %	0.32	99.35
CODE STRESS 60-70 %	0.65	98.70
CODE STRESS 50-60 %	0.00	98.70
CODE STRESS 25-50 %	0.32	98.38
CODE STRESS 0-25 %	98.38	

PIPE ELEMENTS ANALYZED: 154

SAMPLED POINTS: 308

CASE	TYPE	Forces(lb.) FX	FY	FZ	RESULTANT	Moments(ft.lb.) MX	MY	MZ	RESULTANT
0		Rigid Y Rigid Z Rigid X							
1	OPE	-29.	130.	22.	135.	0.	0.	0.	0.
2	OPE	-51.	81.	-18.	97.	0.	0.	0.	0.
3	OPE	-120.	-80.	-146.	206.	0.	0.	0.	0.
4	SUS	-17.	131.	10.	132.	0.	0.	0.	0.
5	EXP	-12.	0.	12.	17.	0.	0.	0.	0.
6	EXP	-33.	-50.	-28.	66.	0.	0.	0.	0.
7	EXP	-103.	-211.	-156.	282.	0.	0.	0.	0.
	MAX.	120./ 3	211./ 7	156./ 7	282./ 7	0./ 1	0./ 1	0./ 1	0./ 1
0		Rigid Y							
1	OPE	0.	-375.	0.	375.	0.	0.	0.	0.
2	OPE	0.	-333.	0.	333.	0.	0.	0.	0.
3	OPE	0.	-198.	0.	198.	0.	0.	0.	0.
4	SUS	0.	-467.	0.	467.	0.	0.	0.	0.
5	EXP	0.	92.	0.	92.	0.	0.	0.	0.
6	EXP	0.	134.	0.	134.	0.	0.	0.	0.
7	EXP	0.	269.	0.	269.	0.	0.	0.	0.
	MAX.	0./ 1	467./ 4	0./ 1	467./ 4	0./ 1	0./ 1	0./ 1	0./ 1
0		Displ. Reaction							
1	OPE	18.	-100.	4.	102.	-16.	-8.	-321.	322.
2	OPE	20.	-110.	-1.	112.	-5.	15.	-340.	340.
3	OPE	24.	-143.	-16.	145.	30.	88.	-400.	411.
4	SUS	9.	-6.	3.	11.	-5.	-7.	12.	15.
5	EXP	9.	-94.	2.	94.	-11.	-1.	-334.	334.
6	EXP	11.	-104.	-3.	105.	0.	21.	-352.	353.
7	EXP	15.	-137.	-19.	139.	34.	94.	-413.	425.
	MAX.	24./ 3	143./ 3	19./ 7	145./ 3	34./ 7	94./ 7	413./ 7	425./ 7

NODE	CASE	TYPE	Forces(lb.) FX	FY	FZ	RESULTANT	Moments(ft.lb.) MX	MY	MZ	RESULT
6722			Rigid X Rigid Y Rigid Z							
	1	OPE	18046.	14248.	1499.	23041.	0.	0.	0.	
	2	OPE	-1526.	14336.	1449.	14490.	0.	0.	0.	
	3	OPE	-64718.	14621.	1289.	66362.	0.	0.	0.	
	4	SUS	7.	8.	-4.	11.	0.	0.	0.	
	5	EXP	18039.	14240.	1503.	23031.	0.	0.	0.	
	6	EXP	-1533.	14328.	1453.	14483.	0.	0.	0.	
	7	EXP	-64726.	14613.	1292.	66367.	0.	0.	0.	
		MAX.	64726./ 7	14621./ 3	1503./ 5	66367./ 7	0./ 1	0./ 1	0./ 1	
6726			Displ. Reaction							
	1	OPE	-10124.	-12813.	-1319.	16384.	-1796.	552.	7954.	8
	2	OPE	-10586.	-13049.	-1277.	16852.	-1790.	531.	8366.	8
	3	OPE	-12078.	-13810.	-1143.	18383.	-1774.	463.	9697.	9
	4	SUS	-7.	-59.	3.	60.	0.	-2.	4.	
	5	EXP	-10118.	-12754.	-1322.	16333.	-1796.	554.	7950.	8
	6	EXP	-10580.	-12990.	-1280.	16802.	-1791.	533.	8362.	8
	7	EXP	-12072.	-13751.	-1147.	18334.	-1774.	464.	9693.	9
		MAX.	12078./ 3	13810./ 3	1322./ 5	18383./ 3	1796./ 5	554./ 5	9697./ 3	9
6735			Rigid X Rigid Z Rigid Y							
	1	OPE	-50.	-118.	-4.	128.	0.	0.	0.	
	2	OPE	-40.	-105.	-77.	136.	0.	0.	0.	
	3	OPE	-9.	-64.	-312.	319.	0.	0.	0.	
	4	SUS	-46.	-114.	-32.	127.	0.	0.	0.	
	5	EXP	-4.	-3.	28.	28.	0.	0.	0.	
	6	EXP	6.	9.	-45.	46.	0.	0.	0.	
	7	EXP	37.	50.	-280.	287.	0.	0.	0.	
		MAX.	50./ 1	118./ 1	312./ 3	319./ 3	0./ 1	0./ 1	0./ 1	
6815			Rigid X Rigid Z Rigid Y							
	1	OPE	58.	-727.	-20.	730.	0.	0.	0.	
	2	OPE	88.	-719.	32.	725.	0.	0.	0.	
	3	OPE	184.	-692.	201.	744.	0.	0.	0.	
	4	SUS	59.	-733.	-3.	735.	0.	0.	0.	
	5	EXP	-1.	5.	-17.	18.	0.	0.	0.	
	6	EXP	29.	14.	36.	48.	0.	0.	0.	
	7	EXP	125.	40.	205.	243.	0.	0.	0.	
		MAX.	184./ 3	733./ 4	205./ 7	744./ 3	0./ 1	0./ 1	0./ 1	

NT	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
	0.	0.	0.	0.	0.	1.000	1.000	0.	42002.	0.
	0.	0.	0.	0.	0.	1.768	1.473	0.	41886.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	41936.	0.
	0.	0.	0.	0.	0.	1.768	1.473	0.	41719.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	41810.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	39145.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	37954.	0.
	0.	0.	0.	0.	0.	1.222	1.296	0.	36547.	0.
	1.	198.	6.	0.	199.	1.222	1.296	198.	36370.	1.
	1.	108.	-6.	0.	110.	1.000	1.000	109.	37022.	0.
	1.	321.	6.	0.	322.	1.000	1.000	321.	32450.	1.
	1.	486.	-6.	0.	487.	1.222	1.296	486.	28615.	2.
	-5.	1089.	-31.	0.	1096.	1.222	1.296	1091.	29085.	4.
	-5.	564.	31.	0.	573.	1.000	1.000	567.	33060.	2.
	-5.	3013.	-31.	0.	3019.	1.000	1.000	3014.	39582.	8.
	-5.	4183.	31.	0.	4189.	1.222	1.296	4183.	39792.	11.
	-5.	4163.	-23.	0.	4169.	1.222	1.296	4164.	39805.	10.
	-5.	3198.	23.	0.	3204.	1.000	1.000	3198.	40486.	8.
	-5.	2427.	-23.	0.	2433.	1.000	1.000	2427.	41171.	6.
	-5.	925.	23.	0.	931.	1.000	1.000	926.	41868.	2.
	-5.	925.	-23.	0.	931.	1.000	1.000	926.	41868.	2.
	-5.	420.	23.	0.	427.	1.000	1.000	422.	41677.	1.
	-5.	420.	-23.	0.	427.	1.000	1.000	422.	41677.	1.
	-5.	278.	23.	0.	287.	1.000	1.000	282.	41348.	1.
	-5.	278.	-23.	0.	287.	1.000	1.000	282.	41348.	1.
	-3.	581.	-40.	0.	590.	1.768	1.473	587.	41328.	1.
	-3.	330.	40.	0.	342.	1.000	1.000	339.	41558.	1.
	0.	78.	-152.	0.	315.	1.768	1.473	315.	41348.	1.
	0.	52.	152.	0.	309.	1.000	1.000	309.	41645.	1.
	0.	124.	-152.	0.	330.	1.000	1.000	329.	41690.	1.
	-47.	1565.	6.	0.	1611.	1.222	1.296	1565.	40868.	4.
	-35.	1829.	34.	0.	1866.	1.017	1.000	1831.	40615.	5.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./ CODE STRESS	AL
6101	-35.	1800.	-34.	0.	1836.	1.000	1.000	1801.	
6102	-47.	1284.	0.	0.	1331.	1.017	1.000	1284.	
6102	-47.	1263.	0.	0.	1310.	1.000	1.000	1263.	
6105	-47.	0.	0.	0.	47.	1.000	1.000	0.	
6105	0.	0.	0.	0.	0.	1.000	1.000	0.	
6110	0.	0.	0.	0.	0.	1.000	1.000	0.	
6065	-534.	232.	0.	0.	766.	1.222	1.295	232.	
6125	-534.	0.	0.	0.	534.	1.000	1.000	0.	
6125	0.	0.	0.	0.	0.	1.000	1.000	0.	
6130	0.	0.	0.	0.	0.	1.000	1.000	0.	
6045	-3.	617.	-160.	0.	699.	1.222	1.296	696.	
6142	-3.	936.	160.	0.	993.	1.000	1.000	990.	
6142	-3.	936.	-160.	0.	993.	1.000	1.000	990.	
6145	-3.	303.	160.	0.	443.	1.000	1.000	441.	
6145	-3.	303.	-160.	0.	443.	1.000	1.000	441.	
6150	1.	825.	162.	0.	888.	1.768	1.473	886.	
6150	1.	492.	-162.	0.	591.	1.000	1.000	590.	
6155	-6.	497.	242.	0.	698.	1.768	1.473	693.	
6155	-6.	328.	-242.	0.	588.	1.000	1.000	584.	
6160	-3.	765.	-45.	0.	774.	1.768	1.473	770.	
6160	-3.	511.	45.	0.	522.	1.000	1.000	519.	
6165	-3.	527.	-45.	0.	538.	1.000	1.000	535.	
6165	-542.	527.	45.	0.	1073.	1.000	1.000	535.	
6170	-542.	1528.	-45.	0.	2072.	1.000	1.000	1531.	
6170	-542.	1528.	45.	0.	2072.	1.000	1.000	1531.	
6175	-15.	772.	-42.	0.	791.	1.768	1.473	777.	
6175	-15.	772.	42.	0.	791.	1.768	1.473	777.	
6180	-542.	4660.	-43.	0.	5202.	1.768	1.473	4660.	
6180	-542.	2637.	43.	0.	3179.	1.000	1.000	2638.	
6185	-542.	1811.	-43.	0.	2354.	1.000	1.000	1813.	
6185	-14.	1811.	43.	0.	1827.	1.000	1.000	1813.	
6190	-14.	838.	-43.	0.	856.	1.000	1.000	842.	

000681

NT	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
	-14.	838.	43.	0.	856.	1.000	1.000	842.	40978.	2.
	-2.	674.	-28.	0.	679.	1.768	1.473	677.	41547.	2.
	-2.	382.	28.	0.	389.	1.000	1.000	386.	41694.	1.
	-2.	593.	-28.	0.	598.	1.000	1.000	596.	39186.	2.
	-5435.	593.	28.	0.	6029.	1.000	1.000	596.	39186.	2.
	-5435.	238.	-28.	0.	5673.	1.000	1.000	244.	40203.	1.
	-5435.	238.	28.	0.	5673.	1.000	1.000	244.	40203.	1.
	-5435.	142.	-28.	0.	5578.	1.000	1.000	153.	39642.	0.
	-5435.	142.	28.	0.	5578.	1.000	1.000	153.	39642.	0.
	-5435.	275.	-28.	0.	5710.	1.000	1.000	280.	41852.	1.
	-5435.	275.	28.	0.	5710.	1.000	1.000	280.	41852.	1.
	-5435.	505.	-28.	0.	5940.	1.000	1.000	508.	41504.	1.
	-387.	505.	28.	0.	893.	1.000	1.000	508.	41504.	1.
	-24.	412.	-2.	0.	436.	1.768	1.473	412.	41298.	1.
	-24.	235.	2.	0.	259.	1.000	1.000	235.	41524.	1.
	-24.	1521.	-2.	0.	1545.	1.000	1.000	1521.	41474.	4.
	-6.	1521.	2.	0.	1527.	1.000	1.000	1521.	41474.	4.
	-6.	708.	-2.	0.	715.	1.000	1.000	708.	39781.	2.
	-6.	708.	2.	0.	715.	1.000	1.000	708.	39781.	2.
	6.	249.	1.	0.	255.	1.768	1.473	249.	40778.	1.
	6.	141.	-1.	0.	147.	1.000	1.000	141.	41171.	0.
	6.	597.	1.	0.	603.	1.000	1.000	597.	37742.	2.
	-11.	597.	-1.	0.	608.	1.000	1.000	597.	37742.	2.
	4.	452.	1.	0.	455.	1.768	1.473	452.	39213.	1.
	4.	256.	-1.	0.	259.	1.000	1.000	256.	40108.	1.
	4.	180.	1.	0.	183.	1.000	1.000	180.	41466.	0.
	-5435.	180.	-1.	0.	5615.	1.000	1.000	180.	41466.	0.
	-5435.	65.	1.	0.	5500.	1.000	1.000	65.	37536.	0.
	-5435.	65.	-1.	0.	5500.	1.000	1.000	65.	37536.	0.
	-5435.	73.	1.	0.	5508.	1.000	1.000	73.	36639.	0.
	-5435.	73.	-1.	0.	5508.	1.000	1.000	73.	36639.	0.
	-5435.	84.	1.	0.	5520.	1.000	1.000	84.	41759.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./ CODE STRESS	AL
6275	-5435.	84.	-1.	0.	5520.	1.000	1.000	84.	
6280	-5435.	212.	1.	0.	5647.	1.000	1.000	212.	
6280	-5435.	212.	-1.	0.	5647.	1.000	1.000	212.	
6285	-5435.	294.	1.	0.	5729.	1.000	1.000	294.	
6285	-5435.	294.	-1.	0.	5729.	1.000	1.000	294.	
6290	-5435.	799.	1.	0.	6234.	1.000	1.000	799.	
6290	-451.	799.	-1.	0.	1250.	1.000	1.000	799.	
6295	-29.	1098.	4.	0.	1127.	1.768	1.473	1098.	
6295	-29.	1098.	-4.	0.	1127.	1.768	1.473	1098.	
6300	-451.	3242.	0.	0.	3694.	1.768	1.473	3242.	
6300	-451.	1834.	0.	0.	2285.	1.000	1.000	1834.	
6305	-451.	1104.	0.	0.	1555.	1.000	1.000	1104.	
6305	-5435.	1104.	0.	0.	6540.	1.000	1.000	1104.	
6310	-5435.	404.	0.	0.	5839.	1.000	1.000	404.	
6310	-5435.	404.	0.	0.	5839.	1.000	1.000	404.	
6315	-5435.	300.	0.	0.	5736.	1.000	1.000	300.	
6315	-5435.	300.	0.	0.	5736.	1.000	1.000	300.	
6320	-5435.	120.	0.	0.	5555.	1.000	1.000	120.	
6320	-5435.	120.	0.	0.	5555.	1.000	1.000	120.	
6325	-5435.	178.	0.	0.	5613.	1.000	1.000	178.	
6325	-5435.	178.	0.	0.	5613.	1.000	1.000	178.	
6330	-5435.	248.	0.	0.	5683.	1.000	1.000	248.	
6330	-5435.	248.	0.	0.	5683.	1.000	1.000	248.	
6335	-5435.	647.	0.	0.	6082.	1.000	1.000	647.	
6335	-103.	647.	0.	0.	750.	1.000	1.000	647.	
6340	-84.	2868.	-1.	0.	2952.	1.768	1.473	2868.	
6340	-84.	1623.	1.	0.	1707.	1.000	1.000	1623.	
6345	-103.	1880.	-1.	0.	1983.	1.768	1.473	1880.	
6345	-103.	1064.	1.	0.	1167.	1.000	1.000	1064.	
6350	-103.	376.	-1.	0.	479.	1.000	1.000	376.	
6350	-5435.	376.	1.	0.	5811.	1.000	1.000	376.	
6355	-5435.	122.	-1.	0.	5557.	1.000	1.000	122.	

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T	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
	-5435.	122.	1.	0.	5557.	1.000	1.000	122.	39901.	0.
	-5435.	133.	-1.	0.	5568.	1.000	1.000	133.	39462.	0.
	-5435.	133.	1.	0.	5568.	1.000	1.000	133.	39462.	0.
	-5435.	44.	-1.	0.	5479.	1.000	1.000	44.	41614.	0.
	-5435.	44.	1.	0.	5479.	1.000	1.000	44.	41614.	0.
	-5435.	45.	-1.	0.	5481.	1.000	1.000	45.	41572.	0.
	-5435.	45.	1.	0.	5481.	1.000	1.000	45.	41572.	0.
	-5435.	13.	-1.	0.	5448.	1.000	1.000	13.	41494.	0.
	-5435.	13.	1.	0.	5448.	1.000	1.000	13.	41494.	0.
	-5435.	63.	-1.	0.	5499.	1.000	1.000	63.	38724.	0.
	-5435.	63.	1.	0.	5499.	1.000	1.000	63.	38724.	0.
	-5435.	62.	-1.	0.	5498.	1.000	1.000	62.	39592.	0.
	-5435.	62.	1.	0.	5498.	1.000	1.000	62.	39592.	0.
	-5435.	188.	-1.	0.	5623.	1.000	1.000	188.	41326.	0.
	-69.	188.	1.	0.	257.	1.000	1.000	188.	41326.	0.
	-77.	1058.	0.	0.	1135.	1.768	1.473	1058.	41389.	3.
	-77.	598.	0.	0.	675.	1.000	1.000	598.	41586.	1.
	-77.	72.	0.	0.	149.	1.000	1.000	72.	41778.	0.
	-5435.	72.	0.	0.	5507.	1.000	1.000	72.	41778.	0.
	-5435.	128.	0.	0.	5563.	1.000	1.000	128.	39838.	0.
	-5435.	128.	0.	0.	5563.	1.000	1.000	128.	39838.	0.
	-5435.	184.	0.	0.	5619.	1.000	1.000	184.	37780.	0.
	-5435.	184.	0.	0.	5619.	1.000	1.000	184.	37780.	0.
	-5435.	313.	0.	0.	5748.	1.000	1.000	313.	39941.	1.
	-5435.	313.	0.	0.	5748.	1.000	1.000	313.	39941.	1.
	-5435.	809.	0.	0.	6245.	1.000	1.000	809.	41570.	2.
	-19.	809.	0.	0.	829.	1.000	1.000	809.	41570.	2.
	-146.	2375.	16.	0.	2522.	1.768	1.473	2376.	41794.	6.
	-146.	1344.	-16.	0.	1490.	1.000	1.000	1344.	41860.	3.
	-146.	326.	16.	0.	473.	1.000	1.000	327.	41556.	1.
	-5435.	326.	-16.	0.	5761.	1.000	1.000	327.	41556.	1.
	-5435.	133.	16.	0.	5568.	1.000	1.000	137.	41959.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./ CODE STRESS	AL
6445	-5435.	133.	-16.	0.	5568.	1.000	1.000	137.	
6450	-5435.	60.	16.	0.	5495.	1.000	1.000	68.	
6450	-5435.	60.	-16.	0.	5495.	1.000	1.000	68.	
6455	-5435.	21.	16.	0.	5456.	1.000	1.000	38.	
6455	-5435.	21.	-16.	0.	5456.	1.000	1.000	38.	
6460	-5435.	18.	16.	0.	5453.	1.000	1.000	37.	
6460	-5435.	18.	-16.	0.	5453.	1.000	1.000	37.	
6465	-5435.	15.	16.	0.	5450.	1.000	1.000	35.	
6465	-5435.	15.	-16.	0.	5450.	1.000	1.000	35.	
6470	-5435.	11.	16.	0.	5447.	1.000	1.000	34.	
6470	-1.	11.	-16.	0.	34.	1.000	1.000	34.	
6475	-1.	27.	13.	0.	39.	1.768	1.473	38.	
6475	-1.	18.	-13.	0.	33.	1.000	1.000	33.	
6480	-1.	24.	16.	0.	40.	1.768	1.473	39.	
6480	-1.	14.	-16.	0.	35.	1.000	1.000	34.	
6485	-1.	15.	16.	0.	35.	1.000	1.000	35.	
6485	-1.	15.	-16.	0.	35.	1.000	1.000	35.	
6490	-1.	29.	16.	0.	44.	1.000	1.000	43.	
6490	-1.	29.	-16.	0.	44.	1.000	1.000	43.	
6495	-4.	193.	12.	0.	199.	1.768	1.473	195.	
6495	-4.	111.	-12.	0.	117.	1.000	1.000	113.	
6500	0.	54.	-51.	0.	116.	1.768	1.473	116.	
6500	0.	35.	51.	0.	109.	1.000	1.000	109.	
6505	-1.	165.	-63.	0.	209.	1.768	1.473	208.	
6505	-1.	103.	63.	0.	164.	1.000	1.000	163.	
6510	-1.	126.	-63.	0.	179.	1.000	1.000	178.	
6510	-1.	126.	63.	0.	179.	1.000	1.000	178.	
6515	-1.	125.	-63.	0.	179.	1.000	1.000	178.	
6515	-1.	125.	63.	0.	179.	1.000	1.000	178.	
6520	-1.	240.	-32.	0.	250.	1.768	1.473	249.	
6520	-1.	149.	32.	0.	163.	1.000	1.000	162.	
6525	0.	177.	-1.	0.	177.	1.768	1.473	177.	

MENT ES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
25	0.	110.	1.	0.	110.	1.000	1.000	110.	41958.	0.
30	0.	64.	-1.	0.	64.	1.000	1.000	64.	41993.	0.
30	0.	64.	1.	0.	64.	1.000	1.000	64.	41993.	0.
35	0.	68.	-1.	0.	68.	1.000	1.000	68.	41348.	0.
35	0.	68.	1.	0.	68.	1.000	1.000	68.	41348.	0.
40	0.	189.	-1.	0.	189.	1.000	1.000	189.	41118.	0.
40	0.	189.	1.	0.	189.	1.000	1.000	189.	41118.	0.
42	-1.	462.	15.	0.	464.	1.768	1.473	463.	41903.	1.
42	-1.	261.	-15.	0.	264.	1.000	1.000	263.	41941.	1.
45	-1.	256.	15.	0.	259.	1.000	1.000	258.	41333.	1.
45	-24.	256.	-15.	0.	282.	1.000	1.000	258.	41341.	1.
40	-24.	69.	15.	0.	98.	1.000	1.000	75.	41897.	0.
45	-24.	222.	-15.	0.	248.	1.000	1.000	224.	41528.	1.
40	-24.	540.	15.	0.	565.	1.222	1.296	541.	41136.	1.
40	-9.	167.	-178.	0.	396.	1.222	1.296	392.	41550.	1.
45	-15.	611.	-2.	0.	626.	1.768	1.473	611.	41639.	1.
45	-15.	388.	2.	0.	403.	1.000	1.000	388.	41791.	1.
40	-15.	159.	-2.	0.	174.	1.000	1.000	159.	41804.	0.
40	1.	159.	2.	0.	160.	1.000	1.000	159.	41820.	0.
45	1.	44.	-2.	0.	46.	1.000	1.000	45.	41317.	0.
45	1.	44.	2.	0.	46.	1.000	1.000	45.	41317.	0.
40	0.	47.	2.	0.	47.	1.768	1.473	47.	41430.	0.
00	0.	26.	-2.	0.	27.	1.000	1.000	27.	41672.	0.
05	0.	68.	2.	0.	68.	1.000	1.000	68.	41736.	0.
40	0.	84.	-2.	0.	85.	1.000	1.000	84.	41656.	0.
45	1.	118.	37.	0.	140.	1.768	1.473	139.	41645.	0.
45	1.	67.	-37.	0.	100.	1.000	1.000	99.	41804.	0.
40	1.	101.	37.	0.	126.	1.222	1.296	125.	40640.	0.
40	0.	0.	0.	0.	0.	1.222	1.296	0.	40452.	0.
40	0.	0.	0.	0.	0.	1.000	1.000	0.	41119.	0.
45	0.	0.	0.	0.	0.	1.000	1.000	0.	41583.	0.
40	0.	0.	0.	0.	0.	1.768	1.473	0.	41996.	0.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./s CODE STRESS	ALL
6630	0.	0.	0.	0.	0.	1.000	1.000	0.	4
6635	0.	0.	0.	0.	0.	1.768	1.473	0.	4
6635	0.	0.	0.	0.	0.	1.000	1.000	0.	4
6640	0.	0.	0.	0.	0.	1.000	1.000	0.	4
6600	0.	135.	-11.	0.	138.	1.222	1.296	137.	4
6650	0.	94.	11.	0.	98.	1.000	1.000	97.	4
6655	0.	78.	-11.	0.	82.	1.000	1.000	81.	4
6660	0.	60.	11.	0.	65.	1.296	1.296	64.	4
6660	0.	60.	-11.	0.	65.	1.296	1.296	64.	4
6665	-1.	45.	2.	0.	46.	1.768	1.473	45.	4
6665	-1.	27.	-2.	0.	29.	1.000	1.000	28.	4
6670	-1.	27.	2.	0.	28.	1.000	1.000	27.	3
6670	-1.	27.	-2.	0.	28.	1.000	1.000	27.	3
6675	-1.	121.	2.	0.	123.	1.000	1.000	122.	4
6675	-1.	121.	-2.	0.	123.	1.000	1.000	122.	4
6685	-1.	205.	2.	0.	206.	1.000	1.000	205.	4
6685	-14.	205.	-2.	0.	219.	1.000	1.000	205.	4
6690	-49.	905.	101.	0.	974.	1.768	1.473	927.	4
6690	-49.	516.	-101.	0.	599.	1.000	1.000	553.	4
6695	-20.	289.	-151.	0.	432.	1.768	1.473	418.	4
6695	-20.	177.	151.	0.	361.	1.000	1.000	350.	4
6700	-20.	102.	-151.	0.	326.	1.000	1.000	319.	4
6700	-5435.	102.	151.	0.	5545.	1.000	1.000	319.	4
6710	-5435.	994.	-151.	0.	6436.	1.000	1.000	1038.	4
6710	5.	994.	151.	0.	1044.	1.000	1.000	1038.	4
6715	91.	1364.	-59.	0.	1460.	1.768	1.473	1369.	4
6715	91.	784.	59.	0.	883.	1.000	1.000	793.	4
6720	-9.	5086.	451.	0.	5174.	1.768	1.473	5165.	4
6720	-9.	2878.	-451.	0.	3025.	1.000	1.000	3017.	4
6721	-9.	3763.	451.	0.	3878.	1.000	1.000	3870.	4
6721	-5435.	3763.	-451.	0.	9243.	1.000	1.000	3870.	4
6722	-5435.	38513.	451.	0.	43958.	1.000	1.000	38524.	4

NT	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
	-4747.	38513.	-451.	0.	43270.	1.000	1.000	38524.	41873.	92.
	-4747.	1568.	451.	0.	6380.	1.000	1.000	1810.	41899.	4.
	-4747.	7085.	-451.	0.	11867.	1.000	1.000	7142.	41913.	17.
	-5829.	43699.	1854.	0.	49666.	1.768	1.473	43856.	41966.	105.*
	-5829.	24758.	-1854.	0.	30811.	1.000	1.000	25034.	41988.	60.
	-5829.	59522.	1854.	0.	65457.	1.000	1.000	59638.	42001.	142.*
	-18.	81.	3.	0.	100.	1.222	1.296	82.	41216.	0.
	-5.	720.	27.	0.	728.	1.768	1.473	722.	41362.	2.
	-5.	408.	-27.	0.	416.	1.000	1.000	411.	41569.	1.
	-5.	331.	27.	0.	341.	1.000	1.000	336.	40428.	1.
	-3.	331.	-27.	0.	338.	1.000	1.000	336.	40449.	1.
	-3.	265.	-77.	0.	309.	1.768	1.473	306.	39818.	1.
	-3.	152.	77.	0.	218.	1.000	1.000	216.	40741.	1.
	-3.	163.	-77.	0.	226.	1.000	1.000	224.	41299.	1.
	-3.	203.	77.	0.	257.	1.000	1.000	254.	41068.	1.
	-3.	294.	-96.	0.	353.	1.763	1.473	351.	40696.	1.
	-3.	184.	96.	0.	268.	1.000	1.000	266.	41273.	1.
	-3.	123.	-96.	0.	230.	1.222	1.296	228.	40235.	1.
	0.	0.	0.	0.	0.	1.222	1.296	0.	40452.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	41119.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	41583.	0.
	0.	0.	0.	0.	0.	1.768	1.473	0.	41996.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	42002.	0.
	0.	0.	0.	0.	0.	1.768	1.473	0.	42002.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	42002.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	42002.	0.
	3.	255.	-42.	0.	272.	1.222	1.296	269.	41594.	1.
	3.	172.	42.	0.	194.	1.000	1.000	192.	41417.	0.
	3.	144.	-42.	0.	170.	1.000	1.000	168.	41098.	0.
	3.	156.	42.	0.	180.	1.296	1.296	178.	40300.	0.
	3.	156.	-42.	0.	180.	1.296	1.296	178.	40300.	0.
	3.	350.	69.	0.	380.	1.768	1.473	377.	40308.	1.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq CODE STRESS	ALLO S
6810	3.	203.	-69.	0.	249.	1.000	1.000	246.	41
6812	3.	311.	1.	0.	314.	1.768	1.473	311.	39
6812	3.	204.	-1.	0.	207.	1.000	1.000	204.	40
6815	3.	186.	1.	0.	188.	1.000	1.000	186.	37
6815	-10.	186.	-1.	0.	196.	1.000	1.000	186.	37
6820	-14.	838.	-137.	0.	894.	1.768	1.473	881.	37
6820	-14.	475.	137.	0.	560.	1.000	1.000	548.	39
6840	-14.	947.	-137.	0.	999.	1.000	1.000	985.	39
6840	-1.	947.	137.	0.	987.	1.000	1.000	985.	39
6850	-13.	788.	-7.	0.	801.	1.768	1.473	788.	40
6850	-13.	466.	7.	0.	479.	1.000	1.000	466.	41
6855	5.	2239.	15.	0.	2244.	1.768	1.473	2239.	41
6855	5.	1267.	-15.	0.	1272.	1.000	1.000	1267.	41
6860	5.	1397.	15.	0.	1402.	1.000	1.000	1398.	40
6860	5.	1397.	-15.	0.	1402.	1.000	1.000	1398.	40
6865	5.	781.	15.	0.	787.	1.000	1.000	782.	41
6870	5.	841.	-15.	0.	847.	1.000	1.000	842.	41
6875	-47.	4190.	74.	0.	4239.	1.768	1.473	4193.	41
6875	-47.	2371.	-74.	0.	2422.	1.000	1.000	2375.	41
6880	-47.	2453.	74.	0.	2504.	1.000	1.000	2457.	41

SS SUMMARY
7 (EXP) D7(EXP)=D3-D4

**** CODE STRESS CHECK FAILED ****

PIPING CODE: B31.3 -1993, July 31, 1993 Addendum

HIGHEST STRESSES: (lb./sq.in.)

CODE STRESS %:	68664.	@NODE 6726	ALLOWABLE:	42001.
BENDING STRESS:	68588.	@NODE 6726		
TORSIONAL STRESS:	1616.	@NODE 6725		
AXIAL STRESS:	34462.	@NODE 6205		
3D MAX INTENSITY:	74828.	@NODE 6726		

STRESS OPTIMIZATION PARAMETERS:

CODE STRESS PERCENTAGES SHOWN BELOW REPRESENT THE NUMBER OF NODES IN THE SYSTEM THAT WERE WITHIN THE PERCENTAGE GIVEN OF THE HIGHEST CODE STRESS IN THE SYSTEM.

AVG. CODE STRESS 3744.

	/BETWEEN/	/BELOW/
CODE STRESS 90-100%	0.32	99.68
CODE STRESS 80-90 %	0.00	99.68
CODE STRESS 70-80 %	0.32	99.35
CODE STRESS 60-70 %	0.00	99.35
CODE STRESS 50-60 %	0.65	98.70
CODE STRESS 25-50 %	2.60	96.10
CODE STRESS 0-25 %	96.10	

PIPE ELEMENTS ANALYZED: 154

SAMPLED POINTS: 308

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./s CODE STRESS	ALL
6000	0.	0.	0.	0.	0.	1.000	1.000	0.	4
6005	0.	0.	0.	0.	0.	1.768	1.473	0.	4
6005	0.	0.	0.	0.	0.	1.000	1.000	0.	4
6010	0.	0.	0.	0.	0.	1.768	1.473	0.	4
6010	0.	0.	0.	0.	0.	1.000	1.000	0.	4
6015	0.	0.	0.	0.	0.	1.000	1.000	0.	3
6020	0.	0.	0.	0.	0.	1.000	1.000	0.	3
6025	0.	0.	0.	0.	0.	1.222	1.296	0.	3
6025	5.	1256.	36.	0.	1264.	1.222	1.296	1258.	3
6030	5.	686.	-36.	0.	694.	1.000	1.000	689.	3
6040	5.	2035.	36.	0.	2042.	1.000	1.000	2037.	3
6045	5.	3081.	-36.	0.	3087.	1.222	1.296	3082.	2
6045	-35.	6905.	-199.	0.	6951.	1.222	1.296	6916.	2
6050	-35.	3575.	199.	0.	3632.	1.000	1.000	3598.	3
6060	-35.	19105.	-199.	0.	19144.	1.000	1.000	19109.	3
6065	-35.	26521.	199.	0.	26558.	1.222	1.296	26524.	3
6065	-34.	26397.	-145.	0.	26433.	1.222	1.296	26399.	3
6070	-34.	20277.	145.	0.	20313.	1.000	1.000	20279.	4
6075	-34.	15388.	-145.	0.	15425.	1.000	1.000	15391.	4
6080	-34.	5865.	145.	0.	5906.	1.000	1.000	5872.	4
6080	-34.	5865.	-145.	0.	5906.	1.000	1.000	5872.	4
6082	-34.	2660.	145.	0.	2710.	1.000	1.000	2676.	4
6082	-34.	2660.	-145.	0.	2710.	1.000	1.000	2676.	4
6085	-34.	1765.	145.	0.	1823.	1.000	1.000	1789.	4
6085	-34.	1765.	-145.	0.	1823.	1.000	1.000	1789.	4
6090	-19.	3684.	-257.	0.	3739.	1.768	1.473	3720.	4
6090	-19.	2090.	257.	0.	2171.	1.000	1.000	2152.	4
6095	2.	492.	-967.	0.	1996.	1.768	1.473	1995.	4
6095	2.	329.	967.	0.	1962.	1.000	1.000	1962.	4
6100	2.	789.	-967.	0.	2089.	1.000	1.000	2089.	4
6025	-296.	9921.	35.	0.	10217.	1.222	1.296	9922.	4
6101	-222.	11600.	214.	0.	11829.	1.017	1.000	11608.	4

NT	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
	-222.	11410.	-214.	0.	11640.	1.000	1.000	11418.	40642.	28.
	-296.	8142.	0.	0.	8438.	1.017	1.000	8142.	40399.	20.
	-296.	8009.	0.	0.	8305.	1.000	1.000	8009.	40429.	20.
	-296.	0.	0.	0.	296.	1.000	1.000	0.	42440.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	42244.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	42250.	0.
	-3387.	1471.	0.	0.	4858.	1.222	1.296	1471.	41324.	4.
	-3387.	0.	0.	0.	3387.	1.000	1.000	0.	42098.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	42234.	0.
	0.	0.	0.	0.	0.	1.000	1.000	0.	42250.	0.
	-20.	3915.	-1016.	0.	4429.	1.222	1.296	4411.	40796.	11.
	-20.	5937.	1016.	0.	6294.	1.000	1.000	6275.	37612.	17.
	-20.	5937.	-1016.	0.	6294.	1.000	1.000	6275.	37612.	17.
	-20.	1923.	1016.	0.	2812.	1.000	1.000	2798.	39278.	7.
	-20.	1923.	-1016.	0.	2812.	1.000	1.000	2798.	39278.	7.
	9.	5231.	1028.	0.	5629.	1.768	1.473	5621.	41453.	14.
	9.	3123.	-1028.	0.	3746.	1.000	1.000	3739.	41654.	9.
	-40.	3148.	1533.	0.	4422.	1.768	1.473	4394.	41246.	11.
	-40.	2078.	-1533.	0.	3726.	1.000	1.000	3703.	41573.	9.
	-20.	4851.	-286.	0.	4905.	1.768	1.473	4884.	41916.	12.
	-20.	3240.	286.	0.	3311.	1.000	1.000	3290.	41948.	8.
	-20.	3343.	-286.	0.	3411.	1.000	1.000	3391.	41034.	8.
	-3435.	3343.	286.	0.	6802.	1.000	1.000	3391.	40690.	8.
	-3435.	9688.	-286.	0.	13135.	1.000	1.000	9705.	39730.	24.
	-3435.	9688.	286.	0.	13135.	1.000	1.000	9705.	39730.	24.
	-93.	4896.	-267.	0.	5018.	1.768	1.473	4926.	41413.	12.
	-93.	4896.	267.	0.	5018.	1.768	1.473	4926.	41413.	12.
	-3435.	29544.	-273.	0.	32984.	1.768	1.473	29549.	39229.	75.
	-3435.	16717.	273.	0.	20159.	1.000	1.000	16726.	40284.	42.
	-3435.	11481.	-273.	0.	14926.	1.000	1.000	11494.	39071.	29.
	-91.	11481.	273.	0.	11585.	1.000	1.000	11494.	39416.	29.
	-91.	5311.	-273.	0.	5430.	1.000	1.000	5339.	40978.	13.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./s CODE STRESS	ALL
6190	-91.	5311.	273.	0.	5430.	1.000	1.000	5339.	4
6195	-16.	4275.	-175.	0.	4305.	1.768	1.473	4290.	4
6195	-16.	2423.	175.	0.	2463.	1.000	1.000	2448.	4
6200	-16.	3761.	-175.	0.	3793.	1.000	1.000	3778.	3
6200	-34462.	3761.	175.	0.	38225.	1.000	1.000	3778.	3
6205	-34462.	1507.	-175.	0.	35970.	1.000	1.000	1547.	4
6205	-34462.	1507.	175.	0.	35970.	1.000	1.000	1547.	4
6210	-34462.	902.	-175.	0.	35366.	1.000	1.000	968.	3
6210	-34462.	902.	175.	0.	35366.	1.000	1.000	968.	3
6215	-34462.	1743.	-175.	0.	36207.	1.000	1.000	1778.	4
6215	-34462.	1743.	175.	0.	36207.	1.000	1.000	1778.	4
6220	-34462.	3201.	-175.	0.	37664.	1.000	1.000	3220.	4
6220	-2451.	3201.	175.	0.	5662.	1.000	1.000	3220.	4
6225	-152.	2610.	-11.	0.	2763.	1.768	1.473	2610.	4
6225	-152.	1488.	11.	0.	1641.	1.000	1.000	1489.	4
6230	-152.	9642.	-11.	0.	9794.	1.000	1.000	9642.	4
6230	-40.	9642.	11.	0.	9682.	1.000	1.000	9642.	4
6235	-40.	4491.	-11.	0.	4532.	1.000	1.000	4491.	3
6235	-40.	4491.	11.	0.	4532.	1.000	1.000	4491.	3
6240	37.	1580.	7.	0.	1617.	1.768	1.473	1580.	4
6240	37.	894.	-7.	0.	931.	1.000	1.000	894.	4
6250	37.	3785.	7.	0.	3822.	1.000	1.000	3785.	3
6250	-68.	3785.	-7.	0.	3853.	1.000	1.000	3785.	3
6255	23.	2864.	7.	0.	2887.	1.768	1.473	2864.	3
6255	23.	1620.	-7.	0.	1643.	1.000	1.000	1620.	4
6260	23.	1140.	7.	0.	1163.	1.000	1.000	1140.	4
6260	-34462.	1140.	-7.	0.	35602.	1.000	1.000	1140.	4
6265	-34462.	412.	7.	0.	34874.	1.000	1.000	412.	3
6265	-34462.	412.	-7.	0.	34874.	1.000	1.000	412.	3
6270	-34462.	461.	7.	0.	34923.	1.000	1.000	461.	3
6270	-34462.	461.	-7.	0.	34923.	1.000	1.000	461.	3
6275	-34462.	534.	7.	0.	34996.	1.000	1.000	535.	4

000693

II Ver 3.21 Job: FRMC03 Date: JAN 21,1995 Time: 10:56 Page: 116
ed To: FLUOR DANIEL ID 13692
REPORT, Stresses on Elements
(EXP) D7(EXP)=D3-D4

Stresses(lb./sq.in.)					STRESS INTENSIFICATION		Stress(lb./sq.in.)		
AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	IN-PLANE	OUT-PLANE	CODE STRESS	ALLOWABLE STRESS	%
-34462.	534.	-7.	0.	34996.	1.000	1.000	535.	41759.	1.
-34462.	1343.	7.	0.	35805.	1.000	1.000	1343.	39928.	3.
-34462.	1343.	-7.	0.	35805.	1.000	1.000	1343.	39928.	3.
-34462.	1862.	7.	0.	36324.	1.000	1.000	1863.	40171.	5.
-34462.	1862.	-7.	0.	36324.	1.000	1.000	1863.	40171.	5.
-34462.	5064.	7.	0.	39526.	1.000	1.000	5064.	39799.	13.
-2860.	5064.	-7.	0.	7924.	1.000	1.000	5064.	39919.	13.
-184.	6959.	27.	0.	7143.	1.768	1.473	6959.	40865.	17.
-184.	6959.	-27.	0.	7143.	1.768	1.473	6959.	40865.	17.
-2860.	20558.	3.	0.	23418.	1.768	1.473	20558.	39634.	52.
-2860.	11630.	-3.	0.	14490.	1.000	1.000	11630.	40713.	29.
-2860.	7002.	3.	0.	9862.	1.000	1.000	7002.	40244.	17.
-34462.	7002.	-3.	0.	41464.	1.000	1.000	7002.	40124.	17.
-34462.	2559.	3.	0.	37021.	1.000	1.000	2559.	40222.	6.
-34462.	2559.	-3.	0.	37021.	1.000	1.000	2559.	40222.	6.
-34462.	1905.	3.	0.	36366.	1.000	1.000	1905.	38650.	5.
-34462.	1905.	-3.	0.	36366.	1.000	1.000	1905.	38650.	5.
-34462.	758.	3.	0.	35220.	1.000	1.000	758.	40428.	2.
-34462.	758.	-3.	0.	35220.	1.000	1.000	758.	40428.	2.
-34462.	1127.	3.	0.	35589.	1.000	1.000	1127.	39726.	3.
-34462.	1127.	-3.	0.	35589.	1.000	1.000	1127.	39726.	3.
-34462.	1573.	3.	0.	36035.	1.000	1.000	1573.	41410.	4.
-34462.	1573.	-3.	0.	36035.	1.000	1.000	1573.	41410.	4.
-34462.	4103.	3.	0.	38565.	1.000	1.000	4103.	39845.	10.
-653.	4103.	-3.	0.	4756.	1.000	1.000	4103.	39845.	10.
-532.	18186.	-9.	0.	18718.	1.768	1.473	18186.	41532.	44.
-532.	10288.	9.	0.	10820.	1.000	1.000	10288.	41683.	25.
-653.	11922.	-7.	0.	12575.	1.768	1.473	11922.	41458.	29.
-653.	6745.	7.	0.	7398.	1.000	1.000	6745.	41633.	16.
-653.	2383.	-7.	0.	3036.	1.000	1.000	2383.	39970.	6.
-34462.	2383.	7.	0.	36845.	1.000	1.000	2383.	39970.	6.
-34462.	771.	-7.	0.	35233.	1.000	1.000	771.	39901.	2.

CAESAR II Ver 3.21 Job: FRMCO3 Date: JAN 21,1995 Time: 10:56

Licensed To: FLUOR DANIEL

STRESS REPORT, Stresses on Elements

CASE 7 (EXP) D7(EXP)=D3-D4

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb. CODE STRESS
6355	-34462.	771.	7.	0.	35233.	1.000	1.000	771.
6360	-34462.	841.	-7.	0.	35303.	1.000	1.000	841.
6360	-34462.	841.	7.	0.	35303.	1.000	1.000	841.
6365	-34462.	277.	-7.	0.	34738.	1.000	1.000	277.
6365	-34462.	277.	7.	0.	34738.	1.000	1.000	277.
6370	-34462.	288.	-7.	0.	34750.	1.000	1.000	288.
6370	-34462.	288.	7.	0.	34750.	1.000	1.000	288.
6375	-34462.	80.	-7.	0.	34542.	1.000	1.000	81.
6375	-34462.	80.	7.	0.	34542.	1.000	1.000	81.
6380	-34462.	402.	-7.	0.	34864.	1.000	1.000	402.
6380	-34462.	402.	7.	0.	34864.	1.000	1.000	402.
6385	-34462.	395.	-7.	0.	34857.	1.000	1.000	396.
6385	-34462.	395.	7.	0.	34857.	1.000	1.000	396.
6390	-34462.	1193.	-7.	0.	35654.	1.000	1.000	1193.
6390	-439.	1193.	7.	0.	1631.	1.000	1.000	1193.
6395	-486.	6708.	2.	0.	7194.	1.768	1.473	6708.
6395	-486.	3795.	-2.	0.	4281.	1.000	1.000	3795.
6405	-486.	458.	2.	0.	944.	1.000	1.000	458.
6405	-34462.	458.	-2.	0.	34920.	1.000	1.000	458.
6410	-34462.	812.	2.	0.	35274.	1.000	1.000	812.
6410	-34462.	812.	-2.	0.	35274.	1.000	1.000	812.
6415	-34462.	1167.	2.	0.	35629.	1.000	1.000	1167.
6415	-34462.	1167.	-2.	0.	35629.	1.000	1.000	1167.
6420	-34462.	1982.	2.	0.	36444.	1.000	1.000	1982.
6420	-34462.	1982.	-2.	0.	36444.	1.000	1.000	1982.
6425	-34462.	5132.	2.	0.	39594.	1.000	1.000	5132.
6425	-121.	5132.	-2.	0.	5254.	1.000	1.000	5132.
6430	-925.	15062.	102.	0.	15988.	1.768	1.473	15063.
6430	-925.	8521.	-102.	0.	9448.	1.000	1.000	8523.
6440	-925.	2065.	102.	0.	2997.	1.000	1.000	2075.
6440	-34462.	2065.	-102.	0.	36527.	1.000	1.000	2075.
6445	-34462.	842.	102.	0.	35304.	1.000	1.000	866.

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Licensed To: FLUOR DANIEL ID 13692
STRESS REPORT, Stresses on Elements
CASE 7 (EXP) D7(EXP)=D3-D4

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
6445	-34462.	842.	-102.	0.	35304.	1.000	1.000	866.	41959.	2.
6450	-34462.	381.	102.	0.	34844.	1.000	1.000	432.	39276.	1.
6450	-34462.	381.	-102.	0.	34844.	1.000	1.000	432.	39276.	1.
6455	-34462.	133.	102.	0.	34596.	1.000	1.000	243.	39933.	1.
6455	-34462.	133.	-102.	0.	34596.	1.000	1.000	243.	39933.	1.
6460	-34462.	115.	102.	0.	34578.	1.000	1.000	234.	40090.	1.
6460	-34462.	115.	-102.	0.	34578.	1.000	1.000	234.	40090.	1.
6465	-34462.	93.	102.	0.	34555.	1.000	1.000	223.	40730.	1.
6465	-34462.	93.	-102.	0.	34555.	1.000	1.000	223.	40730.	1.
6470	-34462.	71.	102.	0.	34533.	1.000	1.000	215.	39176.	1.
6470	-9.	71.	-102.	0.	218.	1.000	1.000	215.	39176.	1.
6475	-7.	170.	86.	0.	246.	1.768	1.473	241.	40450.	1.
6475	-7.	115.	-86.	0.	210.	1.000	1.000	206.	40948.	1.
6480	-9.	150.	99.	0.	254.	1.768	1.473	249.	39484.	1.
6480	-9.	88.	-99.	0.	221.	1.000	1.000	217.	40293.	1.
6485	-9.	93.	99.	0.	223.	1.000	1.000	220.	40173.	1.
6485	-9.	93.	-99.	0.	223.	1.000	1.000	220.	40173.	1.
6490	-9.	185.	99.	0.	278.	1.000	1.000	271.	39068.	1.
6490	-9.	185.	-99.	0.	278.	1.000	1.000	271.	39068.	1.
6495	-28.	1231.	75.	0.	1268.	1.768	1.473	1240.	41036.	3.
6495	-28.	704.	-75.	0.	748.	1.000	1.000	720.	41398.	2.
6500	1.	345.	-327.	0.	739.	1.768	1.473	739.	41668.	2.
6500	1.	225.	327.	0.	691.	1.000	1.000	691.	41813.	2.
6505	-9.	1051.	-401.	0.	1330.	1.768	1.473	1323.	41480.	3.
6505	-9.	654.	401.	0.	1041.	1.000	1.000	1035.	41648.	2.
6510	-9.	798.	-401.	0.	1138.	1.000	1.000	1132.	41648.	3.
6510	-9.	798.	401.	0.	1138.	1.000	1.000	1132.	41648.	3.
6515	-9.	795.	-401.	0.	1136.	1.000	1.000	1130.	41340.	3.
6515	-9.	795.	401.	0.	1136.	1.000	1.000	1130.	41340.	3.
6520	-7.	1523.	-205.	0.	1583.	1.768	1.473	1577.	41646.	4.
6520	-7.	944.	205.	0.	1035.	1.000	1.000	1029.	41761.	2.
6525	-1.	1112.	-12.	0.	1113.	1.768	1.473	1113.	41936.	3.

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./ CODE STRESS	AL
6525	-1.	693.	12.	0.	695.	1.000	1.000	694.	
6530	-1.	393.	-12.	0.	395.	1.000	1.000	394.	
6530	-1.	393.	12.	0.	395.	1.000	1.000	394.	
6535	-1.	430.	-12.	0.	432.	1.000	1.000	431.	
6535	-1.	430.	12.	0.	432.	1.000	1.000	431.	
6540	-1.	1188.	-12.	0.	1189.	1.000	1.000	1188.	
6540	-1.	1188.	12.	0.	1189.	1.000	1.000	1188.	
6542	-9.	2945.	98.	0.	2960.	1.768	1.473	2951.	
6542	-9.	1666.	-98.	0.	1686.	1.000	1.000	1677.	
6545	-9.	1624.	98.	0.	1644.	1.000	1.000	1636.	
6545	-172.	1624.	-98.	0.	1807.	1.000	1.000	1636.	
6550	-172.	472.	98.	0.	673.	1.000	1.000	510.	
6555	-172.	1586.	-98.	0.	1769.	1.000	1.000	1598.	
6560	-172.	3709.	98.	0.	3886.	1.222	1.296	3714.	
6560	-59.	1539.	-1163.	0.	2822.	1.222	1.296	2789.	
6565	-100.	3860.	10.	0.	3960.	1.768	1.473	3860.	
6565	-100.	2442.	-10.	0.	2542.	1.000	1.000	2442.	
6570	-100.	1086.	10.	0.	1186.	1.000	1.000	1086.	
6570	3.	1086.	-10.	0.	1089.	1.000	1.000	1086.	
6575	3.	225.	10.	0.	230.	1.000	1.000	226.	
6575	3.	225.	-10.	0.	230.	1.000	1.000	226.	
6580	-6.	41.	-65.	0.	138.	1.768	1.473	136.	
6580	-6.	24.	65.	0.	133.	1.000	1.000	132.	
6585	-6.	361.	-65.	0.	389.	1.000	1.000	383.	
6590	-6.	428.	65.	0.	453.	1.000	1.000	447.	
6595	3.	610.	-188.	0.	720.	1.768	1.473	717.	
6595	3.	350.	188.	0.	516.	1.000	1.000	514.	
6600	3.	594.	-188.	0.	706.	1.222	1.296	703.	
6600	0.	0.	0.	0.	0.	1.222	1.296	0.	
6620	0.	0.	0.	0.	0.	1.000	1.000	0.	
6625	0.	0.	0.	0.	0.	1.000	1.000	0.	
6630	0.	0.	0.	0.	0.	1.768	1.473	0.	

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d To: FLUOR DANIEL ID 13692
REPORT, Stresses on Elements
(EXP) D7(EXP)=D3-D4

Stresses(lb./sq.in.)					STRESS		Stress(lb./sq.in.)		
AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	INTENSIFICATION IN-PLANE	OUT-PLANE	CODE STRESS	ALLOWABLE STRESS	%
0.	0.	0.	0.	0.	1.000	1.000	0.	42002.	0.
0.	0.	0.	0.	0.	1.768	1.473	0.	42002.	0.
0.	0.	0.	0.	0.	1.000	1.000	0.	42002.	0.
0.	0.	0.	0.	0.	1.000	1.000	0.	42002.	0.
6.	768.	3.	0.	774.	1.222	1.296	768.	41705.	2.
6.	564.	-3.	0.	570.	1.000	1.000	564.	41824.	1.
6.	500.	3.	0.	506.	1.000	1.000	500.	41785.	1.
6.	496.	-3.	0.	502.	1.296	1.296	496.	41478.	1.
6.	496.	3.	0.	502.	1.296	1.296	496.	41478.	1.
-3.	277.	-10.	0.	281.	1.768	1.473	278.	41390.	1.
-3.	157.	10.	0.	162.	1.000	1.000	158.	41652.	0.
-3.	115.	-10.	0.	120.	1.000	1.000	117.	39882.	0.
-3.	115.	10.	0.	120.	1.000	1.000	117.	39882.	0.
-3.	1835.	-10.	0.	1838.	1.000	1.000	1835.	41943.	4.
-3.	1835.	10.	0.	1838.	1.000	1.000	1835.	41943.	4.
-3.	3368.	-10.	0.	3371.	1.000	1.000	3368.	41800.	8.
-270.	3368.	10.	0.	3638.	1.000	1.000	3368.	41806.	8.
-617.	8317.	320.	0.	8957.	1.768	1.473	8342.	41852.	20.
-617.	4705.	-320.	0.	5361.	1.000	1.000	4748.	41906.	11.
2.	6539.	-344.	0.	6577.	1.768	1.473	6575.	41601.	16.
2.	3735.	344.	0.	3800.	1.000	1.000	3798.	41776.	9.
2.	5030.	-344.	0.	5078.	1.000	1.000	5076.	41720.	12.
-34462.	5030.	344.	0.	39497.	1.000	1.000	5076.	41716.	12.
-34462.	14621.	-344.	0.	49088.	1.000	1.000	14638.	41093.	36.
-19.	14621.	344.	0.	14657.	1.000	1.000	14638.	41094.	36.
-1046.	9839.	-62.	0.	10835.	1.768	1.473	9840.	41792.	24.
-1046.	5575.	62.	0.	6622.	1.000	1.000	5576.	41904.	13.
-22.	18.	-190.	0.	382.	1.768	1.473	380.	41674.	1.
-22.	12.	190.	0.	382.	1.000	1.000	380.	41816.	1.
-22.	10134.	-190.	0.	10164.	1.000	1.000	10142.	41195.	25.
-34462.	10134.	190.	0.	44598.	1.000	1.000	10142.	41196.	25.
-34462.	37448.	-190.	0.	71911.	1.000	1.000	37450.	41870.	89.

CAESAR II Ver 3.21 Job: FRMC03 Date: JAN 21,1995 Time: 10:56

Licensed To: FLUOR DANIEL

STRESS REPORT, Stresses on Elements

CASE 7 (EXP) D7(EXP)=D3-D4

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./ CODE STRESS	AI
6722	-5417.	37448.	190.	0.	42867.	1.000	1.000	37450.	
6723	-5417.	3081.	-190.	0.	8506.	1.000	1.000	3104.	
6724	-5417.	10735.	190.	0.	16157.	1.000	1.000	10742.	
6725	-6171.	48082.	1616.	0.	54349.	1.768	1.473	48190.	
6725	-6171.	27265.	-1616.	0.	33591.	1.000	1.000	27456.	
6726	-6171.	68588.	1616.	0.	74828.	1.000	1.000	68664.	
6560	-112.	378.	49.	0.	500.	1.222	1.296	390.	
6730	-33.	4539.	135.	0.	4579.	1.768	1.473	4547.	
6730	-33.	2569.	-135.	0.	2615.	1.000	1.000	2583.	
6735	-33.	2035.	135.	0.	2085.	1.000	1.000	2053.	
6735	-16.	2035.	-135.	0.	2069.	1.000	1.000	2053.	
6745	-17.	1573.	-481.	0.	1858.	1.768	1.473	1844.	
6745	-17.	896.	481.	0.	1327.	1.000	1.000	1315.	
6750	-17.	1040.	-481.	0.	1430.	1.000	1.000	1417.	
6755	-17.	1281.	481.	0.	1616.	1.000	1.000	1602.	
6760	-16.	1829.	-611.	0.	2213.	1.768	1.473	2200.	
6760	-16.	1144.	611.	0.	1685.	1.000	1.000	1674.	
6765	-16.	795.	-611.	0.	1467.	1.222	1.296	1458.	
6765	0.	0.	0.	0.	0.	1.222	1.296	0.	
6770	0.	0.	0.	0.	0.	1.000	1.000	0.	
6775	0.	0.	0.	0.	0.	1.000	1.000	0.	
6780	0.	0.	0.	0.	0.	1.768	1.473	0.	
6780	0.	0.	0.	0.	0.	1.000	1.000	0.	
6785	0.	0.	0.	0.	0.	1.768	1.473	0.	
6785	0.	0.	0.	0.	0.	1.000	1.000	0.	
6790	0.	0.	0.	0.	0.	1.000	1.000	0.	
6765	17.	1625.	-273.	0.	1730.	1.222	1.296	1714.	
6795	17.	1101.	273.	0.	1244.	1.000	1.000	1229.	
6800	17.	929.	-273.	0.	1093.	1.000	1.000	1078.	
6805	17.	989.	273.	0.	1145.	1.296	1.296	1130.	
6805	17.	989.	-273.	0.	1145.	1.296	1.296	1130.	
6810	21.	2050.	430.	0.	2242.	1.768	1.473	2223.	

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STRESS REPORT, Stresses on Elements
CASE 7 (EXP) D7(EXP)=D3-D4

ELEMENT NODES	Stresses(lb./sq.in.) AXIAL STRESS	BENDING STRESS	TORSION STRESS	HOOP STRESS	MAX 3D STRESS INTENSITY	STRESS INTENSIFICATION IN-PLANE	OUT-PLANE	Stress(lb./sq.in.) CODE STRESS	ALLOWABLE STRESS	%
6810	21.	1197.	-430.	0.	1491.	1.000	1.000	1474.	41032.	4.
6812	16.	1893.	31.	0.	1910.	1.768	1.473	1894.	39542.	5.
6812	16.	1235.	-31.	0.	1253.	1.000	1.000	1237.	40340.	3.
6815	16.	1139.	31.	0.	1157.	1.000	1.000	1140.	37334.	3.
6815	-40.	1139.	-31.	0.	1180.	1.000	1.000	1140.	37361.	3.
6820	-78.	4805.	-374.	0.	4941.	1.768	1.473	4863.	37988.	13.
6820	-78.	2722.	374.	0.	2899.	1.000	1.000	2823.	39275.	7.
6840	-78.	3426.	-374.	0.	3583.	1.000	1.000	3506.	39404.	9.
6840	-8.	3426.	374.	0.	3515.	1.000	1.000	3506.	39408.	9.
6850	-59.	3919.	76.	0.	3981.	1.768	1.473	3922.	40930.	10.
6850	-59.	2252.	-76.	0.	2316.	1.000	1.000	2257.	41287.	5.
6855	7.	2866.	218.	0.	2905.	1.768	1.473	2899.	41463.	7.
6855	7.	1622.	-218.	0.	1686.	1.000	1.000	1680.	41694.	4.
6860	7.	2195.	218.	0.	2244.	1.000	1.000	2238.	40118.	6.
6860	7.	2195.	-218.	0.	2244.	1.000	1.000	2238.	40118.	6.
6865	7.	757.	218.	0.	879.	1.000	1.000	874.	41801.	2.
6870	7.	832.	-218.	0.	945.	1.000	1.000	939.	41830.	2.
6875	-61.	4909.	328.	0.	5013.	1.768	1.473	4953.	41711.	12.
6875	-61.	2785.	-328.	0.	2921.	1.000	1.000	2862.	41833.	7.
6880	-61.	2882.	328.	0.	3016.	1.000	1.000	2956.	41912.	7.

RESTRAINT SUMMARY REPORT

LOAD CASE DEFINITION KEY

CASE 1 (OPE) W+DIS+T1+P1
CASE 2 (OPE) W+DIS+T2+P1
CASE 3 (OPE) W+DIS+T3+P1
CASE 4 (SUS) W+P1
CASE 5 (EXP) D5(EXP)=D1-D4
CASE 6 (EXP) D6(EXP)=D2-D4
CASE 7 (EXP) D7(EXP)=D3-D4

NODE	CASE	TYPE	Forces(lb.) FX	FY	FZ	RESULTANT	Moments(ft.lb.) MX	MY	MZ	RESULTANT
6080			Rigid Y							
	1	OPE	0.	-129.	0.	129.	0.	0.	0.	0.
	2	OPE	0.	89.	0.	89.	0.	0.	0.	0.
	3	OPE	0.	795.	0.	795.	0.	0.	0.	0.
	4	SUS	0.	-43.	0.	43.	0.	0.	0.	0.
	5	EXP	0.	-86.	0.	86.	0.	0.	0.	0.
	6	EXP	0.	132.	0.	132.	0.	0.	0.	0.
	7	EXP	0.	838.	0.	838.	0.	0.	0.	0.
		MAX.	0./ 1	838./ 7	0./ 1	838./ 7	0./ 1	0./ 1	0./ 1	0./ 1
6085			Rigid Y							
	1	OPE	0.	-108.	0.	108.	0.	0.	0.	0.
	2	OPE	0.	-140.	0.	140.	0.	0.	0.	0.
	3	OPE	0.	-241.	0.	241.	0.	0.	0.	0.
	4	SUS	0.	-121.	0.	121.	0.	0.	0.	0.
	5	EXP	0.	12.	0.	12.	0.	0.	0.	0.
	6	EXP	0.	-19.	0.	19.	0.	0.	0.	0.
	7	EXP	0.	-120.	0.	120.	0.	0.	0.	0.
		MAX.	0./ 1	241./ 3	0./ 1	241./ 3	0./ 1	0./ 1	0./ 1	0./ 1
6100			Rigid ANC							
	1	OPE	-5.	-87.	-1.	87.	-58.	27.	-2.	64.
	2	OPE	15.	-86.	10.	88.	-36.	-45.	-22.	62.
	3	OPE	79.	-82.	47.	123.	33.	-279.	-87.	294.
	4	SUS	3.	-87.	4.	87.	-50.	-1.	-10.	51.
	5	EXP	-8.	0.	-4.	9.	-9.	29.	8.	31.
	6	EXP	12.	1.	7.	14.	13.	-44.	-12.	47.
	7	EXP	75.	5.	43.	87.	83.	-278.	-77.	300.
		MAX.	79./ 3	87./ 1	47./ 3	123./ 3	83./ 7	279./ 3	87./ 3	300./ 7
6105			Rigid X Rigid Y Rigid Z							
	1	OPE	2.	-106.	-1.	106.	0.	0.	0.	0.
	2	OPE	4.	-155.	-1.	155.	0.	0.	0.	0.
	3	OPE	14.	-314.	0.	314.	0.	0.	0.	0.
	4	SUS	3.	-125.	-1.	125.	0.	0.	0.	0.
	5	EXP	-1.	19.	0.	20.	0.	0.	0.	0.
	6	EXP	2.	-30.	0.	30.	0.	0.	0.	0.
	7	EXP	11.	-189.	1.	189.	0.	0.	0.	0.
		MAX.	14./ 3	314./ 3	1./ 7	314./ 3	0./ 1	0./ 1	0./ 1	0./ 1

CAESAR II Ver 3.21 Job: FRMC03 Date: JAN 21,1995 Time: 10:56
Licensed To: FLUOR DANIEL ID
RESTRAINT REPORT, Loads on Restraints
RESTRAINT SUMMARY

			Forces(lb.)				Moments(ft.lb.)			
NODE	CASE	TYPE	FX	FY	FZ	RESULTANT	MX	MY	MZ	RESUL
6125			Rigid X	Rigid Y	Rigid Z					
	1	OPE	0.	310.	-1.	310.	0.	0.	0.	
	2	OPE	0.	-255.	-1.	255.	0.	0.	0.	
	3	OPE	2.	-2077.	1.	2077.	0.	0.	0.	
	4	SUS	0.	87.	-1.	87.	0.	0.	0.	
	5	EXP	0.	223.	0.	223.	0.	0.	0.	
	6	EXP	0.	-341.	0.	341.	0.	0.	0.	
	7	EXP	1.	-2164.	2.	2164.	0.	0.	0.	
		MAX.	2./ 3	2164./ 7	2./ 7	2164./ 7	0./ 1	0./ 1	0./ 1	
6142			Rigid Y							
	1	OPE	0.	-1285.	0.	1285.	0.	0.	0.	
	2	OPE	0.	-793.	0.	793.	0.	0.	0.	
	3	OPE	0.	794.	0.	794.	0.	0.	0.	
	4	SUS	0.	-1090.	0.	1090.	0.	0.	0.	
	5	EXP	0.	-194.	0.	194.	0.	0.	0.	
	6	EXP	0.	297.	0.	297.	0.	0.	0.	
	7	EXP	0.	1885.	0.	1885.	0.	0.	0.	
		MAX.	0./ 1	1885./ 7	0./ 1	1885./ 7	0./ 1	0./ 1	0./ 1	
6145			Rigid Y							
	1	OPE	0.	-70.	0.	70.	0.	0.	0.	
	2	OPE	0.	-132.	0.	132.	0.	0.	0.	
	3	OPE	0.	-329.	0.	329.	0.	0.	0.	
	4	SUS	0.	-95.	0.	95.	0.	0.	0.	
	5	EXP	0.	24.	0.	24.	0.	0.	0.	
	6	EXP	0.	-37.	0.	37.	0.	0.	0.	
	7	EXP	0.	-235.	0.	235.	0.	0.	0.	
		MAX.	0./ 1	329./ 3	0./ 1	329./ 3	0./ 1	0./ 1	0./ 1	
6165			Rigid X	Rigid Y	Rigid Z					
	1	OPE	3.	-171.	-1554.	1563.	0.	0.	0.	
	2	OPE	-21.	-231.	431.	490.	0.	0.	0.	
	3	OPE	-100.	-423.	6841.	6855.	0.	0.	0.	
	4	SUS	-7.	-195.	-769.	793.	0.	0.	0.	
	5	EXP	10.	23.	-785.	785.	0.	0.	0.	
	6	EXP	-15.	-36.	1200.	1201.	0.	0.	0.	
	7	EXP	-93.	-228.	7610.	7614.	0.	0.	0.	
		MAX.	100./ 3	423./ 3	7610./ 7	7614./ 7	0./ 1	0./ 1	0./ 1	

000203

ASE	TYPE	Forces(lb.) FX	FY	FZ	RESULTANT	Moments(ft.lb.) MX	MY	MZ	RESULTANT
		Rigid X Rigid Y Rigid Z							
1	OPE	-3.	-305.	1536.	1566.	0.	0.	0.	0.
2	OPE	7.	-280.	-408.	495.	0.	0.	0.	0.
3	OPE	41.	-200.	-6685.	6688.	0.	0.	0.	0.
4	SUS	1.	-295.	767.	822.	0.	0.	0.	0.
5	EXP	-4.	-10.	769.	769.	0.	0.	0.	0.
6	EXP	6.	15.	-1175.	1175.	0.	0.	0.	0.
7	EXP	40.	95.	-7452.	7453.	0.	0.	0.	0.
	MAX.	41./ 3	305./ 1	7452./ 7	7453./ 7	0./ 1	0./ 1	0./ 1	0./ 1
		Rigid X Rigid Y Rigid Z							
1	OPE	-7918.	-266.	23.	7923.	0.	0.	0.	0.
2	OPE	12106.	-230.	-36.	12109.	0.	0.	0.	0.
3	OPE	76762.	-114.	-225.	76762.	0.	0.	0.	0.
4	SUS	0.	-252.	0.	252.	0.	0.	0.	0.
5	EXP	-7918.	-14.	23.	7918.	0.	0.	0.	0.
6	EXP	12107.	22.	-35.	12107.	0.	0.	0.	0.
7	EXP	76762.	138.	-224.	76763.	0.	0.	0.	0.
	MAX.	76762./ 7	266./ 1	225./ 3	76763./ 7	0./ 1	0./ 1	0./ 1	0./ 1
		Rigid X Rigid Y Rigid Z							
1	OPE	0.	-217.	1.	217.	0.	0.	0.	0.
2	OPE	0.	-227.	-2.	227.	0.	0.	0.	0.
3	OPE	0.	-260.	-14.	260.	0.	0.	0.	0.
4	SUS	0.	-221.	0.	221.	0.	0.	0.	0.
5	EXP	0.	4.	1.	4.	0.	0.	0.	0.
6	EXP	0.	-6.	-2.	6.	0.	0.	0.	0.
7	EXP	0.	-39.	-14.	41.	0.	0.	0.	0.
	MAX.	0./ 3	260./ 3	14./ 7	260./ 3	0./ 1	0./ 1	0./ 1	0./ 1

RESTRAINT REPORT, Loads on Restraints
RESTRAINT SUMMARY

NODE	CASE	TYPE	Forces(lb.) FX	FY	FZ	RESULTANT	Moments(ft.lb.) MX	MY	MZ	RESULT.
6220			Rigid X	Rigid Y	Rigid Z					
	1	OPE	7358.	-136.	-39.	7360.	0.	0.	0.	
	2	OPE	-11251.	-131.	59.	11252.	0.	0.	0.	
	3	OPE	-71336.	-114.	374.	71337.	0.	0.	0.	
	4	SUS	0.	-134.	0.	134.	0.	0.	0.	
	5	EXP	7358.	-2.	-39.	7358.	0.	0.	0.	
	6	EXP	-11251.	3.	59.	11251.	0.	0.	0.	
	7	EXP	-71336.	19.	374.	71337.	0.	0.	0.	
		MAX.	71336./ 3	136./ 1	374./ 7	71337./ 3	0./ 1	0./ 1	0./ 1	
6230			Rigid X	Rigid Y	Rigid Z					
	1	OPE	572.	-127.	26.	586.	0.	0.	0.	
	2	OPE	-874.	-128.	-39.	884.	0.	0.	0.	
	3	OPE	-5543.	-131.	-250.	5550.	0.	0.	0.	
	4	SUS	0.	-128.	0.	128.	0.	0.	0.	
	5	EXP	572.	0.	26.	572.	0.	0.	0.	
	6	EXP	-874.	0.	-39.	875.	0.	0.	0.	
	7	EXP	-5543.	-3.	-250.	5549.	0.	0.	0.	
		MAX.	5543./ 7	131./ 3	250./ 7	5550./ 3	0./ 1	0./ 1	0./ 1	
6250			Rigid X	Rigid Y	Rigid Z					
	1	OPE	-24.	-343.	14.	344.	0.	0.	0.	
	2	OPE	36.	-345.	-22.	348.	0.	0.	0.	
	3	OPE	233.	-350.	-141.	444.	0.	0.	0.	
	4	SUS	0.	-344.	0.	344.	0.	0.	0.	
	5	EXP	-24.	1.	15.	28.	0.	0.	0.	
	6	EXP	37.	-1.	-22.	43.	0.	0.	0.	
	7	EXP	233.	-6.	-141.	272.	0.	0.	0.	
		MAX.	233./ 7	350./ 3	141./ 3	444./ 3	0./ 1	0./ 1	0./ 1	

E	CASE	TYPE	Forces(lb.) FX	FY	FZ	RESULTANT	Moments(ft.lb.) MX	MY	MZ	RESULTANT
260			Rigid X	Rigid Y	Rigid Z					
	1	OPE	17.	-80.	-7927.	7927.	0.	0.	0.	0.
	2	OPE	-25.	-79.	12120.	12121.	0.	0.	0.	0.
	3	OPE	-159.	-74.	76848.	76848.	0.	0.	0.	0.
	4	SUS	1.	-79.	0.	79.	0.	0.	0.	0.
	5	EXP	16.	-1.	-7927.	7927.	0.	0.	0.	0.
	6	EXP	-25.	1.	12120.	12120.	0.	0.	0.	0.
	7	EXP	-159.	6.	76848.	76848.	0.	0.	0.	0.
		MAX.	159./ 7	80./ 1	76848./ 3	76848./ 3	0./ 1	0./ 1	0./ 1	0./ 1
270			Rigid X	Rigid Y	Rigid Z					
	1	OPE	-2.	-334.	0.	334.	0.	0.	0.	0.
	2	OPE	1.	-338.	0.	338.	0.	0.	0.	0.
	3	OPE	11.	-350.	0.	350.	0.	0.	0.	0.
	4	SUS	-1.	-335.	0.	335.	0.	0.	0.	0.
	5	EXP	-1.	1.	0.	2.	0.	0.	0.	0.
	6	EXP	2.	-2.	0.	3.	0.	0.	0.	0.
	7	EXP	12.	-14.	0.	19.	0.	0.	0.	0.
		MAX.	12./ 7	350./ 3	0./ 3	350./ 3	0./ 1	0./ 1	0./ 1	0./ 1
280			Rigid X	Rigid Y	Rigid Z					
	1	OPE	3.	-220.	0.	220.	0.	0.	0.	0.
	2	OPE	2.	-204.	0.	204.	0.	0.	0.	0.
	3	OPE	-2.	-153.	0.	153.	0.	0.	0.	0.
	4	SUS	3.	-214.	0.	214.	0.	0.	0.	0.
	5	EXP	0.	-6.	0.	6.	0.	0.	0.	0.
	6	EXP	-1.	10.	0.	10.	0.	0.	0.	0.
	7	EXP	-4.	61.	0.	61.	0.	0.	0.	0.
		MAX.	4./ 7	220./ 1	0./ 7	220./ 1	0./ 1	0./ 1	0./ 1	0./ 1

NODE	CASE	TYPE	Forces(lb.) FX	FY	FZ	RESULTANT	Moments(ft.lb.) MX	MY	MZ	RESULTANT
6290			Rigid X	Rigid Y	Rigid Z					
	1	OPE	-8.	-166.	7532.	7534.	0.	0.	0.	
	2	OPE	-8.	-286.	-10839.	10843.	0.	0.	0.	
	3	OPE	-5.	-671.	-70156.	70159.	0.	0.	0.	
	4	SUS	-8.	-213.	268.	343.	0.	0.	0.	
	5	EXP	0.	47.	7264.	7264.	0.	0.	0.	
	6	EXP	0.	-72.	-11107.	11107.	0.	0.	0.	
	7	EXP	3.	-458.	-70424.	70425.	0.	0.	0.	
		MAX.	8./ 1	671./ 3	70424./ 7	70425./ 7	0./ 1	0./ 1	0./ 1	
6305			Rigid X	Rigid Y	Rigid Z					
	1	OPE	8.	-202.	-7532.	7535.	0.	0.	0.	
	2	OPE	7.	-112.	10839.	10840.	0.	0.	0.	
	3	OPE	3.	179.	70156.	70156.	0.	0.	0.	
	4	SUS	7.	-167.	-268.	315.	0.	0.	0.	
	5	EXP	0.	-36.	-7264.	7264.	0.	0.	0.	
	6	EXP	-1.	54.	11107.	11107.	0.	0.	0.	
	7	EXP	-4.	345.	70424.	70424.	0.	0.	0.	
		MAX.	8./ 1	345./ 7	70424./ 7	70424./ 7	0./ 1	0./ 1	0./ 1	
6315			Rigid X	Rigid Y	Rigid Z					
	1	OPE	-3.	-279.	0.	279.	0.	0.	0.	
	2	OPE	0.	-258.	0.	258.	0.	0.	0.	
	3	OPE	9.	-189.	0.	189.	0.	0.	0.	
	4	SUS	-2.	-271.	0.	271.	0.	0.	0.	
	5	EXP	-1.	-8.	0.	8.	0.	0.	0.	
	6	EXP	2.	13.	0.	13.	0.	0.	0.	
	7	EXP	11.	81.	0.	82.	0.	0.	0.	
		MAX.	11./ 7	279./ 1	0./ 7	279./ 1	0./ 1	0./ 1	0./ 1	

NODE	CASE	TYPE	Forces(lb.) FX	FY	FZ	RESULTANT	Moments(ft.lb.) MX	MY	MZ	RESULTANT
6325			Rigid X Rigid Y Rigid Z							
	1	OPE	6.	-218.	0.	218.	0.	0.	0.	0.
	2	OPE	-8.	-224.	0.	224.	0.	0.	0.	0.
	3	OPE	-54.	-244.	0.	250.	0.	0.	0.	0.
	4	SUS	1.	-220.	0.	220.	0.	0.	0.	0.
	5	EXP	6.	2.	0.	6.	0.	0.	0.	0.
	6	EXP	-9.	-4.	0.	9.	0.	0.	0.	0.
	7	EXP	-55.	-24.	0.	59.	0.	0.	0.	0.
		MAX.	55./ 7	244./ 3	0./ 3	250./ 3	0./ 1	0./ 1	0./ 1	0./ 1
6335			Rigid X Rigid Y Rigid Z							
	1	OPE	-28.	-200.	7771.	7774.	0.	0.	0.	0.
	2	OPE	42.	-198.	-11883.	11885.	0.	0.	0.	0.
	3	OPE	266.	-192.	-75342.	75343.	0.	0.	0.	0.
	4	SUS	0.	-199.	0.	199.	0.	0.	0.	0.
	5	EXP	-27.	-1.	7772.	7772.	0.	0.	0.	0.
	6	EXP	42.	1.	-11883.	11883.	0.	0.	0.	0.
	7	EXP	266.	7.	-75342.	75343.	0.	0.	0.	0.
		MAX.	266./ 7	200./ 1	75342./ 3	75343./ 3	0./ 1	0./ 1	0./ 1	0./ 1
6350			Rigid X Rigid Y Rigic Z							
	1	OPE	20.	-224.	-7771.	7775.	0.	0.	0.	0.
	2	OPE	-31.	-225.	11883.	11885.	0.	0.	0.	0.
	3	OPE	-197.	-226.	75342.	75343.	0.	0.	0.	0.
	4	SUS	0.	-224.	0.	224.	0.	0.	0.	0.
	5	EXP	20.	0.	-7772.	7772.	0.	0.	0.	0.
	6	EXP	-31.	0.	11883.	11883.	0.	0.	0.	0.
	7	EXP	-197.	-1.	75342.	75343.	0.	0.	0.	0.
		MAX.	197./ 7	226./ 3	75342./ 3	75343./ 3	0./ 1	0./ 1	0./ 1	0./ 1

RESTRAINT REPORT, Loads on Restraints
RESTRAINT SUMMARY

NODE	CASE	TYPE	Forces(lb.) FX	FY	FZ	RESULTANT	Moments(ft.lb.) MX	MY	MZ	RESULT
6360			Rigid X	Rigid Y	Rigid Z					
	1	OPE	4.	-223.	0.	223.	0.	0.	0.	
	2	OPE	-6.	-223.	0.	223.	0.	0.	0.	
	3	OPE	-39.	-223.	0.	226.	0.	0.	0.	
	4	SUS	0.	-223.	0.	223.	0.	0.	0.	
	5	EXP	4.	0.	0.	4.	0.	0.	0.	
	6	EXP	-6.	0.	0.	6.	0.	0.	0.	
	7	EXP	-39.	0.	0.	39.	0.	0.	0.	
		MAX.	39./ 3	223./ 1	0./ 3	226./ 3	0./ 1	0./ 1	0./ 1	
6370			Rigid X	Rigid Y	Rigid Z					
	1	OPE	-2.	-100.	0.	100.	0.	0.	0.	
	2	OPE	4.	-100.	0.	100.	0.	0.	0.	
	3	OPE	23.	-100.	0.	103.	0.	0.	0.	
	4	SUS	0.	-100.	0.	100.	0.	0.	0.	
	5	EXP	-2.	0.	0.	2.	0.	0.	0.	
	6	EXP	4.	0.	0.	4.	0.	0.	0.	
	7	EXP	23.	0.	0.	23.	0.	0.	0.	
		MAX.	23./ 3	100./ 3	0./ 3	103./ 3	0./ 1	0./ 1	0./ 1	
6380			Rigid X	Rigid Y	Rigid Z					
	1	OPE	2.	-267.	0.	267.	0.	0.	0.	
	2	OPE	-3.	-267.	0.	267.	0.	0.	0.	
	3	OPE	-18.	-266.	0.	267.	0.	0.	0.	
	4	SUS	0.	-267.	0.	267.	0.	0.	0.	
	5	EXP	2.	0.	0.	2.	0.	0.	0.	
	6	EXP	-3.	0.	0.	3.	0.	0.	0.	
	7	EXP	-18.	0.	0.	18.	0.	0.	0.	
		MAX.	18./ 3	267./ 1	0./ 3	267./ 3	0./ 1	0./ 1	0./ 1	

000709

CASE	TYPE	Forces(lb.) FX	FY	FZ	RESULTANT	Moments(ft.lb.) MX	MY	MZ	RESULTANT
0		Rigid X Rigid Y Rigid Z							
1	OPE	-113.	-170.	7821.	7823.	0.	0.	0.	0.
2	OPE	173.	-171.	-11958.	11961.	0.	0.	0.	0.
3	OPE	1095.	-174.	-75820.	75828.	0.	0.	0.	0.
4	SUS	0.	-171.	0.	171.	0.	0.	0.	0.
5	EXP	-113.	0.	7821.	7822.	0.	0.	0.	0.
6	EXP	173.	0.	-11958.	11959.	0.	0.	0.	0.
7	EXP	1095.	-3.	-75820.	75827.	0.	0.	0.	0.
	MAX.	1095./ 3	174./ 3	75820./ 3	75828./ 3	0./ 1	0./ 1	0./ 1	0./ 1
5		Rigid X Rigid Y Rigid Z							
1	OPE	-7810.	-58.	100.	7811.	0.	0.	0.	0.
2	OPE	11941.	-57.	-153.	11943.	0.	0.	0.	0.
3	OPE	75714.	-54.	-972.	75720.	0.	0.	0.	0.
4	SUS	0.	-57.	0.	57.	0.	0.	0.	0.
5	EXP	-7810.	0.	100.	7811.	0.	0.	0.	0.
6	EXP	11941.	0.	-153.	11942.	0.	0.	0.	0.
7	EXP	75714.	3.	-972.	75720.	0.	0.	0.	0.
	MAX.	75714./ 3	58./ 1	972./ 3	75720./ 3	0./ 1	0./ 1	0./ 1	0./ 1
5		Rigid X Rigid Y Rigid Z							
1	OPE	0.	-308.	5.	308.	0.	0.	0.	0.
2	OPE	0.	-308.	-8.	309.	0.	0.	0.	0.
3	OPE	0.	-310.	-50.	314.	0.	0.	0.	0.
4	SUS	0.	-308.	0.	308.	0.	0.	0.	0.
5	EXP	0.	0.	5.	5.	0.	0.	0.	0.
6	EXP	0.	0.	-8.	8.	0.	0.	0.	0.
7	EXP	0.	-2.	-50.	50.	0.	0.	0.	0.
	MAX.	0./ 7	310./ 3	50./ 3	314./ 3	0./ 1	0./ 1	0./ 1	0./ 1

RESTRAINT REPORT, Loads on Restraints
RESTRAINT SUMMARY

NODE	CASE	TYPE	Forces(lb.) FX	FY	FZ	RESULTANT	Moments(ft.lb.) MX	MY	MZ	RESULTANT
6425			Rigid X	Rigid Y	Rigid Z					
	1	OPE	7894.	-165.	-217.	7898.	0.	0.	0.	0.
	2	OPE	-12070.	-165.	332.	12075.	0.	0.	0.	0.
	3	OPE	-76526.	-164.	2108.	76556.	0.	0.	0.	0.
	4	SUS	0.	-165.	0.	165.	0.	0.	0.	0.
	5	EXP	7894.	0.	-217.	7897.	0.	0.	0.	0.
	6	EXP	-12070.	0.	332.	12074.	0.	0.	0.	0.
	7	EXP	-76526.	1.	2108.	76556.	0.	0.	0.	0.
		MAX.	76526./ 3	165./ 1	2108./ 3	76556./ 3	0./ 1	0./ 1	0./ 1	0./ 1
6440			Rigid X	Rigid Y	Rigid Z					
	1	OPE	32.	-38.	-7709.	7709.	0.	0.	0.	0.
	2	OPE	-48.	-38.	11787.	11787.	0.	0.	0.	0.
	3	OPE	-306.	-36.	74734.	74735.	0.	0.	0.	0.
	4	SUS	0.	-38.	0.	38.	0.	0.	0.	0.
	5	EXP	32.	0.	-7709.	7709.	0.	0.	0.	0.
	6	EXP	-48.	0.	11787.	11787.	0.	0.	0.	0.
	7	EXP	-305.	2.	74734.	74735.	0.	0.	0.	0.
		MAX.	306./ 3	38./ 1	74734./ 3	74735./ 3	0./ 1	0./ 1	0./ 1	0./ 1
6450			Rigid X	Rigid Y	Rigid Z					
	1	OPE	-4.	-240.	0.	241.	0.	0.	0.	0.
	2	OPE	6.	-241.	0.	241.	0.	0.	0.	0.
	3	OPE	39.	-241.	0.	244.	0.	0.	0.	0.
	4	SUS	0.	-241.	0.	241.	0.	0.	0.	0.
	5	EXP	-4.	0.	0.	4.	0.	0.	0.	0.
	6	EXP	6.	0.	0.	6.	0.	0.	0.	0.
	7	EXP	39.	-1.	0.	39.	0.	0.	0.	0.
		MAX.	39./ 3	241./ 3	0./ 3	244./ 3	0./ 1	0./ 1	0./ 1	0./ 1

000711

RAINT REPORT, Loads on Restraints
RAINT SUMMARY

CASE	TYPE	Forces(lb.) FX	FY	FZ	RESULTANT	Moments(ft.lb.) MX	MY	MZ	RESULTANT
50		Rigid X	Rigid Y	Rigid Z					
1	OPE	0.	-170.	0.	170.	0.	0.	0.	0.
2	OPE	-1.	-170.	0.	170.	0.	0.	0.	0.
3	OPE	-4.	-170.	0.	170.	0.	0.	0.	0.
4	SUS	0.	-170.	0.	170.	0.	0.	0.	0.
5	EXP	0.	0.	0.	0.	0.	0.	0.	0.
6	EXP	-1.	0.	0.	1.	0.	0.	0.	0.
7	EXP	-4.	0.	0.	4.	0.	0.	0.	0.
	MAX.	4./ 3	170./ 1	0./ 7	170./ 1	0./ 1	0./ 1	0./ 1	0./ 1
70		Rigid X	Rigid Y	Rigid Z					
1	OPE	0.	-215.	7920.	7923.	0.	0.	0.	0.
2	OPE	0.	-215.	-12109.	12111.	0.	0.	0.	0.
3	OPE	-1.	-216.	-76776.	76777.	0.	0.	0.	0.
4	SUS	0.	-215.	1.	215.	0.	0.	0.	0.
5	EXP	0.	0.	7920.	7920.	0.	0.	0.	0.
6	EXP	0.	0.	-12109.	12109.	0.	0.	0.	0.
7	EXP	-1.	-1.	-76777.	76777.	0.	0.	0.	0.
	MAX.	1./ 7	216./ 3	76777./ 7	76777./ 7	0./ 1	0./ 1	0./ 1	0./ 1
90		Rigid Y							
1	OPE	0.	-337.	0.	337.	0.	0.	0.	0.
2	OPE	0.	-320.	0.	320.	0.	0.	0.	0.
3	OPE	0.	-267.	0.	267.	0.	0.	0.	0.
4	SUS	0.	-330.	0.	330.	0.	0.	0.	0.
5	EXP	0.	-7.	0.	7.	0.	0.	0.	0.
6	EXP	0.	10.	0.	10.	0.	0.	0.	0.
7	EXP	0.	63.	0.	63.	0.	0.	0.	0.
	MAX.	0./ 1	337./ 1	0./ 1	337./ 1	0./ 1	0./ 1	0./ 1	0./ 1
0		Rigid Y							
1	OPE	0.	-81.	0.	81.	0.	0.	0.	0.
2	OPE	0.	-100.	0.	100.	0.	0.	0.	0.
3	OPE	0.	-164.	0.	164.	0.	0.	0.	0.
4	SUS	0.	-89.	0.	89.	0.	0.	0.	0.
5	EXP	0.	8.	0.	8.	0.	0.	0.	0.
6	EXP	0.	-12.	0.	12.	0.	0.	0.	0.
7	EXP	0.	-76.	0.	76.	0.	0.	0.	0.
	MAX.	0./ 1	164./ 3	0./ 1	164./ 3	0./ 1	0./ 1	0./ 1	0./ 1

RESTRAINT REPORT, Loads on Restraints
RESTRAINT SUMMARY

NODE	CASE	TYPE	Forces(lb.) FX	FY	FZ	RESULTANT	Moments(ft.lb.) MX	MY	MZ	RESULT
6515			Rigid Y							
	1	OPE	0.	-133.	0.	133.	0.	0.	0.	
	2	OPE	0.	-123.	0.	123.	0.	0.	0.	
	3	OPE	0.	-90.	0.	90.	0.	0.	0.	
	4	SUS	0.	-129.	0.	129.	0.	0.	0.	
	5	EXP	0.	-4.	0.	4.	0.	0.	0.	
	6	EXP	0.	6.	0.	6.	0.	0.	0.	
	7	EXP	0.	39.	0.	39.	0.	0.	0.	
		MAX.	0./ 1	133./ 1	0./ 1	133./ 1	0./ 1	0./ 1	0./ 1	
6530			Rigid Y							
	1	OPE	0.	-62.	0.	62.	0.	0.	0.	
	2	OPE	0.	-66.	0.	66.	0.	0.	0.	
	3	OPE	0.	-79.	0.	79.	0.	0.	0.	
	4	SUS	0.	-63.	0.	63.	0.	0.	0.	
	5	EXP	0.	2.	0.	2.	0.	0.	0.	
	6	EXP	0.	-2.	0.	2.	0.	0.	0.	
	7	EXP	0.	-15.	0.	15.	0.	0.	0.	
		MAX.	0./ 1	79./ 3	0./ 1	79./ 3	0./ 1	0./ 1	0./ 1	
6540			Rigid Y							
	1	OPE	0.	-132.	0.	132.	0.	0.	0.	
	2	OPE	0.	-136.	0.	136.	0.	0.	0.	
	3	OPE	0.	-150.	0.	150.	0.	0.	0.	
	4	SUS	0.	-133.	0.	133.	0.	0.	0.	
	5	EXP	0.	1.	0.	1.	0.	0.	0.	
	6	EXP	0.	-3.	0.	3.	0.	0.	0.	
	7	EXP	0.	-17.	0.	17.	0.	0.	0.	
		MAX.	0./ 1	150./ 3	0./ 1	150./ 3	0./ 1	0./ 1	0./ 1	
6545			Rigid X	Rigid Y	Rigid Z					
	1	OPE	43.	-208.	-28.	214.	0.	0.	0.	
	2	OPE	-34.	-174.	69.	190.	0.	0.	0.	
	3	OPE	-284.	-65.	382.	480.	0.	0.	0.	
	4	SUS	10.	-192.	18.	194.	0.	0.	0.	
	5	EXP	32.	-15.	-46.	59.	0.	0.	0.	
	6	EXP	-45.	19.	51.	70.	0.	0.	0.	
	7	EXP	-294.	127.	364.	485.	0.	0.	0.	
		MAX.	294./ 7	208./ 1	382./ 3	485./ 7	0./ 1	0./ 1	0./ 1	

CASE	TYPE	Forces(lb.) FX	FY	FZ	RESULTANT	Moments(ft.lb.) MX	MY	MZ	RESULTANT
0		Rigid Y Rigid X Rigid Z							
1	OPE	-61.	-25.	34.	74.	0.	0.	0.	0.
2	OPE	0.	-70.	-7.	70.	0.	0.	0.	0.
3	OPE	194.	-216.	-138.	322.	0.	0.	0.	0.
4	SUS	-36.	-43.	5.	56.	0.	0.	0.	0.
5	EXP	-25.	18.	29.	42.	0.	0.	0.	0.
6	EXP	36.	-27.	-12.	46.	0.	0.	0.	0.
7	EXP	230.	-173.	-143.	322.	0.	0.	0.	0.
	MAX.	230./ 7	216./ 3	143./ 7	322./ 7	0./ 1	0./ 1	0./ 1	0./ 1
5		Rigid Y							
1	OPE	0.	-99.	0.	99.	0.	0.	0.	0.
2	OPE	0.	-85.	0.	85.	0.	0.	0.	0.
3	OPE	0.	-39.	0.	39.	0.	0.	0.	0.
4	SUS	0.	-93.	0.	93.	0.	0.	0.	0.
5	EXP	0.	-6.	0.	6.	0.	0.	0.	0.
6	EXP	0.	8.	0.	8.	0.	0.	0.	0.
7	EXP	0.	54.	0.	54.	0.	0.	0.	0.
	MAX.	0./ 1	99./ 1	0./ 1	99./ 1	0./ 1	0./ 1	0./ 1	0./ 1
)		Rigid Y							
1	OPE	0.	-515.	0.	515.	0.	0.	0.	0.
2	OPE	0.	-503.	0.	503.	0.	0.	0.	0.
3	OPE	0.	-463.	0.	463.	0.	0.	0.	0.
4	SUS	0.	-504.	0.	504.	0.	0.	0.	0.
5	EXP	0.	-11.	0.	11.	0.	0.	0.	0.
6	EXP	0.	1.	0.	1.	0.	0.	0.	0.
7	EXP	0.	41.	0.	41.	0.	0.	0.	0.
	MAX.	0./ 1	515./ 1	0./ 1	515./ 1	0./ 1	0./ 1	0./ 1	0./ 1
		Rigid X Rigid Y Rigid Z							
1	OPE	-134.	311.	-73.	346.	0.	0.	0.	0.
2	OPE	42.	-97.	-54.	119.	0.	0.	0.	0.
3	OPE	609.	-1417.	7.	1542.	0.	0.	0.	0.
4	SUS	14.	13.	-7.	21.	0.	0.	0.	0.
5	EXP	-148.	298.	-66.	339.	0.	0.	0.	0.
6	EXP	28.	-111.	-47.	123.	0.	0.	0.	0.
7	EXP	595.	-1430.	15.	1549.	0.	0.	0.	0.
	MAX.	609./ 3	1430./ 7	73./ 1	1549./ 7	0./ 1	0./ 1	0./ 1	0./ 1

CAESAR II Ver 3.21 Job: FRMC03 Date: JAN 21,1995 Time: 10:56

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RESTRAINT REPORT, Loads on Restraints

RESTRAINT SUMMARY

NODE	CASE	TYPE	Forces(lb.) FX	FY	FZ	RESULTANT	Moments(ft.lb.) MX	MY	MZ	RESUL
6700			Rigid X	Rigid Y	Rigid Z					
	1	OPE	164.	-514.	7989.	8007.	0.	0.	0.	
	2	OPE	-22.	-20.	-12061.	12061.	0.	0.	0.	
	3	OPE	-623.	1574.	-76795.	76814.	0.	0.	0.	
	4	SUS	7.	-112.	7.	112.	0.	0.	0.	
	5	EXP	157.	-402.	7982.	7993.	0.	0.	0.	
	6	EXP	-29.	92.	-12068.	12068.	0.	0.	0.	
	7	EXP	-630.	1686.	-76802.	76823.	0.	0.	0.	
		MAX.	630./ 7	1686./ 7	76802./ 7	76823./ 7	0./ 1	0./ 1	0./ 1	
6710			Rigid X	Rigid Y	Rigid Z					
	1	OPE	-2.	909.	-7894.	7946.	0.	0.	0.	
	2	OPE	16.	23.	12123.	12123.	0.	0.	0.	
	3	OPE	75.	-2837.	76752.	76805.	0.	0.	0.	
	4	SUS	-2.	-196.	-1.	196.	0.	0.	0.	
	5	EXP	0.	1105.	-7892.	7969.	0.	0.	0.	
	6	EXP	18.	219.	12124.	12126.	0.	0.	0.	
	7	EXP	77.	-2641.	76754.	76799.	0.	0.	0.	
		MAX.	77./ 7	2837./ 3	76754./ 7	76805./ 3	0./ 1	0./ 1	0./ 1	
6721			Rigid X	Rigid Y	Rigid Z					
	1	OPE	-7930.	-2679.	-208.	8373.	0.	0.	0.	
	2	OPE	12095.	-1747.	-183.	12222.	0.	0.	0.	
	3	OPE	76750.	1263.	-101.	76760.	0.	0.	0.	
	4	SUS	1.	-205.	2.	205.	0.	0.	0.	
	5	EXP	-7931.	-2474.	-210.	8311.	0.	0.	0.	
	6	EXP	12093.	-1541.	-185.	12192.	0.	0.	0.	
	7	EXP	76748.	1468.	-102.	76762.	0.	0.	0.	
		MAX.	76750./ 3	2679./ 1	210./ 5	76762./ 7	0./ 1	0./ 1	0./ 1	