R-019-204 .9

5688

PROPOSED ENHANCEMENTS TO THE PLANT 1 ORE SILO REMOVAL ACTION WORK PLAN, REMOVAL ACTION 13

06/22/94

DOE-1559-94
DOE-FN EPA
19
LETTER

5688

Department of Energy
Fernald Environmental Management Project
P. O. Box 398705
Cincinnati, Ohio 45239-8705
(513) 648-3155

JUN 2
DOE-15

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R-019-204.9

Mr. James A. Saric, Remedial Project Manager
U. S. Environmental Protection Agency
Region V - 5HRE-8J
77 W. Jackson Blvd.
Chicago, IL 60604-3590

Mr. Tom Schneider, Project Manager
Ohio Environmental Protection Agency
401 East Fifth Street
Dayton, Ohio 45402-2911

Dear Mr. Saric and Mr. Schneider:

PROPOSED ENHANCEMENTS TO THE PLANT 1 ORE SILOS REMOVAL ACTION WORK PLAN, REMOVAL ACTION 13

This letter and the enclosure provides information on improvements in the removal sequence and enhancements to the tile silos dismantlement for the Plant 1 Ore Silos Removal Action Work Plan (RAWP), Removal Action 13.

No changes to the current work plan methods are required to complete demolition of the concrete silos (Phases 1 and 2). The sequence has been modified such that dismantlement of the Phase I containment will be completed concurrent with Phase 2 demolition. The proposal for the tile silos (Phases 3, 4, and 5) enhances the current RAWP in areas of worker safety, environmental protection, schedule and cost. All of the safety, environmental controls and air monitoring requirements specified in the existing RAWP remain and are improved. Particularly, a minimum of 7 air exchanges per hour will be maintained in accordance with the NonReactor Nuclear Facilities standards and criteria guide (DOE/TIC-11603 Order). Only the removal sequence will be changed to implement these improvements. This proposal will set up an ongoing process to demolish the tile silos versus the current piecemeal approach.

The Department of Energy, Fernald Field Office (DOE-FN) and Fernald Environmental Restoration Management Corporation (FERMCO) believe that these enhancements are essential to completing this removal action safely, and on or ahead of schedule. Additionally, these enhancements will reduce costs and be more protective of the environment. Highlights of the enhancements explained in the enclosure are listed categorically below.

Recycled and Recyclable

1. Worker Safety

   a. Workers will no longer be subject to working under a "live load".
   b. Temporary scaffolding will now only be required to support the weight of the workers and not the weight of the loaded boxes of debris.
   c. An additional estimated 1000cfm HEPA filter will be added at the point at which the debris enters the boxes.
   d. The requirement for 7 air exchanges per hour will be maintained.

2. Environmental Protection

   a. The outer plastic sheeting will be extended to the ground and with the additional HEPA filter unit will better insure capture of fugitive emissions.
   b. Concurrent work with improved sequencing will result in the threat being removed sooner.

3. Cost and Schedule

   a. Concurrent work on all phases (i.e., both the concrete and tile silos) will result in a safer and faster completion.
   b. Concurrent work and up to 60 days early completion will result in lower costs for equipment and personnel.

4. Engineering and Design - The conceptual design drawings enclosed depict the improvements in sequence, safety and environmental protection.

The next step in implementing these enhancements is the design work. FERMCO and DOE have commenced design of these enhancements and are proceeding with the improvements in the removal sequence. If you have any questions, please contact Mr. Anand Shah at (513) 648-3146.

Sincerely,

Jack R. Craig
Fernald Remedial Action
Project Manager

FN:Shah

Enclosures: 1) Proposed Enhancements to the Plant 1 Ore Silos Removal Action
2) Conceptual Design Drawings

cc w/enc:

K. A. Chaney, EM-424, TREV
D. R. Kozlowski, EM-424, TREV
G. Jablonowski, USEPA-V, AT-18J
J. Kwasniewski, OEPA-Columbus
P. Harris, OEPA-Dayton
M. Proffitt, OEPA-Dayton
T. Schneider, OEPA-Dayton
R. Owen, ODOH
J. Michaels, PRC
L. August, GeoTrans
F. Bell, ATSDR
K. L. Alkema, FERMCO
P. F. Clay, FERMCO/19
S. Disbro, FERMCO/52-5
AR Coordinator, FERMCO

PROPOSED ENHANCEMENTS TO THE PLANT 1 ORE SILOS REMOVAL ACTION

THE FOLLOWING PRESENTS ENHANCEMENTS TO THE REMOVAL ACTION IN KEY AREAS. BELOW IS A ROAD MAP TO THE CURRENT REMOVAL ACTION WORK PLAN AND PROVIDES THE BASIS OF THE IMPROVEMENTS.

No significant changes are proposed to the work on Phase 1 and 2 for the concrete silos. Improvements in safety of the rigging of the concrete silos and installation of the scaffolds will be made during these phases. Since the silos have been removed in the Phase 1 area, this area will be cleaned so that removal of the containment sheeting can be conducted concurrently with Phase 2 activities. No changes will be made in any phase to the air monitoring requirements.

THE INTENT IS TO SET UP AN ONGOING PROCESS VERSUS PIECEMEAL DEMOLITION.

1. Modifications address the safety concern of the present design requiring workers to pull full boxes of debris out from under the silo and the suspended debris slide which is a live load.

   The proposed change is to delete the suspended debris slide and provide a system of collecting the dislodged tiles through the existing cones with the addition of a chute. Gross contamination will be removed from the cones prior to use. The debris is then discharged directly into white metal boxes on the slab. Movement of these boxes will be facilitated by use of a system of rollers, out through an air lock to a fork lift pick up station at the end of the roller system.

Ref. Dwgs.	*93X-5900-M-00059 R.0*	*Mechanical Sections and Details Hoisting Assembly*
	SK-M-0310 (PARSONS)	*Debris Chute*
	SK-M-0311 (PARSONS)	*Revised Material Flow*

2. An additional 1000CFM HEPA filter unit (estimated size) will be in service to filter a primary containment constructed at the debris entry point to the white metal boxes. The filter unit will capture fugitive dust enhancing both worker safety and environmental control. This set-up would be similar to a drumming station.

Ref. Dwg.	*SK-M-0310 (PARSONS)*	*Debris Chute*

3. The requirement for the temporary scaffolding to support both workers and the weight of the loaded boxes will be eliminated by the use of the cones and chutes to remove the tile debris. Scaffolding will now only support the weight of the workers.

4. At least 7 air exchanges per hour will occur in the silo work areas insuring worker safety.

1. The outer plastic sheeting will now be extended to the bottom of the silo areas to better contain fugitive emissions and establish a proper negative air balance to contain these emissions.

Ref. Dwg. 93X-5900-H-00054 R.0 HVAC Plan and Section Tile Silo Containment and proposed sketch

2. The additional HEPA filter in A2 above will also insure lower emissions during demolition. It will discharge into the main containment and be re-filtered through the large HVAC bank which has a regulated stack.

3. By working several areas with concurrent activities we anticipate completing Phases 3, 4 & 5 sixty (60) days sooner, thus removing the threat of release earlier. This new approach addresses removal of multiple silos at once, alters the sequence and speeds the demolition process. This method has the potential to remove up to four silos at one time.

1. Work is expected to start with the completion of the concrete silos in Phase 2 in accordance with the existing work plan sequence. Dismantlement of the Phase 1 containment structure will be completed concurrent with Phase 2 demolition. Work will also commence on the erection of Phases 3, 4, and 5 scaffolding.

   Work will commence simultaneously on Phases 3, 4 and 5 on the removal of Tile Silos. As stated above, the enhanced proposal will work two tile silos at the same time beginning with the four short center silos and progressing to each end to complete the demolition of the remaining four tall tile silos. This is a needed change in sequence to the current Plan and will result in a safer and faster completion.

2. Approximately 60 days will be cut from the overall remediation schedule. Costs will be reduced because of the more efficient demolition and less time required to complete. Better use of equipment will provide savings (i.e. crane.)

D. ENGINEERING/DESIGN

Existing Design

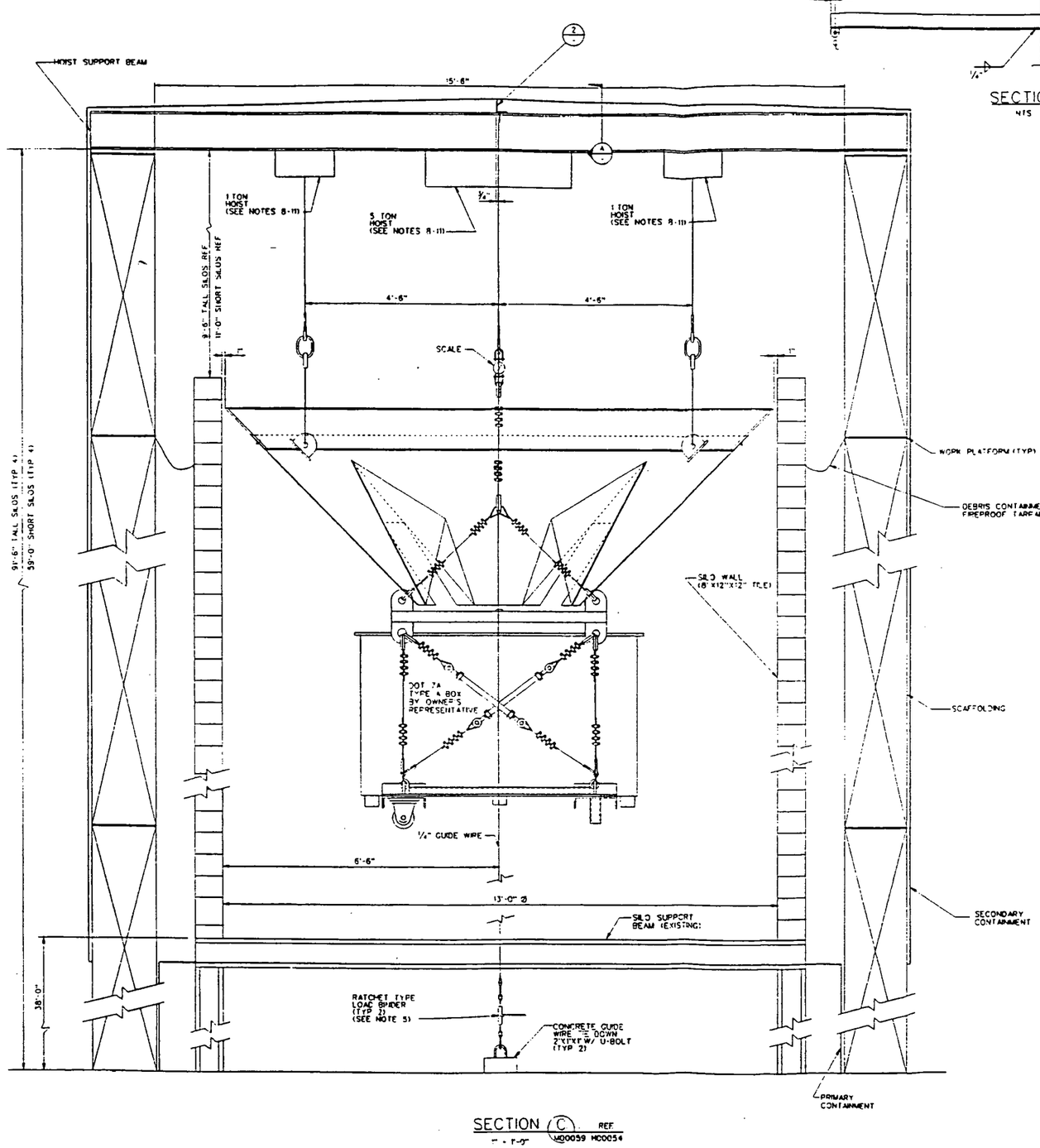
93X-5900-M-00059 R.0	Mechanical Sections and Details Hoisting Assembly
93X-5900-H-00063 R.1	HVAC Ventilation Plan Containment Area
93X-5900-F-00075 R.0	Process Material and Traffic Flow
93X-5900-H-00054 R.0	HVAC Plan and Section Tile Silo Containment

Proposed Design

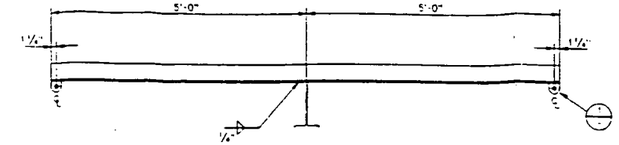
SK-M-0310 (PARSONS)	Debris Chute
Sketch (PARSONS)	(Section showing revised layout)
SK-M-0311 (PARSONS)	Revised Material Flow
Detail A (93X-5900-H-00054 R.0)	HVAC Plan and Section Tile Silo Containment Detail (revised)

ENCLOSURE 2

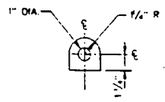
CONCEPTUAL DESIGN DRAWINGS



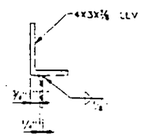
SECTION C REF
1" = 1'-0" M00059 M00054



SECTION A
NTS



DETAIL 1 ROTATED 180°
NTS
(TYP 2)



DETAIL 2
NTS
(TYP 2)

NOTES

1. THE I BEAM, LIFTING LUGS, AND ANGLE SHALL BE CONSTRUCTED OF STRUCTURAL STEEL MEETING ASTM A36.
2. GUIDE CABLE SHALL BE 1/4" DIA. 1X7 SINGLE STRAND CORE OF GALVANIZED STEEL, HAVE A MINIMUM BREAKING STRENGTH OF 3,000 POUNDS, AND CONFORM TO FEDERAL SPECIFICATION RR-W-410.
3. ALL GUIDE WIRE CONNECTIONS SHALL BE FABRICATED WITH 1/4" HEAVY PATTERN GALVANIZED STEEL WIRE ROPE THIMBLES MEETING FEDERAL SPECIFICATION FF-T-276B TYPE III, AN ADEQUATE NUMBER OF 1/4" FORGED STEEL U-BOLT WIRE ROPE CLIPS MEETING FEDERAL SPECIFICATION FF-C-450 TYPE "C" SHALL BE USED TO SUPPORT THE TEST LOAD OF 350 POUNDS. U-BOLT WIRE ROPE CLIPS SHALL BE INSTALLED AND TORQUED AS PER MANUFACTURER'S INSTRUCTIONS.
4. SCALE FABRICATION AND TESTING SHALL CONFORM TO SAE J 376-85 (LOAD INDICATING DEVICES IN LIFTING CRANE SERVICES). THE SCALE SHALL HAVE A 10" DIAL, 10,000 POUND CAPACITY, AN ACCURACY OF 0.5% OF FULL SCALE, INCLUDE SHACKLES WITH PINS, AND HAVE PROOF OF CALIBRATION.
5. THE RATCHET TYPE LOAD BINDER SHALL HAVE A MINIMUM WORKING LOAD LIMIT OF 1,000 POUNDS, BE CONSTRUCTED OF GALVANIZED STEEL, AND HAVE A 15' MINIMUM CHAIN TAKE UP LENGTH.
6. ALL WELDING SHALL BE IN ACCORDANCE WITH AMERICAN WELDING SOCIETY (AWS) D1.1-90. INSPECTION SHALL BE 100% VISUAL IN ACCORDANCE WITH D1.1, SECTION 6. ON SITE WELDING SHALL BE DONE IN ACCORDANCE WITH FWPC 2092.
7. PRIMARY CONTAINMENT SHALL BE SUPPORTED BY THE SCAFFOLDING AND SHALL BE ATTACHED TO THE STEEL FRAMING AT ELEVATION 623'-0" AND GRADE.
8. ALL HOISTS SHALL BE DESIGNED AND MANUFACTURED IN ACCORDANCE WITH UNDERWRITERS LABORATORIES (UL) 1323-85 (SCAFFOLD HOISTS).
9. SUBMIT HOIST PERFORMANCE DATA, SHOP DRAWINGS, INSTALLATION MANUALS, OPERATION MANUALS, AND MAINTENANCE INSTRUCTIONS.
10. THE HOISTS SHALL MEASURE NO MORE THAN 48" FROM LOWER TREAD WHEEL TO HOOK SADDLE.
11. THE HOISTING EQUIPMENT SHALL INCLUDE THE SUPPORT BEAM AND MEET OR EXCEED THE FOLLOWING REQUIREMENTS:

A. CAPACITY RATING	5 TON	1 TON
B. QUANTITY	1	2
C. LIFTING SPEED	40/20 FPM, MAX	10 FPM, MAX
D. TRUE VERTICAL LIFT REQUIRED	YES	YES
E. MAXIMUM LIFT	100 FT	60 FT
F. TROLLEY SPEED	15 FPM, MAX	15 FPM, MAX
G. MOTOR & TROLLEY BRAKING REQUIRED	YES	YES
H. ELECTRICAL ENCLOSURE	NEMA 3R	NEMA 3R
I. CONTROL STATION	PENDANT DROP OR REMOTE	PENDANT DROP OR REMOTE
J. POWER REQUIRED	240/480 VAC 3 PHASE	240/480 VAC 3 PHASE
K. DUTY CLASS	H-4	H-4

REFERENCE DWG.*	REFERENCE DWG. TITLE
93X-5900-M-00060	ASSEMBLY AND DETAILS - LIFTING SKID
93X-5900-M-00061	SECTIONS & DETAILS - DEBRIS SLIDE
93X-5900-M-00055	PLAN - DEBRIS CONTAINMENT
93X-5900-M-00054	PLAN AND SECTIONS - TILE SILO CONTAINMENT
93X-5900-X-00071	DRAWING INDEX

REV.	REVISION NUMBER - DESCRIPTION	BY	DATE
0	CERTIFIED FOR CONSTRUCTION		

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS
THE RALPH M. PARSONS CO. - CHAS. T. MAIN, INC. - ENGINEERING-SCIENCE, INC.
CINCINNATI, OHIO

PROJECT TITLE
PLANT 1 ORE SILOS REMOVAL ACTION
OU3/P022

DRAWING TITLE
MECHANICAL
SECTIONS AND DETAILS
HOISTING ASSEMBLY

DRAWN BY: G. SECKLER — DATE: 7/19/99 — CHECKED BY: — DATE: 5/6/02 — APPROVED BY: G. JOHNSON — DATE: 1/31/02
PLANT 1 ORE SILOS — SCALE: AS SHOWN — CLASS:
SUBMITTED FOR APPROVAL — DATE — DRAWING CONTRACTOR — DATE — DOE — DATE
DOE PROJECT NO. 00-90701 — WBS 1.1.1.2.2.6 — DRAWING NO. 93X-5900-M-00059 — SHEET NO. M0012 — REV. NO. 0

EXISTING DESIGN

5688

000010

PARSONS ERA PROJECT

CALCULATION SHEET

PRELIMINARY
NOT FOR CONSTRUCTION

DWG. NO. SK-M-0310

REV	DATE	BY	CK
	3/10/94		
B	3/15/94	DCO	KST
C	3/16/94	DCO	KST

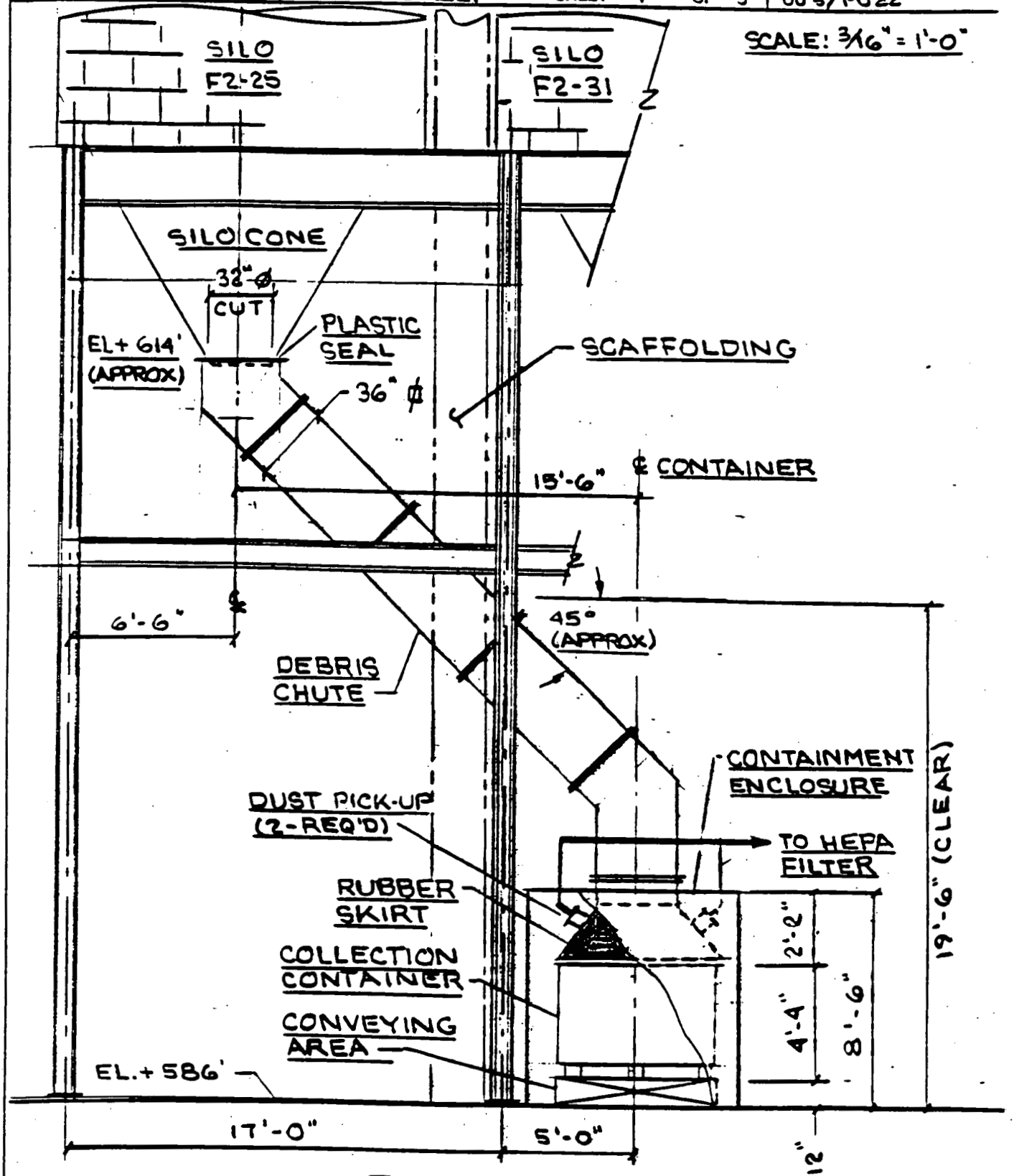
TITLE PLANT 1 ORE SILOS
REMOVAL ACTION
(PROPOSED TILE SILO DEMOLITION)

AUTHOR D. O'KEEF SHEET 1 OF 3

PAGE NUMBER 5688

COST CENTER OU3/P022

SCALE: 3/16" = 1'-0"



ELEVATION

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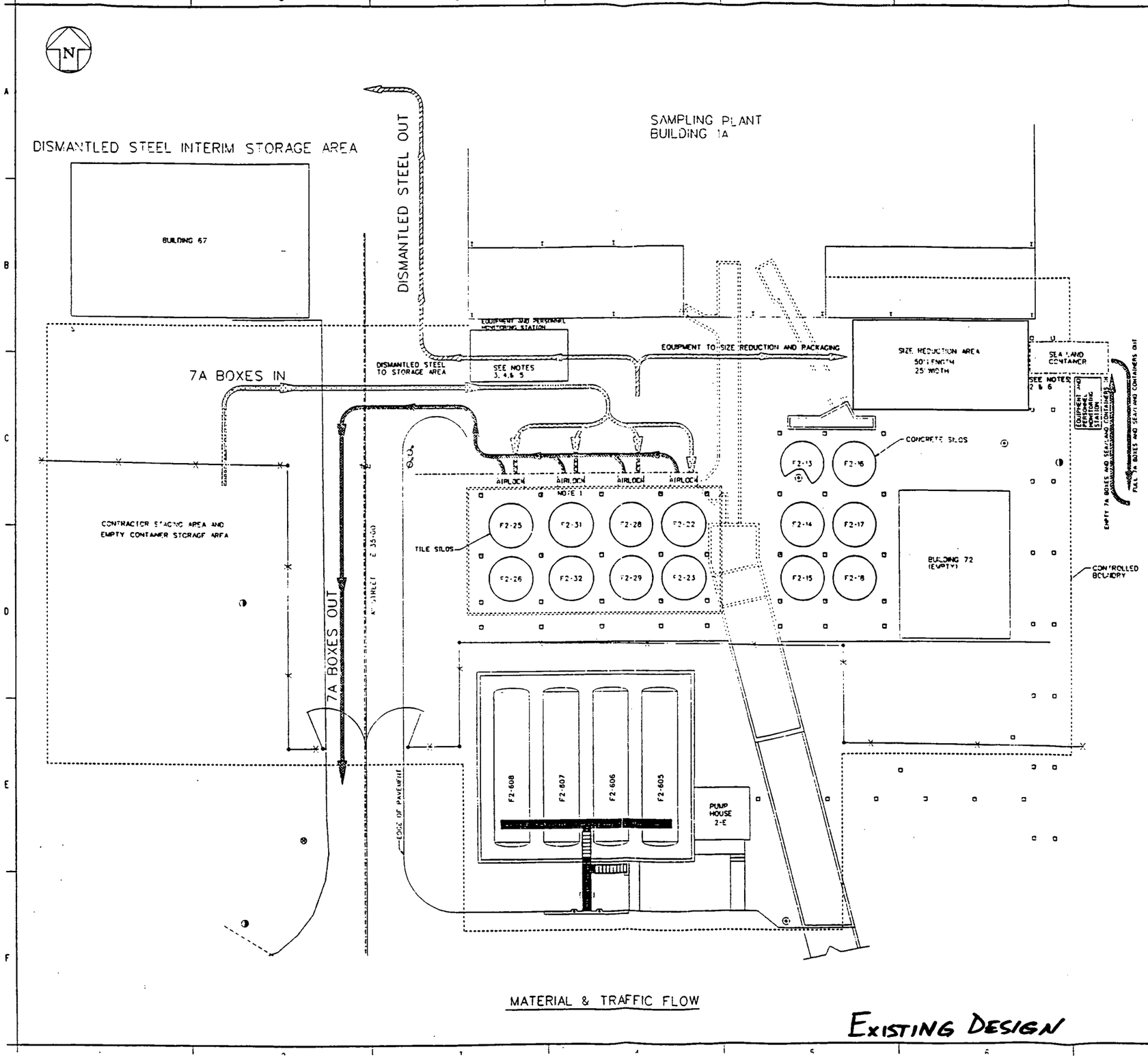
ENG.021(03/91)



MATERIAL & TRAFFIC FLOW

EXISTING DESIGN

NOTES

1. CONTRACTOR RESPONSIBLE FOR FILLING 7A BOXES AND MOVEMENT INSIDE AIR LOCK. OWNER'S REPRESENTATIVE RESPONSIBLE FOR VERIFYING CONTENTS, AND REMOVING FILLED BOXES FROM AIR LOCK.
2. OWNER'S REPRESENTATIVE RESPONSIBLE FOR MOVEMENT OF ALL CONTAINERS OUTSIDE THE CONTAINMENT AREAS.
3. CONTRACTOR IS RESPONSIBLE FOR STRUCTURAL STEEL MOVEMENT TO THE INTERIM STORAGE AREA AND THE SIZE REDUCTION FACILITY.
4. ALL STEEL PIECES WILL BE SIZE REDUCED TO A MAXIMUM OF 19' LENGTH ON PAD BETWEEN PLANT 1 AND TILE SILOS.
5. ALL PROCESS EQUIPMENT WILL BE MOVED TO THE SIZE REDUCTION FACILITY. ALL OPENINGS ON EQUIPMENT WILL BE SEALED BEFORE REMOVAL FROM STRUCTURE.
6. OWNER'S REPRESENTATIVE IS RESPONSIBLE FOR VERIFYING CONTENTS OF, AND REMOVAL OF FULL SEA/LAND CONTAINER.
7. OWNER'S REPRESENTATIVE IS RESPONSIBLE FOR PREPARING AND MOVING EMPTY SEA/LAND CONTAINER TO THE EAST END OF THE SIZE REDUCTION BUILDING.

5688

REFERENCE DWG.#	REFERENCE DWG. TITLE
93X-5900-X-00071	DRAWING INDEX
93X-5900-F-00079	FLOW DIAGRAM - SEQUENCE OF REMOVAL
93X-5900-F-00074	DECISION TREE - MATERIAL DISPOSITION
93X-5900-F-00076	MATERIAL FLOW - SIZE REDUCTION BUILDING

REV NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	APPROVED	DOE
0	CERTIFIED FOR CONSTRUCTION			

UNITED STATES
DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

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CINCINNATI, OHIO

PROJECT NAME
PLANT 1 ORE SILOS REMOVAL ACTION
OU3/P022

DRAWING TITLE
PROCESS
MATERIAL AND TRAFFIC FLOW

DRAWN BY	DATE	DESIGNED/CHECKED BY	DATE	CHECKED BY	DATE
H. CARTER	2-3-92			H. HEIDKAMP	2-14-92

PLANT/BLDG NO	FLOOR	SCALE	CLASS
PLANT 1 ORE SILOS		NONE	

SUBMITTED FOR APPROVAL — APPROVAL RECOMMENDED — DRAWING APPROVED

DOE PROJECT NO.	OPER. CONTR. PROJ. NO.	DRAWING NO.	SHEET NO.	REV NO.
	WBS 1.1.1.1.2.6 00-90701	93X-5900-F-00075	F0003	0

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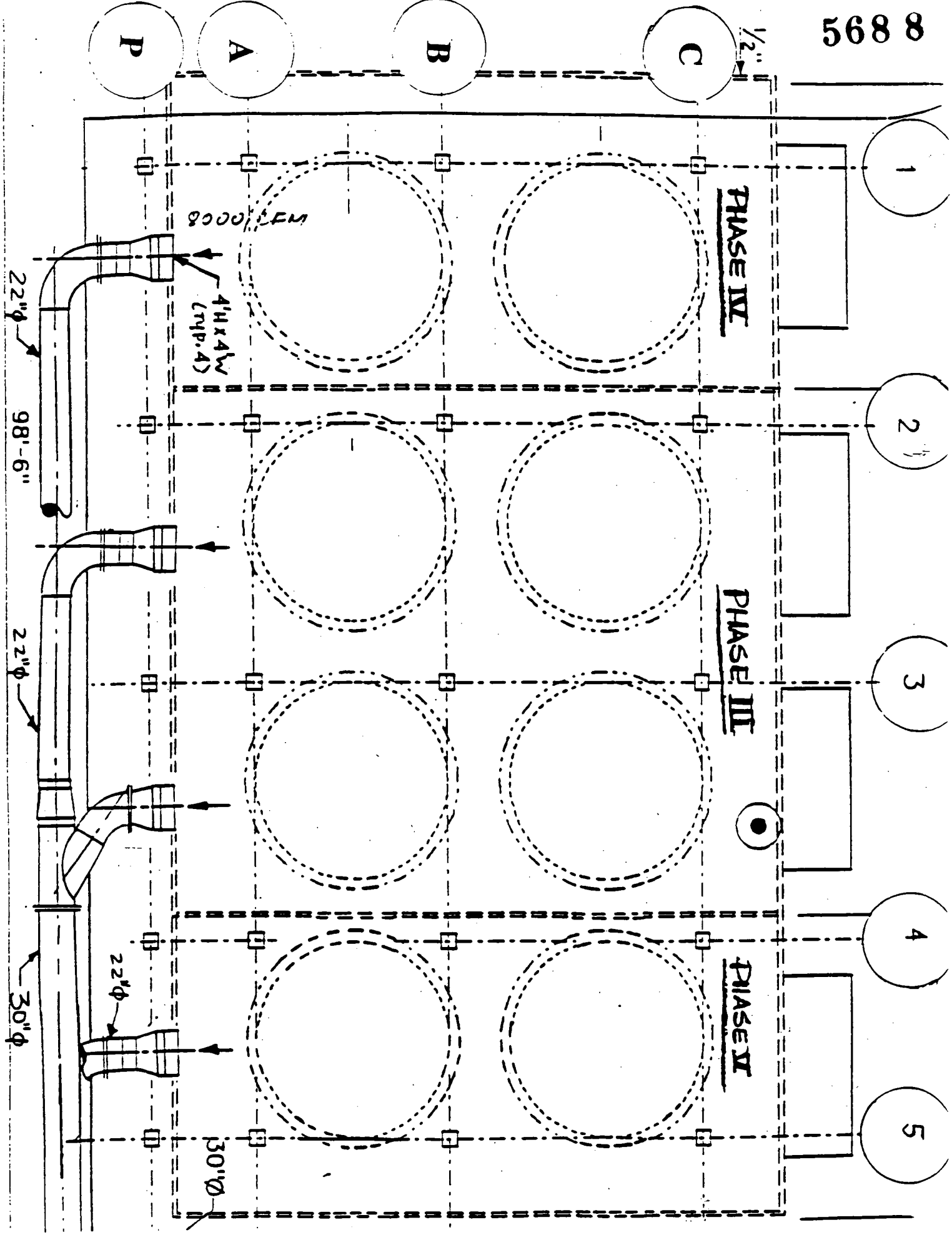

Proposed Detail A

REF. 93X-5900-H-00063

5688

PARSONS
ERA PROJECT

CALCULATION SHEET

PRELIMINARY
NOT FOR CONSTRUCTION

DWG. NO. SK-M-0311

REV	DATE	BY	CK
—	3/10/94		
B	3/15/94	DCO	KST

TITLE PLANT 1 ORE SILOS REMOVAL ACTION (PROPOSED TILE SILO DEMOLITION)

AUTHOR D. O'KEEF SHEET 2 OF 3

PAGE NUMBER

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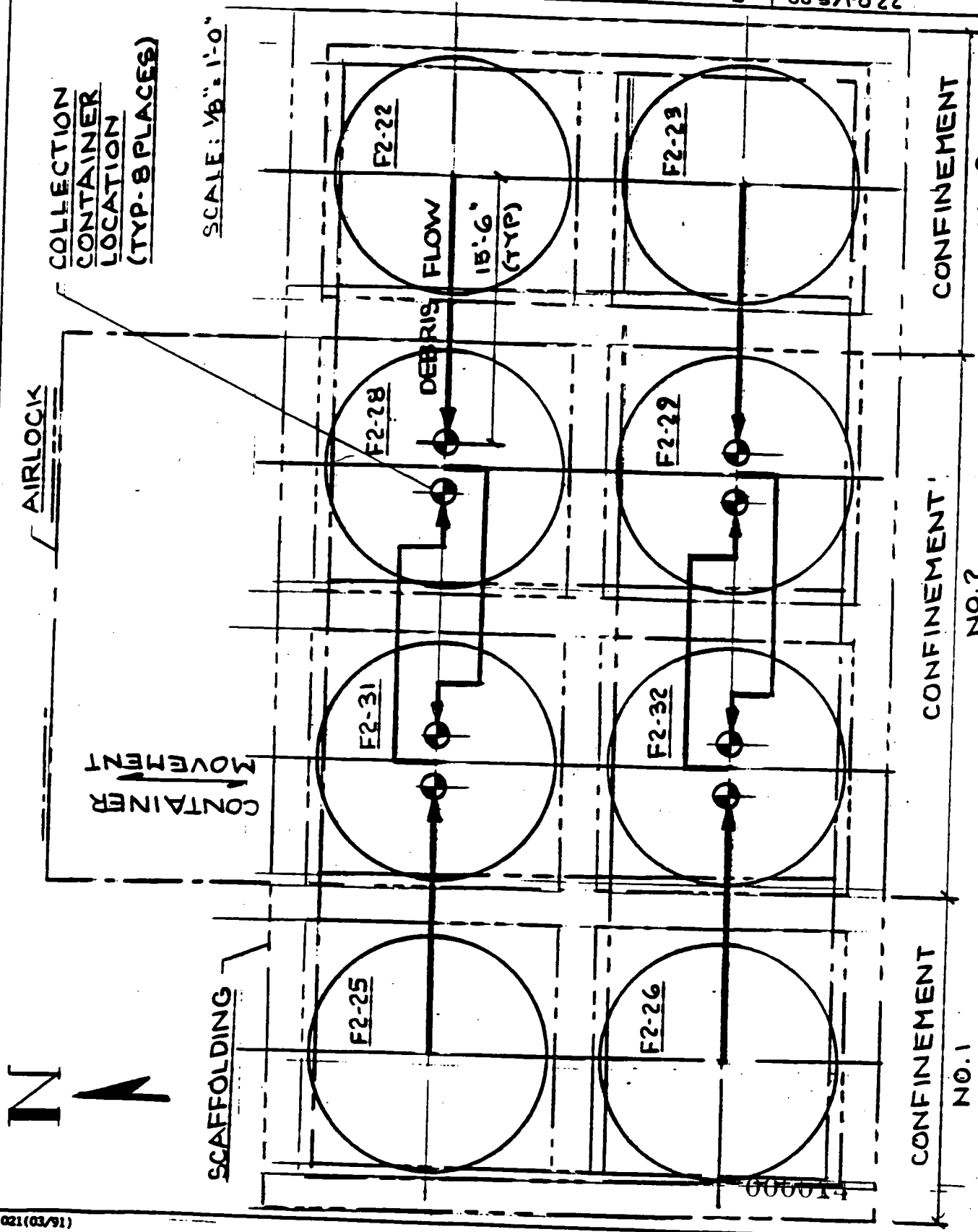
OU 3/P022



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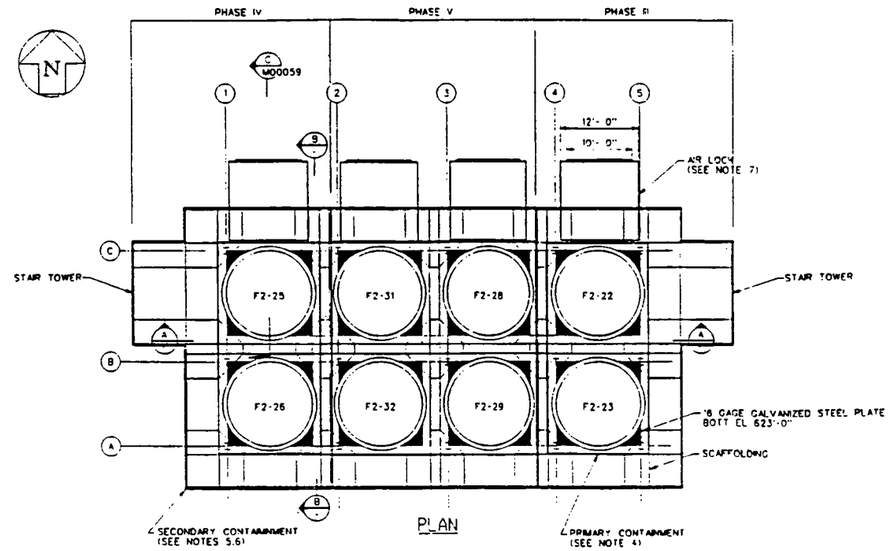
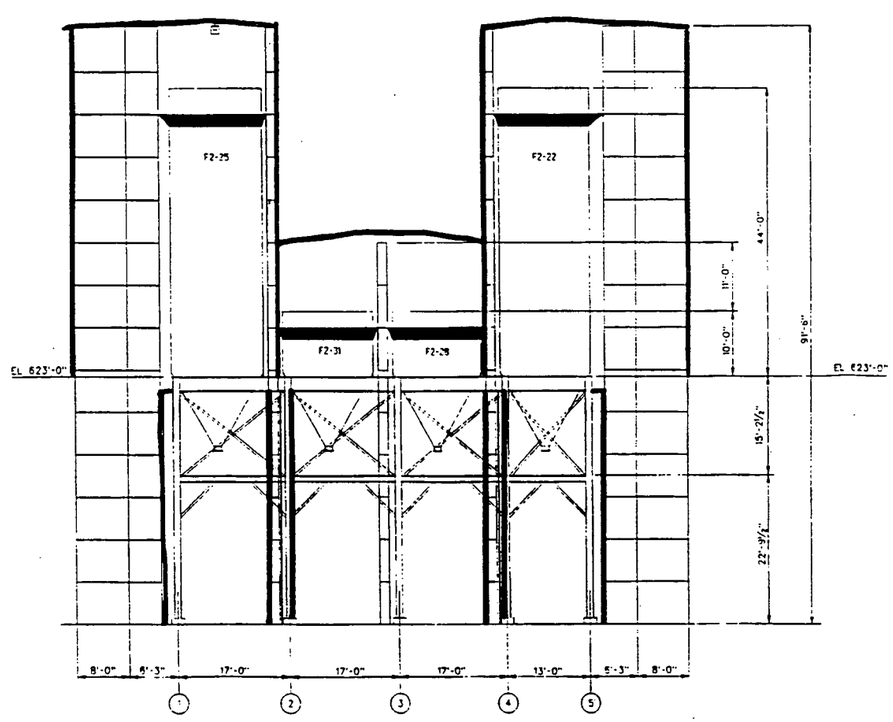
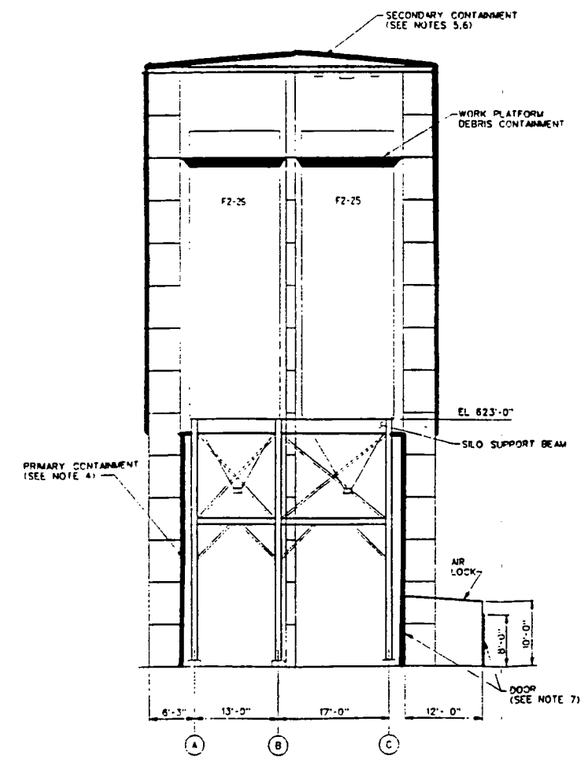
ENG.021(03/91)



PLAN



SECTION A



SECTION B

EXISTING DESIGN

NOTES

1. ALL CONTAINMENT BARRIERS SHALL BE CONSTRUCTED OF CLEAR REINFORCED WOVEN POLYETHYLENE SHEETING MEETING NFPA 701-89, HAVE A THICKNESS OF .006", AND A MINIMUM TENSILE AND TEAR STRENGTH OF 85 PSI AND 25 PSI RESPECTIVELY.
2. THE PRIMARY CONTAINMENT, SECONDARY CONTAINMENT, AND AIR LOCK SHALL BE IN PLACE ON THE SILO GROUP(S) UNDER DISMANTLING.
3. CONNECTIONS SHALL BE MADE USING ROPE, WIRE, DUCT TAPE, OR CLAMPS. ALL CONNECTIONS AND REINFORCING MATERIALS SHALL BE PROVIDED BY THE CONTRACTOR. CONNECTIONS SHALL BE ABLE TO WITHSTAND AN 85 MPH WIND.
4. THE PRIMARY CONTAINMENT SHALL BE SUPPORTED BY THE INSIDE OF THE SCAFFOLDING AND ENCLOSE THE STRUCTURE FROM THE GROUND TO THE SILO SUPPORT BEAM.
5. THE SECONDARY CONTAINMENT SHALL ENCLOSE THE SCAFFOLDING DOWN TO THE STEEL FRAMING AT EL 623'-0".
6. THE SECONDARY CONTAINMENT SHALL HAVE A MINIMUM ROOF SLOPE OF ¼" PER FOOT.
7. THE AIRLOCK DOORS SHALL BE CONSTRUCTED OF 16" WIDE CLEAR VINYL STRIPS MEETING NFPA 701-89, HAVE A 75% OVERLAP, AND A THICKNESS OF .150".

REFERENCE DWG.#	REFERENCE DWG. TITLE
93X-5900-M-00059	SECTIONS AND DETAILS - HOISTING ASSEMBLY
93X-5900-M-00065	PLAN - DEBRIS CONTAINMENT
93X-5900-X-00071	DRAWING INDEX

REV NO	ISSUE OR REVISION PURPOSE DESCRIPTION	A/C	OPERATOR	DOE
B	CERTIFIED FOR CONSTRUCTION		255	

INITIALS AND DATE

UNITED STATES
DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS
THE RALPH M. PARSONS CO. - CHAS. T. MAIN, INC. - ENGINEERING-SCIENCE, INC.
CINCINNATI, OHIO

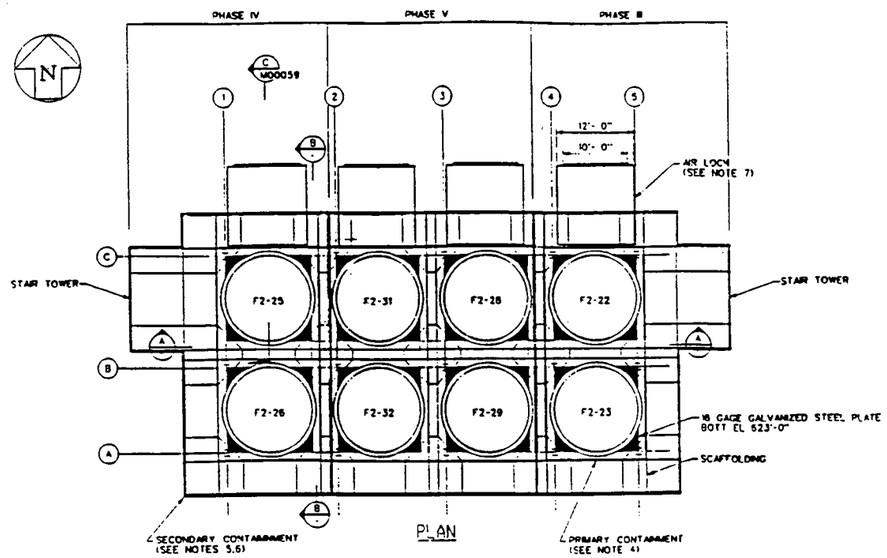
PROJECT NAME
PLANT 1 ORE SILOS REMOVAL ACTION
OU3/P022

DRAWING TITLE
HVAC
PLAN AND SECTIONS
TILE SILO CONTAINMENT

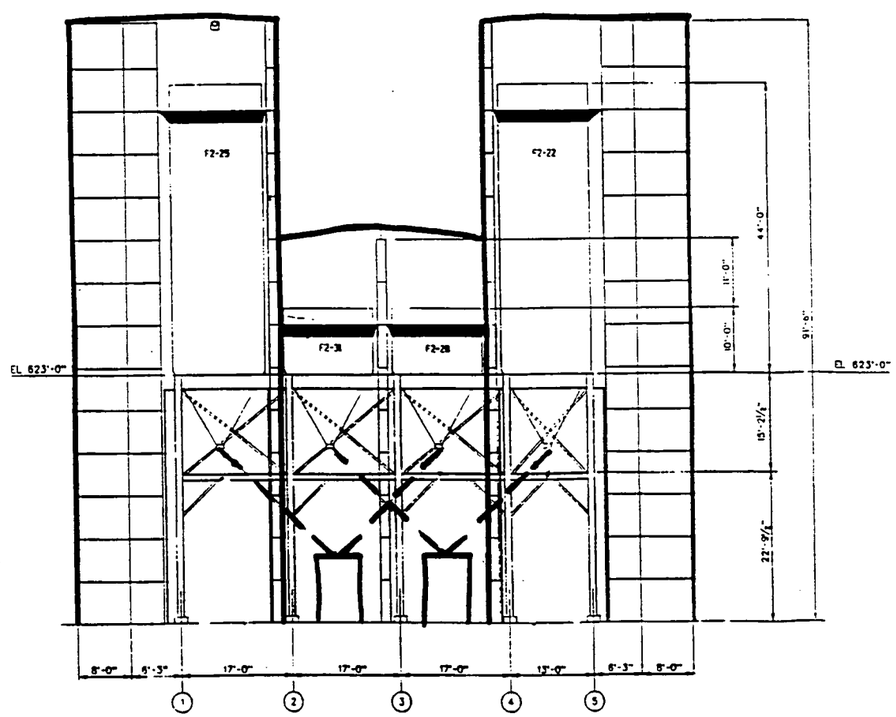
G. SECHLER	10/03/91	6/6/91	G. JOHNSON	1/21/92
PLANT 1 ORE SILOS			⅛"=1'-0"	
5/6/92	5/6/92			

WRS 1.1.1.1.3.2.6	93X-5900-H-00054	H0007	0

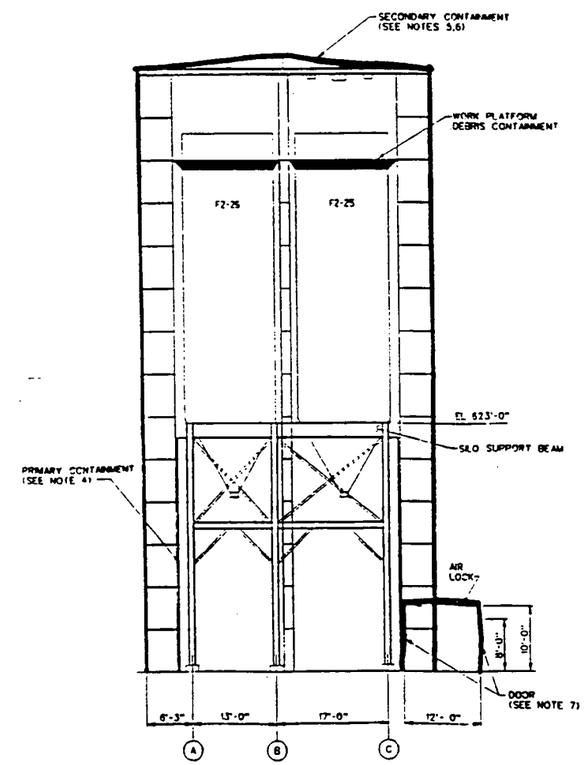
000015



PLAN



SECTION A



SECTION B

PROPOSED DESIGN

NOTES

1. ALL CONTAINMENT BARRIERS SHALL BE CONSTRUCTED OF CLEAR REINFORCED WOVEN POLYETHYLENE SHEETING MEETING NFPA 701-89, HAVE A THICKNESS OF .006", AND A MINIMUM TENSILE AND TEAR STRENGTH OF 85 PSI AND 25 PSI RESPECTIVELY.
2. THE PRIMARY CONTAINMENT, SECONDARY CONTAINMENT, AND AIR LOCK SHALL BE IN PLACE ON THE SILO GROUP(S) UNDER DISMANTLING.
3. CONNECTIONS SHALL BE MADE USING ROPE, WIRE, DUCT TAPE, OR CLAMPS. ALL CONNECTIONS AND REINFORCING MATERIALS SHALL BE PROVIDED BY THE CONTRACTOR. CONNECTIONS SHALL BE ABLE TO WITHSTAND AN 85 MPH WIND.
4. THE PRIMARY CONTAINMENT SHALL BE SUPPORTED BY THE INSIDE OF THE SCAFFOLDING AND ENCLOSE THE STRUCTURE FROM THE GROUND TO THE SILO SUPPORT BEAM.
5. THE SECONDARY CONTAINMENT SHALL ENCLOSE THE SCAFFOLDING DOWN TO THE STEEL FRAMING AT EL 623'-0".
6. THE SECONDARY CONTAINMENT SHALL HAVE A MINIMUM ROOF SLOPE OF 1/4" PER FOOT.
7. THE AIRLOCK DOORS SHALL BE CONSTRUCTED OF 16" WIDE CLEAR VINYL STRIPS MEETING NFPA 701-89, HAVE A 75% OVERLAP, AND A THICKNESS OF .150"

REFERENCE DWG.#	REFERENCE DWG. TITLE
93X-5900-M-00059	SECTIONS AND DETAILS - HOISTING ASSEMBLY
93X-5900-M-00065	PLAN - DEBRIS CONTAINMENT
93X-5900-X-00071	DRAWING INDEX

REV. NO.	REVISION PURPOSE DESCRIPTION	DRAWN	CHK	DATE
0	CERTIFIED FOR CONSTRUCTION			

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS
THE RALPH M. PARSONS CO. - CHAS. T. MAIN, INC. - ENGINEERING-SCIENCE, INC.
CINCINNATI, OHIO

PROJECT TITLE
PLANT 1 ORE SILOS REMOVAL ACTION
OU3/PO22

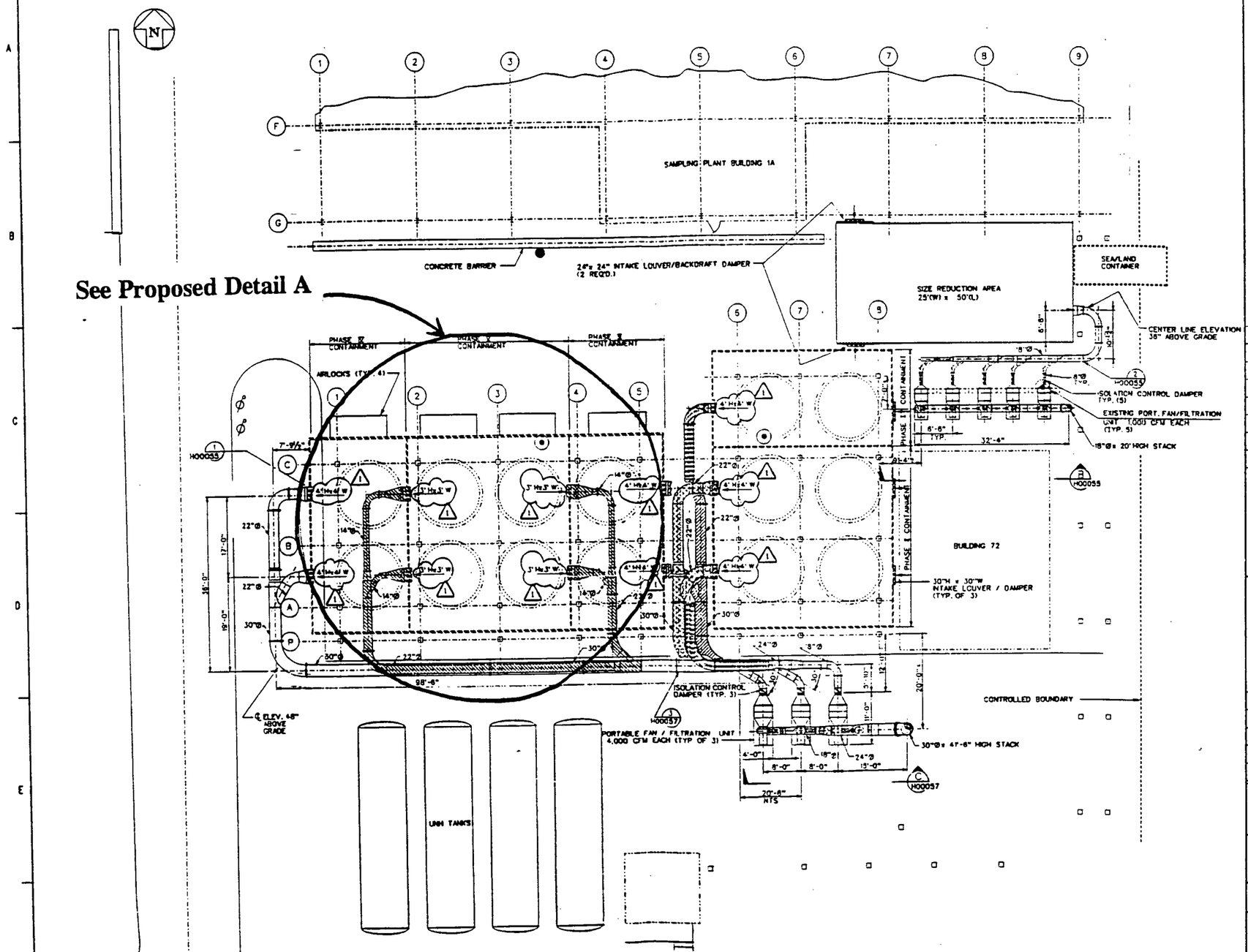
DRAWING TITLE
HVAC
PLAN AND SECTIONS
TILE SILO CONTAINMENT

DRAWN BY G. SEDLER — DATE 10/28/92 — CHECKED BY G. JOHNSON — DATE 1/28/92
PLANT 1 ORE SILOS — SCALE 1/8"=1'-0"
SUBMITTED FOR APPROVAL — DATE 5/6/92
DATE 5/6/92

VBS 1111326 00-90701 — 93X-5900-H-00054 — H0007 — 0

000016

5688



PLANT 1 ORE SILOS REMOVAL - VENTILATION PLAN

SCALE 1/8" = 1'-0"

EXISTING DESIGN

NOTES

1. ALL DUCTWORK TO BE CONSTRUCTED IN ACCORDANCE WITH SECTION 02090 OF SPECIFICATIONS.
2. THERE WILL BE (1) DUCT SUPPORT EVERY 10 FEET AT A MINIMUM.
3. ALL DUCTWORK WILL HAVE TO BE COORDINATED WITH LOCATIONS OF SCAFFOLDING TO AVOID POSSIBLE INTERFERENCE.

5688

REFERENCE DWG.#	REFERENCE DWG. TITLE
93X-5900-H-00052	VENTILATION SCH. SYSTEM-TILE & CONC. SILOS
93X-5900-H-00053	VENTILATION SCH. DIAGRAM-SIZE RED. AREA
93X-5900-H-00055	SECTIONS & DETAILS-VENTILATION DUCT
93X-5900-H-00057	DUCT SECT. & DETAILS-VENTILATION DUCT
93X-5900-X-00071	DRAWING INDEX

LEGEND

- PHASE I EXHAUST DUCTWORK ARRANGEMENT
- PHASE I EXHAUST DUCTWORK ARRANGEMENT
- PHASE III EXHAUST DUCTWORK ARRANGEMENT
- PHASE IV EXHAUST DUCTWORK ARRANGEMENT
- PHASE V EXHAUST DUCTWORK ARRANGEMENT

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	INITIALS AND DATE
1	REVISED PER CLARIFICATION REQUEST #10	
0	CERTIFIED FOR CONSTRUCTION	OBA RSS 5-6-92

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CINCINNATI, OHIO

PROJECT NAME
PLANT 1 ORE SILOS REMOVAL ACTION
OU3/PO22

DRAWING TITLE
HVAC
VENTILATION PLAN
CONTAINMENT AREA

DRAWN BY	DATE	DESIGNED/CHECKED BY	DATE	CHECKED BY	DATE
D.L.DUNN	03/15/92			J. WILLIAMS	03/25/92

PLANT/BLDG. NO.: PLANT 1 ORE SILOS
FLOOR:
SCALE: 1/8"=1'-0"
CLASS:

SUBMITTED FOR APPROVAL: O.B. ADAMS 5-6-92
APPROVAL RECOMMENDED: R.S. SHIRLEY 5-6-92
OPERATING CONTRACTOR DATE

CODE PROJECT NO.	OPER. CONTR. PROJ. NO.	DRAWING NO.	SHEET NO.	REV. NO.
	WBS 1.1.1.1.3.2.8 00-90701	93X-5900-H-00063	H0005	1

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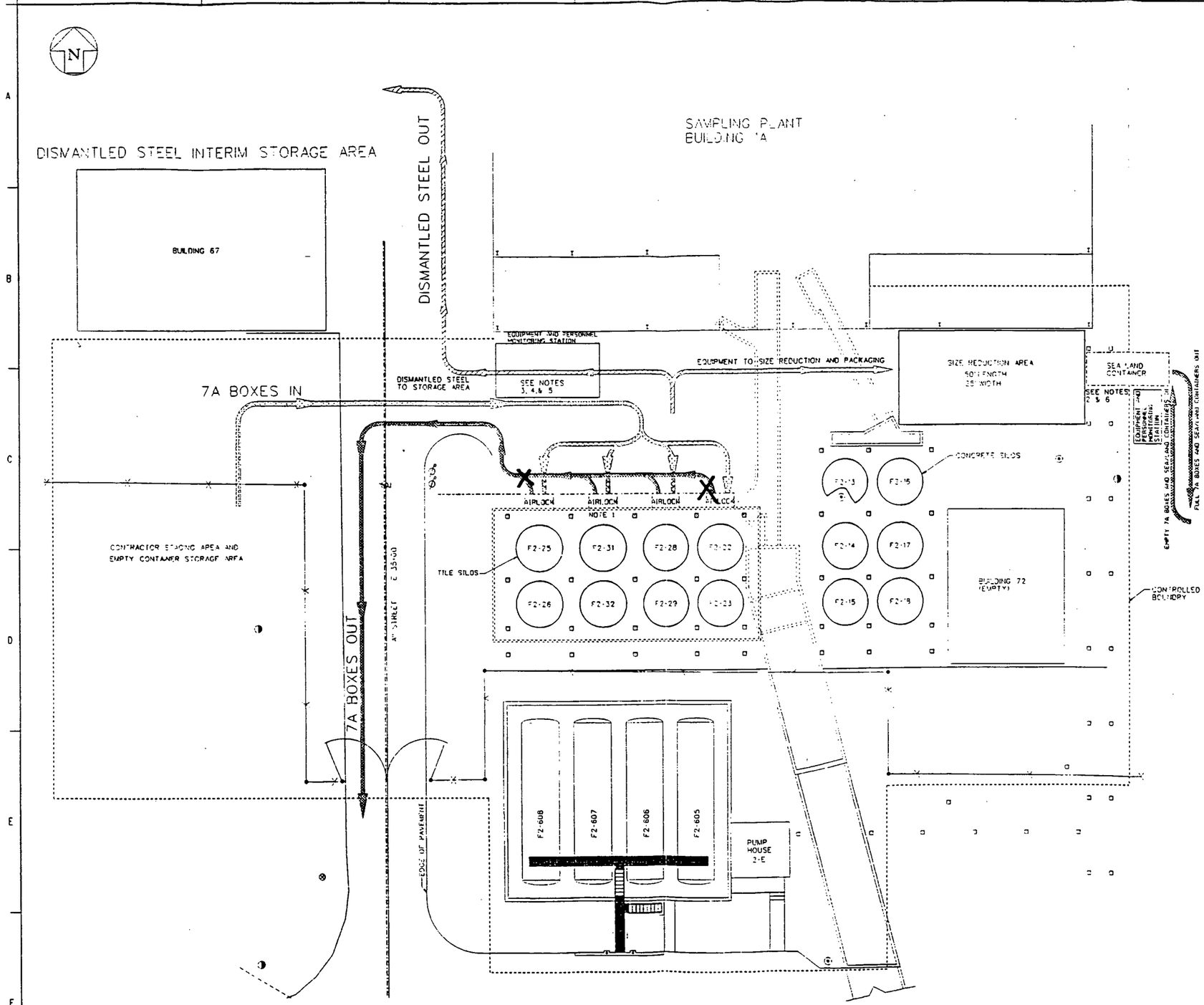

MATERIAL & TRAFFIC FLOW

PROPOSED DESIGN

NOTES

1. CONTRACTOR RESPONSIBLE FOR FILLING 7A BOXES AND MOVEMENT INSIDE AIR LOCK. OWNER'S REPRESENTATIVE RESPONSIBLE FOR VERIFYING CONTENTS, AND REMOVING FILLED BOXES FROM AIR LOCK.
2. OWNER'S REPRESENTATIVE RESPONSIBLE FOR MOVEMENT OF ALL CONTAINERS OUTSIDE THE CONTAINMENT AREAS.
3. CONTRACTOR IS RESPONSIBLE FOR STRUCTURAL STEEL MOVEMENT TO THE INTERIM STORAGE AREA AND THE SIZE REDUCTION FACILITY.
4. ALL STEEL PIECES WILL BE SIZE REDUCED TO A MAXIMUM OF 19' LENGTH ON PAD BETWEEN PLANT 1 AND TILE SILOS.
5. ALL PROCESS EQUIPMENT WILL BE MOVED TO THE SIZE REDUCTION FACILITY. ALL OPENINGS ON EQUIPMENT WILL BE SEALED BEFORE REMOVAL FROM STRUCTURE.
6. OWNER'S REPRESENTATIVE IS RESPONSIBLE FOR VERIFYING CONTENTS OF, AND REMOVAL OF FULL SEA/LAND CONTAINER.
7. OWNER'S REPRESENTATIVE IS RESPONSIBLE FOR PREPARING AND MOVING EMPTY SEA/LAND CONTAINER TO THE EAST END OF THE SIZE REDUCTION BUILDING.

REFERENCE DWG.#	REFERENCE DWG. TITLE
93X-5900-X-00071	DRAWING INDEX
93X-5900-F-00079	FLOW DIAGRAM - SEQUENCE OF REMOVAL
93X-5900-F-00074	DECISION TREE - MATERIAL DISPOSITION
93X-5900-F-00076	MATERIAL FLOW - SIZE REDUCTION BUILDING

REV NO	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	DRAWN	CHK
0	CERTIFIED FOR CONSTRUCTION			

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THE RALPH M. PARSONS CO. - CHAS. T. MAIN, INC. - ENGINEERING-SCIENCE, INC.
CINCINNATI, OHIO

PROJECT NAME
PLANT 1 ORE SILOS REMOVAL ACTION
OU3/P022

DRAWING TITLE
PROCESS
MATERIAL AND TRAFFIC FLOW

DRAWN BY	DATE	CHECKED BY	DATE	CHECKED BY	DATE
M. CARTER	2-3-92	[signature]	5/6/92	H. HEIDKAMP	2-14-92

PLANT/BLDG NO	FLOOR	SCALE	CLASS
PLANT 1 ORE SILOS		NONE	

SUBMITTED FOR APPROVAL: [signature] 5/6/92
APPROVAL RECOMMENDED: [signature] 5/6/92
OPERATING CONTRACTOR DATE
DRAWING APPROVED: DOE DATE

DOE PROJECT NO	DATE	DRAWING NO	SHEET NO	REV NO
WBS 1.1.1.1.3.2.6 00-90701		93X-5900-F-00075	F0003	0

000018

PARSONS
ERA PROJECT

CALCULATION SHEET

PRELIMINARY
NOT FOR CONSTRUCTION

DWG. NO. SK-M-0312

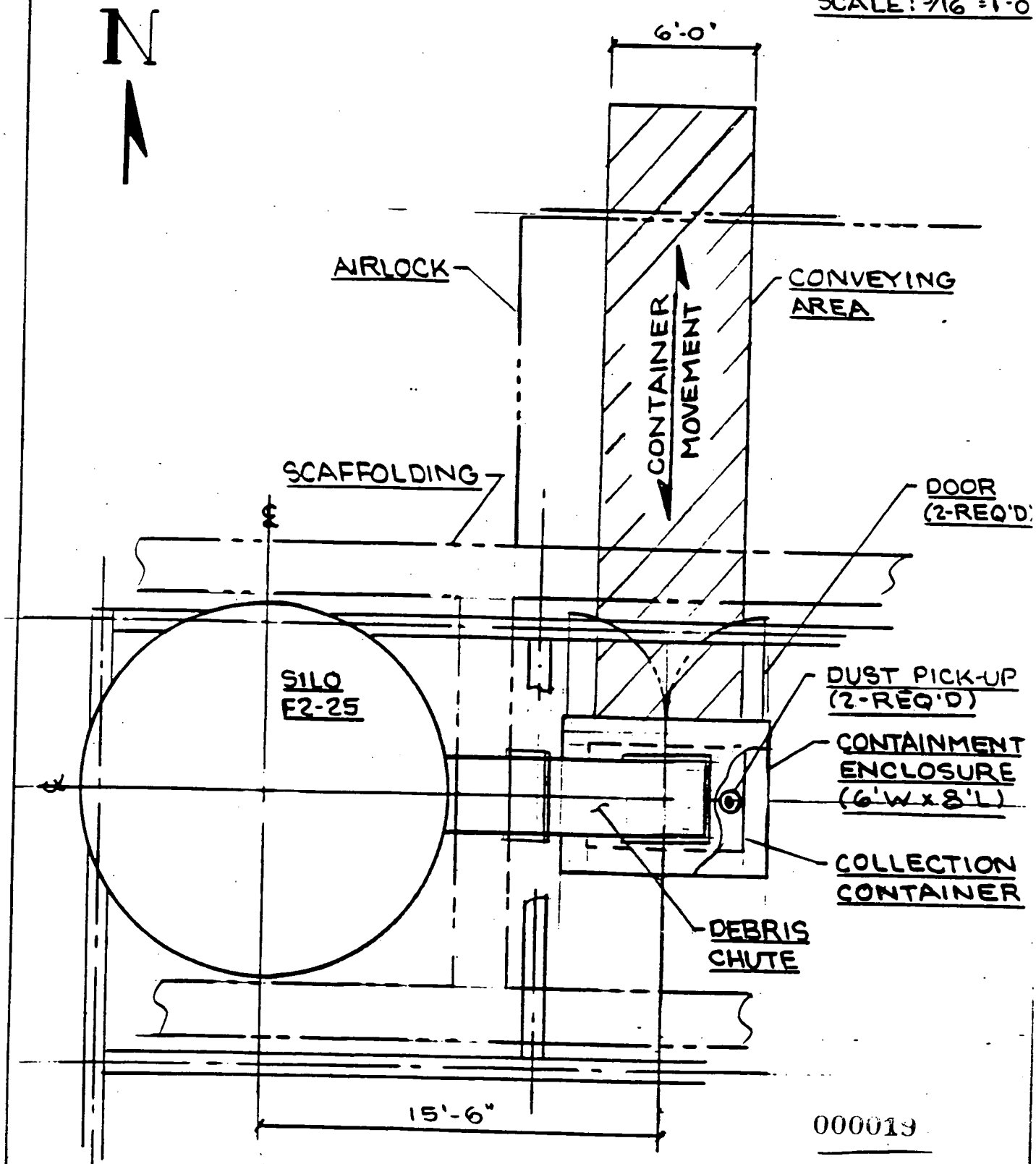
REV	DATE	BY	CK
A	3/15/94	DCO	KST
B	3/16/94	DCO	KST

TITLE PLANT 1 ORE SILOS REMOVAL ACTION (PROPOSED TILE SILO DEMOLITION)

AUTHOR D. O'KEEF SHEET 3 OF 3

PAGE NUMBER

COST CENTER

OU 3/P022

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