

7777

G-000-1005.114

**AGENDA, HANDOUTS, TENTATIVE UPCOMING SCHEDULE FROM MAY
7, 1996 DOE-FN COMMUNITY MEETING HELD AT THE PLANTATION**

05/07/96

**DOE-FN PUBLIC
50
HANDOUTS**



TENTATIVE PUBLIC MEETINGS / AVAILABILITY SESSIONS FOR 1996

FERNALD

<p>JANUARY</p> <ul style="list-style-type: none"> • OU2/OSDF - Jan. 24 • FRESH - Jan. 25 • D&D Technology Availability Session - Jan. 25 (3 - 5 p.m.) 	<p>FEBRUARY</p> <ul style="list-style-type: none"> • Site Technology Coordination Group (STCG) - Feb. 9 • Task Force OSDF Design Wksp. - Feb. 10 	<p>MARCH</p> <ul style="list-style-type: none"> • Task Force - Mar. 9 • FRESH - Mar. 28
<p>APRIL</p> <ul style="list-style-type: none"> • OU3 Public Meeting - Apr. 23 	<p>MAY</p> <ul style="list-style-type: none"> • DOE Community Mtg. - May 7 • STCG Meeting - May 14, 5:15 p.m. • FRESH - May 23 • CRO Public Workshop - May 28 	<p>JUNE</p> <ul style="list-style-type: none"> • Task Force - Jun. 8 • On-Site Disposal Facility Recycling/Reuse Roundtable (TBD)
<p>JULY</p> <ul style="list-style-type: none"> • FRESH - Jul. 25 • First CRO Meeting (TBD) 	<p>AUGUST</p> <ul style="list-style-type: none"> • DOE Community Mtg. (TBD) • On-Site Disposal Facility (TBD) 	<p>SEPTEMBER</p> <ul style="list-style-type: none"> • Task Force - Sept. 14 • FRESH - Sept. 26
<p>OCTOBER</p> <ul style="list-style-type: none"> • CRO (TBD) • 	<p>NOVEMBER</p> <ul style="list-style-type: none"> • FRESH - Nov. 21 • DOE Community Mtg. (TBD) • 	<p>DECEMBER</p> <ul style="list-style-type: none"> • Task Force - Dec. 14 •

Priority	Activity Description	ADS	FY98	Cumulative
1	Environmental Compliance	OHFN8B1	2,038	2,038
2	Senior Management	OHFN8B1	3,294	5,332
3	Public Affairs	OHFN8B1	1,375	6,707
4	Legal Affairs	OHFN8B1	1,274	7,981
5	Quality Assurance	OHFN8B1	2,719	10,700
6	Project & Information Control	OHFN8B1	7,125	17,825
7	Acquisitions & Contracts	OHFN8B1	5,155	22,980
8	Administrative Services	OHFN8B1	3,770	26,750
9	Strategic Program Integration	OHFN8B1	509	27,259
10	Engineering	OHFN8B1	2,752	30,011
11	Technology Development	OHFN8B1	1,223	31,234
12	Construction	OHFN8B1	2,344	33,578
13	Environmental Tech. Services	OHFN8B1	3,567	37,145
14	Accounting	OHFN8B1	2,081	39,226
15	Analytical Lab	OHFN68D1	4,000	43,226
16	Maintenance Services	OHFN68D1	3,843	47,069
17	Utilities Operations	OHFN68D1	4,964	52,033
18	Security & Training	OHFN68D1	2,452	54,485
19	Work Coordination Activities	OHFN68D1	1,048	55,533
20	Facilities/Office Services	OHFN68D1	3,213	58,746
21	Transportation/Decon Services	OHFN68D1	1,548	60,294
22	Laundry/Porters	OHFN68D1	1,504	61,798
23	Procedures	OHFN68D1	185	61,983
24	Inventory Control/Traffic	OHFN68D1	1,699	63,682
25	RSO Management	OHFN68D1	1,491	65,173
26	Medical & Occupational Safety & Health	OHFN68D1	3,059	68,232
27	Radiological Control	OHFN68D1	5,356	73,588
28	Environmental Monitoring & Compliance	OHFN68D1	3,159	76,747
29	ES&H Assurance/S&H Mgmt	OHFN68D1	1,669	78,416
30	Safety Analysis	OHFN68D1	1,970	80,386
31	Regulatory Oversight	OHFN30B2	2,800	83,186
32	Ongoing Litigation	OHFN60D1	1,000	84,186
33	FERMCO Fee	OHFN8B1	15,000	99,186
34	LLW Shipping	OHFN16C3	2,945	102,131
35	NTS Costs	OHFN16C3	4,961	107,092
36	Mixed Waste Treatment/Disposal	OHFN16C3	7,691	114,783
37	Waste Storage/Characterization	OHFN16C3	5,485	120,268
38	GW Monitoring	OHFN50B2	2,904	123,172
39	Plant 4 D&D Closeout	OHFN48B2	5	123,177
40	Plant 1 D&D Closeout	OHFN48B2	250	123,427
41	Wastewater Treatment System Operations	OHFN50B2	4,964	128,391
42	FRVP Title VII Engineering	OHFN49B2	8,371	136,762
43	Silo SS/NRTS Construction	OHFN49B2	6,160	142,922
44	FRVP Equipment/Construction	OHFN49B2	17,883	160,805
45	OU4 Mgmt/A-E NTPO	OHFN49B2	7,381	168,186
46	Safe Shutdown	OHFN48B2	8,835	177,021
47	OU3 Mgmt/A-E NTPO	OHFN48B2	1,004	178,025
48	Disposal Facility Construction Monitoring	OHFN47B2	16,035	194,060
49	OU2 Waste Units Construction	OHFN47B2	7,921	201,981
50	OU1 Mgmt/A-E NTPO	OHFN46B2	19	202,000

777

7777

Priority	Activity Description	ADS	FY98	Cumulative
51	OU2 Waste Units Construction	OHFN47B2	2,768	204,768
52	OU2 Mgmt/A-E NTPO	OHFN47B2	1,865	206,633
53	Complete AWWT Expansion Startup	OHFN50B2	653	207,286
54	Complete SFES Startup	OHFN50B2	1,615	208,901
55	OU6 Mgmt/A-E NTPO	OHFN50B2	2,312	211,213
56	Rail Upgrades	OHFN46B2	3,376	214,589
57	OU1 Mgmt/A-E NTPO (Target)	OHFN46B2	555	215,144
58	OU1 ARASA/Pit Excavation	OHFN46B2	15,856	231,000
59	OU1 ARASA/Pit Excavation	OHFN46B2	7,639	238,639
60	OU1 Mgmt/A-E NTPO (Planning)	OHFN46B2	867	239,506
61	WW Diversion Eng/VOC Treatment Construction	OHFN50B2	2,682	242,188
62	Design/Construction AWWT/SPIT Upgrades	OHFN50B2	2,217	244,405
63	Extraction Well Field Design	OHFN50B2	938	245,343
64	OU3 Mgmt/A-E NTPO	OHFN48B2	1,989	247,332
65	Utility Redistribution	OHFN48B2	3,766	251,098
66	Plant 9 D&D	OHFN48B2	6,463	257,561
67	Boiler Plant D&D	OHFN48B2	4,881	262,442
68	Tank Farm D&D	OHFN48B2	1,078	263,520
69	Sewage Treatment Plant D&D	OHFN48B2	1,014	264,534
70	Area 3 Excavation	OHFN50B2	3,588	268,122
71	Plant 2/3 D&D	OHFN48B2	3,505	271,627
72	Plant 5 D&D	OHFN48B2	7,920	279,547
73	Maintenance Building D&D	OHFN48B2	2,512	282,059
74	Area I/II Soil Remediation	OHFN50B2	5,754	287,813
75	STP Area Soil Remediation	OHFN50B2	1,290	289,103
76	OU3 Accelerated Plant 2 Safe Shutdown	OHFN48B2	900	290,003
77	OU3 Accelerated Plant 2 D&D	OHFN48B2	1,621	291,624
78	OU3 Accelerated D&D Maintenance Complex	OHFN48B2	1,479	293,103
79	OU1 Accelerated Shipping and Disposal	OHFN48B2	1,029	294,132
			294,132	

000004



Department of Energy
Ohio Field Office
P.O. Box 3020
Miamisburg, Ohio 45343-3020

OH-0816-96

APR 4 1996

Dear Stakeholder,

The attached Ohio Field Office (OH) Integrated Priority List represents an optimized distribution of the Fiscal Year (FY) 1998 Environmental Management Budget being requested by the Area Offices and Ohio Support Office that make up the Ohio Field Office.

To support the normal budget development and review processes for the Department of Energy, the Ohio Field Office has developed a FY 1998 planning level budget that supports our Vision 2005. We have also identified what could and could not be accomplished if we received funding that was constrained at the "Target Level" and the "Decrement Level". The "Target Level" identified in the attached Priority List is equal to 90% of the FY 1997 Congressional Budget Request for all of the Ohio Field Office sites. The "Decrement Level" is 85% of the FY 1998 Target Level total. The Planning, Target, and Decrement Levels and the Integrated Prioritized List are used as tools to help the Office of Environmental Management create the most efficient and effective FY 1998 Budget Request possible to meet both the national and the Department of Energy's goals and objectives.

The prioritization phase of the budget formulation process provides you the greatest opportunity to provide pre-decisional input to program planning and the development of DOE/OH priorities that optimizes stakeholders' concerns. Your involvement in the development of the Ohio Field Office FY 1998 budget is welcomed and encouraged. Please note that funding estimates reflect our current best estimates although some adjustments are likely to occur during upcoming budget formulation reviews by DOE Program Officials, regulators, and the public. With your support, the Ohio Field Office will present our strongest funding case possible, during the Environmental Management internal review process, to support the Vision 2005: *"We will achieve, for all our sites, an environmentally restored end state which serves the communities' needs; and we will do this within a decade."*

The following summary briefly describes the methodology used to develop FY 1998 priorities as generated by respective Area Offices and then collectively by the Ohio Field Office. Major impacts of receiving only target level funding are also provided for your information.

From the Ashtabula Area Office (AB) perspective:

The DOE-AB priority list was based on supporting all work that was on the critical path. Although the overall site level of risk is lower, when compared to other OH sites, we felt it was advantageous to the Government and taxpayers to complete the project as fast as possible and reduce the mortgage cost associated with continuing DOE activities at the RMI site beyond 2002.



000005

Target funding will add about a year to the current schedule and add an additional \$13M. However the critical path will be preserved. No major regulatory goals or milestones will be affected.

From the Columbus Area Office (CL) perspective:

The scope of decontamination at the West Jefferson site has been defined in an approved baseline plan. The priorities for funding at the decrement, target, and planning levels relate mainly to the pace at which this total scope is accomplished (and the resulting total cost for the project). At the planning level, the West Jefferson clean-up can be completed in 4-4½ years at a total cost of approximately \$90 million. At the target level, the risks at the site are controlled, however, reduction of the hazards would be delayed until funding is available to support the D&D work.

If FY 1997 or FY 1998 funding is limited to only that amount required to maintain the safety envelope at West Jefferson, conflicts with the NRC-approved D&D Plan would occur and enforcement action by the NRC against Battelle is likely. Legal actions would likely be taken by Battelle based on DOE not performing under its contractual agreement. Negative stakeholder reactions would occur at the local and state level, including concerns about site safety, lost economic opportunity, and property values. Battelle's Strategic Business Plan for re-use of the West Jefferson site would be impacted and claims for business interruption could occur. Total project costs could increase by up to \$50 Million. At the base funding level there would be no hazard reduction.

From the Fernald Area Office (FN) perspective:

The FN priority list was based, first, on the funding of core activities at the Fernald site, including base services, project management, regulatory oversight, and litigation; secondly, on the shipping of low-level waste followed by D&D close-out and safe shutdown; and then, on compliance activities, environmental, safety and health risk reduction activities, and mission completion.

Target-level funding would impact Fernald's ability to sustain the OH vision. Fernald would be in compliance, although minimally. Activities required to be completed for CERCLA compliance, such as Operable Unit #2 Waste Unit, the AWWT expansion, the South Field ES, and Operable Unit #1 ARASA would be performed. Operable Unit #1 ARASA would be in compliance but delayed. Other activities not funded would include, but are not limited to, utility redistribution, and several D&D and soil remediation projects. Delaying these activities would extend the site cleanup by one to two years.

From the Miamisburg Area Office (MB) perspective:

The approach utilized by the MB for prioritizing budgeted needs for the FY 1998 Budget Request was a risk-based approach for scoring all environmental management activities at Mound. There were, however, two exceptions to the risk based scoring approach. Regulatory Oversight and Hazardous and Mixed Waste Management were moved up in the ranking due to regulatory and legal requirements.

7777

Target funding would impact Miamisburg's ability to sustain the OH vision. The Integrated Comprehensive Plan and Transition Program baseline would not be maintained. Failure to remove materials from buildings with discontinued operations would delay the entire site clean-up. Delay of dispositioning tritium units would delay environmental restoration work. Turnover of facilities to a non-DOE entity would be delayed by one year. No backlogged low-level radioactive waste would be shipped in FY 1998. Hazardous and Mixed Waste Programs would be maintained at compliance levels only. The treatment system, required under the approved Record of Decision, for Release Block "I,S" - Historical Cell Groundwater would not be operated. FY 1998 target level funding would delay critical path work for projected future enforceable regulatory milestones.

From the West Valley Area Office (WV) perspective:

Consistent with the West Valley Demonstration Project (WVDP) Work Breakdown Structure (WBS), the Organizational Breakdown Structure (OBS), and standard management practice of the WVDP, DOE-WV developed one Risk Data Sheet (RDS) for Essential Site Operations and High-Level Waste Treatment and Project Completion and one RDS for the Nuclear Spent Fuels Project recently transferred from the Office of Civilian Radioactive Waste Management to the Office of Environmental Management. To provide comparability with other OH Area Offices, WV developed a third RDS (splitting the first RDS into Essential Site Operations, and High-Level Waste Treatment and Project Completion) and identified the work activities associated with the three RDSs to the third level of the WBS. These activities were then grouped based on relative importance to ensure safety and mission completion.

With target-level funding in FY 1998 limiting stabilization activities required to support full melter utilization, there is a high probability of exceeding the melter's "design life". Activities associated with HLW tank heel processing, head end cell debris processing, water infiltration, O₂ building, lagoons, and groundwater would be limited. Resources wouldn't be available to deal with upgrades/modifications to the aging main plant which houses vitrified glass logs. Load-out facility construction would not be supported. Stakeholders' and public trust and confidence would be adversely impacted. Regulatory and DOE non-compliance could result.

From the Ohio Field Office perspective:

The Integrated Priority List depicts the decisions made as a result of presentations and discussions between Area Office Directors, OH Budget staff, and the Field Office Manager during recent weeks. The integrated list and the decisions it represents were based on the development and evaluation of: (1) site-specific priorities presented by each Area Office Director and (2) units of work packaged into Risk Data Sheets (RDSs). RDS packages were developed and qualitatively evaluated by a committee representing all OH Area Offices and the Ohio Support Office. Representatives from the Ohio Environmental Protection Agency participated in the RDS evaluation process, which qualitatively determined the probability of impacts occurring based on conditions described in the RDS. The RDS

evaluation committee specifically looked at impacts and probabilities related to seven categories - Public Safety and Health; Site Personnel Safety and Health; Environmental Protection; Mission Impact; Compliance; Mortgage Reduction; and Social/Cultural/Economic. Ultimately, the Ohio Field Office based its priorities on the following criteria: (1) maintaining basic activities necessary to support the safe site operations, (2) completing vitrification of radioactive high level waste at West Valley and trying to take advantage of the expected five-year life of West Valley's melter, (3) completing actions and reducing DOE liabilities at our small sites, first Ashtabula and then Columbus, as quickly as possible in order to reduce mortgage costs and save approximately \$6M per year in base operations costs, and (4) maintaining compliance based on approved Records of Decision and reducing environmental, safety, and health risks.

If you wish to make specific comments regarding the attached priority list, please provide your comments to the Ohio Field Office, or respective Area Office, at the address(es) listed by April 11, 1996.

Sincerely,



J. Phil Hamric
Manager

Attachment

Department of Energy Ohio Field Office P.O. Box 3020 Miamisburg, OH 45343 Attn. Pete Greenwalt (513) 865-3862	Department of Energy West Valley Area Office P.O. Box 191 West Valley, NY 14171 Attn. Thomas Rowland (716) 942-4312	Department of Energy Fernald Area Office 7400 Willey Road Fernald, OH 45030 Attn. Jack Craig (513) 648-3101
Department of Energy Ashtabula Area Office 1800 E. 21st Street Ashtabula, OH 44004 Attn. Ward Best (216) 993-1944	Department of Energy Miamisburg Area Office P.O. Box 66 Miamisburg, OH 45343 Attn. George Gartrell (513) 865-3252	Department of Energy Columbus Area Office 505 King Avenue, Bldg. A-4-96 Columbus, OH 43201 Attn. J. W. Thomas (614) 424-3990

DRAFT

D/T/P	Field Office Rank	AO Rank	FAC Code	RDS No.	ADS No.	Activity Description	Obligation in \$000s	Accumulative
D 1	1	1	OH	R9610002	OH 1-0118	Program Execution (Decreasing)	21,700	21,700
D 2	1	1	WVPO	R96C004	OH4001WV	Site and Old Plant Ops, Maintenance, and Engineering Support	10,000	31,700
D 3	2	2	WVPO	R96C004	OH4001WV	Site Training, HR, Procurement, Warehouse, and Direct Ops Tech and Admin Support	11,400	43,100
D 4	3	3	WVPO	R96C004	OH4001WV	Low-level, TRU, and Mixed and Hazardous Operation, Storage, Handling, Shipping	8,200	51,300
D 5	4	4	WVPO	R96C004	OH4001WV	Site Safety, Health, and CA	6,100	57,400
D 6	5	5	WVPO	R96C004	OH4001WV	Regulatory Compliance Permits, Emergency Mgmt, and Security/Safeguards	5,700	63,100
D 7	6	6	WVPO	R96C004	OH4001WV	Groundwater and Bio-sampling	3,000	66,100
D 8	7	7	WVPO	R96C004	OH4001WV	Site Analytical and Process Lab, Proj Cbl, Info Services, and Public Info	5,600	71,700
D 9	8	8	WVPO	R96C004	OH4001WV	Site Management Systems, Accounting, and Drafting	3,300	75,000
D 10	1	1	MOUND	R96E0018	OHMB-8004	ES&H and Infrastructure - Shared Base Cost Spread Across All Mound ADSs *	1,150	76,150
D 11	2	2	MOUND	R96E0017	OHMB-8002	ES&H and Infrastructure - Shared Base Cost Spread Across All Mound ADSs *	1,319	77,469
D 12	3	3	MOUND	R96E0019	OHMB-8001	ES&H and Infrastructure - Shared Base Cost Spread Across All Mound ADSs *	1,769	79,238
D 13	4	4	MOUND	R96E0020	OHMB-8003	ES&H and Infrastructure - Shared Base Cost Spread Across All Mound ADSs *	185	79,423
D 14	5	5	MOUND	R96E0021	OHMB-8005	ES&H and Infrastructure - Shared Base Cost Spread Across All Mound ADSs *	8,393	87,816
D 15	6	6	MOUND	R96T0008	OHMB-8011	ES&H and Infrastructure - Shared Base Cost Spread Across All Mound ADSs *	613	88,429
D 16	7	7	MOUND	R96T0007	OHMB-8010	ES&H and Infrastructure - Shared Base Cost Spread Across All Mound ADSs *	7,050	95,479
D 17	8	8	MOUND	R96T0008	OHMB-8012	ES&H and Infrastructure - Shared Base Cost Spread Across All Mound ADSs *	8,808	104,287
D 18	9	9	MOUND	R96Y0008	OHMB-8020	ES&H and Infrastructure - Shared Base Cost Spread Across All Mound ADSs *	3,590	107,877
D 19	2	2	FN	R96A0012	OHFN881	Senior Management	3,294	111,171
D 20	2	2	FN	R96A0012	OHFN881	Public Affairs	1,375	112,546
D 21	2	2	FN	R96A0012	OHFN881	Legal Affairs	1,274	113,820
D 22	2	2	FN	R96A0012	OHFN881	Quality Assurance	2,718	116,538
D 23	2	2	FN	R96A0012	OHFN881	Project & Information Control	7,125	123,663
D 24	2	2	FN	R96A0012	OHFN881	Acquisitions & Contracts	5,155	128,818
D 25	2	2	FN	R96A0012	OHFN881	Administrative Services	3,770	132,588
D 26	2	2	FN	R96A0012	OHFN881	Strategic Program Integration	509	133,097
D 27	2	2	FN	R96A0012	OHFN881	Environmental Compliance	2,038	135,135
D 28	2	2	FN	R96A0012	OHFN881	Engineering	2,752	137,887
D 29	2	2	FN	R96A0012	OHFN881	Technology Development	1,223	139,110
D 30	2	2	FN	R96A0012	OHFN881	Construction	2,344	141,454
D 31	2	2	FN	R96A0012	OHFN881	Environmental Tech. Services	3,567	145,021
D 32	2	2	FN	R96A0012	OHFN881	Accounting	2,081	147,102
D 33	1	1	FN	R96A0013	OHFN681	Analytical Lab	4,000	151,102
D 34	1	1	FN	R96A0013	OHFN681	Maintenance Services	3,843	154,945
D 35	1	1	FN	R96A0013	OHFN681	Utilities Operations	4,964	159,909
D 36	1	1	FN	R96A0013	OHFN681	Security & Training	2,452	162,361
D 37	1	1	FN	R96A0013	OHFN681	Work Coordination Administration	1,048	163,409
D 38	1	1	FN	R96A0013	OHFN681	Facilities/Office Services	3,213	166,622
D 39	1	1	FN	R96A0013	OHFN681	Transportation/Comm Services	1,548	168,170
D 40	1	1	FN	R96A0013	OHFN681	Laundry/Porters	1,504	169,674
D 41	1	1	FN	R96A0013	OHFN681	Procedures	185	170,859
D 42	1	1	FN	R96A0013	OHFN681	Inventory Control/Traffic	1,699	172,558
D 43	1	1	FN	R96A0013	OHFN681	RSO Management	1,491	174,049
D 44	1	1	FN	R96A0013	OHFN681	Medical & Occupational Safety & Health	3,059	177,108

Site Base Costs are spread across all Activity Data Sheets (ADSs) at Mound and represent a portion of ES&H and Infrastructure costs that are allocated to that ADS. If an entire ADS is abolished these Site Base Costs would be spread across the remaining ADSs. These costs cover SAH activities and services, i.e., Radiation Protection, Industrial Safety, Industrial Hygiene, Fire Protection, Emergency Preparedness, Environmental Monitoring, and Physical Security, as well as activities, including verification required to maintain negative air pressure zones to prevent tritium releases, and telecommunications, including emergency communications, if required. Grouped into general functional areas Mound Site Base Costs total \$33,735K and include:

- A. Landlord costs, i.e., telecommunications, information systems, utilities, mail & laundry services, plant engineering, etc. = \$8,519K
- B. Financial Management, Personnel Management, Public Affairs, Administrative Services, etc. = \$5,903K
- C. Taxes & Insurance: State and local taxes and fees, long-term disability, etc. = \$8,847K
- D. Safety and Health (SAH) services, Security, etc. = \$10,468K

DRAFT

D/T/P	Field Office Rank	AO Rank	FAC Code	RDS No.	ADS No.	Activity Description	Obligation in \$000s	Accumulative
D 45	1	FN		R96A0013	OHF140801	Radology Control	5,233	182,323
D 46	1	FN		R96A0013	OHF140801	Environmental Monitoring & Compliance	3,159	185,482
D 47	1	FN		R96A0013	OHF140801	ES&H Assurance-S&H Mgmt	1,669	187,151
D 48	1	FN		R96A0013	OHF140801	Safety Analysis	1,970	189,121
D 49	1	BCL		R96A0001	OHBC6201DD	West Jefferson S&H Program (Base Program)	6,100	195,221
D 50	1	AB		R96A0003	OHRTM7200	Surveillance & Maintenance and Program Mgt	5,297	200,518
D 51		TD				Technology Development for All of Ohio (Decrement)	5,500	206,018
D 52	9	WVPO		R96C001	OH4001WV	Verification Facility Operations (24 hrs/day, 7 days/week)	9,200	215,218
D 53	10	WVPO		R96C001	OH4001WV	Operation of Tank Farm and RTIS in support of Verification	5,000	220,218
D 54	11	WVPO		R96C001	OH4001WV	Routine Verification Supplies (chemicals, containers, welding, spares)	9,700	229,918
D 55	12	WVPO		R96C001	OH4001WV	Verification Analytical Lab	3,500	233,418
D 56	13	WVPO		R96C001	OH4001WV	Non-routine equipment replacements/repairs/upgrades to the O/I Plant and Verification	8,000	241,418
D 57	14	WVPO		R96C001	OH4001WV	Direct Tech/Admin Supp to VR (Process Chem, QA, Nuclear Analysis, Records, etc.) (Decrement)	6,300	247,718
D 58	23	WVPO		R96E002	OH4065WV	Nuclear Fuel Project	2,165	249,883
D 59	10	MOUND		R96T004	OH1MB-8010	TR SAFETY SYSTEMS	5,089	254,972
D 60	11	MOUND		R96T003	OH1MB-8010	OPERATION OF 12 FACILITIES	7,634	262,606
D 61	12	MOUND		R96E002	OH1MB-8005	South Area of Plant (Valley and SHPP Hill)	17,354	279,960
D 62	13	MOUND		R96E024	OH1MB-8005	Wash Production Area/Main Hill (Decrement)	8,40	288,360
D 63	4	FN		R96A0007	OHFN30B2	Regulatory Oversight	2,800	291,160
D 64	5	FN		R96A0008	OHFN30B2	Ongoing Litigation	1,000	292,160
D 65	6	FN		R96A0012	OHFN8B1	FERMCO Fee	15,000	307,160
D 66	7	FN		R96A0003	OHFN16C3	L/W Shipping	2,945	310,105
D 67	7	FN		R96A0003	OHFN16C3	MTS Costs	4,961	315,066
D 68	9	FN		R96A0003	OHFN16C3	Mixed Waste Treatment/Disposal	7,691	322,757
D 69	8	FN		R96A0003	OHFN16C3	Waste Storage/Characterization	5,485	328,242
D 70	10	FN		R96A0014	OHFN50B2	GH Monitoring	2,904	331,146
D 71	15	FN		R96A0002	OHFN48B2	Plant 4 D&D Closed	5	331,151
D 72	15	FN		R96A0002	OHFN48B2	Plant 1 D&D Closed	250	331,401
D 73	12	FN		R96A0014	OHFN50B2	Wastewater Treatment System Operations	4,964	336,365
D 74	13	FN		R96A0008	OHFN49B2	FRAP Title VII Engineering	8,371	344,736
D 75	13	FN		R96A0008	OHFN49B2	Silo SSARFIS Construction	6,160	350,896
D 76	13	FN		R96A0008	OHFN49B2	FRAP Equipment/Construction	17,883	368,779
D 77	13	FN		R96A0006	OHFN49B2	OUI Mgmt/A-E MTO	7,381	376,160
D 78	14	FN		R96A0004	OHFN48B2	Safe Shutdown	8,835	385,000
D 79	14	FN		R96A0004	OHFN48B2	OUI Mgmt/A-E MTO	1,004	386,004
D 80	16	FN		R96A0011	OHFN47B2	Disposal Facility Construction/Monitoring	16,035	392,039
D 81	16	FN		R96A0011	OHFN47B2	OUI Waste Utha Construction	7,921	400,000
D 82	20	FN		R96A0001	OHFN46B2	OUI Mgmt/A-E MTO (Decrement)	19	400,019
D 83	2	AB		R96A0001	OHRTM7200	Buildings and Equipment Remediation (Decrement)	7,220	407,239
D 84	3	AB		R96A0005	OHRTM7200	RCRA CAMU and Groundwater Remediation (Decrement)	1,483	408,722
D 85	27	MOUND		R96E002	OH1MB-8013	REGULATORY OVERSIGHT	2,258	410,980

DECREMENT SUMMARY:

OH	21,700	AB	14,000	CL	6,100
FN	202,000	MB	66,910	WV	95,000
WVNFs	2,195	ID	5,500	SPRU	0
Area Office/Program Subtotals (\$000)					TOTAL
					413,405

DECREMENT SUBTOTAL \$413,405

DRAFT

2222

New Planning Level for OH
536,436 (418196)

4 - BCL
12 - MB
35 - FN

14,343

TARGET SUMMARY:

Area Office/Program Subtotals (\$000)	
OH	AB
6,300	2,800
28,000	16,600
FN	MB
29,000	6,700
231,000	76,610
WV	WV
25,000	25,000
120,000	120,000
WVNF5	TD
0	0
2,195	5,500
SPRU	SPRU
0	0
TOTAL	TOTAL
71,500	404,905

Field Office Rank	D/T/P	AO Rank	FAC Code	RDS No.	ADS No.	Activity Description	Obligation in \$000s	Accumulative
T 88	1	OH	R96H0002	OH 19918	OH19918	Program Direction (Target)	6,300	6,300
T 87	14	WVPO	R96C001	OH4001WV	OH4001WV	Direct Tech/Adm'n Supp to Vt Process Outl, OA Nuclear Plant, Rec., etc. (Target)	700	7,000
T 88	15	WVPO	R96C001	OH4001WV	OH4001WV	Tank Heads removal Equipment Procurement and Installation	8,000	15,000
T 89	18	WVPO	R96C001	OH4001WV	OH4001WV	Facility Maintenance and Site Support	2,000	17,000
T 91	18	WVPO	R96C001	OH4001WV	OH4001WV	Public Information, Work Control, and Scheduling Support for Verification (Target)	600	17,600
T 92	19	WVPO	R96C001	OH4001WV	OH4001WV	Maintain Regulatory Compliance for Site Stabilization and VR, Incl. NEPA, Permits, RCRA	4,000	21,600
T 93	20	WVPO	R96C001	OH4001WV	OH4001WV	Cont Sealed Cell Debris Retrieval and Abatement of Main Plant Water Infiltration	8,000	29,600
T 94	13	MOUND	R96E0024	OHMB-8005	OHMB-8005	Main Production Area/Main Hill (Target)	1,700	31,300
T 95	14	MOUND	R96T0009	OHMB-8012	OHMB-8012	BUILDING SAFE SHUTDOWN	1,306	32,606
T 96	22	MOUND	R96W0008	OHMB-8020	OHMB-8020	HAZARDOUS AND MIXED WASTE MANAGEMENT	6,000	38,606
T 97	16	FN	R96A0011	OHFN47B2	OHFN47B2	OU2 Waste Units Construction	1,394	40,000
T 98	16	FN	R96A0011	OHFN47B2	OHFN47B2	OU2 Mgmt/A-E NTPO	2,768	42,768
T 99	17	FN	R96A0014	OHFN50B2	OHFN50B2	Complete AWWT Expansion Startup	1,865	44,633
T 100	18	FN	R96A0014	OHFN50B2	OHFN50B2	Complete SFE8 Startup	653	45,286
T 101	11	FN	R96A0014	OHFN50B2	OHFN50B2	OU8 Mgmt/A-E NTPO	1,615	46,901
T 102	19	FN	R96A0001	OHFN46B2	OHFN46B2	Rail Upgrades-1	2,312	49,213
T 103	20	FN	R96A0001	OHFN46B2	OHFN46B2	OU1 Mgmt/A-E NTPO (Target)	3,376	52,589
T 104	20	FN	R96A0001	OHFN46B2	OHFN46B2	OU1 APASAP/E Excavation	555	53,144
T 105	2	JAB	R96A0001	OHHRM7200	OHHRM7200	Buildings and Equipment Remediation (Target)	15,856	69,000
T 106	3	JAB	R96A0005	OHHRM7200	OHHRM7200	RCRA CMUJ and Groundwater Remediation	1,814	70,814
TARGET SUBTOTAL							686	71,500
TOTAL								\$71,500

P 107	1	OH	R96H0002	OH 19918	OH 19918	Program Direction (Planning)	3,000	3,000
P 108	13	MOUND	R96E0024	OHMB-8005	OHMB-8005	Main Production Area/Main Hill (Planning)	8,205	11,205
P 109	14	MOUND	R96T0009	OHMB-8012	OHMB-8012	BUILDING SAFE SHUTDOWN	10,841	22,046
P 110	20	FN	R96A0001	OHFN46B2	OHFN46B2	OU1 APASAP/E Excavation	7,639	29,685
P 111	20	FN	R96A0001	OHFN46B2	OHFN46B2	OU1 Mgmt/A-E NTPO (Planning)	887	30,572
P 112	30	FN	R96A0014	OHFN50B2	OHFN50B2	WW Overhaul Eng/OC Treatment Construction	2,692	33,234
P 113	31	FN	R96A0014	OHFN50B2	OHFN50B2	Design/Construction AWWT/SPT Upgrades	2,217	35,451
P 114	32	FN	R96A0014	OHFN50B2	OHFN50B2	Excavation Well Field Design	838	36,289
P 115	20	WVPO	R96C001	OH4001WV	OH4001WV	Site Stabilization for Solid Waste Management Units (Planning)	5,000	41,289
P 116	17	WVPO	R96C001	OH4001WV	OH4001WV	Public Information, Work Control, and Scheduling Support for Verification (Planning)	4,400	45,789
P 117	19	WVPO	R96C001	OH4001WV	OH4001WV	Cont Sealed Cell Debris Retrieval and Abatement of Main Plant Water Infiltration	1,000	46,789
P 118	21	WVPO	R96C001	OH4001WV	OH4001WV	Cont Off-Site Waste Volume Reduction and CPCW/SA Waste Resolution	5,000	51,789
P 119	22	WVPO	R96C001	OH4001WV	OH4001WV	Lead Off-Facility Completion (Construction)	6,000	57,789
P 120	15	MOUND	R96E0014	OHMB-8001	OHMB-8001	PROJECT MANAGEMENT	4,314	62,103
P 121	16	MOUND	R96E0015	OHMB-8002	OHMB-8002	TECHNICAL SUPPORT	3,179	65,282
P 122	17	MOUND	R96W0004	OHMB-8020	OHMB-8020	LOW LEVEL WASTE MANAGEMENT	2,404	67,686
P 123	18	MOUND	R96T0002	OHMB-8010	OHMB-8010	EXCESS FACILITIES	1,377	69,063
P 124	19	MOUND	R96T0010	OHMB-8012	OHMB-8012	EXCESS NUCLEAR MATERIALS	371	69,434
P 125	20	MOUND	R96E0005	OHMB-8003	OHMB-8003	RELEASE BLOCK, 15' - HISTORIC DISPOSAL CELL	881	70,315

DRAFT

Field Office Rank	D/T/P	AO Rank	FAC Code	RDS No.	ADS No.	Activity Description	Obligation in \$000s	Accumulative
P 126		14	FN	R98A0004	OIFN4892	UTILITY - A/E/N/PO	1,909	72,304
P 127		21	FN	R98A0004	OIFN48B2	Utility Re-distribution	3,766	76,070
P 128		22	FN	R98A0004	OIFN48B2	Plant 9 DAD	6,463	82,533
P 129		23	FN	R98A0004	OIFN48B2	Boiler Plant DAD	4,881	87,414
P 130		24	FN	R98A0004	OIFN48B2	Tank Farm DAD	1,078	88,492
P 131		25	FN	R98A0004	OIFN48B2	Sewage Treatment Plant DAD	1,014	89,506
P 132		28	FN	R98A0009	OIFN50B2	Area 3 Excavation	3,588	93,094
P 133		26	FN	R98A0002	OIFN48B2	Plant 29 DAD	3,505	96,599
P 134		27	FN	R98A0004	OIFN48B2	Plant 9 DAD	7,820	104,519
P 135		28	FN	R98A0004	OIFN48B2	Maintenance Building DAD	2,512	107,031
P 136		33	FN	R98A0008	OIFN48B2	Area 18 Soil Remediation	5,754	112,785
P 137		34	FN	R98A0009	OIFN50B2	STP Area Soil Remediation	1,290	114,075
P 138		35	FN	R98A0004	OIFN48B2	Oil Accelerated Plant 2 Sub Shutdown	800	114,875
P 139		36	FN	R98A0004	OIFN48B2	Oil Accelerated Plant 2 DAD	1,821	116,596
P 140		37	FN	R98A0004	OIFN48B2	Oil Accelerated DAD Maintenance Complex	1,479	118,075
P 141		38	FN	R98A0001	OIFN48B2	Oil Accelerated Shipping and Disposal	1,029	119,104
P 142		21	MOUND	R98W0001	OIMB-8020	PROGRAM MANAGEMENT/TECHNICAL SUPPORT	1,588	120,692
P 143		23	MOUND	R98E0012	OIMB-8004	OFF-SITE ENVIRONMENTAL RELEASES	5,075	125,767
P 144		24	MOUND	R98T0012	OIMB-8011	PROPERTY TRANSFER	717	126,484
P 145		25	MOUND	R98T0001	OIMB-8011	PROGRAM INTEGRATION	533	127,017
P 146		26	MOUND	R98T0013	OIMB-8011	CONTRACT TRANSITION	0	127,017
P 147		28	MOUND	R98W0005	OIMB-8020	TRU WASTE MANAGEMENT	844	127,861
P 148		2	BCL	R95D0004	OHC6201DD	West Jefferson DAD Program (M-1 Material Removal/Waste Characterization)	8,710	136,571
P 149		3	BCL	R95D0004	OHC6201DD	West Jefferson DAD Program (M-1 High-Level/Low-Level Cells)	2,613	139,284
P 150		4	BCL	R95D0004	OHC6201DD	West Jefferson DAD Program (M-1 Alpha/Gamma Cells)	5,331	144,615
P 151		2	AB	R98A0001	OHRM7200	Buildings and Equipment Remediation (Planning)	2,186	146,801
P 152		4	AB	R98A0006	OHRM7200	Non-CMU Subs	4,514	151,315
P 153			TD			Technology Development for All of Ohio (Planning)	645	151,960
P 154		5	SPRU	R98A0001	OHSF8205SP	SPRU Decommission	5,000	156,960
							\$156,960	\$641,865
							PLANNING SUB TOTAL	\$156,960
							OHIO TOTAL	\$641,865

PLANNING SUMMARY:

Area Offices/Program Subtotals (\$000s)	
OH	3,000
AB	6,700
CL	16,654
FN	31,000
MB	23,200
WV	22,754
FN	63,132
MB	40,429
WV	21,400
FN	294,132
MB	116,039
WV	141,400
WV/NFS	0
ID	845
SPRU	5,000
TOTAL	156,960
TOTAL	641,865

000012

DEF 1325.M

9-851

EFG 107-901

7777

United States Government

Department of Energy

memorandum

DATE: 03/29/96

REPLY TO
ATTN OF: EM-42 (R. Nace, 301-903-7219)

SUBJECT: The Fernald Special Project Team Report

TO: J. Phil Hamric
Manager
Ohio Field Office

As you know, the series of articles published from February 11-23, 1996, in the Cincinnati Enquirer raised serious concerns about the management of the Fernald Environmental Management Project, prompting me to commission two teams to investigate this matter.

The first team focused on program management/safety and was comprised of senior environmental managers from across the Department of Energy complex, as well as subject matter experts in the health and safety area. The scope of their review encompassed management of environmental activities at the site and the recent concerns on the management of the project identified in articles published by the Cincinnati Enquirer.

The second team focused on financial management and was comprised of the Department's Chief Financial Officer staff and a representative from the Idaho Operations Office's Chief Financial Officer. The scope of their review addressed the work authorization and invoice processing practices at the site.

Neither team found any evidence supporting the Enquirer's characterization of "Danger and Deceit" at the site. However, they did identify a number of recommendations for improvement. I have attached copies of both reports dated March 29, 1996.

You should begin immediate implementation of the recommendations in these reports and provide this Office with a status report on which recommendations have been implemented and an Action Plan identifying the "path forward" within 30 days of this memorandum.

The Headquarters point of contact for this plan and schedule will be Richard Nace, Office of Eastern Area Programs, Office of Environmental Restoration (301-903-7219). You should also provide copies of these reports to interested stakeholders, including the Ohio Environmental Protection Agency, the U.S. Environmental Protection Agency, the Fernald Citizens Task Force, and the Fernald Residents for Environment, Safety, and Health.

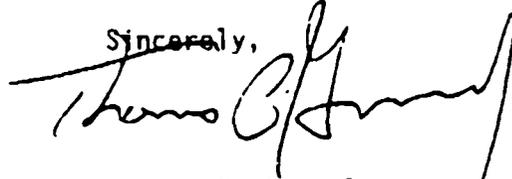
000013

7777

2

I wish to thank you, your staff, and the staff at the Fernald Area Office for your cooperation in addressing the concerns that have recently been raised in the media. Should you have any questions, please feel free to contact me.

Sincerely,



Thomas P. Grumbly
Assistant Secretary for
Environmental Management

2 Attachments

000014



Department of Energy

Washington, DC 20585

March 29, 1996

The Honorable John Glenn
Ranking Minority Member
Committee on Governmental Affairs
United States Senate
Washington, D.C. 20510

Dear Senator Glenn:

The Cincinnati Enquirer published a series of articles from February 11, 1996, through February 23, 1996, with allegations about the management at the Department of Energy Fernald site. Due to the seriousness of these allegations, I commissioned two teams to review the allegations, as well as a review of the management of the project, by the Department's Fernald Area Office and the operating contractor, the Fernald Environmental Restoration Management Corporation.

The first team focused on program management/safety and was comprised of senior environmental managers from across the Department's complex, as well as subject matter experts in the health and safety area. The scope of their review encompassed management of environmental activities at the site and the recent concerns on the management of the project identified in articles published by the Cincinnati Enquirer.

The second team focused on financial management and was comprised of the Department's Chief Financial Officer staff and a representative from the Idaho Operations Office's Chief Financial Officer. The scope of their review addressed the work authorization and invoice processing practices at the site.

Neither team found evidence to support the Enquirer's characterization of "Danger and Deceit" at the site. However, they did identify a number of recommendations for improvement. I have enclosed copies of both reports dated March 29, 1996.

I have directed the Ohio Field Office to immediately begin implementation of the recommendations in these reports and within 30 days provide me with a status report on which recommendations have been implemented and the "path forward" for any remaining recommendations. I have also requested the Ohio Field Office to provide copies of the report to interested stakeholders, including the Ohio Environmental Protection Agency, the U.S. Environmental Protection Agency, the Fernald Citizens Task Force, and the Fernald Residents for Environment, Safety, and Health.



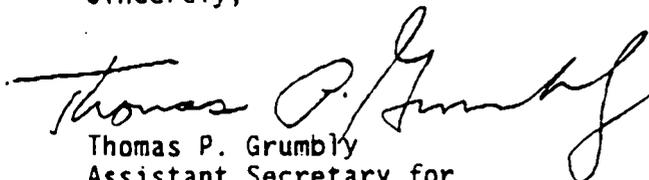
7777

2

The General Accounting Office is currently conducting their investigation, and the Department is fully cooperating with their efforts. We will continue to look for areas where the program can be improved and await their findings to further that goal.

If you or your staff would like to discuss these reports or have further questions, please contact me or have a member of your staff contact Ms. Anita Gonzales, Office of Congressional, Public, and Intergovernmental Affairs, at 202-586-1750.

Sincerely,



Thomas P. Grumbly
Assistant Secretary for
Environmental Management

2 Enclosures

cc: The Honorable Ted Stevens
Chairman

000016

7777

**FERNALD SPECIAL PROJECT TEAM
REPORT**

**Executive Summary
March 29, 1996**

000017

FERNALD SPECIAL PROJECT TEAM REPORT

Executive Summary

March 29, 1996

Introduction

At the request of Thomas P. Grumbly, Department of Energy (DOE) Assistant Secretary for Environmental Management, and Mr. Phil Hamric, Manager of the Ohio Field Office, a team conducted a review of the oversight capabilities at the Fernald Area Office. The review was prompted by a series of articles published in the *Cincinnati Enquirer* alleging widespread safety and management problems at DOE's Fernald Environmental Management Project. The review team was co-chaired by Mr. James Fiore, Director, Office of Eastern Area Programs, Headquarters, and Mr. Robert Folker, Deputy Manager of the Ohio Field Office, and consisted of subject matter experts from the Department's Ohio, Richland, Albuquerque, Savannah River, Oak Ridge, and Idaho Operations Offices. The review team investigated specific areas at Fernald including work authorization, safety, baseline development, invoice review, award fee, and the vitrification pilot plant. These areas parallel the allegations made by the *Enquirer*. The team convened at the Fernald Area Office from February 27-29, 1996. The methodology employed by the team consisted primarily of person-to-person interviews, document reviews, and work-site inspections. The review team was to assess the adequacy and effectiveness of DOE oversight of contractor operations and determine the validity of *The Enquirer's* allegations. The team was also charged with making recommendations to enhance the oversight process. A summary of the review team's observations and recommendations follows.

Safety

The review team placed particular emphasis on investigating alleged safety problems. *The Enquirer* raised safety-related questions regarding nuclear criticality and personnel contamination. The team reviewed previous safety audits, inspections and reviews, legal requirements, the Radiological Control Manual, and conducted a number of interviews with DOE and Fernald Environmental Restoration Management Corporation (FERMICO) safety professionals, site workers, union officials, regulators, and key stakeholders. The team acknowledged the site's excellent safety record and the aggressive programs in place to improve safety. None of the interviewees identified any specific safety problems or issues requiring investigation. The team members described the Fernald Safety program as "one of the stronger programs in the DOE complex," with a high level of expertise among DOE and FERMICO personnel. The team also stated that their investigation found that "appropriate and aggressive action" was being taken when safety-related problems were identified. The team members expressed concern regarding the continued presence of slightly enriched uranium on site, saying it was "inappropriate and costly to have enriched uranium at the Fernald site." (A Memorandum of Agreement has recently been executed with the United States Enrichment Corporation to market Fernald's stockpile of

slightly enriched uranium.)

7777

Work Authorization

In the articles, *The Enquirer* questioned Fernald's work authorization and project tracking practices. *The Enquirer* alleged that FERMCO has been performing work without proper authorization by DOE and that an April 1994 memorandum from a FERMCO financial manager instructing FERMCO managers not to correct overstated progress was proof of systematic deception by FERMCO.

While the team did find instances where control accounts were opened and used without budget, the team found overall the authorization system was operating satisfactorily. Those instances of accounts without budget were, primarily, due to the establishment of the new ten-year baseline. DOE was aware of this situation. The team recommended that FERMCO policy as outlined by the April 1994 memorandum be changed to allow corrections on over- or under-stated progress to be made in subsequent reports rather than relying solely upon the variance reporting system. The review team also recommended that project control and project management training requirements for DOE staff be better-defined, standardized, and implemented.

Baseline Development

This area and the following topic Invoice Review are also integral to work control and project tracking. The review team examined the utility of Fernald's baseline document as a financial planning and project scheduling tool. The team also looked at the *Enquirer's* allegation that FERMCO did not properly report a low-bid for the Plant 7 Decontamination and Decommissioning (D&D) project and, consequently, improperly benefited through the award fee process.

The team concluded that Fernald's baseline was a solid planning and management tool that complied with all applicable DOE requirements for such documents. The review did find that an adjustment to the baseline reflecting the low bid for the Plant 7 D&D was not made in a timely manner. The team also found that contrary to the *Enquirer's* allegation, DOE was aware of the low bid for the Plant 7 D&D. A continuing review of the Plant 7 adjustment is being conducted to determine if it would change the rating for cost and schedule from satisfactory to unsatisfactory. An unsatisfactory rating would produce a negative fee of \$135,000

Invoice Review

Invoice Review by DOE is another critical checks and balance system in the project management process and was a focus area of the review team. The team conducted reviews of the Integrated Project Execution (IPEX) financial management system, interviewed DOE and FERMCO Cost Account Managers (CAMs), and assessed DOE's internal audit procedures to determine the validity of *The Enquirer's* allegations regarding financial management improprieties by FERMCO. *The Enquirer* alleged that FERMCO had defrauded DOE by establishing improper cost accounts.

Again, the review team was unable to substantiate *The Enquirer's* allegations. The team noted that all invoices are reviewed prior to payment and the Inspector General conducts annual "costs incurred" audits of FERMCO claimed costs. The team observed a number of strong management practices that could be considered for use by others in the DOE complex. Notably, IPEX was viewed as a good financial management system that allowed the user to easily track the financial status of any project. The team did note that some procedures needed to be better formalized and that the internal review process of the Ohio Field Office needs to focus on the critical information needs of the Fernald Area Office Director and the local contracting officer.

"Secret Plan"/Operable Unit (OU) 4 Vitrification Pilot Plant Project

The Enquirer alleged that FERMCO had devised a "secret plan" for disguising cost growth in Fernald's OU4 Vitrification Project. The team reviewed OU4 documents and interviewed personnel assigned to both the Vitrification Pilot Plant and the full-scale Vitrification Project to assess this allegation and review the status of the Vitrification Pilot Plant and Fernald's overall strategy for dealing with the OU4 waste. (OU4 includes the K-65 silos.)

The team could find no basis for *The Enquirer's* "secret plan" story and determined that while the project was in fact experiencing cost growth, this growth was well documented and DOE personnel were aware of the situation. The team noted that recommendations made in a DOE-commissioned value engineering study could contribute significantly to schedule recovery and reducing the final cost of the Vitrification Project. The schedule for the design of the full-scale plant should be adjusted to permit the integration of information from the pilot plant. It was also noted that FERMCO is working on developing alternative technical strategies to regain schedule and cost for the project. These activities were approved by DOE.

Performance-based Fee

The Enquirer alleged that FERMCO had fraudulently obtained award/performance-based fee by improperly reporting progress. During its review, the team examined the modified Environmental Restoration Management Contract, Performance Objective Criteria for all of the past fee evaluation periods, FERMCO Self-Assessment Reports, DOE Evaluations, and interviewed DOE Performance Evaluation Committee chairs. The review team determined that Fernald's Award Fee process was innovative and more than adequate to evaluate performance and to determine performance-based fee. The review team recommended establishing more detailed performance measures for subjective criteria and greater use of Incentive Share Proposals. The team found no substance to *The Enquirer's* allegations concerning the award/performance-based fee process.

Conclusion

In summary, the review which was conducted by a multi-disciplinary senior-level team from throughout the DOE complex found that while there was no substance to the *Cincinnati Enquirer's* major allegations, there are specific areas where improvements would enhance the management of the Fernald Project. To date, the team found no evidence of lax or inadequate

7777

oversight by DOE. The team determined that while DOE personnel would benefit from additional training, they were satisfactorily performing their oversight responsibilities. The review team's recommendations regarding incorporating procedural improvement and best management practices will be forwarded to the Ohio Field Office Manager and the Fernald Area Office Director for their use

FERNALD SPECIAL PROJECT TEAM REPORT

I. Introduction

At the request of the Office of Environmental Management (EM) and the Ohio Field Office (OH), a team consisting of senior managers from Headquarters (EM and EH), Ohio, Richland, Idaho, Albuquerque, Savannah River, and Oak Ridge Operations Offices conducted a review of the overall oversight abilities of the DOE Fernald Office and the allegations recently made in the *Cincinnati Enquirer*. The team's final report is due to the Acting Under Secretary, Mr. Thomas P. Grumbly by the end of March.

The team conducted three days of interviews and document reviews on February 27-29 at the Fernald Area Office, which is located in southwestern Ohio. The primary focus of the review team was an assessment of site safety practices and to determine the adequacy and effectiveness of DOE oversight of contractor operations. The review examined standard processes such as "Change Control," "Work Authorization Systems," "Invoice Review and Acceptance," "Criticality Safety," and "Radiological Protection." The review was to identify any weaknesses in Fernald safety practices and/or the oversight systems used by DOE to monitor contractor performance and recommend appropriate corrective action to the field. In addition, special teams were tasked to look at OU4 (Vit Pilot Plant) due to the extensive coverage of this item by the *Enquirer*. The team was to quickly determine if any of the allegations were true and if so whether the cause was systemic in nature. Any findings arising from this review were to be provided to the local DOE office for prompt corrective action.

On-site document reviews, field inspections, and walkdowns were performed. In addition, interviews of individuals from DOE-OH, FERMCO, the three on-site unions, the head of the Fernald Citizens Task Force, the president of the local citizens group (FRESH), and the regulators were conducted.

Appendix A contains a list of the members of the Fernald Special Project Team.

II. Summary of Recommendations

To date, the reviews have found no basis for *The Enquirer's* major allegations of secrecy, major safety problems, deception, fraud, or mismanagement. However, areas for improvement were identified and recommendations to enhance the oversight processes are summarized below.

- FERMCO should be more timely in adjusting the Performance Measurement Baseline when negotiated subcontracts amounts are different from their estimated

cost. DOE personnel should examine the Plant 7 D&D subcontract variance to determine if the fee rating for the cost performance criteria would be different had this variance been adjusted timely.

- DOE should review the practice of FERMCO continuing to report overstated progress until "real performance" catches up. They should consider adopting practices from Richland and Savannah River which require adjusting performance calculations in subsequent reports.
- DOE needs to improve the effectiveness and use of the Project Control System by all managers, by increasing visibility of the information available and placing greater emphasis on formal training of DOE staff in project management as it is practiced at Fernald.
- DOE needs to improve formality of operations in invoice review and in managing to the baseline. As IPEX and the newly submitted baseline come together, the invoice review procedure should ask that DOE reviewers assure work is within scope, as defined by the baseline. If DOE finds that invoices precede baseline change control, corrective actions should be taken to assure that future work is not authorized ahead of baseline changes. With the new baseline, protocols for providing direction to the contractor and managing change control should be respected in order to maintain management control.
- DOE should direct FERMCO not to proceed with the design of the full-scale vitrification plant until operations of the vitrification pilot plant have been observed sufficiently so that lessons learned can be incorporated into the full-scale design. This will preclude costly design changes and help ensure the success of the OU4 vitrification process.
- FERMCO should ensure that members of the pilot plant team have substantive input into the full-scale design. This will help ensure that pilot plant design and construction experience is incorporated into the full-scale effort. Routine communications concerning the goals, objectives, and status of the full-scale design effort and value engineering studies to the pilot plant staff will help alleviate concerns pilot plant staff may have relative to future plans for OU4 and their role in it.
- DOE should conduct a formal detailed review of FERMCO responses to the OU4 Investigation Report and Value Engineering recommendations.
- The Ohio Field Office should matrix Financial Review staff to Fernald in the same manner as other Ohio Field Office staff in order to improve their customer focus. Within a proper matrix arrangement, the review activities of the Financial Review team would be coordinated with the Fernald Contracting Officer and Area Office Director so that there could be a clear understanding of the impact of these

activities on project costs, schedules, and value added. Review results should be submitted more promptly to the Fernald office. Additionally, this staff would be the appropriate team to do routine cross-cutting reviews of vouchers (no one is presently doing these). An additional recommendation is that tracking reports, such as the Employee Concerns Report discussed with the review team, be regularly shared with the Fernald Manager so that he can take management action if he sees unacceptable trends developing.

- Fernald should consider organizing around type of work as opposed to geographic area. There are likely to be efficiencies to projectizing all surface remediations, ground-water actions, and D&D as separate 'projects' to take advantage of common skill mixes, remedies, lessons learned, etc. The present organization is convenient for regulatory interactions but may not be the most efficient and cost-effective for getting the work done. (It should be noted that some team members did not support this recommendation.)
- Consider incentives to subcontractors (i.e. FERMCO incentivize Parsons) to develop and carry out project order plans in more cost-effective and efficient ways.
- Some minor adjustments to the performance fee process could reduce effort and improve communications. The contractor-submitted mid-term self assessment report could be deleted and a written monthly performance fee review could be added to the monthly project review. Continued efforts need to be made to implement Incentive Share Projects.
- The FERMCO cost and schedule control system should be adjusted to facilitate tracking the performance of subprojects, such as the pilot plant. This would provide greater visibility and enable DOE and FERMCO to identify problems and take corrective action in a timely manner.
- DOE should continue to pursue shipping of all nuclear material (metals, oxides, sludges) offsite so cleanup at Fernald is not delayed.
- DOE-OH should advise medical researchers to formalize their request for the silo materials (radium) and submit it to DOE Headquarters.

Appendix B provides a summary of *The Enquirer's* allegations and Fernald's response.

III. Strengths/Best Practices Identified

Baseline

- DOE has prepared and documented a plan for reviewing the FERMCO Life Cycle Baseline that is anticipated to be submitted soon. The plan is comprehensive and

incorporates lessons learned from the reviews conducted on the Baseline now in place. Major issues that were faced in prior reviews have been specifically addressed in the plan.

- FERMCO and DOE have established a strong Change Control process. The baseline, changes to the baseline, and evaluation of work progress and associated costs are well-documented and traceable.
- IPEX is a most impressive database and provides easy access to data. It is user-friendly, and both DOE and FERMCO staff access it regularly. The local staff consider it a valuable management tool.

Fee Process

- There is clearly strong leadership involvement at this site in the performance-based fee process. The Area Office Director and Deputy Director are personally involved in determining the specific areas of performance. They attend meetings and provide opinions on a regular basis. They have obvious ownership of the overall evaluation of the site contractor. This involvement assures that DOE is evaluating the right things and getting the best use of taxpayer dollars used to incentivize the contractor's performance.
- The method used for assessment of contractor performance is flexible and effective. The plan changes every six months and is always current as to the desired outcome as a result of those changes. DOE can focus the contractor's attention effectively. The use of negative and positive incentives puts the contractor at financial risk and gains the attention of management in the contractor's organization, assuring a good product for DOE.
- The techniques utilized in the performance-based fee process are innovative. The basis of these techniques is the quality revolution currently occurring in the government. The criteria to be measured are written by the people actually doing the work, and a teaming effort is made by reaching agreement between DOE and the contractor on what will be measured and how it will be measured. Incentives are designed to motivate the contractor to perform in accordance with the plan. The objective nature of the plan allows the contractor some degree of control of the outcome. These innovative ideas are giving the DOE the best utilization of its resources.
- The areas of performance are defined in strong, clear, and objective terms. The site personnel involved in authoring the Performance Objective Criteria (POCs)

have done an outstanding job of grasping the desired outcome of the contract and putting those desires into effective language. The criteria are easy to understand and have evolved over several evaluation periods into clear and concise factors that measure the work.

Vitrification Pilot Plant

- The DOE investigation into the cost and schedule growth of the pilot plant represented a vigorous effort to identify the cause of the problems and identify corrective actions. The study was conducted by technical and programmatic experts, leading to substantive recommendations for improvement in both areas. Moreover, weaknesses identified, if effectively resolved, will lead to a stronger program for the operable unit as a whole. Lessons learned could be expanded in other areas, strengthening the entire Fernald program.
- The DOE value engineering study, which was conducted by experts from industry and government, resulted in analyses of alternatives which could dramatically reduce the cost of OU4. The identification of potential savings underscores the importance of value engineering and its potential benefit to other DOE projects.

IV. Areas of Review

A. Safety

Background

This review involved an examination of the radiation safety and the criticality safety program both from the DOE and FERMCO administration and execution perspective. This review was not a formal or detailed audit or program evaluation. The reviewers were on site for approximately three days. In that time, a comprehensive program sampling was undertaken to detect areas of deficiency, especially in the areas charged in the news reports as "hazardous" or "out-of-compliance." From this review, conclusions were drawn, which are believed to be fundamentally sound. We found no evidence to support the allegations reported in the *Enquirer* article.

The criticality safety program was cited by the *Cincinnati Enquirer* as having seven criticality "incidents" since September 22, 1993. A more correct statement would be that there have been seven infractions of criticality control procedures. At the request of the Ohio Field Office, we reviewed the current criticality program at Fernald to determine if any weaknesses existed, based on the allegations of the newspaper article.

Functional Areas Covered

The following aspects of the Radiation Safety Program at the Fernald site were reviewed.

- a. DOE-FN field office program
- b. DOE-Office of Environment, Safety and Health (EH) site assessment office program
- c. FERMCO contractor program
- d. Union/construction trades leadership and programs
- e. Past reviews and audits
- f. Documentation and follow-up
- g. The basic elements of a comprehensive radiation safety program as outlined and required in 10CFR835 (the Radiation Protection Program - RPP, as required by 835) and the RADCON manual.

The review did not allow time to audit the criticality program against the appropriate DOE orders. The intent was to review the application of the program as to its ability to assure criticality safety.

Observations

DOE Field Office Program

At this point in time, the personnel responsible for the oversight and routine contractor programs evaluation and control are adequate in staffing number. The competence of those professionals responsible for the radiation safety area is excellent. We found the staff to be informed (very much aware of plant status and conditions), aggressive, and insistent upon compliance and program excellence. It was also evident that an effective working relationship existed between DOE and the contractor.

The audits of the Fernald Criticality Program were excellent. DOE oversight personnel have been very emphatic in requiring the very best program from the contractor. This is clearly documented in DOE Fernald's June 1995 assessment that discussed specific programmatic deficiencies in the contractor's fissile material storage area postings, procedural compliance, job specific site training, facility access, and correction of identified deficiencies.

DOE-EH Site Assessment Office Program

At the present time, there are two on-site representatives of DOE-EH who act independently of other review programs. The team found the review program to be well-organized and aggressive. The level of knowledge of plant operations and

conditions appeared high. The site representatives of DOE-EH have been aggressive in assuring that any infractions of criticality procedures were observed and properly communicated to the contractor.

FERMCO Contractor Program

There appears to be adequate contractor staffing. In fact, the ratio of radiation control technologists to radiation workers is in the range of 1 per 10 to 15, which is a fairly high ratio and implies a high level of radiation safety support. The professionals appeared to have excellent credentials of training and experience. The technologists appeared knowledgeable and aggressive.

The FERMCO criticality safety program was judged to be adequate in staffing and experience. This represents a significant change from the previous eight months. In June 1995, the contractor criticality staff had dwindled to the manager, who was then relieved of his position. A recognized criticality professional was acquired for six months to rebuild the program. That assignment has been successfully completed and an experienced criticality safety manager from a corporate sponsor has taken over the program. The staff has been rebuilt with the recognized need to pursue additional training. The turnaround of the program is largely the recognition by management that changes in personnel and attitudes were necessary to meet DOE expectations.

Union/Construction Trades Leadership and Programs

The union representatives interviewed were knowledgeable and typically aggressive; i.e. safety issues are a priority and the Union leadership are alert to any safety issue. Typical management interface issues were evident; however, without exception, there appeared to be an excellent working relationship with and respect for the ES&H staff and their efforts and intent.

Past Reviews and Audits

A relatively large number of formal reviews and audits have been performed during the past few months, both by local review teams and DOE-HQ teams. Several of these outside reviews were requested by the DOE field team to address specific issues of identified deficiency. The team found the reviews to be comprehensive and helpful. The team also found the programs to be responsive through positive follow-up reports. The team reviewed specific program documentation related to reported deficiencies, and it was evident that the issues had been completely addressed and documented.

An in-depth criticality safety assessment was made by Martin Marietta Energy Systems (March 21-25, 1994). A corrective action plan was developed by

FERMICO that was not accepted by DOE as being responsive to the identified needs. A formal assessment by DOE in June 1995 identified the program as still not meeting expectations and FERMICO's response being unacceptable. The resulting personnel changes in August 1995 created a new awareness of the programmatic requirements. A December 1995 audit by DOE indicated that an acceptable program was in place.

Comprehensive Radiation Safety Program

Using 10CFR835, the required Radiation Protection Program, and the RADCON manual as the criteria against which the program must perform, we found all of the elements of a comprehensive radiation safety program to be in place and functioning. This must not be taken to imply that there are no deficiencies; however, the program appears to be fundamentally sound and functioning as envisioned in the regulations. In fact, the program appears to be one of the strongest in the DOE system at the present time. Major upgrades in the program have occurred during the past few months as evidenced in the historical database, i.e. it was evident that significant deficiencies existed but have been effectively addressed within the past few months. An aggressive compliance program is in place. The training program also appears to be well-structured and administered.

Comprehensive Criticality Safety Program

Uranium categorized as Enriched/Restricted-in-storage is packaged in red containers. This comprises all material that has been enriched in the uranium-235 isotope. During the last six months, all red containers on plant have been consolidated into four storage buildings: two of these storage buildings were inspected. Material of two percent enrichment or greater has also been grouped into a protected array in one of the storage areas. Access is controlled by a concrete perimeter and fencing. This effectively mitigates the potential for a criticality accident and minimizes the potential to violate control procedures.

Summary Observations

- The media allegations in the area of criticality safety were identified through DOE's ORPS reporting system. The characterization, by the media, of each procedure infraction as a criticality "incident" is inaccurate and inappropriate.
- The criticality safety program of FERMICO has been transformed in the last six months into a satisfactory and functional program.
- Improved storage of enriched uranium has enhanced the overall criticality safety.

- The media allegations in the area of radiation safety are groundless when evaluated in context of the radiation safety program currently in place at Fernald.
- All of the elements of a comprehensive radiation safety program are in place and functioning.
- The professionals are aggressive in having vigorously addressed and solved several areas of deficiency within the past few months.
- Major upgrades are evident during the past two years and especially during the past 6-8 months.
- 10CFR835 compliance appears fundamentally completed.
 - The Radiological Protection Program (RPP) is complete and documented.
- The RADCON manual compliance also appears fundamentally complete and in place.
 - The implementation plan is complete and in place.
 - A RADCON Requirements manual has been prepared and is in place.
- A complete set of Standard Operating Procedures has been prepared and is in place.
- Outside reviews have been requested and have been helpful
 - Previously identified deficiencies have been addressed and corrected.

Strengths/Best Practices Identified

- The radiation safety program appears to be one of DOE's strongest at the present time.
- DOE and Contractor staffs are adequate in number and highly qualified/credentialed.

Team Recommendations

- Opportunities should be pursued for shipping all enriched material to a designated DOE repository for enriched uranium such as the Y-12 Plant at Oak Ridge, Tennessee.

B. Baseline Development and Approval

Background

There is a contractual requirement for FERMCO to have an approved Project Baseline (hereafter referred to as the baseline).

There are three key components of any baseline--the scope of work to be accomplished, the schedule for completing the work, and an estimate of the cost to do the work. The baseline is a critical component of DOE's planning, budget development, and budget execution process. It also provides DOE with the ability to measure a contractor's project performance in terms of time and cost over the life of a project. (This is why they are also often referred to as Performance Measurement Baselines).

The tool that is used to actually monitor and measure performance against an established baseline is the Project Control System (PCS). Usually there is a hardware and software platform at the heart of a PCS which allows actual progress in terms of time and cost to be compared to planned progress. There are assumptions made in developing the baseline, such as funding availability, that require adjustments to the baseline to keep performance measurement meaningful. These adjustments are usually accounted for through a formal Change Control Process. (This is expanded upon in Section C.)

FERMCO submitted a baseline to DOE in September 1993. The Baseline documents were reviewed by DOE representatives from EM-HQ, Oak Ridge (OR) and Fernald (FN). On October 15, 1993, FERMCO was notified that the Baseline could not be approved until improvements were made in the definition of work scope, integration of lower level schedules, and basis of cost estimates were made.

FERMCO resubmitted the Baseline to DOE in December 1993. This baseline was extensively reviewed by DOE representatives from EM-HQ, Office of Field Management (FM)-HQ, OR, Chicago (CH) and FN. After detailed evaluations of the work scopes, schedules and cost estimates, the team concluded that they were consistent with DOE requirements and would provide a basis for measuring the performance of FERMCO. EM-HQ officially approved the baseline in February 1994 as recommended by the review team.

In June 1994, an Independent Cost Assessment was conducted by FM-HQ that found the FERMCO project cost estimate to be of sufficient quality and detail to warrant baselining. The reconciliation of the Independent Cost Assessment and the Project Estimate were found to be within acceptable estimating limits.

In July 1994, EM-HQ (Office of Engineering and Cost Management, EM-24) conducted a Cost Quality Management Assessment. This review team concluded that FERMCO had developed a comprehensive technical, schedule, and cost baseline. They found FERMCO's estimates to be stand-alone documents that included the assumptions made and basis for the estimate.

Team Observations

FERMCO's Project Control Systems Procedure, PCS-010, specifically states that after subcontract award, a change proposal will be prepared to adjust the baseline from the estimate of a subcontract to the final negotiated value. The primary reason for doing this is to remove from the system the variance that is generated by this difference. Otherwise, this variance could mask the performance of the other work being done.

A spot check was made on the Plant 7 D&D subcontract which was the subject of one of the allegations raised by the *Enquirer*. Based on the evidence examined, it was a year and a half from the time DOE approved the negotiated subcontract, at an amount less than that estimated, to when FERMCO submitted a Change Proposal to remove the variance.

There are many variables that could cause the actual subcontract value to differ from its estimate. Assumptions made about how the work would be done and who would do the work were the primary contributors in this instance. In many cases, these can be valid reasons for rewarding a contractor for reducing the cost of work accomplished. However, there are so many factors that could cause such a difference there is always the concern that the contractor is inappropriately receiving fee on such a variance.

A check of the Performance Based Fee Plan for the period revealed two areas where FERMCO could potentially have earned fee for the cost variance generated on the Plant 7 D&D demolition subcontract. The first area was a performance fee criteria based strictly on schedule and cost variances. A review of the records revealed that no fee was paid on this criteria during this time period, even though the baseline had not been adjusted. The second area was a performance fee criteria based on cost savings. A review of the records revealed that cost savings for Plant 7 were claimed in one fee period, but it was not a factor on the amount of fee earned by FERMCO. The same amount of fee would have been earned even if the cost savings had not been claimed.

Strengths/Best Practices Identified

DOE has prepared and documented a plan for reviewing the FERMCO Life Cycle Baseline that has been submitted. The plan is comprehensive and incorporates lessons learned from the reviews conducted on the baseline now in place. Major issues that were faced in prior reviews have been specifically addressed in the plan.

FERMCO and DOE have established a strong Change Control process. The baseline, changes to the baseline, and evaluation of work progress and associated costs are well documented and traceable.

Team Recommendations

FERMCO should be more timely in adjusting the baseline when negotiated subcontract amounts are different from the estimated cost. DOE personnel should be more proactive in ensuring FERMCO does this.

DOE personnel should pursue further the Plant 7 D&D variance, arising from the negotiated contract amount and the estimated cost, and its impact fee determinations. Specifically, to determine if the variance had been adjusted in a more timely manner would have resulted in a rating for schedule and cost variance criteria change from satisfactory to unsatisfactory. This would cause this criteria to go from no fee earned to a negative fee of \$135,000.

While it is important to maintain the integrity of the baseline it is also important not to become so mechanical in the compliance of a system that it becomes overloaded with small and insignificant adjustments. There were several Change Control Proposals received which seemed to fall into the latter category. DOE management may want to review the Change Control criteria and process keeping in mind that the baseline and changes to it are to be used as tools to measure progress

C. Project Management and ControlsBackground

The Project Control System (PCS) at Fernald consists of various subsystems which capture defined work; identify and assign work responsibilities; develop schedules; establish budget; authorize work; accumulate and report performance data; analyze performance and formulate corrective action plans for significant variances; manage funds; control revisions to work scope, budgets, and schedules; and plan and control subcontracted work. The PCS forms a foundation capable of

providing management with the appropriate level of detailed information necessary for effective decision-making and utilization of project resources in accomplishing the project's objectives.

The objectives of the PCS are to assure that all project work is identified, thoroughly planned, carefully monitored, and satisfactorily controlled. These objectives are focused toward the establishment of a "Good Business Practice" approach in setting forth those management processes required to manage project work. These processes include:

- Defining and organizing the technical work scope;
- Identifying and estimating resource requirements;
- Establishing budgets;
- Developing and maintaining detailed plans and schedules;
- Authorizing work;
- Accumulating and assimilating cost and schedule performance information;
- Managing funds; and,
- Reviewing and reporting progress and forecasts to the customer.

The review of the Fernald Project Control System was accomplished by a combination of briefings, interviews with several DOE-OH staff, and review of documents. The brief nature of the review limited the depth of the analysis that could be done. Issues and recommendations noted should be considered as starting points for more complete action by the responsible staff.

Team Observations

The Fernald work authorization process has experienced considerable challenge this year. One baseline was used for the first three months, a second (conditional) baseline was used for the period beginning with the January 1996 Cost Performance Report, and a third is planned for the period beginning in April 1996. This results in a high potential for confusion, and complicates the task of meaningful variance analysis and other uses of the project control system.

No major issues were found in the FERMCO use of the project controls system. However, the allegation in the newspaper article about not correcting overstatement of progress does point to an area of potential improvement. The

7777

FERMCO memo of April 6, 1994, provides guidance to leave known over-reporting of progress "as reported until real performance catches up in a future period." This appears to be based on a FERMCO interpretation (agreed to by OH) of a DOE requirement which is different from that used at other sites (SR, Hanford). It is normal practice not to go back and modify historical reports when a discrepancy is found. However, unlike the FERMCO interpretation, it is normal practice at other major DOE sites to change the performance calculation in subsequent reports.

Based on limited review, there appears to be little documented formal training of the DOE project management staff (i.e., Office of Environmental Management staff) on the project controls system used at the site. The primary approach to training appears to emphasize on-the-job training. The system and reports were not always considered useful by the limited staff interviewed, and less formal tools were sometimes utilized. The baseline shifts noted above may have been a contributing factor in the use of informal tools for measurement of progress.

Significant discrepancies in the status and schedules of the technical qualification and training program were noted between reports on these programs and assertions by OH staff. The reports show a significantly longer schedule for the certification program than the OH staff. OH representation of policy is a more acceptable approach of certification of all staff within one year.

Environmental restoration project management is a primary function at Fernald. As the Technical Qualification Program is being implemented, only one staff member has a target qualification in project management. There appears to be room within the overall OH approach to provide greater emphasis on project management qualification and training for appropriate staff.

Staff interviewed reported that day-to-day contact with FERMCO counterparts is sufficient to maintain early warning of potential changes as well as changes below the formal threshold. DOE-SR has found it useful to employ more formality to the process to ensure "no surprises" and early flushing out of issues. A DOE sign-off is secured (after the fact) on below-threshold changes, and a "BCP Change Request" is executed at the front end of the Change Control preparation process.

While the team observed that enhancements could be made in the area of project control, the system was found to be operating satisfactorily.

Strengths/Best Practices Identified

None

Team Recommendations

It is recommended that DOE-OH review the practice of FERMCO continuing to report overstated progress until "real performance" catches up. Consideration should be given to adopting the practice used at other major DOE sites or reflecting corrected performance calculations in subsequent reports.

The team recommends establishing the credibility of the Project Control System as one that meets the needs of users. A quick, available, near-term fix to consider would be training the DOE staff to the level that the FERMCO Cost Account Managers (CAMs) are trained. More familiarity with the system will help reinforce its usefulness and credibility.

Project management qualification could be considered a higher priority than is currently reflected in Technical Qualification Records (TQRs). Functional area qualification standards tailored to Fernald is one potential solution. Other possibilities include a compound primary functional area to reflect the fact that the Office of Environmental Management functions are both technical and project management in nature.

DOE should resolve discrepancies between management and Internal Review representations of the schedules being pursued for the training and certification programs.

DOE should consider adopting the approach of having documented DOE sign-offs at the beginning of the Baseline Change Proposal (BCP) process and (after the fact) on below-threshold change proposals.

D. Invoice Review

Background

Monthly copies of FERMCO invoices are delivered to the DOE Contracting Officer (CO). The CO signs a receipt as proof of delivery. The CO retains one copy of the invoice, one copy of the supplemental cost breakdown document, and a copy of the Certification Statement sheets. The Chief Financial Officer (CFO) representative receives one copy of the invoice and a copy of the supplemental cost breakdown document. The CO distributes the certification packets to the appropriate DOE Activity Data Sheet (ADS) Managers.

The certification packets contain a certification statement for administrative review and approval of payment request, a summary of the month's charges for all ADS's. A breakdown of the specific ADS by Budget and Reporting (B&R) code and

specific charge numbers, and B&R code sorted by object class is also provided. This object class breakdown illustrates the monthly amount and the year-to-date cumulative figures for each object class. In addition, each certification packet contains individual listings sorted by charge numbers assigned to the individual DOE representative.

Project and activity responsibility is assigned by the ADS managers through a Responsibility Assignment Matrix (RAM) document. The majority of the ADS managers are Team Leaders in the Environmental Management Division (EMD). The RAM is a listing of each ADS broken down by charge number. Each charge number is listed and the respective FERMCO Cost Account Manager (CAM) and DOE primary contact is identified. The RAM allows the ADS manager to identify projects and subprojects and to assign specific DOE personnel to each.

The certification packets are distributed by the CO to the individual ADS managers, who in turn review the packet or distribute the packet to the members of the ADS review team according to the breakdown established in the RAM. The ADS manager conducts or requests a review that addresses the following requirements which are stated on the ADS Certification Statement:

1. Determine that the description, quantity, and services were actually delivered or rendered.
2. Assure that the items billed were not covered under a previous payment request and are consistent with the terms of the award.
3. Assure the reasonableness of the billing in light of known performance.
4. Assure that the performance is in accordance with the terms and conditions of the award, including the following: period of performance, statement of work, and restricting provisions.

A draft implementation procedure has been developed to assist the invoice review process. This procedure was developed by a project improvement team composed primarily of DOE ADS managers and key invoice review personnel. It is an attempt to capture effectively the best practices that have been employed by various reviewers for the past three years.

Team Observations

Corrections to invoices are sometimes informally agreed to, and corrective action is for FERMCO to back out costs in the next month's invoice. Such agreements are made between the DOE ADS Manager and the FERMCO CAM. These

transactions aren't centrally tracked. Without staff follow-up, DOE cannot assure costs are not simply moved elsewhere.

The baseline and IPEX are presently disconnected; transition to the new baseline is underway (in advance of DOE approval of the baseline). Tracking from one baseline to the next will be difficult. Invoice review criteria do not require the reviewer to confirm whether work was included in the approved baseline and/or authorized under the contract.

Financial staff do not presently review invoices, except on an exception basis. These staff are not matrixed to Fernald in the same relationship as other Ohio Field Office matrix staff. While the CO and budget matrixed staff are clearly a part of the Fernald team, there is a distinct lack of communication and information flow from the financial review staff. For example, an audit of three months' invoices conducted a year ago has still not been shared with Fernald staff. There is the potential that considerable savings could have been achieved over the last year if staff had more immediate access to the audit recommendations. In addition, financial review staff access FERMCO directly; site personnel do not have knowledge ahead of time of what reviews are being conducted, with whom, and for what purpose.

FERMCO CAMs recommend purchasing system entries be more timely. Presently, requisition data lags entry into purchasing system make IPEX not current. CAMs develop their own individual tracking systems to stay current on what requisitions are out, what vouchers are in against them, etc.

Strengths/Best Practices Identified

IPEX is a most impressive database, and provides easy access to data. It is user-friendly, and both DOE and FERMCO staff access it regularly

Team Recommendations

- Improve formality of operations in invoice review and in managing the baseline. As IPEX and the baseline come together, the invoice review procedure should ask that DOE reviewers assure work is within scope, as defined by baseline. If Fernald finds that invoices precede baseline change control, corrective actions should be taken to assure that future work is not authorized ahead of baseline changes. With the new baseline, protocols for providing direction to the contractor and managing change control should be respected in order to maintain management control of the baseline.
- It is recommended that the Ohio Field Office Financial Review staff be

matrixed to Fernald in the same manner as other Ohio Field Office staff in order to improve their customer focus. These support staff should serve to help the line succeed, and the present relationships do not contribute to the success of the Fernald project. Within a proper matrix arrangement, the activities of the Financial Review team would be coordinated with the Fernald Contracting Officer and site Director so that there could be a clear understanding of the impact of these activities on project costs, schedules, and value added. Audit results should be submitted more promptly to the Fernald office. Additionally, these staff would be the appropriate team to do routine cross-cutting reviews of vouchers (no one is presently doing these). An additional suggestion is that tracking reports, such as the employee concerns report discussed with the review team, be regularly shared with the Fernald manager so that he can take management action if he sees unacceptable trends developing.

- Fernald should consider organizing around type of work as opposed to geographic area. There are likely to be efficiencies to projectizing all surface remediations, ground water actions, and D&D as separate 'projects' to take advantage of common skill mixes, remedies, lessons learned, etc. The present organization is convenient for regulatory interactions, but may not be the most efficient and cost-effective for getting the work done. (Some team members did not support this recommendation.)
- Fernald should consider incentives to subcontractors (i.e. FERMCO incentivize Parsons) to develop and carry out project task orders in a more cost-effective and efficient way.

E. Award Fee

Background

The FERMCO contract is a cost-reimbursable, performance-based fee contract. In this type of a contract, the contractor is afforded an opportunity to earn fee based on performance. The overall fee pool is a matter of negotiation between the contractor and the government prior to award of the contract for the next year or performance period. Specific regulatory guidelines govern the amount of fee that can be available. The fee pool in any given period is a government determination.

Twenty percent of the fee pool is basic fee. As long as the contractor's overall performance is satisfactory or higher, basic fee is awarded to the contractor. The basic fee is paid monthly. One fourth of the basic fee is considered to be at risk; that is, if the contractor's overall performance is less than satisfactory, the contractor is required to repay some or all of the "at risk" portion to the

government.

The remaining 80 percent of the fee pool is performance-based fee and is measured in the various areas monitored. If the contractor exceeds satisfactory levels set in the fee plan, fee can be earned as predetermined for that work. If work is performed in less than a satisfactory manner, the contractor will have predetermined deductions in the earned fee. If the overall performance is rated satisfactory, no fee is earned or lost.

The process used to monitor contractor performance and determine the award fee earned by the contractor is based on a six-month cycle. Prior to the start of the cycle, a performance-based fee determination plan is developed which covers the areas that will be evaluated by DOE for determination of the performance-based fee. The plan addresses four separate areas of performance: (1) Safe Cleanup (Environment, Public, and Worker); (2) Least-Cost, Earliest and Final Cleanup; (3) Addressing Stakeholder Concerns; and (4) Milestones. In each area of performance, there are a variety of separate factors that are evaluated to make up a total determination of earned fee. No factor can be worth more than five percent of the available fee pool. The plan is prepared by the DOE employees who will evaluate performance and is shared with the contractor prior to finalization. The contractor is provided an opportunity to submit items it would like to see in the performance plan. If the site and the contractor cannot agree on the factors to be evaluated, a process called "irresolution" can be invoked which escalates the discussions up the management chain until agreement eventually occurs. The government retains the right to make the final determination on the contents of the plan. A final plan is issued to the contractor at least 30 days prior to the start of the fee period.

The majority (85 percent) of the areas of performance are objective in nature. A small percent are subjective. These areas of subjective performance provide an opportunity for DOE to make evaluations in a judgmental mode.

During the period, reviews of performance are conducted routinely. Daily interaction occurs between DOE and contractor counterparts. Scheduled and impromptu meetings are held between the contractor and government personnel during each month. The contractor prepares a mid-period self assessment and provides it to the government for review and further discussion.

At the end of the six-month cycle, the contractor provides a final self-assessment, and independent of that process the government evaluators prepare their evaluations under each separate area that is contained in the fee plan. These evaluations are rolled up under each of the four separate areas discussed earlier, with plus numbers being assigned for excellent performance, or minus numbers for

unsatisfactory performance, to reach a total score for each area, and then a total score for the evaluation period.

Once this process is complete, the evaluators meet with the Area Office Director and the Fee Board to discuss their evaluations. The Fee Board often questions the findings until they are satisfied that the result they see matches their assessment of the situation. Subjective criteria are often adjusted slightly to take into account the experiences of senior managers during the fee period. A briefing is then provided to the Fee Determining Official (FDO), who is the Manager of the Ohio Field Office. His comments are recorded and then the Fee Manager prepares the FDO letter to the contractor, which details the fee earned and lost and summarizes the findings for the assessment period.

The Fee letter to the contractor is coordinated with the Assistant Secretary for Environmental Management. A copy is provided to DOE-HQ, who obtains comments from a variety of offices at the headquarters level. After coordination is received, the Fee letter is issued to the contractor, who then invoices for the fee.

There have been no previous audits or reviews in the award fee area for this contract. The original contract was modified in July 1994 to a performance-based fee, utilizing the work of the DOE Contract Reform Committee. The changes/modifications made to the contract were based on those recommended in the Reform Committee's reports.

Team Observations

Part I of the Performance Based Fee Determination Plan needs to be updated. Much of the information contained in Part I is background and history of how the plan evolved. It would be more effective if this type of information is removed, and only facts about how the plan works left in.

The Performance Based Fee Determination Plan needs to be officially distributed to the local DOE staff.

Strengths/Best Practices Identified

There is clearly strong leadership involvement at this site in the performance based fee process. The Area Office Director and Deputy Director are personally involved in determining the specific areas of performance. They attend meetings and provide opinions on a regular basis. They have obvious ownership of the overall evaluation of the site contractor. This involvement assures that DOE is evaluating the right things and getting the best use of taxpayer dollars used to incentivize the contractor's performance.

The method used for assessment of contractor performance is flexible and effective. The plan changes every six months and is always current as to the desired outcome as a result of those changes. DOE can focus the contractor's attention effectively. The use of negative and positive incentives puts the contractor at financial risk and gains the attention of management in the contractor's organization, assuring a good product for DOE.

The areas of performance are defined in strong, clear, and objective terms. The site personnel involved in authoring the Performance Objective Criteria (POCs) have done an outstanding job of grasping the desired outcome of the contract and putting those desires into effective language. The criteria are easy to understand, and have evolved over several evaluation periods into clear and concise factors that measure the work.

Team Recommendations

The site should maintain its excellent use of continuous improvement in the area of fee evaluation. The performance plans continue to evolve and improve. This learning should continue. It should also be shared with other DOE components so they can make use of Fernald's lessons learned in performance based fee.

The FERMCO mid-term self assessment should be deleted. It does not appear to be necessary or for that matter utilized by DOE. The expense of its creation would be a cost savings for the site.

The Area Office Director should integrate a written monthly performance-based fee progress review with the monthly project review. This action will serve to reinforce the Department's goals at an already scheduled meeting held to assure progress of the work. This will eliminate any potential surprises and keep the contractor focused.

There has been limited success at implementing the Incentive Share Proposal (ISP) portion of the contract due to difficulty in identifying suitable projects. The team suggests that the Area Office Director set a goal of driving at least two ISPs per period to completion.

F. Operable Unit 4 and Vitrification Pilot Plant

Background

OU4 consists of four silos and their contents, a radon treatment system, a decant sump tank and its contents, an earthen berm surrounding Silos 1 and 2, and soils beneath and immediately surrounding the four silos. Silos 1, 2, and 3 contain a

significant concentration of radioactive material. The Silo 3 materials are lower in radioactivity than the material in silos 1 and 2, but due to the nature of the Silo 3 materials, there is concern that radioactive dust particles would be released into the environment if the silo structure collapsed. Silo 4 was never used for material storage and remains empty. It is not considered to be a current or potential threat to the environment.

A Remedial/Investigation/Feasibility Study for OU4 as required by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) was conducted between 1991 and 1993 to determine whether remedial action was warranted and to support the selection of the most appropriate remedial action alternative. As indicated in the December 1994 Record of Decision signed by DOE and the Environmental Protection Agency, the selected remedial action for the contents of the silos involves (1) removing the contents from the silos, (2) vitrifying (encapsulating the contents in glass "gems"), and (3) disposing the vitrified contents at a licensed facility offsite. The remedial action selected for the silo structures, contaminated soils, and other contaminated materials involves (1) demolition, (2) removal, and (3) disposal in a contained and controlled disposal area onsite.

There has been verbal interest from some members of the medical community in obtaining a portion of the contents of the silos for medical research purposes. There are several unresolved issues related to processing, transferring, and transporting and disposing these materials.

Approximately 75 percent of the costs associated with OU4 involves the design and construction of a vitrification plant which will encapsulate the contents of the silos in glass. This is currently planned to be accomplished in two major phases. The first phase involves a pilot plant (the Vitrification Pilot Plant) and the second phase involves a full-scale plant. The pilot plant is approximately 17 months behind schedule. The pilot plant is now scheduled to begin operations on April 25, 1996. The cost for the pilot plant has grown since the Title I estimate was performed in 1993 (\$14 million). The Title I cost estimate did not include the operations and maintenance cost and other support cost associated with the Vitrification Pilot Plant (VPP). The Estimate to Complete (ETC) for the VPP, currently is at \$42.8 million which includes the historical cost associated with the RI/FS and the future operations and maintenance costs. The cost growth of the VPP is mainly due to the under-estimation of the operational down time and the excessive amount of the field and design changes due to retrofitting of the balance of the plant. The cost for the full-scale plant is currently estimated at \$200 million.

Summary of Previous Audits and Reviews

Because of the cost increases and schedule delays, the DOE office at Fernald conducted a detailed investigation into the pilot plant. The review was conducted by DOE and outside technical experts and a report, the OU4 Investigation Report was completed in December 1995. In addition to cost and schedule issues, the study also included a technical review of reliability, availability, and maintainability.

A separate Value Engineering (VE) study of the OU4 remediation project was completed in January 1996. VE studies are comprised of technical experts with no notable involvement with the project or process. VE teams examine alternative approaches that fully meet necessary requirements at a lower cost or with an increase in long-term value. The Fernald VE study, *Remedial Actions at Operable Unit Four*, identified several alternatives (listed below), if adopted, could reduce the OU4 remediation cost.

1. Optimize the Vitrification Pilot Plant to make it practical to transition it for use as the production plant.
2. Institute solidification and stabilization methods for the materials in Silo 3.
3. Ship materials to the Nevada Test Site by rail and transfer to trucks in Nevada for the final leg.

Status of Corrective Actions

OU4 Investigation Report had 20 recommendations. These recommendations are in the areas of project control; cost schedule; Reliability, Accessibility, and Maintainability (RAM) analysis; and start-up testing. A recommendation of performing the RAM analysis was implemented immediately after the investigation. The RAM analysis identified approximately 70 observations. FERMCO addressed and responded to most of the observations and is currently addressing the remaining few items. DOE-FN will follow up on the resolution of the remaining items and the corrective actions. Other recommendations from the OU4 Investigation Report are either being implemented or currently being evaluated.

FERMCO is also currently evaluating the recommendations from the OU4 Value Engineering Study which may offer the potential opportunities to improve the current project schedule and the costs.

Team Observations

The current structure of the cost and schedule performance information relating to

OU4 does not allow performance information to be easily tracked at levels below the operable unit as a whole. Although the information gained from the design and operation of the pilot plant is critical to the success of the vitrification process and to the remediation of the entire operable unit, pilot plant cost and schedule performance is not readily visible. As a result, cost and schedule growth is not immediately evident and could lead to delayed discovery of the growth and its adverse impacts on related projects.

There is no direct schedule relationship between the pilot plant and the full-scale plant. Although the pilot plant schedule has been extended, the schedule for the full-scale plant has remained fixed. If the schedule is not adjusted, the pilot plant lessons cannot be incorporated fully into the design of the full-scale plant, potentially leading to costly design and construction changes.

The design and construction of the pilot plant and the design of the full-scale plant and analysis are not fully integrated. This could result in missed opportunities to take advantage of information obtained during the construction and operation of the pilot plant. This also appears to have led to the perception that the design of the full-scale plant is proceeding independently of the design and construction of the pilot plant, adversely affecting worker morale.

Strengths/Best Practices Identified

The previous DOE investigation into the cost and schedule growth of the pilot plant represented a vigorous effort to identify the cause of the problems and identify corrective actions. Moreover, weaknesses identified, if effectively resolved, will lead to a stronger program for the operable unit as a whole. Lessons learned could be expanded in other areas, strengthening the entire Fernald program. The study was conducted by technical and programmatic experts, leading to substantive recommendations for improvement in both areas.

The DOE value engineering study, which was conducted by experts from industry and government, resulted in analyses of alternatives which could reduce the costs of OU4. The potential savings underscores the importance of value engineering and its potential benefit to other DOE projects.

Team Recommendations

The FERMCO cost and schedule control system should be adjusted to facilitate tracking the performance of subprojects, such as the pilot plant. This would enable DOE and FERMCO to identify problems and take corrective action in a timely manner.

DOE should direct FERMCO not to proceed with the design of the full-scale pilot plant until operations of the pilot plant have been observed sufficiently so that lessons learned can be incorporated into the full-scale design. This will preclude costly design changes and help ensure the success of the OU4 vitrification process.

FERMCO should ensure that members of the pilot plant team have substantive input into the full-scale design. This will help ensure that pilot plant design and construction experience is incorporated into the full-scale effort.

FERMCO should routinely communicate the goals, objectives, and status of the full-scale design effort and value engineering studies to the pilot plant staff. This will help alleviate concerns pilot plant staff may have relative to future plans for OU4 and their role in it.

DOE should conduct a formal detailed review of FERMCO responses to the OU4 Investigation Report and Value Engineering recommendations. The review team should be comprised of DOE and outside technical staff having experience with vitrification plants such as those at Savannah River, West Valley, and Idaho. The review will help ensure that the recommendations and alternatives are thoroughly evaluated.

DOE (Ohio) should advise medical researchers to formalize their request for the silo materials and submit it to DOE Headquarters.

The Cost Audit of OU4 recommended in the OU4 Investigation Report should be conducted expeditiously. This will identify any problems in the cost accounting area requiring corrective action.

APPENDIX A

FERNALD SPECIAL PROJECT TEAM
TEAM ROSTER

Robert Baker
Waste Area Group Manager
Environmental Restoration Division
U.S. Department of Energy
Savannah River Operations Office
P.O. Box A
Aiken, SC 29802
(803) 725-1432
(803) 725-3616 fax

David Bourne
Cost Estimator - Technical Services Team
Environmental Restoration Division
U.S. Department of Energy
Albuquerque Operations Office
P.O. Box 5400
Albuquerque, NM 87185-5400
(505) 845-4032
(505) 845-4239 fax

Peter J. Dirkmaat
Program Manager - EIS Project Office
U.S. Department of Energy
Idaho Operations Office
850 Energy Drive
Idaho Falls, ID 83401-1563
(208) 526-1439
(208) 526-0160 fax

Rowland E. Felt
Nuclear Materials Specialist
U.S. Department of Energy
Idaho Operations Office
850 Energy Drive
Idaho Falls, ID 83401-1563
(301) 903-0444 @ HQ
(208) 526-8241 @ ID

James J. Fiore
Director, Office of Eastern Area Programs
U.S. Department of Energy, EM-42/FORS
1000 Independence Avenue SW
Washington, DC 20585
(301) 903-2328
(301) 903-2385 fax

Robert D. Folker
Deputy Manager
U.S. Department of Energy
Ohio Field Office
P.O. Box 3020
Miamisburg, OH 45343-3020
(513) 865-5133
(513) 865-3426 fax

William Harrison
EH-HQ Site Representative
U.S. Department of Energy
Fernald Area Office
7400 Willey Road
Fernald, OH 45030
(513) 648-3044

Thomas F. Heenan
Assistant Manager
Environmental Restoration and Solid Waste
U.S. Department of Energy
Savannah River Operations Office
P.O. Box A
Aiken, SC 29802
(803) 725-8074
(803) 725-3616 fax

Linda K. McClain
Assistant Manager for
Environmental Restoration
U.S. Department of Energy
Richland Operations Office
P.O. Box 550
Richland, WA 99352
(509) 376-6628
(509) 376-4360

Bryce L. Rich
Radiation Safety Consultant
SCIENTECH, Inc.
492 S. Park Avenue
Shelley, ID
(208) 357-7545
(208) 357-2417 fax

Richard F. Sena
Director, Environmental Restoration
Division
U.S. Department of Energy
Albuquerque Operations Office
P.O. Box 5400
Albuquerque, NM 87185-5400
(505) 845-6307
(505) 845-4239 fax

Alan Stokes
Program Analyst
U.S. Department of Energy
Oak Ridge Operations Office
P.O. Box 2001
Oak Ridge, TN 37831
(423) 576-8096
(423) 576-5401 fax

Note: Numerous staff members of the
Fernald Area Office contributed a substantial
amount of input to the team process in
development of this report

APPENDIX B

DEPARTMENT OF ENERGY
RESPONSE TO ENQUIRER ALLEGATIONS
February 11-March 4, 1996

Provided below is a compilation of the allegations published in the Cincinnati Enquirer from February 11, 1996 through March 4, 1996, and the Fernald Environmental Management Program's (FEMP) response.

FALSE REPORTING

Allegation: "Internal FERMCO documents show the company's senior management officials knew about the financial and reporting problems, but did little or nothing to stop them."

Status/Response: No specific documentation has been identified by DOE review teams to support this claim.

Allegation: "FERMCO gave fake performance reports to the Energy Department to cover up cost and schedule overruns, maintaining the company's eligibility for millions in performance fees. The Energy Department has paid FERMCO \$33.9 million on claims the company has submitted saying it met performance goals."

Status/Response: This allegation does not have merit since only one to two percent of the total award fee for any period had a specific relationship to overall cost and schedule performance. To date, no award fee has been given to FERMCO for cost and schedule performance.

Allegation: Based on an April 6, 1994, FERMCO memorandum by Mr. Den Herder, *The Enquirer* alleged that the contractor is purposely misreporting performance to DOE. "Jack Craig, who oversees the Fernald cleanup for the Energy Department, said he had not seen the Den Herder memo until *The Enquirer* told him about it. 'I can tell you I was extremely bothered by it and I turned it over to (higher Energy Department officials) and discussed it with the Inspector General here at Fernald.'" Mr. Craig said in a December 28 interview. "I certainly never authorized them to do that, and I can tell you no one in the Department of Energy ever did either."

Status/Response: The subject memo was reviewed by the Ohio Field Office staff with the author (Mr. Den Herder) shortly after it was issued. Although not clearly written, the intent of the memo was not to waste staff time on things that would be self-correcting and did not have a significant impact on status reporting. This intent was confirmed in the FERMCO Project Control Procedures, which require a variance analysis for performance

Department of Energy
Response to *Enquirer* Allegations

that has been overstated and provides a process for adjusting performance when needed. This is a valid interpretation of the DOE requirements, however, it is not one generally used by other sites. This practice is under review.

Allegation: "The program modification prevented employees from lowering the amount of completed work the company had claimed and prevented reports from showing that any job had exceeded its budget, according to FERMCO sources."

Status/Response: There are several versions of FERMCO's Bridge Software. The DOE staff tested both the current FERMCO Bridge Software and the September 1994 version. The testing did not support the allegation. Both of these versions correctly reported the percent of completion for performance. However, DOE evaluation of the April 1994 bridge program showed that this version was modified to adjust greater than 100 completion totals down to 100 percent totals. The bridge software should not make any adjustments of the percentage completion totals. Therefore, unless FERMCO staff detected the alteration and corrected it, the related performance report may have been misstated. However, this alone does not necessarily show a favorable impact to FERMCO. We could not evaluate another version of the April 1994 Bridge Software due to various technical problems.

Allegation: "From August 1994 through August 1995, FERMCO officials purposely deceived the Energy Department by issuing reports that did not include numerous problems the company was experiencing in building a pilot plant. The pilot plant is for testing a waste-disposal process called vitrification, that would encapsulate certain nuclear wastes into glass-like pellets. Mr. Grumbly of the Energy Department told *The Enquirer* last year that FERMCO management and engineers submitted false reports saying they were on schedule with the pilot project, while hiding from the government numerous design and construction problems that ultimately delayed the work."

Status/Response: *The Enquirer* states (not quotes) that Mr. Grumbly said that FERMCO submitted false reports. Quotes of Mr. Grumbly, however, in a November 28, 1995, *Enquirer* article indicate that he said FERMCO "continued to be optimistic" and "the situation was allowed to fester far too long before DOE was advised." In addition, further investigation reveals that the allegation of deliberate deception cannot be supported. Until September 1995, FERMCO's reports and schedule indicated a minor delay in the start-up of the vitrification pilot plant. The DOE-FN became aware of the significant schedule delay of the vitrification pilot plant project in July 1995. The major schedule delay was associated with the overestimated operating efficiency of the systems.

Department of Energy
Response to *Enquirer* Allegations

in the original schedule. Another factor causing schedule delay was unexpected number of field changes and subsequent delays in the Construction Acceptance Test and the System Operability Test.

WORK AUTHORIZATION

Allegation: "The reports reveal that FERMCO has set up 236 control accounts and charge numbers with no budgets or full authorization from the Energy Department."

Status/Response: Review of the December 1995 data found that there were 45 control accounts that had costs, but no budget. This was primarily due to opening new control accounts for the new ten-year baseline before the change from the twenty-five year baseline had been formally submitted and approved by DOE. In January, FERMCO received an fiscal year 1996 conditional authorization of work by the DOE Area Office Director. FERMCO has subsequently redistributed budget to those control accounts that previously had no budget.

Allegation: "The government has paid bills on the unauthorized accounts ranging from a few cents to more than \$1.7 million. The unauthorized charges were made from December 1992 to present."

Status/Response: What appears to be unauthorized work, either has been or will be formally authorized. Examples of this are: payments of invoices that are received after a control account is closed; correction during closeout of canceled projects or completed control accounts and opening new control accounts during transition on an existing baseline to a new one without formal approval to open the new accounts from DOE.

Allegation: "For example, FERMCO set up a control account and charge number with no budget and as of December 1995 had used it to charge the government \$355,360.28 for 'non-technical engineering support.' According to FERMCO reports, the company expects to charge the government \$2,341,662.28 on that account before the project is completed."

Status/Response: The example given is in no way evidence of an attempt to deceive. It is a case where funds for a control account existed but were not transferred prior to the start of work. In this case, funds for A/E technical support were to be transferred from two control accounts ICCA and IDCA to be combined into a new control account with a single charge code of ICIC1. The charge code was set up in anticipation of the Budget transfer (which did not occur until January), and costs were charged to it without budget for the first three months. Based on the January interim authorization letter from the DOE-FN Area Office Director, budget was provided for ICIC

Department of Energy
Response to *Enquirer* Allegations

Allegation: "The reports also show that, in some cases, FERMCO has charged the government - and was paid - hundreds of thousands of dollars through a control account and charge number with no authorized budget and that the company plans to charge hundreds of thousands more."

Status/Response: During the current rebaselining, there were control accounts that were opened prior to approval by the Department of Energy. These accounts were authorized in January by the interim approval of the fiscal year 1996 plan.

Allegation: "The accounts and charge numbers are used to bill the government on a revolving basis for ongoing work. The Energy Department's *Budget Execution Manual* and FERMCO records, reviewed by *The Enquirer*, detail precisely how government authorization must be obtained before a control account and charge number can be opened and used and how a company must use an account once it is authorized. The rules prohibit several types of financial practices being used by FERMCO officials."

Status/Response: The Budget Execution Manual deals with funding authorization and allocation, not project performance baseline maintenance as stated in the allegation.

The original FERMCO baseline was extensively reviewed by the DOE and approved in February 1994 by the DOE Assistant Secretary for Environmental Management. This constitutes work authorization for approved work scope at the control account level. Additionally, DOE annually reviews the contractor's plans to ensure that the baseline is in alignment with changes to site priorities and available funding is sufficient for identified scope for the fiscal year.

Allegation: "For example, one charge number with a budget of \$39.35 was used to charge the government \$75,052.41. In another case, an account for 'boiler relocation construction' was budgeted at 59 cents, yet company records show the government paid \$23,315.64."

Status/Response: The allegation refers to data from November 1995 for the Plant 8 Sump and the gas boiler relocation project and is based on a lack of understanding of how and why accounts are established. The Plant 8 Sump project *control account* budget was \$225,447 with \$114,014 in actuals. The \$39 for budget with \$75,058 in actuals is at the charge number level. Once again, an accounting error relating to incorporation of a change proposal canceling the project was responsible. Tracking baseline changes at the charge number level would be cumbersome. However, changes to control account information resulting from approved change proposals are trackable by DOE. With the new rebaseline Change Proposal, DOE will institute a one-time reconciliation, along with on-going surveillance of baseline integrity.

Department of Energy
Response to *Enquirer* Allegations

For the gas boiler there were two control accounts established: one for engineering and one for construction. The project was canceled before it went into the construction phase. A portion of the engineering costs was incorrectly charged to the construction control account. As a result of the project being canceled the unused budget was made available for other DOE activities. In moving this budget, FERMCO tried to reduce the construction budget to zero but inadvertently left 59 cents in the account. The \$23,315.64 engineering cost that had been incorrectly charged to construction also did not get correctly charged back to engineering, even though there had originally been approved budget for these costs. This was due to an accounting error.

PLANT 7 DISMANTLING

Allegation: FERMCO deliberately concealed from DOE a dismantling contract bid of \$1.8 million dollars versus \$5.5 million dollars estimate in order to support a higher estimate for the total effort.

Allegation: FERMCO records obtained by *The Enquirer* show company officials in 1993 submitted inflated cost estimates to the Energy Department for the demolition and dismantling of Plant 7, a contaminated building at Fernald. FERMCO and government records reveal the company supplied the Energy Department with written estimates in 1993 that showed the subcontracting costs for dismantling and demolishing Plant 7 would be about \$5.5 million. When FERMCO received a signed contract from a subcontractor on August 23, 1993, showing the work would be done for \$1.8 million, company officials purposely did not notify the Energy Department about the lower cost."

Status/Response: Ongoing review is being conducted to determine if the specific timing of the change proposal that modified the baseline budget by incorporating the value of the actual contracts would have resulted in negative cost performance that would have exceeded the performance objective threshold resulting in a loss of fee.

Status/Response: There was no concealment. DOE was aware of the lower bids and the allegation is untrue. The baseline estimate for Plant 7 was \$5.5 million dollars. FERMCO received 9 bids from the Public Opening ranging from \$1.8 to \$5.2 million dollars on August 25, 1993. FERMCO recommended the \$1.8 million dollars to DOE on September 20, 1993. The baseline of \$5.5 was submitted to DOE on September 30, 1993. At this time, the \$1.8 million had not be approved by DOE. DOE approval was received by FERMCO on November 2, 1993. The subcontract was awarded on November 12, 1993.

Allegation: FERMCO did not change the baseline to reflect the lower bid of \$1.8 million dollars.

Status/Response: The allegation is true but does not necessarily demonstrate deceit. The

Department of Energy
Response to *Enquirer* Allegations

baseline should have been adjusted by a change proposal in late 1993 or early 1994, based on FERMCO operating procedures. This procedure requires a change proposal to adjust the estimate to the actual negotiated value. The change proposal to adjust the baseline from \$5.5 to \$1.8 million was submitted in April 1995 and the adjustment was made in May, 1995.

Allegation: FERMCO tried to obtain an additional performance fee for the Plant 7 effort.

Status/Response: The allegation is not true. A check of the performance-based fee plan for the time period involved, revealed that FERMCO could have potentially earned fee for the cost variance generated on the Plant 7 D&D demolition subcontract. This performance fee criteria was based strictly on schedule and cost variance. The team recommended additional testing to determine if the change proposal would produce a negative cost performance variance, which would result in a penalty of an estimated \$135,000.

TRAVEL

Allegation: "During the past three years the U.S. Department of Energy has paid more than \$15 million in unsubstantiated travel expenses to the companies cleaning up Fernald, *The Enquirer* has learned."

Status/Response: \$15 million was the approximate total travel claimed by FERMCO from fiscal year 1993 through to fiscal year 1995. Both the fiscal year 1993 and fiscal year 1994 travel costs have been audited by the IG. Of the total travel in those two fiscal years (approximately \$10 million), the IG questioned \$1.6 million. The majority of the questioned costs in this case were associated with relocation costs, not routine business travel. Therefore, based on the IG audits, \$8.4 million of the travel costs have been substantiated to date. FERMCO has already reimbursed DOE for approximately \$500,000 of the questioned costs described above. DOE is currently working with FERMCO on the remaining \$700,000 contained in the fiscal year 1993 audit and will begin working with FERMCO on the \$400,000 anticipated to be in the fiscal year 1994 audit when it is published.

It should be noted that the majority of the \$1.2 million costs questioned in the fiscal year 1993 audit were related to the relocation issue of how long an employee can be paid per diem once they begin work on the project. The issue is a matter of interpretation which is currently being discussed between FERMCO and DOE. FERMCO has changed their policy in this area to be consistent with the DOE interpretation of the issue. The allegation that FERMCO gets paid without receipts or other documentation stems from

Department of Energy
Response to *Enquirer* Allegations

the beginning of the contract when FERMCO was paying per diem for travel to each location and did not require receipts for lodging or meals. In 1993, DOE requested that FERMCO change their policy so that traveling employees would be reimbursed at cost (with a ceiling of the per diem amount). By April 1994, FERMCO's policy was revised and implemented to require receipts for their hotel accommodations and miscellaneous expenses over \$25 which is consistent with the Federal Travel Regulations.

Allegation: "Because of the overcharge findings and budget constraints, the government has ordered Fluor Daniel/FERMCO to cut its 1996 travel charges by 25 percent of what it billed the government in 1995."

Status/Response: There is no connection between the audit findings and the cut in the travel budget. While FERMCO took a 25 percent cut in fiscal year 1996, that was motivated entirely by the austere fiscal year 1996 Federal budget. All Ohio contracts were given the same budget restriction.

SAFETY & HEALTH
Part I - February 12, 1996

Allegation: "While U.S. Department of Energy officials say they are working to improve safety at the site, federal reports and other documents obtained by *The Enquirer* reveal a pattern of life-threatening mistakes by the company hired to clean up the former uranium processing plant."

Status/Response: All of the safety statistics and records of employee safety concerns or complaints indicate there is an effective safety program at the Fernald site which actively identifies potential hazards and takes proper corrective actions to address these issues. The most effective component for this process is the site work force itself, which has demonstrated significant success in identifying potential safety hazards. These employee safety initiatives include the Safety First work groups, the 25 member Safety Committee, the Facility Safety Assessment Program, and the Enhanced Work Planning Program. The major tenet of each of these programs is to involve employees in planning of work to ensure that safety and health concerns are addressed. Our documented safety record is significantly better than national industry standards for similar facilities.

Allegation: "Missing or misplaced containers of uranium."

Allegation: "At least three incidents of missing or misplaced uranium or misplaced hydrofluoric

Department of Energy
Response to *Enquirer* Allegations

acid gas. The most recent occurred May 26, 1995, when a worker discovered canisters of hydrofluoric gas in a trash area near Building 71. FERMCO officials said they did not know how the containers got there."

Allegation: "Other incidents include a missing container of 167 pounds of slightly enriched uranium. Workers discovered the uranium missing on September 30, 1994. The container was found two months later in another building."

Status/Response: The Department regards very seriously the management of nuclear material at the Fernald Site. The incident identified in the article was correct; 167 pounds of uranium material in one drum was misplaced and later found. The current total inventory of uranium material at the site is approximately 40,000,000 pounds. Because of security programs and detailed record keeping, it was known that the material was not removed from the site. The drum was discovered during a routine surveillance.

The hydrofluoric acid gas canisters found were part of the "legacy" trash and were found during sorting and recycling operations. The cylinders were still labeled but were empty and had been placed in a safe configuration by removing the valve stems. The cylinders were treated as if they contained hydrofluoric acid until it was shown that they were empty. The cylinders were tested for residual hydrofluoric acid and none was found. The handling of the suspect cylinders was in accordance with all safety requirements and demonstrated an effective and proactive safety program.

Allegation: "A six-month *Enquirer* investigation into Fernald has revealed more than 1,000 serious safety-related problems since January 1, 1993 when FERMCO began work at the site. These include:"

Status/Response: The Department of Energy requires that FERMCO provide occurrence reports. The system is established to allow immediate and unimpeded reporting of any issue that could represent a safety concern. The levels of classification, starting from the least to the greatest concern, are logables, off-normals, unusual and emergency events. The overwhelming majority of reports for the Fernald Site are logables and off-normal reports. There have been approximately 375 occurrence report processing system (ORPs) reports beginning from January 1, 1993, until the present date for the Fernald site. Very few of these occurrence reports were serious safety-related problems.

The Occurrence Report Processing Systems (ORPs) reports are readily available to the public and are provided routinely to other agencies for review. The existence of these incident records are not indicative of a program that is unsafe. Instead, they represent a program that is functioning in accordance with Department expectations to readily report

Department of Energy
Response to *Enquirer* Allegations

any discovery or system interruption which may pose a potential safety hazard to employees.

Our documented safety record is significantly better than national industry standards for similar facilities.

Allegation: "Seven 'criticality' incidents, where drums of radioactive waste were stored too closely together, were caused by 'management problems' or 'personnel error.' Energy Department officials say the incidents could have led to explosions of nuclear material."

Allegation: "While acknowledging the impact any safety problems can have on a nuclear site, Energy Department officials, including Mr. Craig, say incidents of criticality and radiation contamination are feared the most because of the immediate threat to human life."

Allegation: "Despite being stored in protective containers, some radiation always will escape. If too many sources of that radiation are close to each other, a nuclear chain reaction can occur, possibly resulting in an explosion according to Mr. Craig and Mr. Stegner. Seven times between September 22, 1993 and June 13, 1995, members of the Energy Department's Nuclear Criticality Safety Team reported criticality incidents at Fernald. The most recent incident occurred when approximately 40 55-gallon drums were moved to Building 77 and stored in a configuration that violated posted safety rules. Another incident occurred October 7, 1994, when FERMCO workers placed other drums filled with low-level waste between drums containing "enriched/restricted" nuclear material. Drums also were placed too closely to the area's radiation detection alarm, rendering it inoperable, according to an Energy Department report. Criticality incidents continued to occur despite repeated warnings and violation notices issued by the Energy Department after every incident, beginning with the first one on September 22, 1993."

Status/Response: It is NOT POSSIBLE to create an explosion based upon a nuclear criticality event with the material currently stored at the Fernald Site. The criticality safeguards program at Fernald is established by the Department of Energy to manage this type of material.

The criticality safeguards program at Fernald, as required by DOE Orders, is based upon a double contingency principle and defense in depth. This means that multiple layers of safeguards are in place such that compromising one of the safeguards will not result in a criticality event. The material stored at Fernald is managed based upon mass, geometry, enrichment, and reflector restrictions.

The criticality incidents cited in the article in fact were identified by DOE and FERMCO,

Department of Energy
Response to *Enquirer* Allegations

and all were corrected. An independent assessment of the criticality program performed by DOE in December 1995 confirmed that all had been corrected and that the criticality program is in compliance with all requirements. Based upon the performance of the criticality program, FERMCO was penalized in a reduction of their available fee for this period of performance.

Allegation: "Almost 80 cases of workers being exposed to radiation between January 3, 1993, and October 10, 1995.

"A review of the more than 1,000 incidents at Fernald detailed in Energy Department reports, US Environmental Protection Agency investigation records and FERMCO internal documents showed 78 contamination incidents have occurred at the site since January 3, 1993."

"In an October 10, 1995, incident, an employee of a subcontractor was splashed with radioactive "green salt" (uranium tetra-fluoride) after unzipping her protective clothing because she was uncomfortable...the report as an "acute and excessive" dose of radiation. She was later fired for violating the safety rules. Her medical condition - like that of every person who received some level of contamination at Fernald - was not disclosed in the government reports. The government does not require such information in the reports. Medical information about employees does not have to be disclosed under Freedom of Information Act, and therefore was not available."

"On March 30, 1993, another worker, despite wearing protective clothing, contaminated his hair with radioactive dirt while working under a tank to repair a leak."

"On several occasions, workers were contaminated because they were not made to wear protective clothing while working known radioactive sites. For example, on August 4, 1995, a worker who was told to paint, stepped in some wet paint. The sticky paint allowed radioactive dust to build up on the sole of his boots. He told Energy Department investigators that FERMCO officials never warned him of the dangers, according to the reports."

"In another case, on March 1, 1993, a subcontractor welding outside of Plant 9 had his boots and coveralls contaminated, despite wearing protective clothing over them, because he was working on his hands and knees in contaminated soil "

"Energy Department officials also blame FERMCO management for contamination of a worker on December 7, 1994. Employees digging a trench uncovered a 5-gallon drum. One worker was directed to open the drum with a shovel. It was later determined that the drum was radioactive."

"On March 5, 1993, a worker's clothes were contaminated with radiation when he simply spread salt on icy walkways around buildings that were considered non-contaminated areas "

Department of Energy
Response to *Enquirer* Allegations

Status/Response: The Fernald Site is radioactively contaminated. FERMCO and DOE expect to find contamination within the controlled areas of the site and have established adequate controls and training to minimize the probability of an event occurring and creating any safety hazards.

The Fernald Site averages more than 90,000 entries into controlled areas each month. For example, the 69 actual incidents included in the article occurred over the course of 3,000,000 entries into the controlled area (the 78 incidents included 9 incidents which did not include contaminants). The overwhelming majority of the radioactive contamination that these workers are exposed to is low level "nuisance" contamination that is part of the legacy contamination from the early days of site operations. These contamination events have no significant dose consequences.

Of the several contamination events listed in the *Enquirer* article, the October 10, 1995, incident is the most significant. The employee described in the article was fully trained and qualified to perform the work authorized by site procedures. However, during the course of her assignment, the employee purposefully degraded, not only one, but two levels of protective clothing by unzipping them while she was working. The employee was contaminated because of demonstrated poor work practices and because she was doing unauthorized work. The employee contamination resulted in no appreciable skin exposure. This employee's medical records, as with all citizens of the United States, including government contractors, are protected by the Privacy Act. Medical records are not releasable without the employee's consent.

Allegation: "Fernald workers - including several handling nuclear materials - were found high on cocaine or marijuana or drunk on alcohol, but later allowed to return to work if they promised to attend substance abuse classes."

Allegation: "Energy Department records reveal another serious and continuing safety problem: Fernald employees found high on cocaine or marijuana or drunk, while working with or around nuclear material. Since January 1, 1993, there have been 38 documented reports of workers caught on site impaired by drugs or alcohol. Investigators conducted drug tests to prove their cases."

Allegation: "In almost every case, the workers were told of a FERMCO policy where they either could keep their jobs by agreeing to attend a substance abuse program, or be fired. Some workers were repeat offenders and still were allowed to keep their jobs. For example, on June 2, 1995, a worker was caught high on cocaine a second time. He was still attending a substance abuse program for his first violation, so FERMCO officials merely increased the length of time he would be subjected to unannounced drug testing."

Department of Energy
Response to *Enquirer* Allegations

Status/Response The FERMCO substance abuse program requires drug testing prior to performing work at the facility. Workers currently employed and actively working on the site are subject to random drug testing and testing if there is reasonable suspicion of substance abuse. The employees identified since January 1993 are the positive result of an effective substance abuse program.

The FERMCO substance abuse policy refers an employee to rehabilitation counseling for a first offense. The employee is not permitted to perform work in safety sensitive areas, such as nuclear material handling, until the employee successfully completes the rehabilitation program. While in the program and after completion the employee is subject to random and frequent drug/alcohol testing. The employee is terminated if there is a second offense. If an employee is caught with an illegal substance in their possession, their employment is terminated and the person is detained until they can be turned over to law enforcement officials.

The employee identified on June 2, 1995, of a second offense while participating in the rehabilitation program was terminated in accordance with the site's substance abuse policy.

Allegation: "Intentional sabotage of electrical circuit breakers that could have resulted in explosion or the spread of radiation."

"FBI agents were called to the site on December 13 and 16, 1994, when workers found some circuit breakers that had been purposely disabled or damaged. The circuit breakers are designed to prevent electrical overloads that could lead to explosions, fires or the spread of radioactive contamination."

Status/Response During wiring of a circuit breaker panel (similar to the one found in most homes in the Cincinnati area) in a trailer, designated as a locker room, electricians found that a jumper wire had become disconnected and some copper screws were over-torqued to the point of stripping the shank from the head. The panel was replaced and six days later, one bolt in the panel was found to be over-torqued. This bolt was replaced and the unit subsequently placed in service. A joint statement from the Fernald Atomic Trades and Labor Council, the FERMCO President, and union officials condemning the actions was issued. The trailer was not in a contamination zone and posed no threat of spread of radioactive materials. This tampering could have caused an electrical short if it had not been discovered before the system was energized. There are, however, several inspections of systems before use. The problem was detected during one of these inspections.

The person(s) responsible for this incident was not discovered by a local investigation. The FBI was notified because of a statutory requirement. The FBI was not able to

Department of Energy
Response to *Enquirer* Allegations

ascertain the perpetrator(s).

Allegation: Someone purposeily hiding surgical gloves filled with radioactive material in a personnel radiation monitor where it endangered other workers.

Another suspected case of sabotage occurred August 12, 1994, when someone put surgical gloves filled with radioactive material inside the arm wells of a Personnel Contamination Monitor that workers were required to use. The monitor's alarm went off when a man used it. The man was not contaminated but a check of the machine found the surgical gloves. Investigators never found the culprit.

Status/Response: For the August 12, 1994, incident, the personnel contamination monitor indicated a "contaminated palm" alarm and a "contaminated detector" trouble signal. The Radiological Control Technician directed the employee to a different Personnel Contamination Monitor at the control point and the employee showed no contamination. While trouble shooting the contamination detector light, an instrument technician later discovered two contaminated surgical gloves in the personnel contamination monitor. Any number of employees could have placed the contaminated gloves in the personnel contamination monitor. The event was clearly intentional, but after investigation no responsible employee was identified. This activity did not pose a safety hazard and demonstrated the appropriate control was maintained.

Allegation: Repeated failure of radiation alarms - designed to warn workers of possible exposure - due to power outages or dead batteries.

Status/Response: The radiation detection alarms are in place to monitor the movement of low-enriched nuclear material. These alarms are continually monitored at the Fernald Site at the Emergency Operations Center. If any of these alarms are not operating properly, a notification of malfunction is received at the Emergency Operations Center. The standard site operating procedure is to restrict any movement or handling of the low-enriched restricted materials in the area where there is a radiation detection alarm malfunction. This restriction is announced over the site loud speaker system when the restriction is placed in effect.

These alarm failures are subsequently reported in the occurrence report processing system, along with the corrective actions taken to address the radiation detection alarm problem. DOE expects FERMCO to report these events in accordance with DOE Orders.

Allegation: "Radioactive material being shipped off-site in mislabeled drums that, in at least one case, resulted in a man being exposed to radiation."

Department of Energy
Response to *Enquirer* Allegations

Status/Response: In fiscal year 1995, over 590,000 cubic feet of low-level waste was shipped off-site for disposal. There have been several incidents involving radioactive material transport to or from the Fernald Site. None of the cases involved radiation exposures above, or even close to, site limits for radiation exposure. No personnel contamination incidents were generated because of the shipments.

Allegation: "'Both management and line workers come to work daily fearing they may be carried out of here with radiation poisoning or, worse yet, that a catastrophic incident could kill thousands of their fellow workers and area residents because of some stupid mistake,' said one FERMCO senior management official who asked for anonymity, saying he would be fired if identified."

"A couple of my buddies were contaminated last year when they were working on installing some new (pump) lines because their bosses told them the old lines had been flushed and they hadn't been," one FERMCO worker said, also requesting anonymity, "Something bad happens here pretty regularly."

Status/Response: Many workers at Fernald must routinely deal with hazardous materials. However, given the nature of these materials, it is difficult to conceive of how they could generate a catastrophic event that could kill thousands. The Fernald safety program is designed to deal with the plausible hazards that exist at the site. At the core of Fernald's successful safety program is a commitment to employee involvement. Both DOE and FERMCO have established an employee safety complaint and concern reporting system. FERMCO provides continuing training to their employees to encourage the reporting of safety complaints or concerns. Also, there is a safety hotline number that can be used by employees to report safety concerns. These systems allow the person raising the safety complaint to remain anonymous. All safety concerns are resolved by DOE or FERMCO. FERMCO is legally required to process the safety complaints raised by their employees. The safety complaints raised in the article do not include enough detail to allow appropriate follow up by either DOE or FERMCO. However, if additional details could be provided, such as the building or structure involved during the pump installation, action would be taken to follow up the safety complaints.

The DOE has always encouraged an open door policy. Safety complaints raised by FERMCO or DOE personnel are, without exception, considered and acted upon. FERMCO has instituted several programs to improve safety at the site. These programs include the 25 Man Safety Team and the Safety First Initiatives. Both have contributed to FERMCO's attainment of 4,000,000 safe work hours. Contributing factors to this success are the DOE and FERMCO positive approaches to placing safety first for all workers.

Department of Energy
Response to *Enquirer* Allegations

Allegation: "Energy Department records obtained by The Enquirer reveal that most of the safety violations and problems that have occurred at Fernald since January 1, 1993, have been identified by the Government as the fault of FERMCO management. According to these

records, those management problems include failure to adequately train workers, failure to properly maintain safety equipment and ignoring or failing to follow Energy Department rules to prevent explosions or radiation contamination.

Status/Response: The Department of Energy contractually requires FERMCO to identify and report all safety related incidents and maintain a level of training for their employees. As an integral part of the safety program, both FERMCO and DOE perform an analysis of incidents, irrespective of how small to determine if there is an underlying cause and or identifiable trends. This "root cause analysis" identifies weaknesses in management systems such as training, procedural violations, equipment maintenance, and supervisory controls. This permits management to take corrective actions which eliminate or prevent the recurrence of safety related incidents while resulting in continuous program improvements.

Allegation: "The Safety Analysis Group operates as a group of independent individuals without effective communication among themselves, other departments or projects, or the external environment. Insufficient effort is being extended to seek lessons learned from others, either internal or external. There is a shortage of staff with broad experience in Safety Analysis work. The Safety Analysis procedures may be inadequate to cover all aspects of their current work, and there appears to be a lack of consistent approach to performing safety analysis."

Status/Response: The problems associated with the FERMCO Safety Analysis Group were identified by DOE and FERMCO. DOE directed FERMCO to take corrective action for this program in 1995. This deficiency resulted in reduction of FERMCO performance based fee. Corrective Actions have since been taken by FERMCO and DOE verified problems were addressed based upon a December 1995 assessment.

Allegation: "Another potentially life-threatening situation . . . is thousands of 'counterfeit' or substandard fasteners and bolts being used to hold together tanks containing radioactive material, cranes, lifts and other structures."

Status/Response: DOE is confident the current counterfeit bolt inspection program implemented by FERMCO is effective. The Department established this program on a national level to ensure suspect or counterfeit bolts are discovered prior to their being used on a safety critical component. This effort was undertaken in the early 1990's when

Department of Energy
Response to *Enquirer* Allegations

it was discovered that suspect or counterfeit bolts had been introduced into the system. In the past two years, crews at Fernald have been inspecting the site looking for suspect bolts. When bolts are found in load bearing or structural applications, the bolts have been replaced. There have been no safety events related to counterfeit bolts, or equipment failures related to counterfeit bolts at the Fernald Site. The bolt failure identified in the nitric acid tank failed due to corrosion. Many of the suspect bolts were found in parts bins, in preassembled valves, on access covers, and on rental equipment (i.e., man-lifts, air compressors).

Part II - March 3-4, 1996

Allegation: "Officials of the Fernald Environmental Restoration Management Co. (FERMCO) have known about structural flaws since the building's concrete foundation was poured in 1994, according to hundreds of the company's internal documents and more than 50 FERMCO photographs obtained by *The Enquirer*."

"The vice president of the construction company that did work at the plant acknowledged that areas of the building are unsafe, but said FERMCO officials refused to allow his firm to repair the flaws properly. 'That is because when mistakes were made, FERMCO was in such a damn hurry to get this project completed, they wouldn't allow us to fix the problems,' said Dan Lynch, vice president of the R.E. Schweitzer Construction Co., the subcontractor that did the concrete and welding work on the plant. 'We told them things needed to be fixed, but they ignored us,' he said. Mr. Lynch said the plant's porous and chipped concrete floor and walls - including the radiation shielding walls - should have been patched or resurfaced before FERMCO had them repeatedly coated with epoxy."

"Among the flaws noted in the company's records that FERMCO managers and employees say still have not been properly repaired: Several large sections of the building's concrete foundation and walls - including radiation-shielding walls - were built with inadequate or faulty reinforcing bars (called rebars)."

"Concrete floors and walls - including radiation-shielding walls - are severely chipped, cracked and filled with air pockets into which waste could seep, contaminating the entire building and its workers, industrial painters were told to put several layers of epoxy on the floor and walls to cover up the flaws. The painters said they were told to 'keep quiet' about the problems."

"Entire sections of walls are cracking, tilting and out of alignment. In several cases, concrete was poured in violation of temperature and timeliness requirements set by national engineering and construction organizations, resulting in substandard and damaged walls."

Department of Energy
Response to *Enquirer* Allegations

"The records also revealed that FERMCO officials didn't even try to fix all the problems that were identified by their own quality assurance engineers. In many cases the FERMCO reports noting construction flaws directed the subcontractor to leave the work 'as is.' Examples cited in FERMCO's reports, include ignoring smaller-than-required welds and 'corrosion allowances' in a thickener tank shell; failing to ensure that required pressure testing of pipes as a complete system be conducted; allowing oversized or undersized walls and doorways to remain; allowing structural steel to be delivered and erected without the painting of a required protective 'field coat'; and letting concrete pourers drop the concrete more than 13 feet into forms, resulting in damaged, porous walls."

"Three Schweitzer employees who worked on pouring the pilot plant concrete told *The Enquirer* that because FERMCO officials were in such a rush to get the pilot plant built, no time was given to properly 'vibrate' the wet concrete poured into certain floor and wall sections to remove the air pockets from it. The three asked not to be identified in this story to protect their jobs. One senior Schweitzer employee who helped pour the concrete said 'I'm afraid somebody's going to get hurt, especially when that radioactive stuff starts spilling onto (floors/walls). The waste will seep into the concrete's air pockets and then the whole place will be one contaminated shell.' All three Schweitzer employees told *The Enquirer* that radiography (X-rays) pictures were taken only of sections of the floor and walls where the concrete was vibrated properly to eliminate air pockets. Radiography was not performed on all sections. 'Those good picture are what was shown to the (Energy Department if they asked to see them, and then put in the files,' one worker said. 'I don't believe (the Energy Department) knows the extent of the problem. Some (concrete) sections are OK and were vibrated properly, others are not. That's where the problem lies.'"

"The substandard work has been done primarily by employees of Schweitzer, according to FERMCO's documents. However, FERMCO management has, in many cases, allowed the defects to remain unfixed or accepted substandard repairs."

"The senior FERMCO management source connected to the pilot plant project said that while many structural defects and building problems were identified in 1994 and 1995 by his company's engineers and included in written reports, 'not all the problems were taken care of or taken care of properly. One of the reasons these problems have occurred is because this company (FERMCO) 'is in a hurry to get the pilot plant on-line,' the source said. 'The company only makes money if it completes various aspects of this project in a certain amount of time. Right now this (vitrification) project is way behind schedule and we have lost millions as a result.' FERMCO has 'fast-tracked this project and that has meant over-looking substandard and unacceptable work by our subcontractors, or accepting faulty repairs that should have resulted in the work being completely redone,' the source said. 'The plant is full of problems and I'm scared that someone is going to get hurt.'"

Department of Energy
Response to *Enquirer* Allegations

"Piping and other metal work throughout the pilot plant were not properly coated before installation and are beginning to rust. Workers attempting to fix the problem during the past two months failed to properly seal off the area before using a sandblaster and now hundreds of thousands of dollars worth of machinery in the pilot plant has been damaged, some irreparably."

Status/Response: The *Enquirer* identified several areas of concern in the March 3rd article pertaining to the R.E. Schweitzer Construction Co., the subcontractor that did the concrete and welding work on the vitrification pilot plant. The article also stated concerns with DOE's and FERMCO's overview and management of the construction activities, and resolution to documented Corrective Action Reports (CAR) and Non-conformance Reports issued by both FERMCO and Schweitzer Construction Co.

The Department of Energy has imposed a rigid set of Quality Assurance requirements on FERMCO and its sub-contractors for design and construction activities. These requirements include:

ANSI/ASQC E-4 American National Standard, "Specification and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs"

ANSI NQA-1 "Quality Assurance for Nuclear Programs"

DOE Order 5700 6C, Quality Assurance, and

10 CFR 530.120 Quality Assurance

These requirements provide authority and direction to implement a formal Management system for control of all work activities.

The FERMCO management system provides procedures and instructions to implement these requirements. One example of this procedural control relating to control of nonconforming items is as follows: (stated in the March 3rd *Enquirer* article).

Reference FERMCO Quality Assurance RM-0012, Para. 6.2.3 "Changes to final designs (including nonconforming items that are dispositioned "use as is" or "repair") are to be subjected to design control measures commensurate with those applied to the original design and approved by the organization that approved the original design or a qualified designate

Temporary modifications shall receive the same level of control as the designs of

Department of Energy
Response to *Enquirer* Allegations

permanent modifications.

Since project inception, FERMCO has written over 86 non-conformance reports for Operable Unit 4 activities. Of these, 37 addressed the specific issues identified in the *Enquirer* story. As of March 6, 1996, 13 Discrepancy Reports and 6 Findings remain open pending either technical disposition, or implementation/verification of corrective action by FERMCO. Of the 36 identified in the *Enquirer* story, 34 have been closed (i.e., satisfactorily addressed) by FERMCO.

Closure of any FERMCO Deviation Report occurs based on physical verification of the approved corrective actions by FERMCO Quality Assurance/Quality Control, generally by the same individual who identified the original deviation (but at a minimum by a individual of equivalent knowledge). The corrective actions are provided and/or approved by the responsible design organization to assure that designed safety factors, and Industry and Government Codes are achieved.

DOE does monitor this process on a sampling basis and is now in process of assuring that the above stated actions have in fact been achieved. If any design questions are not resolved in this review process, an Engineering Assessment of the Vitrification Pilot Plant by the design agency could be considered.

Additional testing can be performed to ensure that the material meets the original design specification. For example, FERMCO identified specific suspect areas to perform ultrasonic examination of the concrete; the areas selected were based upon potential concern of void spaces mentioned in the article. DOE personnel observed the testing and concurred that the suspect areas were free of void spaces.

Allegation: "Substandard and faulty welds were made on pipes, structural beams, metal stairways and even tanks that eventually will hold radioactive material. Some joints have been rewelded so many times that the metal has become brittle and is cracking. One document reveals that unqualified welders from Schweitzer were allowed to perform critical welding jobs."

Status/Response: DOE and FERMCO identified concerns with the welds on the thickener tank and the qualifications of the welding personnel prior to the *Enquirer's* article. As a result of these concerns, FERMCO engaged a team of welding experts to inspect the thickener tank and make recommendations for modifications. These modifications were made to the tank and the tank meets all design specifications.

There is a second issue raised concerning potential brittleness of a metal weld, which was also alluded to in a photograph printed in the article. The photograph actually portrays a

Department of Energy
Response to *Enquirer* Allegations

supporting leg of the thickener tank which was torqued, or twisted, during a lifting operation to place it at its specified location. The leg has subsequently been repaired and reinforced; no metal brittleness issues were identified.

Allegation: "Twelve employees of Fernald Environmental Restoration Management Co. (FERMCO), working as 'motor vehicle' drivers responsible for moving the leaky drums to a 'repacking area,' said they fear the company is putting employees' safety in jeopardy. The drivers say that:"

"55- and 85-gallon drums that spring leaks on the weekend are often left leaking on other drums and on the floor until Monday because the company does not want to pay drivers overtime to be there to move them."

"Both low-level radioactive waste and non-radioactive toxic waste leak out of the drums because of small punctures or corrosion "

"FERMCO officials are under-reporting to the U.S. Department of Energy the number of leaky drums discovered to cover up the seriousness of the problem."

"The Plant 1 area occasionally is shut down and sealed off because radioactive material has leaked out of the drums. The non-radioactive material that leaks out is sopped up with giant pads by workers."

"FERMCO monitors fail to identify some leaky drums because the liquid already has leaked down to the puncture level. Failure to discover these, they say, could result in drivers being splashed when the drums are moved. So far, no driver has been splashed as a result of an unidentified leak, but the drivers say they believe such an accident is inevitable."

"The drivers told *The Enquirer* that, since last summer, FERMCO never calls them in on the week-ends to remove a leaky drum "

"In 1995, Mr. Stegner said, there were 33 Type 1 leaks on the Plant 1 pad, and one Type 2 leak. In 1996, Mr. Stegner said, there have been no Type 1 or Type 2 leaks on the pad, to date."

Status/Response Procedure 20-C-020, "Inspection of Low Level Radioactive Waste (LLRW) and Nuclear Material (NM) Containers," specifies the requirements for management of drums at Fernald

FERMCO previously retained drivers on overtime during the weekend in the event that a drum was found leaking during routine container inspection. A conscious decision by FERMCO was made to eliminate this assignment based upon (1) limited number of actual

Department of Energy
Response to *Enquirer* Allegations

leak events. (2) a leak can be mitigated without moving the drums, i.e. temporary diking, absorbent pads, etc., and (3) that drivers can be called in on the weekend, if necessary, on overtime. Frequency of inspections preclude significant amounts of material being released. Records indicate that typically less than 12 ounces of liquids are discovered before mitigation. The cab and windshield of the fork truck provides a safety barrier in the highly unlikely event of a leak during transportation. There is no regulatory or procedural requirement to retain drivers on site during the weekend. Reduced incidents of container leaks via the inspection process and reduction of waste inventory has allowed the reduction of standing weekend staff to respond to incidents.

Based on an audit of inspection reports and Assistant Emergency Duty Officer (AEDO) log sheets for the time period of October 1, 1995 through February 29, 1996, FERMCO inadvertently failed to report to the AEDO four of 29 Type I containers found on the plant 1 pad. A deviation report will be written to initiate action to prevent recurrence. No indication has been found that this action was deliberate or that FERMCO intentionally attempted to hide or distort information to "cover up the seriousness of the problem." Corrective actions have been taken to prevent reoccurrence of non-reporting to the AEDO.

Of the 29 Type I containers found between October 1, 1995 and February 29, 1996 (22 weeks), there are only three incidents of leaking drums discovered during weekend inspections which would have been moved on Monday.

In all cases of Type I containers, measures are taken to immediately mitigate the release of material, regardless of radioactivity or toxicity.

A comprehensive audit of supervisor's logs, inspection reports and the AEDO log indicates that there were three Type I containers found between January 1 and February 15, when the information was provided to Mr. Stegner. There were also 57 Type 2 containers recorded on the inspection sheets. These were not reported to the AEDO, as required by 20-C-020. A deviation report will be issued to initiate actions to prevent recurrence.

From the period of February 15 to February 29, there were a total of 16 Type I containers found and reported to the AEDO. Based on the timing of the drivers' interviews, this statement may be a true representation. The increase in the number of Type I containers found in this period is due to the thawing of drums during periods of warmer temperatures.

Allegation "Sure, we could tell them we refuse to work with the drums because it's unsafe," said one driver. "Workers have done that at other unsafe work sites here. But then those complaining workers are either laid off, or reprimanded privately, or demoted to do other paper-shuffling

Department of Energy
Response to *Enquirer* Allegations

work. This company hates people who speak out for their rights or become whistle-blowers because no one fixes the problems, no matter what they try to tell you or the public."

"I can confirm that the union has repeatedly received complaints from our workers about the leaky drums and the fact that the company (FERMCO) often leaves them leaking through the weekend. Our drivers are then forced to move them when they come in on Monday."

"It most definitely is a serious safety problem. But FERMCO doesn't want to spend the money to have those guys (drivers) on hand to immediately take care of the problems. FERMCO just doesn't care. The Energy Department tells us its a FERMCO decision."

"Mr. Branham said union officials have talked to FERMCO and Energy Department officials about the leaky drum problem numerous times, "but they just don't seem to care. They ignore the problem." No formal, written complaints have been made, he added, "because the system for notifying them (FERMCO and the Energy Department) of problems as they occur has always been verbal. Maybe that should change."

Status/Response: DOE and FERMCO have in place a written employee safety concern and complaint reporting system. The DOE reporting forms were updated in December 1995, following discussions with the Fernald Atomic Trades and Labor Council on making changes to the formal reporting forms. DOE and FERMCO have employee complaint systems that meet the requirements of DOE Order 5480.29, "Employee Concerns Management System." In addition, FERMCO has a system that complies with "DOE Contractor Employee Protection Program" (Title 10 Code of Federal Regulations 708). As of January 31, 1996, there were no outstanding complaints that were over 30 days old.

In addition to the employee written complaint system, DOE and FERMCO have an employee hotline number to allow employees to identify complaints at any time. Over the past three months, DOE has received two complaints over the hotline.

The Department has embraced the "DOE Contractor Employee Protection Program," also known as the "Whistle-blower Protection" regulation. The program is established to

prevent any potential retaliations resulting from employee safety complaints. Further, DOE has regulations that make it a criminal and or civil penalty to any contractor which engages in any reprisal of an employee who has identified potential safety complaints.

Finally, there are numerous methods for reporting safety concerns, including the Work Group Safety Advocate, Work Group Issue Reports, 25 Member Safety Committee (union), President's Safety Council, Middle Level Manager's Work Group, Safety

Department of Energy
Response to *Enquirer* Allegations

Suggestion Box, Fernald Focus "I'd Like to Know" forum, and the employee advocate's office. There is no indication that any of these avenues have been pursued to communicate safety concerns relevant to the article.

A March 9, 1996 surprise Resource Conservation and Recovery Act (RCRA) inspection of the Plant One Pad area conducted by the Ohio Environmental Protection Agency found no violations.

VITRIFICATION PROJECT

Allegation: "The company hired to clean up Fernald is diverting government money to secretly develop a new process to prepare nuclear waste for disposal."

"Fluor Daniel/FERMCO are developing the new plan because they know the original cleanup method, which would encapsulate the peanut butter-consistency waste in glass pellets, has serious flaws. The new plan involves the dehydration and powderization of the waste before it is encapsulated. Facts about the secret plan uncovered by *The Enquirer* include:"

Status/Response: There is no evidence of "secret plans" regarding OU4 Vitrification Pilot Plant project. *The Enquirer* uses terms such as "the secret plans," "a new process," and "dehydration and powderization" throughout the article published on February 13, 1996. The DOE staff at Fernald site who are responsible for overseeing the OU4 work have been aware of and are in agreement with the evaluations and studies that FERMCO has been conducting. Both the DOE and FERMCO are continuously encouraged to improve processes where there can be a positive result in safety, cost, schedule, and overall effectiveness of the project or process. The evaluations/studies would encompass new processes that would render potential improvement for the overall project.

Allegation: "Fluor Daniel/FERMCO are using funds from its government contract, unbeknownst to the Energy Department to pay for the development of the new process. Fluor Daniel/FERMCO have been billing the government for this secret work by their employees both at their Los Angeles-area headquarters and at Fernald. Documents submitted to the Energy Department show these people working on the original process."

"Nevertheless," Mr. Craig said, "Fluor Daniel/FERMCO officials were required to obtain written authorization from the Energy Department before initiating the studies or charging the government for the work. All I can tell you right now is that this is all under investigation."

Status/Response: The DOE is aware of the studies performed and charged to the project. The draft schedule and scope were prepared for fiscal years 1996 and 1997. The DOE

Department of Energy
Response to *Enquirer* Allegations

and FERMCO have had many meetings to discuss the scope and schedule. The DOE agreed with the scope FERMCO presented and the work was initiated.

Note: A DOE-commissioned Value Engineering study to recommend ways to recover cost and schedule in Fernald's Operable Unit 4 has been completed. The recommendations are currently being evaluated

Allegation: "During its investigation, *The Enquirer* obtained a list of the Fluor Daniel/FERMCO employees who have been assigned to work on the secret plan. Work reports and payroll records show the companies have charged their salaries and expenses to the government through the Fernald contract. The records show those employees have been assigned to the vitrification project - called Operable Unit 4 - approved by the Energy Department and the U.S. Environmental Protection Agency. However, internal reports and sources from Fluor Daniel said these employees instead have been working on the secret project for months."

Status/Response The DOE approved the Fluor Daniel home office support for work at FEMP. The home office support is charged to the project, both the vitrification pilot plant and the full-scale project. In addition, the scope of work performed is clearly within the approved scope. *The Enquirer* also states that the "Energy Department and the U.S. Environmental Protection Agency" approved the assignment of these personnel to the vitrification project. The U.S. EPA is not involved in personnel assignments at Fernald.

Allegations: "Large amounts of highly toxic and radioactive gas, called off-gas, were created when the pilot plant's melter superheated the nuclear waste and the glass-making materials. Filters, used to remove gas, which otherwise spreads throughout the plant, have continually broken down and become contaminated. They are difficult to replace."

Status/Response The allegation is completely false. The vitrification pilot plant has not even started to operate with the non-radioactive surrogate materials let alone with the radioactive materials. It would be IMPOSSIBLE to "create" ANY toxic and radioactive gas without material being processed. Further, there are no filters in the vitrification pilot plant that remove "gas". Gas is quenched and scrubbed in the quencher and scrubber

prior to the stack emission. The hazardous particulates are captured by the High Efficiency Particulate Air (HEPA) filters before the stack emission. Again, this would not even be possible without materials being processed through the melter.

Allegations "Only a few months later, *The Enquirer* has learned that FERMCO has been billing - and is being paid - by the government for secret work on the vitrification project that will hike its costs from an estimated \$90 million to \$240 million. Fluor Daniel/FERMCO records

Department of Energy
Response to *Enquirer* Allegations

... reveal the companies for the past year have secretly been preparing conceptual designs and financial estimates on the project without proper notifications or receiving full, written authorizations from the Energy Department. Last week, Mr. Craig said he knew nothing of Fluor Daniel/FERMCO's secret work. 'I did not know this has been going on and we are looking into it.' On Friday, Mr. Craig said the Energy Department is now aware of the work, but could not say whether Fluor Daniel/FERMCO had the full authorization to do it."

Status/Response: The increased cost estimate was not secret. The most recent cost estimate provided to DOE is approximately \$200 million in the initial ten year baseline for the accelerated clean up. The increase in the cost estimate was expected due to the cost increase in the vitrification pilot plant as well as more information available since the original cost estimate was developed. The scope of work for both the vitrification pilot plant and the full scale project was approved by DOE through the baseline and change proposal process. Some work was initiated (with DOE's knowledge) on the conceptual designs in order to make the information more current.

RADIUM PROJECT

Allegation: "What was to have been an independent study on how best to remove medically valuable radium from nuclear wastes at Fernald has been compromised by the U.S. Department of Energy, according to the man in charge of the study."

Status/Response: The study conducted by the University of Cincinnati (UC) was to provide an independent analysis of alternate sources of radium for medical research not on how to remove radium from wastes at Fernald. This was completed following reports from local media that Fernald's radium was a "medically priceless" resource which should be salvaged and not sent away for disposal. The research was conducted in two months and identified and quantified radium availability outside of Fernald's silos. The result of the analysis found a variety of alternate sources, including other waste sites, private companies, unmined ore and mineral springs. The most significant source by far appears to be the "tailings" left behind at old uranium mines. The UC researchers estimate there is 100 times as much radium in the mill tailings as there is in the silos at Fernald.

URANIUM NITRATE HEXAHYDRATE

Part I - February 11 - 12, 1996

Allegation: "In another case, in late 1993, Fluor Daniel/FERMCO issued reports to the Energy Department stating they had successfully completed studies and tests and were prepared to begin removal of 200,000 gallons of a highly radioactive liquid from 18 leaky storage tanks. Only

Department of Energy
Response to *Enquirer* Allegations

weeks before company was to begin removal work in January 1994, the EPA and Energy Department discovered various required tests and studies had not been performed as claimed in reports by FERMCO. Startup of the project was delayed until the work was done."

"In various reports to the Energy Department throughout 1994, FERMCO misled the Energy Department by saying it had completed required studies and tests leading up to the removal of radioactive liquid from 18 storage tanks. But a few weeks before the removal was to begin, the U.S. Environmental Protection Agency and Energy Department postponed the project, saying FERMCO had not completed an 'Operational Readiness Review' and failed to complete tests FERMCO claimed had been performed. Mr. Craig confirmed that FERMCO's reports misled the government and resulted in the project's delay. 'They had not completed all the things they claimed they had,' he said."

Status/Response: The allegations listed above refer to one situation. The time frames are late 1994 and January 1995. During this period, FERMCO did not issue any reports stating that they had successfully completed required studies and tests. DOE oversight was aware of problems with startup and operations and these problems were shared with FERMCO for resolution. EPA was not involved in the decision to delay the project. On December 27, 1994, the Ohio Environmental Protection Agency (OEPA) issued a Director's Findings and Orders (DF&O) to DOE and FERMCO, mandating a startup date of January 17, 1995, due to a lack of progress on this activity. FERMCO wanted to start the UNH Neutralization Project on January 17, 1995 on an emergency basis due to safety concerns; however, DOE did not allow this. An agreement was reached with OEPA that in-situ neutralization would satisfy the startup requirement in the DF&O. In-situ neutralization began on March 24, 1995, with the neutralization of two UNH storage tanks in the Hot Raffinate Building. Full operations of the UNH Neutralization Project did not begin until after the FERMCO Operational Readiness Review and DOE Operational Readiness Review were successfully completed and DOE Headquarters authorized startup on June 15, 1995. The UNH Neutralization Project was completed on August 30, 1995, almost one month ahead of OEPA DF&O mandated completion date of September 25, 1995.

Part II - March 3 - 4, 1996

Allegation: The company also filed false reports, violated U.S. Department of Energy rules and used defective "leakproof" pumps for the project, which was to remove about 200,000 gallons of radioactive liquid called uranyl nitrate hexahydrate (UNH), from 18 leaky storage tanks."

Status/Response: This allegation is false. FERMCO did not use defective "leakproof"

Department of Energy
Response to *Enquirer* Allegations

pumps for the UNH Neutralization project. When the progressive cavity pumps with no-leak seals arrived during September 1994, it was discovered that these pumps leaked and that their cast stainless steel body was cracked. During October 1994, the defective progressive cavity pumps were returned to the manufacturer for replacement and the decision was made to use double diaphragm pumps for the UNH Neutralization Project. During December 1994, a leak test observed at the factory of the progressive cavity pump manufacturer verified that the newly manufactured progressive cavity pumps did not leak and would be acceptable for use. Also, during December 1994, the double diaphragm pumps did not perform properly during System Operability Tests (SOTs). The double diaphragm pumps initially leaked and were not installed in accordance with the manufacturer's recommendations. During January 1995, the decision was made by the FERMCO and DOE Project Managers for the UNH Neutralization Project to remove the double diaphragm pumps and replace them with the progressive cavity pumps.

Allegation: "According to several FERMCO management sources, one of the most significant actions by the company that led to the leaks and spills was a 1994 decision to eliminate and/or reduce inspection requirements of equipment being built to remove the UNH. Prior to that decision, Energy Department and FERMCO rules for the UNH project required FERMCO's construction manager or his designee to.

Status/Response: The " Energy Department and FERMCO rules for the UNH project" were the construction specifications.

A FERMCO Quality Assurance inspector did perform all quality control visual pipe inspections. The FERMCO QA inspector is a certified inspector and visually examined all welds for the slurry, magnesium hydroxide, nitric acid piping, and all other piping. This was the same inspector who would have performed dye penetrant testing. The FERMCO QA inspector performed these inspections as FERMCO's construction manager's designee and was not a "less-qualified quality assurance employee."

- Perform all quality control visual pipe inspections
- Use a dye penetrant test to examine welds and key piping systems during a single in-process examination. The dye would run through the pipes to make leaks more easily detectable
- Have a certified inspector visually examine all slurry, magnesium hydroxide, and nitric acid piping and 20 percent of all the remaining piping.

Department of Energy
Response to *Enquirer* Allegations

Perform all quality control visual pipe inspections, use a dye penetrate test to examine welds and key piping systems during a single in-process examination. The dye would run through the pipes to make leaks more easily detectable. "Have a certified inspector visualize examine all sturdy, magnesium hydroxide and nitric acid piping and 20 percent of all the remaining piping."

The dye penetrate test does not involve running dye through the pipes to make leaks more easily detectable. The pipes were hydrostatically pressure tested at over 150 psi for at least 10 minutes to verify that they did not leak. The "in-process examination" refers to the actual welding process itself. After the initial pass by the welder the dye penetration test is used to find any defects in the initial pass. After successful completion of the test the welder would complete the weld. This test cannot be performed after the weld has been completed, therefore it is called an "in-process examination."

As a result of the failed weld, mentioned by *The Enquirer* on December 28, 1994, ultrasonic testing of welds was performed on at least 20 percent of all stainless steel piping. Over 20 percent of the carbon steel welds were inspected visually by inserting a camera inside the carbon steel pipe and visually examining the carbon steel welds from inside the pipe. As a result of this testing and examination programs two defective stainless steel welds and two defective carbon steel welds were corrected.

Of the eight specific problems listed by *The Enquirer*, only the incident on December 28, 1994 could possibly have been influenced by eliminating the dye penetrate test.

Allegation: "January 19, 1995 - UNH leaked from the system because of a defective steam coil line. The UNH project was placed in emergency shutdown."

Status/Response: This event occurred on October 27, 1994, and was not fully reported until January 1995. UNH leaked from a steam coil attached to an empty UNH storage tank. As a result of the spill, the building was evacuated. The UNH project was never placed in emergency shutdown. This incident occurred during the time construction was being performed before the UNH Neutralization project was operational. This tank was not part of the scope of the UNH neutralization project because it was empty.

Allegation: "January 26, 1995 - UNH leaked into another tank through a defective pipe."

Status/Response: This allegation is also false. There was an incident in Plant 8 where uranium contaminated water was spilled. This did not involve UNH or any UNH operations.

Allegation: "April 4, 1995 - Two to three gallons of UNH leaks out of a steam coil. Three maintenance pipe fitters were splashed and contaminated with the radioactive liquid. The

Department of Energy
Response to *Enquirer* Allegations

identities and medical conditions of the three pipe fitters were not disclosed in the FERMCO and Energy Department reports reviewed by *The Enquirer*. The records identifying the workers and what medical treatment they underwent are exempt from the Freedom of Information Act."

Status/Response: The three maintenance pipe-fitters who were splashed with the UNH were wearing Saranex, a water and acid proof material. While the protective clothing was contaminated, the employees were not contaminated. The three maintenance pipe fitters were not injured and were sent to Medical as a normal precaution. Medical released them and sent them back. This is an excellent example of how wearing PPE prevented possible injury to the workers. There has been no attempt to cover up injuries to the employees as implied by *The Enquirer*

Allegation: "But according to FERMCO, EPA and Energy Department records and sources, FERMCO repeatedly made false performance claims to the Energy Department in 1994, by stating that it had successfully completed various studies and equipment testing."

Status/Response: FERMCO did not issue reports to DOE stating that they had successfully completed equipment testing. The System Operability Test (SOT) that was performed beginning in early December 1994 was a failure and DOE knew about the problems being encountered due to extensive oversight in Plant 2/3.

Allegation: "The Energy Department failed to review FERMCO's claims that it had successfully completed the required UNH removal studies and tests until December 1994, only a few weeks before the actual clean-up was to begin."

Status/Response: DOE was aware of problems prior to December 1994 and expected FERMCO to adequately resolve those problems. FERMCO never claimed to have completed the requirements necessary to operate the UNH Neutralization project during the December 1994 and early January 1995 time period. During this time frame, FERMCO did not issue any reports stating that they had successfully completed required studies and tests and were prepared to begin removal of UNH from 18 tanks. DOE oversight was aware of the problems and these problems were shared with FERMCO. EPA was not involved in the decision to delay the project. On December 27, 1994, the Ohio Environmental Protection Agency (OEPA) issued a Director's Final Findings & Orders (DF&O) to DOE and FERMCO, mandating a startup date of January 17, 1995. Startup of the UNH Neutralization Project did not begin on January 17, 1995 due to safety concerns.

Allegation: "Energy Department and EPA records also show that FERMCO failed to initially create a safety and operational program for the project, mislabelled tanks, used defective

Department of Energy
Response to *Enquirer* Allegations

'leakproof' pumps, improperly maintained logbooks, and encountered numerous procedural compliance and training problems."

Status/Response: While there were numerous problems that had to be overcome prior to commencing operations, these did not include using defective "leakproof" pumps. More important than listing all of the problems is that all problems were successfully resolved and corrected prior to commencing operations. After mid-January 1995 FERMCO made tremendous strides in improving training, operating procedures, and correcting equipment problems. Full operations of the UNH Neutralization Project did not begin until after a FERMCO Operational Readiness Review and a DOE Operational Readiness Review were successfully completed and startup was authorized by DOE Headquarters on June 15, 1995. The purpose of the ORR is to verify the contractor's and DOE's readiness for operations. As a result of FERMCO's outstanding performance in resolving the problems and improving operational efficiency, the UNH Neutralization Project was completed on August 30, 1995, almost one month ahead of the OEPA DF&O mandated completion date of September 25, 1995.

Allegation: "Mr. Craig told *The Enquirer* that FERMCO was not financially penalized for the violations or the deceptive performance reports. EPA records confirm that FERMCO was not assessed penalties."

Status/Response: Through the performance fee process FERMCO was in fact financially penalized a total of \$675,000 for their performance on the UNH Neutralization Project. These penalties occurred in fee periods 94-2 (\$270,000) and 95-1 (\$405,000).

WORKFORCE RESTRUCTURING

Allegation: "Taxpayers are footing the bill for almost \$13 million

Department of Energy
Response to *Enquirer* Allegations

Status/Response: Each site was given the opportunity to develop work force restructuring plans to meet their specific needs with a target of \$25,000 per job loss. As indicated in the graphic on severance payments presented in *The Enquirer* article, Fernald severance payments were approximately 23 percent below the complex average cost per job loss.

Allegation: "Also, that \$15,000 severance agreement is standard in all (Energy Department) contracts," Mr. Craig said.

Status/Response: This statement is misleading. Contractually, DOE funds standard employee benefit programs at the FEMP including severance benefits. This is standard practice in all cost-type contracts. The fiscal year 1995 Work Force Restructuring Plan offered enhanced severance and lump sum payment. These incentives were designed to encourage employees to terminate voluntarily or take early retirement in order to minimize, and in this case, totally eliminate, the need for additional involuntary layoffs. The lump sum incentive was given to only a portion of the employees scheduled to leave under the work force restructuring.

Allegation: "The Energy Department also decided to award FERMCO hundred of thousands of dollars in a 'performance fee' for its successful handling of the buy-out program."

Status/Response: It is true that FERMCO performs site activities under a performance based fee plan. The monies paid to FERMCO for its handling of work force restructuring is one of several areas that is included in a pool that represents less than 5 percent of the performance based fee earned for the respective 6 month periods.

Allegation: "U.S. Sen. Mike DeWine, R-Ohio, and U.S. Reps. Rob Portman, R-Cincinnati, and Steve Chabot, R-Cincinnati, say they knew nothing about the Energy Department's costly buy-outs until told by *The Enquirer* and are investigating.

Status/Response: The offices of state and local Congressional representatives were notified of DOE's Work Force Restructuring Public Meeting to be held Tuesday, December 6, 1994. This same meeting was advertised in local newspapers, including *The Enquirer*.

Allegation: "The Federal government authorized payments to 476 salaried employees, about 20 percent of FERMCO's workforce, in January and February 1995."

Status/Response: Not totally accurate. These separations were authorized to occur between February 1995 and May, 1996.

Department of Energy
Response to *Enquirer* Allegations

Allegation: "The payments averaged about \$27,000 per employee according to U.S. Department of Energy financial records."

Status/Response: Accurate

Allegation: "The payments were in addition to any pension the workers may have earned up to that point with FERMCO, or its parent company, Fluor Daniel of Irvine, Calif."

Status/Response: Pensions earned by salaried workers at Fernald are based on service at the Fernald site, including work performed while other prime contractors managed the project. No employee separated in any of the Fernald restructuring efforts has received severance based on time worked at Fluor Daniel.

Allegation: "*The Enquirer* found the payments were authorized for workers who already had received notices from FERMCO that they were about to lose their jobs because their work at the site was completed."

Status/Response: Payment was authorized for workers whose positions were considered "at risk" at the project due to budgetary considerations and the need for their particular skill. "At risk" employees were notified in writing of their placement in this category as a means to encourage them to terminate voluntarily or risk being involuntarily laid off.

Allegation: "An additional 60 hourly workers have been hired at the site since the buy-outs were offered in February 1995."

Status/Response: The fiscal year 1995 work force restructuring did not affect hourly employees. These workers were not hired to perform work remaining after the departure of salaried employees under work force restructuring. In fact, existing labor agreements at Fernald define specific scopes of work for hourly workers which are different from the functions performed by salaried employees.

Allegation: "And about 30 salaried workers who took the government bonuses and left, have been hired back. They agreed to repay their bonuses as a requirement of being rehired."

Status/Response: In the fiscal year 1995 work force restructuring, no salaried employee who received an enhanced severance package left and was rehired. Due to implementation of the accelerated cleanup at Fernald, 28 salaried employees previously scheduled for separation by May, 1996 have reached agreement with FERMCO to remain at the site and not participate in the enhanced severance program.

Department of Energy
Response to *Enquirer* Allegations

Allegation: "The government also paid about \$2.9 million in a similar FERMCO severance buy-out in 1993, involving 255 employees."

Status/Response: The Fernald site conducted an action under an approved work force restructuring plan in fiscal year 1994 involving approximately 255 employees who were involuntarily separated due to budget reductions and the change from production to environmental remediation. There were no incentives offered to these employees over and above the contractually approved severance-related benefits provided by their employer as part of the normal conduct of business.

Allegation: "Mr. Craig said the payments were to persuade workers to voluntarily leave their jobs early -- despite their pending dismissals -- so the government could realize an overall, long-term savings. When a (government) contract is awarded, labors costs are included in the budget that is set...the reasoning behind the (buy-outs) is that if you reduce the workforce, you reduce the overall cost of the contract. However, Mr. Craig conceded the government has not only failed to realize any savings from the buy-outs so far, but in fact has lost money on the plan. He said with planned employee reductions in the future through attrition, however, the government may eventually realize the costs savings."

Status/Response: Accurate. This was not intended as a near-term cost savings measure; the cost will be recovered over time. The use of buy-outs in order to accomplish restructuring is a common business practice. All across the country, corporations such as P&G, IBM and NCR have employed this means of aiding restructuring.

Allegation: "I guess an argument could be made that we wouldn't have had to pay the bonuses if we had waited, but that was a Headquarters decision."

Status/Response: After the involuntary layoffs in fiscal year 1994 a decision was made to reduce the number of involuntary separations and to accomplish future restructuring through retraining, early retirement, attrition, and *other options* (emphasis added) to mitigate the impact of the restructuring. The use of incentives was designed to encourage employees to terminate voluntarily or take early retirement in order to minimize the need for additional involuntary layoffs.

Allegation: "Several congressmen, including Mr. Portman, expressed astonishment at the Energy Department's use of public dollars to pay severance to the private employees, especially those who already were scheduled to lose their jobs. He also questioned whether the department had the authority to make the payments at Fernald or at 12 other nuclear sites nationwide. Congressman Chabot said he also knew nothing about the Energy Department's multi-million dollar buy-out package for private employees at Fernald. U.S. Sen. Mike DeWine, R-Ohio, also

Department of Energy
Response to *Enquirer* Allegations

said he was unaware that the Energy Department was paying hundreds of millions of dollars for private employees' severance packages."

Status/Response: The offices of State and local Congressional representatives were notified of DOE's Work Force Restructuring Public Meeting to be held Tuesday, December 6, 1994. This same meeting was advertised in local newspapers, including *The Enquirer*. With respect to Representative Portman's questioning of DOE's authority to use public dollars to pay severance to contractor employees (FERMCO is the current contractor at the Fernald project), Congress directed the Department through Public Law 102-484, Section 3161, to minimize the impact of mission changes and associated workforce restructuring on affected workers and local communities. The Department has concluded that, consistent with this authority and best business practices, it is not only in the interest of affected employees and communities, but of the Department and the displaced workers.

Allegation: "The *Enquirer* discovered the government's multi-million dollar payouts during a six-month investigation of Fluor Daniel/FERMCO's operations at Fernald."

Status/Response: An *Enquirer* article in the Sunday, November 27, 1994 edition, acknowledged the DOE's issuance of a draft work force restructuring plan for Fernald and the planned Public Meeting of December 6, 1994 to discuss planned reductions in force at Fernald. This article notes the then proposed offering of "a benefit package of benefits if they leave voluntarily," and the draft plan's consideration of "a lump sum" as one of the options for displaced workers. It is misleading, at best, for *The Enquirer* to say that the use of lump-sum payments was discovered during "a six-month investigation of Fluor Daniel/FERMCO's operations at Fernald" when the information was clearly brought to them in 1994, as well as discussed openly and publicly.

Allegation: "All the FERMCO salaried workers who took the buy-outs received lump-sum payments and some also had their last few remaining years until retirement 'purchase' by the government so they could receive full pensions from FERMCO."

Status/Response: The workforce restructuring plan offered eligible employee three options, which ranged from lump sum payment, to outplacement assistance and enhanced benefits, to accelerated retirement. Those employees who elected to receive the lump sum payment are eligible to receive the lump sum payment and severance upon completion of their service at Fernald. Those employees selecting the option that provided outplacement assistance, education assistance and other selected benefits received severance pay but no lump sum payments. Those employees selecting the accelerated retirement option received credit for up to three additional years of service and/or age, but received no severance or lump sum payments. This is similar to other industry early retirement

Department of Energy
Response to *Enquirer* Allegations

programs.

Allegation: "Mr. Craig said the government buy-outs restricted the recipients from returning to work at Fernald for five years. But the Energy Department relented, he added, when FERMCO said they needed to rehire about 30 of the employees, as long as they repaid their bonuses."

Status/Response: The five-year restriction was put in place by the Department to prevent employees who received the benefit from returning to work at Fernald as subcontractors and/or consultants. There has been no exception made to the five-year restriction.

Allegation: "Some of those employees also were rehired by Fluor Daniel for non-Fernald work, company records show."

Status/Response: Fluor Daniel has been able to provide employment for some of the displaced workers.

Allegation: "Asked why FERMCO needed to hire an additional 60 hourly employees to finish the tasks left by the departing employees, Mr. Craig said 'There obviously was some work that the departing people had not finished that we needed done'."

Status/Response: Fiscal year 1995 work force restructuring did not affect wage employees. These workers were not hired to perform work remaining after the departure of salaried employees under work force restructuring. In fact, existing labor agreements at Fernald define specific scopes of work for hourly workers different than the functions performed by salaried employees.

Allegation: "The Act -- Section 3161 -- says the Secretary of Energy should use 'retraining, early retirement, attrition and other options to minimize layoffs'. The Act, however, does not specifically mention using taxpayer money to pay severance packages to non-government employees."

Status/Response: Congress directed the Department through Public Law 102-484, Section 3161, to minimize the impact of mission changes and associated workforce restructuring on affected workers and local communities. The Department has concluded that, consistent with this authority and best business practices, it is not only in the interest of affected employees and communities, but of the Department and the displaced workers. The decision was made after the forced layoffs in fiscal year 1994 to reduce the number of involuntary separations and to accomplish the restructuring through retraining, early retirement, attrition, and *other options* (emphasis added) to mitigate the impact of the restructuring. The use of incentives was designed to encourage employees to terminate

Department of Energy
Response to *Enquirer* Allegations

voluntarily or take early retirement in order to minimize the need for additional involuntary layoffs.

**Chief Financial Officer
Review of Selected Financial Activities
at the Fernald Environmental Management Project
March 18-20, 1996**

I. Background

During February 1996, a series of articles reported in the *Cincinnati Enquirer* identified several allegations relating to problems in the controls and processes used by the Department of Energy (DOE) in overseeing the Fernald Environmental Restoration Management Corporation (FERMCO) contract at the Fernald Area Office (FN). These allegations prompted the Office of Environmental Management to conduct a special project review from February 27-29, 1996, on the oversight capabilities of FN. At the request of the Assistant Secretary for Environmental Management (EM) and the Manager of the Ohio Field Office (OH), the Office of Chief Financial Officer (CFO) conducted an independent review of specific financial oversight processes and controls of OH, FN, and FERMCO. The CFO review was conducted from March 18-20, 1996, and was limited in scope due to the condensed time frame in which the team was given to complete the review. Specific areas evaluated by the review team included the financial oversight processes of the work authorization and invoice processing.

II. Review Objectives and Approach

The objectives of the review were to survey existing financial oversight and controls maintained by OH and FN over the authorization of work to be performed by FERMCO and the processing of the monthly contract invoice. In the area of work authorization, the specific review objectives were to identify and evaluate whether the financial processes related to authorizing work to be performed by FERMCO were appropriate. Review objectives in the invoice processing area were to analyze financial oversight activities relating to processing of the monthly FERMCO invoice to determine if adequate and appropriate controls were maintained to ensure that only allowable and reasonable costs are reimbursed to FERMCO.

Based on the special project team review already conducted by the Office of Environmental Management and a General Accounting Office (GAO) investigation scheduled to begin March 25, 1996, the review team's approach was to survey the financial controls and oversight processes associated with work authorization and invoice processing and provide an independent report to be considered with EM's review results. The observations, recommendations, and conclusions reached by the review team are based on the information acquired through interviews and presentations conducted with staff of OH, FN, FERMCO, and the local Inspector General's Office. Consequently, the results of this independent review are qualified to the extent that the review approach was limited by the identified time constraints.

III. Team Participants

Team Leader/ Management Liaison
McKinley Bryant, CFO (HQ)

Work Authorization

Sue Champion, CFO (HQ)
Lynn Harshman, CFO (HQ)

Invoice Processing

Dean Childs, CFO (HQ)
Doug Aoyama, CFO (ID)

IV. Areas of Review

A. Work Authorization

Background

The team reviewed the financial controls related to the work authorization process for the FERMCO contract. These financial controls included processes in place for receiving the approved funding program from Headquarters CFO Budget Office, generating an approved financial plan and related contract modification for FERMCO, and monitoring the expenditure of funds authorized for FERMCO to ensure appropriate control of funds. The team collected documentation and financial information relating to the work authorization process through several presentations and interviews with senior staff from the Office of the Chief Financial Officer at OH and FN. The team also conducted interviews with the Deputy Director, Associate Directors, and Contracting Officer at FN, the local Inspector General's Office, and staff of FERMCO to acquire information relating to the control environment and oversight processes in place. The team also obtained the FERMCO contract and recent modifications, the OH report on status of contractor obligations and various correspondence between FERMCO and OH.

Based upon interviews and presentations conducted and documentation obtained, the team acquired an understanding of the controls in place over the financial authorization process of work authorized for FERMCO. While the team identified areas where controls should be strengthened, strong controls appeared to be in place in planning and estimating the cost, scope, and schedule of work to be performed through the use of a baseline and project control system. The monitoring and reporting processes for funds control at FERMCO appear to be good. Staff at FERMCO were knowledgeable of current funding levels and the relative costs incurred and provided appropriate notifications when approaching established funding levels. The team also found that FERMCO conducts a monthly management review meeting to evaluate funding requirements and dollar authorizations in relation to targeted work. The following section identifies the specific areas where the team believes financial controls within the work authorization process can be improved.

7777

Observations and Recommendations1. Strengthen Controls Over Contractor Costs and/or Commitments

Throughout the review, it was brought to the attention of the team that the Fernald Environmental Management Program has been undergoing a transition to an accelerated schedule to cleanup the site. This period of accelerating the cleanup schedule from 25 years to 10 years has required critical milestones and priorities to be redefined in a short time frame. DOE and FERMCO personnel indicated that as a result of this transition FERMCO's fiscal year (FY) 1995 cost plus commitments (e.g., subcontracts) exceeded its funding at the Environmental Restoration (EW 20) control level, which is a financial control point for the Department. While this situation does not constitute a legal funds control violation, it is not in DOE's best financial interest to be placed in this situation.

The team found that in June 1995, in accordance with established procedures, FERMCO officially notified DOE that 75 percent of the funding level had been used. FERMCO also provided correspondence later in the year as the situation progressed. It is the team's understanding that informal communications between FERMCO and DOE indicated that additional funding was anticipated from Headquarters to resolve the problem. However, the team is not aware of any official actions taken by DOE or FERMCO to preclude an actual overrun and at the end of FY 1995 FERMCO's cost plus commitments actually exceeded funding limitations as indicated above. OH personnel contacted DOE CFO Headquarters staff and made them aware of the situation at the time it occurred and validated that a legal violation had not occurred.

The team was also informed by FERMCO that a funding shortfall has been projected for FY 1996 if work continues at the scheduled rate. OH and FERMCO personnel indicated that efforts to address the situation have been initiated.

It is the team's understanding that in the normal course of operations an OH CFO staff member uses a Departmental Integrated Standardized Accounting System (DISCAS) report to monitor the status of DOE's obligations to FERMCO. This report compares the amounts DOE has obligated in the FERMCO financial plan to the monthly costs reported by FERMCO at the nine digit B&R level. Overcosted amounts (negative balances) at this low-level B&R are questioned by the DOE OH staff. With regard to oversight by DOE Activity Data Sheet (ADS) managers, the team's interviews with FN personnel indicated a lack of emphasis and understanding of their role in ensuring FERMCO adheres to funding limitations.

The team recommends that controls over FERMCO's expenditures of funds at OH and FN be strengthened to ensure funds are being appropriately controlled and overexpenditures do not occur. Additionally, actions can be taken by FERMCO to minimize the risk of funding shortfalls. Specific actions to strengthen the control of funds are as follows:

- The OH financial staff should emphasize to the DOE ADS managers their responsibility for financial stewardship. This should include their responsibility for controlling expenditures within approved funding limitations. This will complement the controls in place over the scope, schedule, and cost of the planned work.
- Monitoring and reporting activities conducted by the DOE personnel should be increased following receipt of FERMCO's notification when 75 percent of the funding level has been used. These activities should include verbal and written verification and information relating to the status of commitments and a plan of action to avoid overruns and ensure financial control levels are not exceeded by the continuance of work.
- Funds control measures should be established within FERMCO's financial system to preclude FERMCO from incurring commitments (letting of subcontracts) in excess of approved funding levels.

2. Inconsistencies in FERMCO's Work Authorization Procedures and Actual Processes

FERMCO's work authorization procedures, dated August 1994, were provided to the team. The processes described in those procedures do not appear to match actual practice with regard to funding levels. The procedures indicate that funding is allocated to FERMCO's individual control account level. However, the team's interviews with FERMCO and OH personnel indicate that the practice of allocating funds to the control account level identified in the procedures has been discontinued and funding is now allocated to FERMCO at the sub B&R and ADS levels. The team found that inconsistencies of this type between written procedures and operating practices contributed to a lack of understanding of the actual processes in place.

The team recommends that FERMCO and OH review the current processes and make revisions to the written procedures or the current processes as appropriate.

3. Inconsistent Funds Control Level Specified in Contract and Later Guidance

It appears that the FERMCO contract and later guidance issued by the OH may not be consistent as to the financial control levels to be maintained. The FERMCO contract refers to financial control levels set through financial plans issued to FERMCO. The team reviewed a memorandum dated May 24, 1994, from the Oak Ridge Operations Office (the cognizant office prior to OH) to FERMCO intended to further clarify the financial control levels to be those which must not be exceeded under the Anti-Deficiency Act (summary B&R levels such as EW 20). The sub B&R/ADS information contained in the financial plans became reporting levels used to show the breakdown of programmatic cost incurred. It was unclear to the team whether the May memorandum from Oak Ridge was clarifying or in effect modifying the financial control levels stated in the contract. The May memorandum appeared to modify the control level and the team questioned whether this was the appropriate and proper manner for modifying guidance contained in the contract.

The team recommends that OH should ensure that clarifications of financial control levels and other contract language are consistent with the contract and that the appropriate process is used to specifically modify the contract.

B. Invoice Processing

Background

FERMCO submits monthly invoices to the DOE Fernald Finance Division representing FERMCO's cash disbursement for the month. These costs are reimbursed by DOE after a review of the invoice for allowability and reasonableness of costs. The team's review of invoice processing focused on validating the role of each responsible party in the invoicing process, reviewing written policies and procedures, and evaluating the post payment review process implemented in FY 1994. The review team's specific approach was to follow the invoicing process from the generation of the invoice at FERMCO to the payment by DOE and subsequent events affecting the invoicing process.

During the review, the team interviewed the FERMCO General Accounting Manager, several ADS managers, the Contracting Officer, the Accounting Team Leader, the CFO Certifying Officer, the Financial Review Team Leader and various other staff. Additionally, we reviewed IG, GAO and internal review reports, policies and procedures, and other pertinent documentation.

The results of the review indicate that adequate controls are in place over invoice processing to minimize the risk of making improper payments to FERMCO. Most notably the team found that ADS managers have good interaction with FERMCO cost account managers which provides the level of operational awareness necessary to support their certifications of reasonableness of contractor costs. While controls were adequate to ensure that the process was performed as required, the team found several opportunities for improvement which would strengthen the invoicing process and further ensure that all costs reimbursed to FERMCO are allowable and reasonable.

Observations and Recommendations

1. Reevaluate Fernald Invoice Review Procedures

The Fernald Implementing Procedure titled "Invoice Review," effective March 8, 1996, does not reflect current practices and, further, assigns invoice review responsibilities which significantly expand the CFO role. While we understand that the recent scrutiny of costing and invoicing practices has highlighted the need for written procedures and an evaluation of invoice controls, the team's review indicates that the responsibilities assigned to the CFO in paragraph 4.4.1 and again in 5.4.2(a) are excessive. These sections appear to require 100 percent tracing of invoiced costs to source documents such as FERMCO employee time sheets to verify hours worked or the Master Employee File to verify earning rates. One hundred percent verification through monthly reviews at this detailed level by any DOE office is questionable and does not result in the most efficient use of resources.

The team recommends that only periodic verifications of invoiced costs to supporting documentation be considered based on level of risk, sampling techniques, and specific areas of concerns raised by the Contracting Officer, ADS managers, or results of reviews performed by the Financial Review Group. This approach is consistent with the ADS manager responsibilities outlined in paragraph 5.4(b). Additionally, the trending techniques currently being used by some ADS managers in areas such as labor costs and rates would help support the validity of invoiced costs. Utilization of these techniques would reflect an integrated team approach which constitutes a cohesive oversight strategy.

2. Inadequate Time for Thorough Invoice Review

The FERMCO contract requires that DOE reimburse FERMCO's costs invoiced within 14 days of receipt of the invoice. It was apparent from our interviews that 14 days is not enough time to do a thorough invoice review. ADS managers have only about six days to perform their technical review which is arguably the most critical step in the process. While the level of review is admirable given the short turnaround required, more time is needed.

The team recommends that OH consider having ADS managers perform followup reviews on the invoices after payment as appropriate. Any questioned costs resulting from these extended reviews should be presented to the Contracting Officer for appropriate cost adjustments.

3. Financial Review Group Performing Cost Incurred Audits

In response to a December 1993 GAO report titled "Implementing the Environmental Restoration Management Contract Concept," the Financial Review Group began performing cost incurred audits to identify questioned costs claimed by FERMCO. Performing these audits is beyond the CFO's oversight responsibility and is duplicative of the IG reviews. The Inspector General is the cognizant audit agency for the FERMCO contract and has sole responsibility for performing cost incurred audits. The IG advised that their cost incurred audits are generally scheduled for completion one year after the fiscal year audited. The team believes that this approach does not provide timely feedback on the condition of FERMCO's financial operations. However, the team believes that performing cost incurred audits is beyond the scope of OH CFO's responsibility.

The team recommends that the Financial Review Group discontinue performing cost incurred audits of FERMCO invoices and accomplish its oversight responsibilities by performing process reviews. These reviews will provide information on internal controls and financial management weaknesses which may be used by the Contracting Officers and ADS managers in defining areas for increased scrutiny in the invoice approval process. This approach has the additional benefit of focusing on problem areas before invoice payments are made rather than waiting for after the fact invoice reviews. Corrective

action plans should be required from FERMCO for needed improvements identified during these reviews to ensure timely resolution of issues which may affect the allowability of FERMCO's costs.

4. Improved Communication

The Financial Review Group is playing an active role in performing financial reviews to support CFO and other oversight responsibilities and shows customer focus by conducting post review customer feedback surveys of individuals for which reviews have been performed. However, there are additional actions which may be taken to improve interaction with current and potential customers.

To complement these surveys, the team recommends that the Financial Review Group work cooperatively with the Area Office Manager, Contracting Officer and ADS managers in defining potential areas for review to ensure the usefulness of the reviews to the greater financial management community. Additionally, draft reports should be provided to these individuals immediately upon completion to improve communication and information flow.

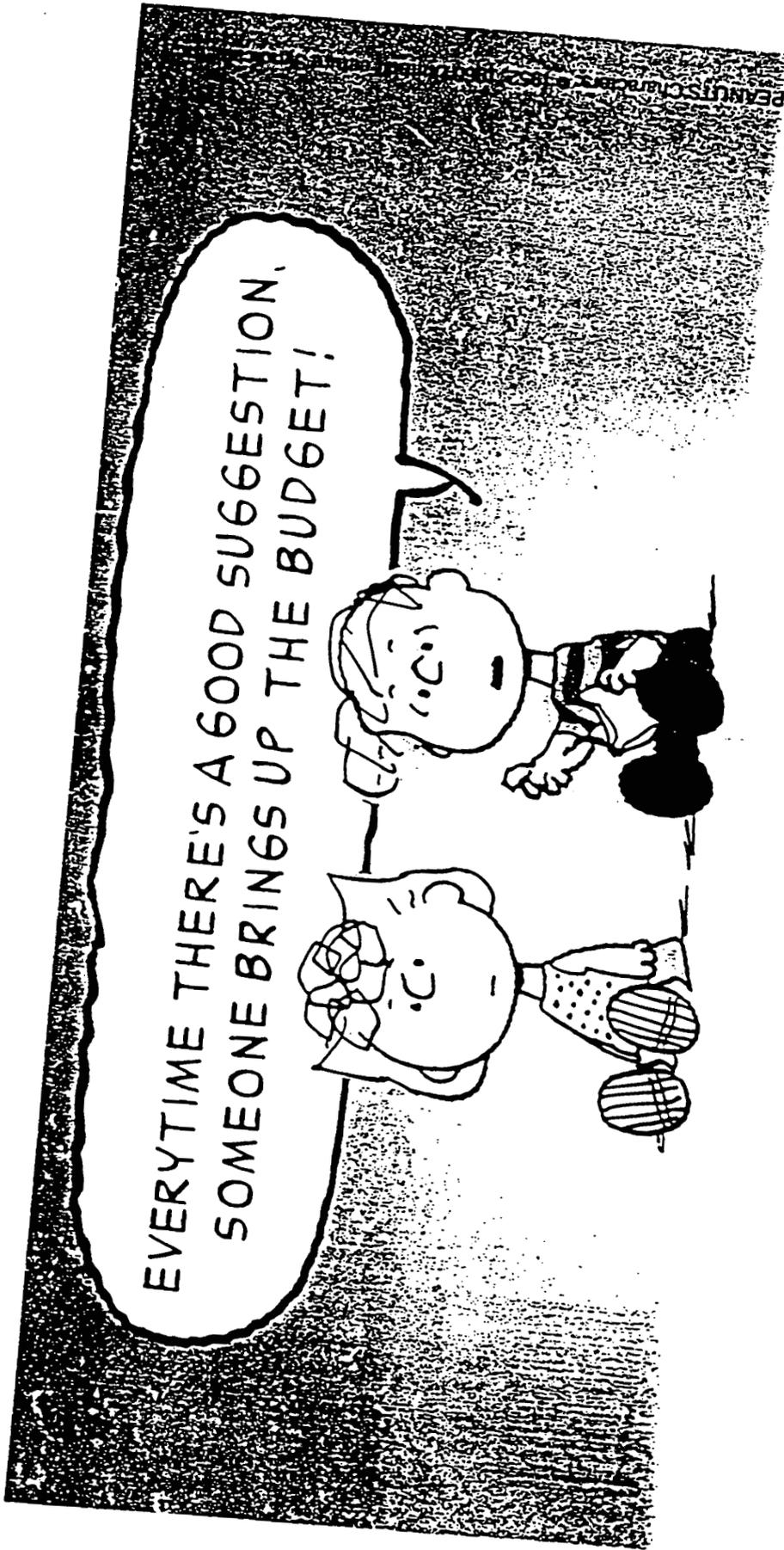
C. Other General Observation

Financial Oversight Plan

The team observed that DOE staff at OH and FN have various processes for monitoring FERMCO costs. These include invoice reviews which provide a once a month "snapshot" of bills presented during the current month; ADS managers' knowledge of the status of total costs incurred to date vs final project costs; annual IG audits of costs incurred; and the OH CFO reviews of FERMCO's processes. While each of these processes contribute to oversight, it is not clear that a comprehensive financial oversight strategy has been established.

The team recommends that OH develop an integrated plan for overseeing FERMCO's financial activities. Such a plan would identify all financial controls for overseeing the contractor and should include the review and approval of FERMCO's accounting system by the cognizant audit agency due to the heavy reliance DOE places on the information maintained by the system, compliance with cost accounting standards, and other tools used in the oversight of FERMCO financial activities. This plan should encompass the roles and responsibilities for the DOE programmatic, financial and Inspector General staff.

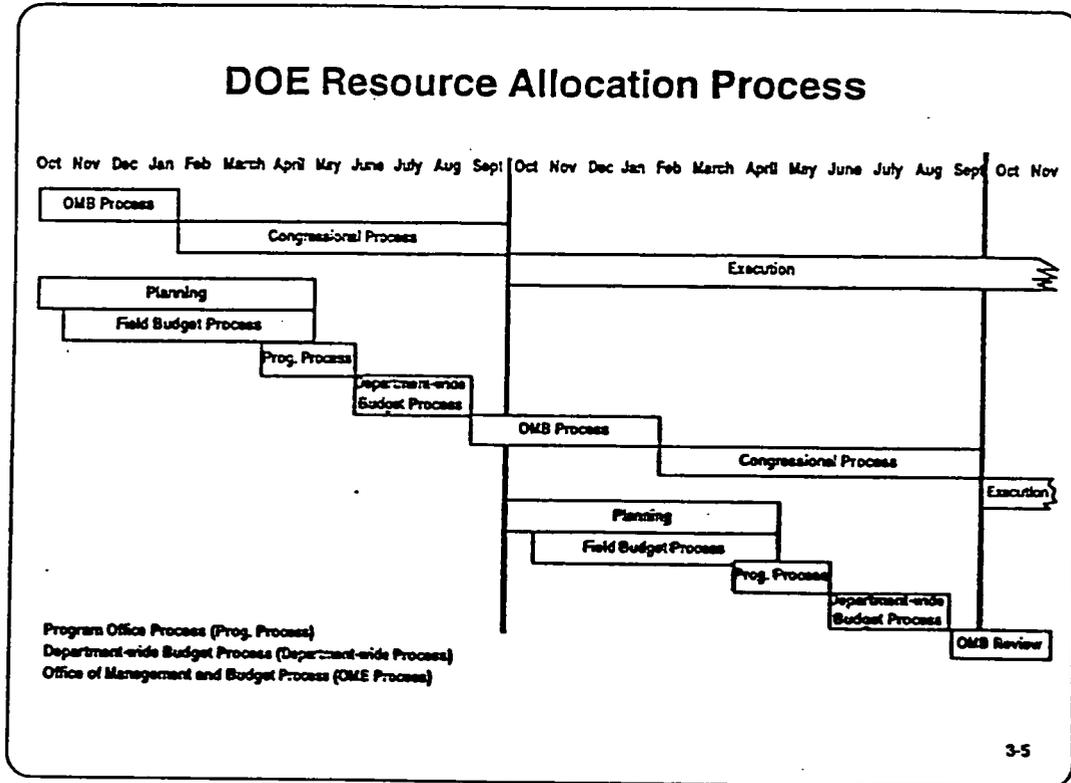
In conclusion, the team found the personnel at OH, FN, and FERMCO to be professional and committed to accomplishing their work in an effective and efficient manner. All personnel were courteous and most helpful during the entire review and were receptive to the recommendations of the review team.



2222

000093

3.2 Overview of the Process



Notes

This viewgraph shows both one complete process (starting with planning) and the relative previous and subsequent overlapping processes.

3.5 Budget Formulation, Presentation, and Review Process

3.5.1 Field Budget Process (continued)

Field Budget Process

- | | |
|--|---------------|
| ■ DOE field office issues call to contractors | Oct/November |
| ■ UNICALL (field) budget call issued | January |
| ■ Contractor prepares and submits budget to field office | Feb/March |
| ■ Field budget/program staff review and analyze | March |
| ■ Either office may propose adjustments/comments | March |
| ■ Contractor may appeal adjustments/comments | March |
| ■ Budget/program offices make decisions on most issues | March |
| ■ Field office manager makes decisions on major issues | March |
| ■ Field budget submitted to cognizant program office | Mid-April/May |

3-52

Notes

3.5 Budget Formulation, Presentation, and Review Process

3.5.4 HQ Program Office Process (continued)

Headquarter Program Office Process

Schedule

- | | |
|---|-------------|
| ■ Receive and analyze Field Budget and program plans | March–April |
| ■ Initial decisions | April |
| ■ Receive Department-wide Budget guidance | May |
| ■ Revisions to reflect Department-wide Budget guidance | May |
| ■ Department-wide Budget submission to DOE
Chief Financial Officer | Mid-June |

3-57

Notes

3.5 Budget Formulation, Presentation, and Review Process

3.5.5 Department-wide Budget Process

Department-Wide Budget Process

- | | |
|--|---------------|
| ■ HQ DOE CFO issues Department-wide Budget guidance | Mid-May |
| ■ Program offices prepare and submit budgets to HQ DOE CFO | Mid-June |
| ■ HQ DOE CFO reviews and analyzes budget | Mid-June–July |
| ■ HQ DOE CFO may propose adjustments | July |
| ■ HQ DOE CFO meets with program offices to obtain agreement on proposed adjustments | July |
| ■ HQ DOE CFO makes presentation to the Secretary or Secretary's Representative on remaining issues | Early August |
| ■ Secretary or representative makes decisions | Mid-August |
| ■ Preparation of OMB submission | Late August |
| ■ Submission to OMB | September 1 |

3-59

Notes

3.5 Budget Formulation, Presentation, and Review Process

3.5.10 Office of Management and Budget Process (continued)

Office of Management and Budget Process

- | | |
|---|--------------------|
| ■ OMB budget guidance issued | August |
| ■ AS and CFO prepare submissions | August |
| ■ HQ CFO forwards DOE budget submission to OMB | September 1 |
| ■ OMB Examiners review and analyze exhibits | September–November |
| ■ OMB may propose adjustments (passbacks) | November–December |
| ■ HQ CFO may submit appeals | November–December |
| ■ Decisions are made on most issues | December |
| ■ Meetings are held to resolve outstanding issues | December |
| ■ President approves the budget | December |
| ■ Congressional budget is submitted to Congress | February |

3-69

Notes

3.5 Budget Formulation, Presentation, and Review Process

3.5.11 Congressional Budget Process (continued)

Published Congressional Budget Process Schedule

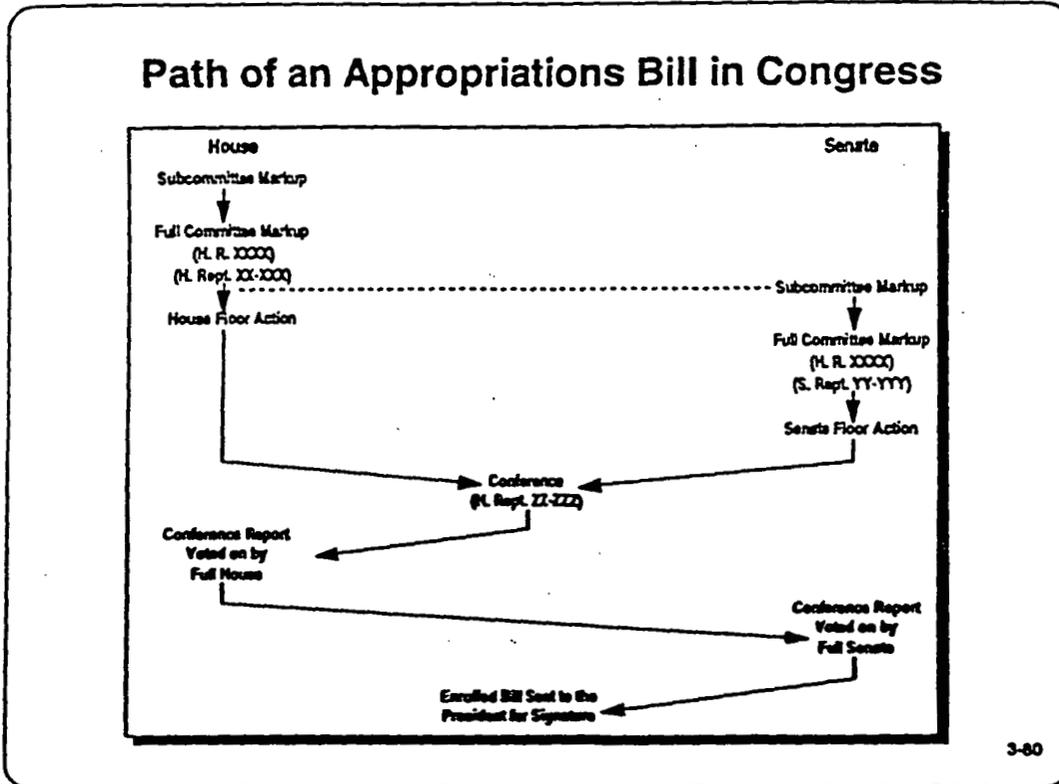
- | | |
|--|----------------|
| ■ Congressional budget guidance issued | December |
| ■ HQ program office, CFO, and OMB prepare budget | January |
| ■ OMB sends Congressional budget to Congress | Early February |
| ■ Hearings | February–June |
| ■ Budget committees complete action | April |
| ■ Congress passes concurrent resolution | April |
| ■ Authorization committees complete action | May |
| ■ Congress passes authorization bills | May |
| ■ Appropriation committees complete action | June |
| ■ Congress passes appropriation bills | June |
| ■ New fiscal year begins (if no appropriation bill by the end of year, then continuing resolution) | October 1 |

3-72

Notes

3.5 Budget Formulation, Presentation, and Review Process

3.5.11 Congressional Budget Process (continued)



Notes

DEPARTMENT OF ENERGY
OHIO FIELD OFFICE
FY 1997 IRB RESULTS

	OHIO REQUEST	IRB CHANGE	CONGRESSIONAL PRELIMINARY REQUEST
FERNALD	\$215,600	+ 59,579	\$275,179
MOUND	85,578	+ 5,100	90,678
ASHTABULA	21,040	0	21,040
COLUMBUS	4,000	0	4,000
WEST VALLEY	126,000	- 2,000	124,000
SUPPORT	<u>29,927</u>	<u>0</u>	<u>29,927</u>
TOTAL	\$482,145	\$ 62,679	\$544,824

101000

2222

DEPARTMENT OF ENERGY
OHIO FIELD OFFICE
OH/EM BUDGETS

	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
FERNALD	\$ 232,048	\$ 259,881	\$ 266,170
MOUND	94,455	99,202	87,465
ASHTABULA	5,350	9,332	20,284
COLUMBUS	25,022	19,760	3,982
WEST VALLEY	124,723	115,389	123,601
SUPPORT	<u>26,109</u>	<u>29,833</u>	<u>34,934</u>
TOTAL OH/EM	\$ 508,307	\$ 533,397	\$ 536,436
EM NATIONAL	\$6,284,439	\$5,993,093	\$5,878,376



OPERABLE UNIT 1

FERNALD

- Submitted Comment Response Document on Preliminary Design Package for OU1 Remedial Project..... 1/19/96
- Initiated Procurement Action for Waste Pit Remediation Contractor.....3/6/96
 - Notice for Vendor pre-qualifications sent out.....3/21/96
 - Nine responses received
- Submitted Pre-Final Design Package and Amended Remedial Design Work Plan to EPA.....3/21/96
 - Comments on package will be incorporated into the subcontract
 - Explained modification of Design, Build and Operate to issuing a contract for Waste Pit Remediation
- Initiated Site Preparation Activities two months ahead of the CERCLA 15-month requirement.....4/1/96
 - Tree removal along railroad tracks
 - Install stormwater management system
 - Retainer wall support for railroad
 - Overall grading to prepare area for remediation plant
- CSXT's design on trestle repair proceeding
- Locomotive has been procured



6349-19

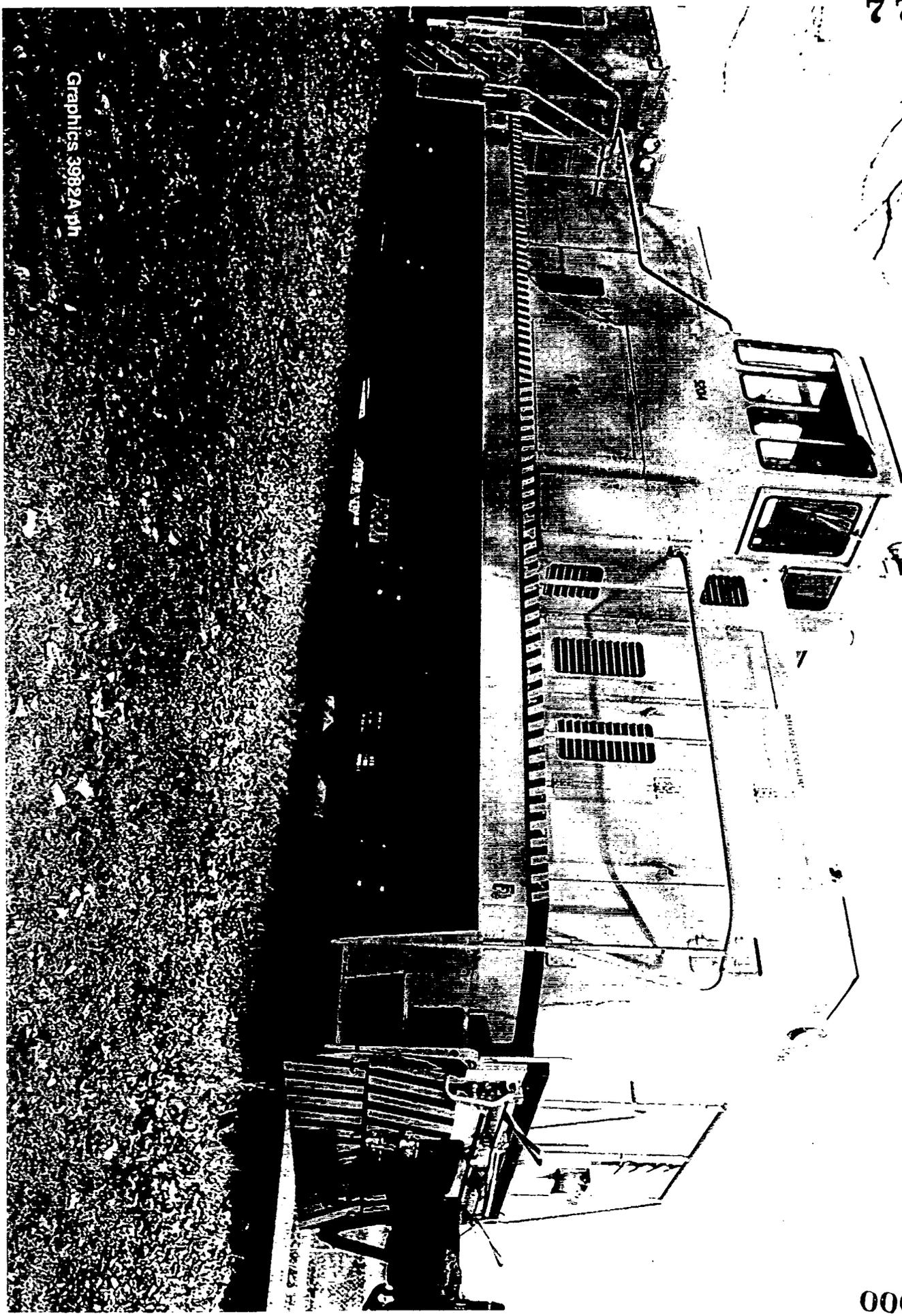
2222

000104

2222

OUT ON SITE LOCOMOTIVE

501000



Graphics 3982A.ph

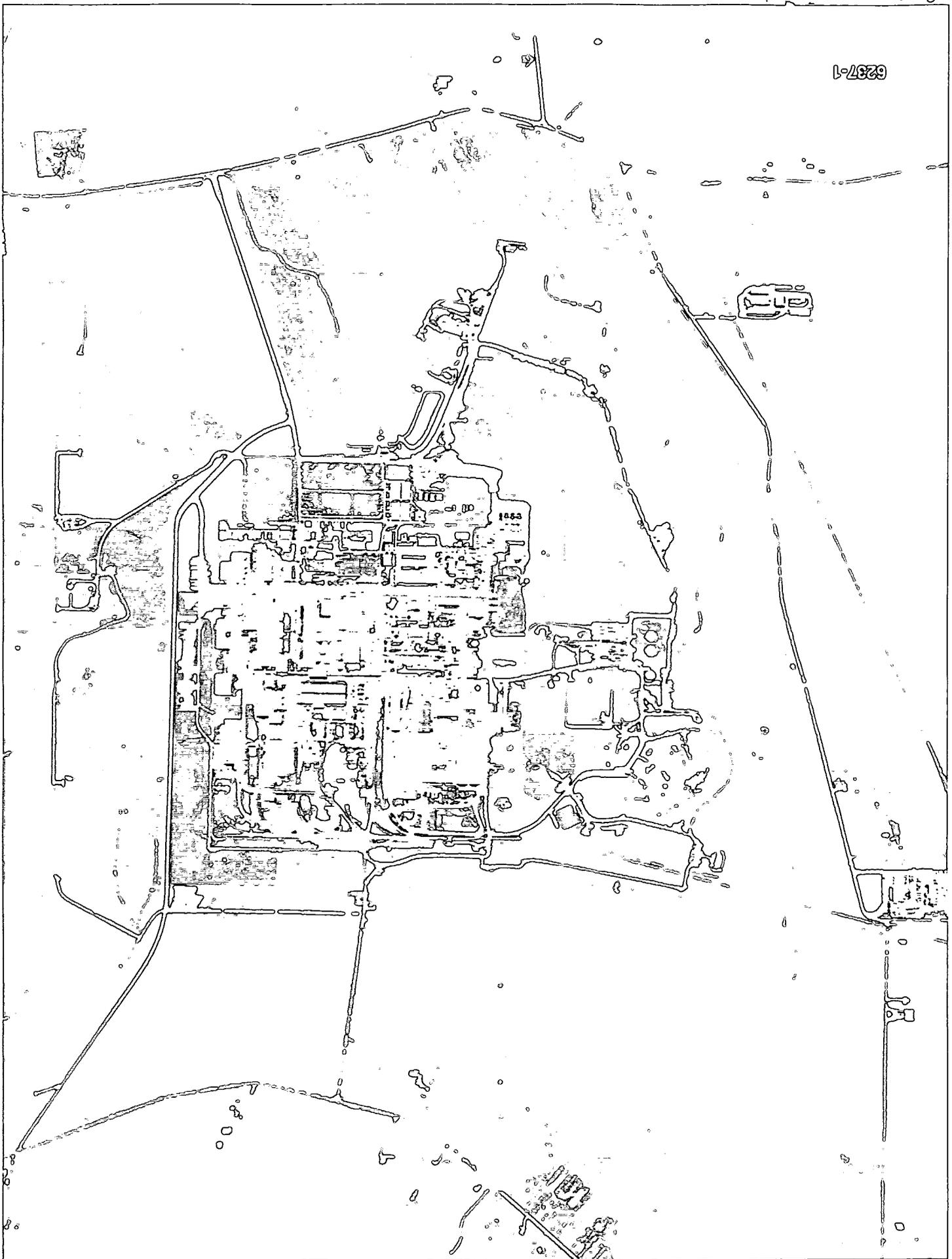


OPERABLE UNIT 2

FERNALD

- Preliminary (30%) Design of the On-Site Disposal Facility (OSDF) submitted to EPA and OEPA..... 12/22/95
- Public workshop held to discuss the Preliminary Design of the OSDF..... 1/24/96
- Preliminary (30%) Design of the Haul Roads and Relocation of North Access Road submitted to EPA and OEPA..... 1/29/96
- Intermediate (60%) Design of the OSDF and Draft Remedial Action Work Plan for the OSDF submitted to EPA and OEPA..... 4/11/96
- Upcoming Public Workshop on OSDF..... early June

6237-1



2222



FERNALD

OPERABLE UNIT 3

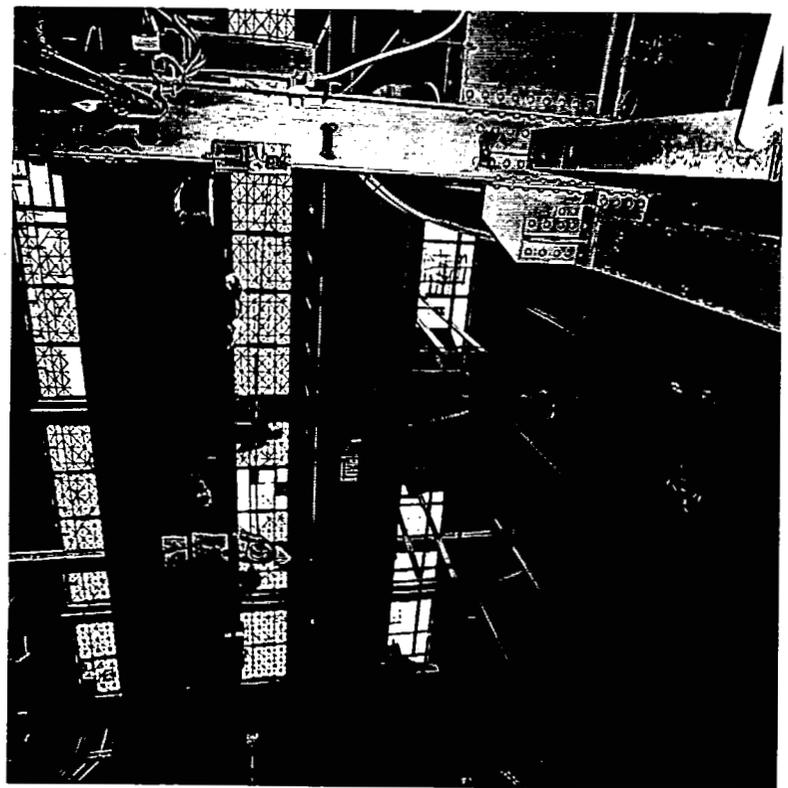
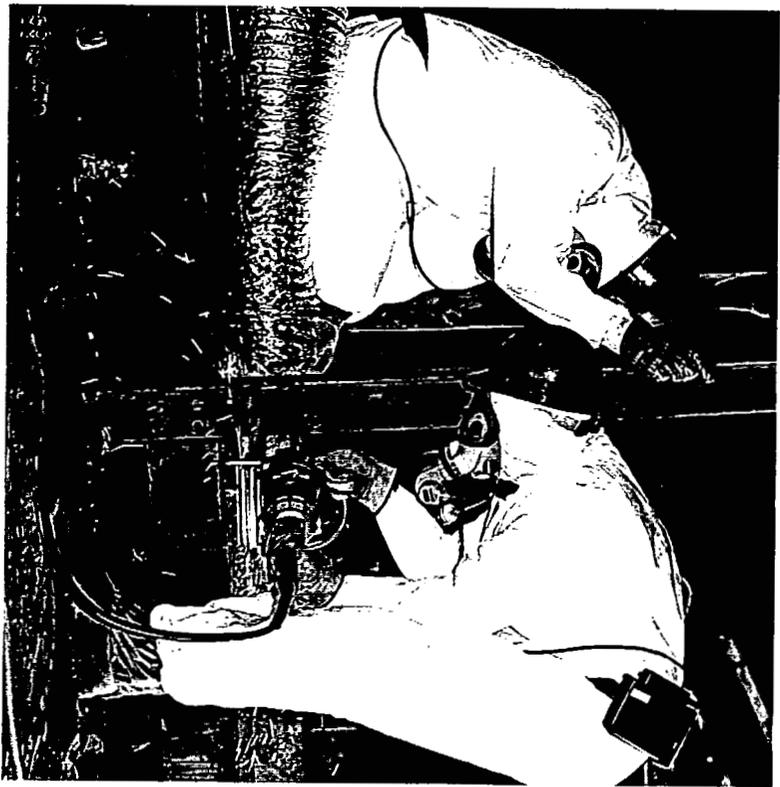
- EPAs approved OU3 RI/FIS Report & Proposed Plan.....3/22/96
- 30-day public comment period on OU3 Proposed Plan.....April 3 through May 2
- Public meeting/formal comment session on Proposed Plan.....4/23/96
- Safe Shutdown Activities:
 - Plant 9 completed..... 1/26/96
 - Pilot Plant currently in progress, scheduled for completion.....mid-June '96
 - Plant 5 currently in progress, scheduled for completion.....May 1997
- Decontamination & Dismantlement (D&D) Activities:
 - Plant 4:
 - Completed interior transite removal and dismantled furnaces; scheduled for implosion.....mid-August '96
 - Plant 1:
 - Completed removal of friable asbestos; started dismantlement of interior equipment.....3/7/96
 - Transite removal.....January 1997
 - Structural.....April 1997
 - Take-down.....June 1997

2222



PLANT 4

FERNALD



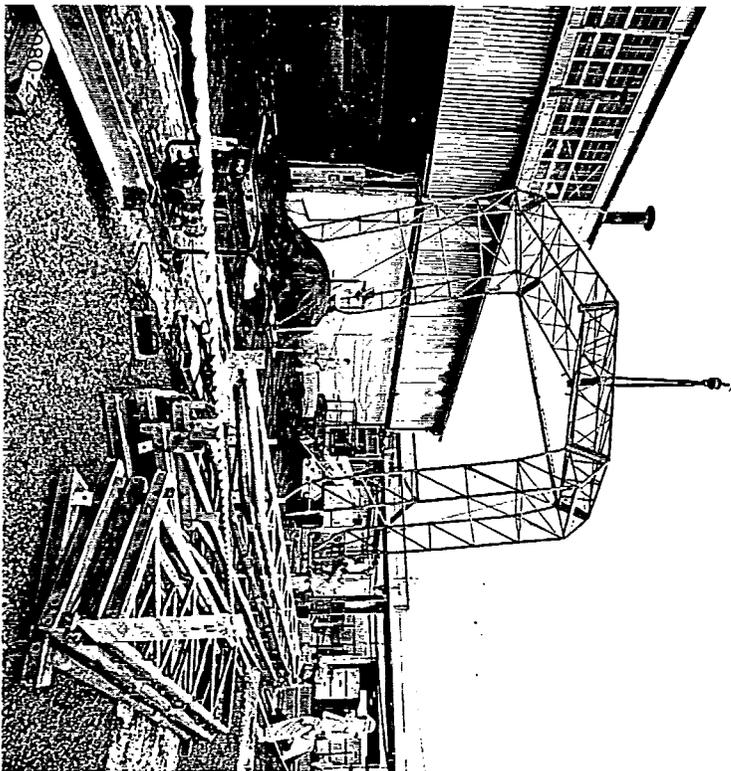
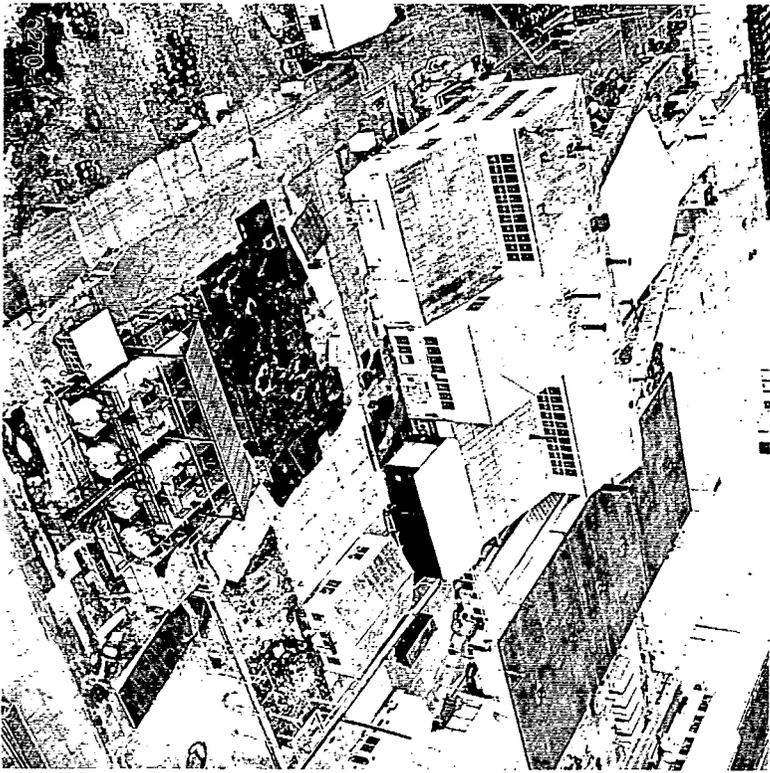
Graphics # 3879. 7 4/96

000109



PLANT 1

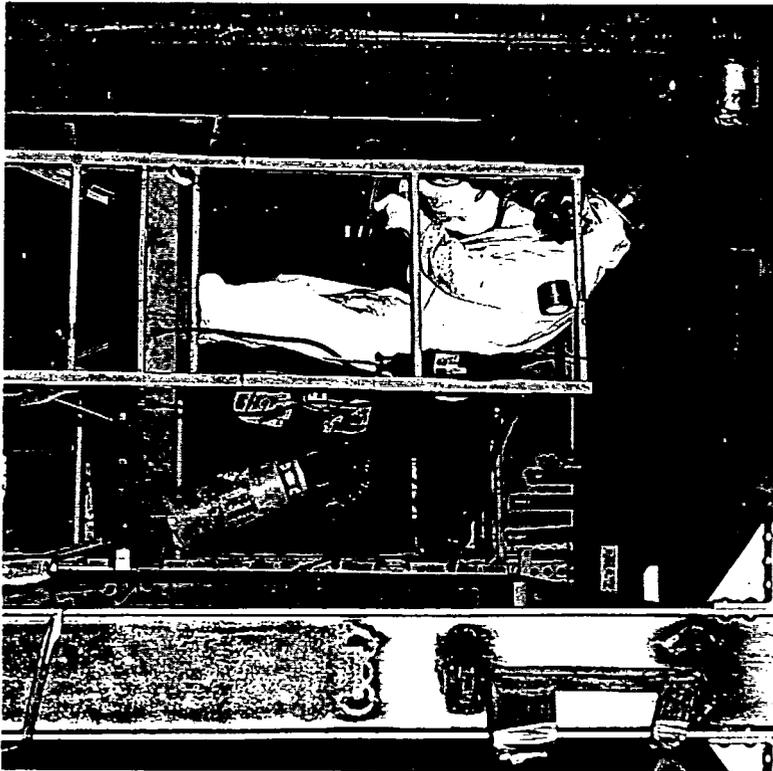
FERNALD





PLANT 1

FERNALD

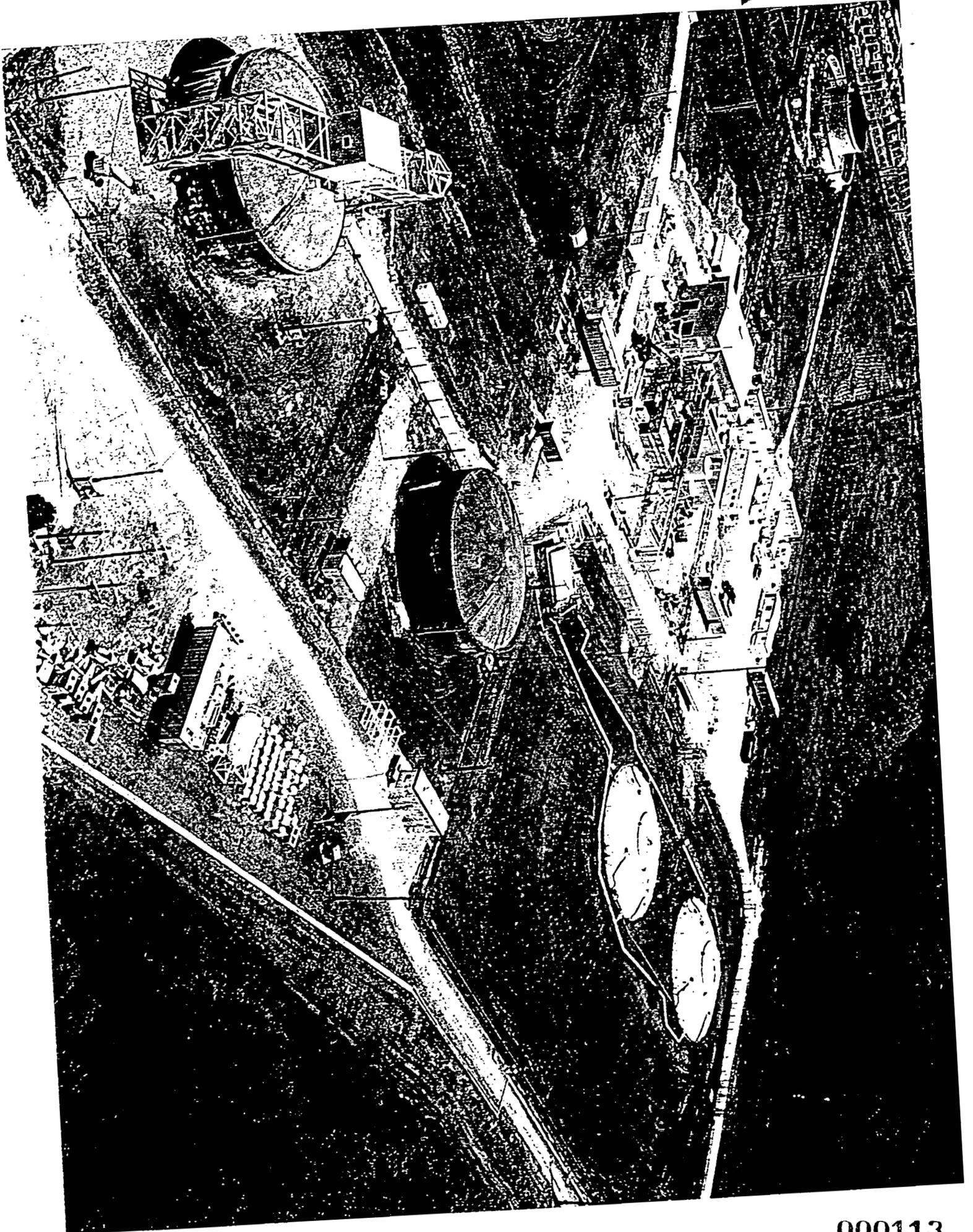




OPERABLE UNIT 4

FERNALD

- **Vitrification Pilot Plant:**
 - All construction for Phase 1 completed
 - Readiness Assessment.....5/8/96
 - Initiation of bake out.....5/22/96
 - Initiation of Phase 1 operation.....7/1/96
- **Full Scale Facility:**
 - Construction for the Site Preparation/Underground Utilities underway, meets the 15-month CERCLA requirement
 - Silo Superstructure Construction Package Pre-Final Design submitted to U.S. EPA/OEPA.....5/2/96
 - Alternative Studies for Silo 3



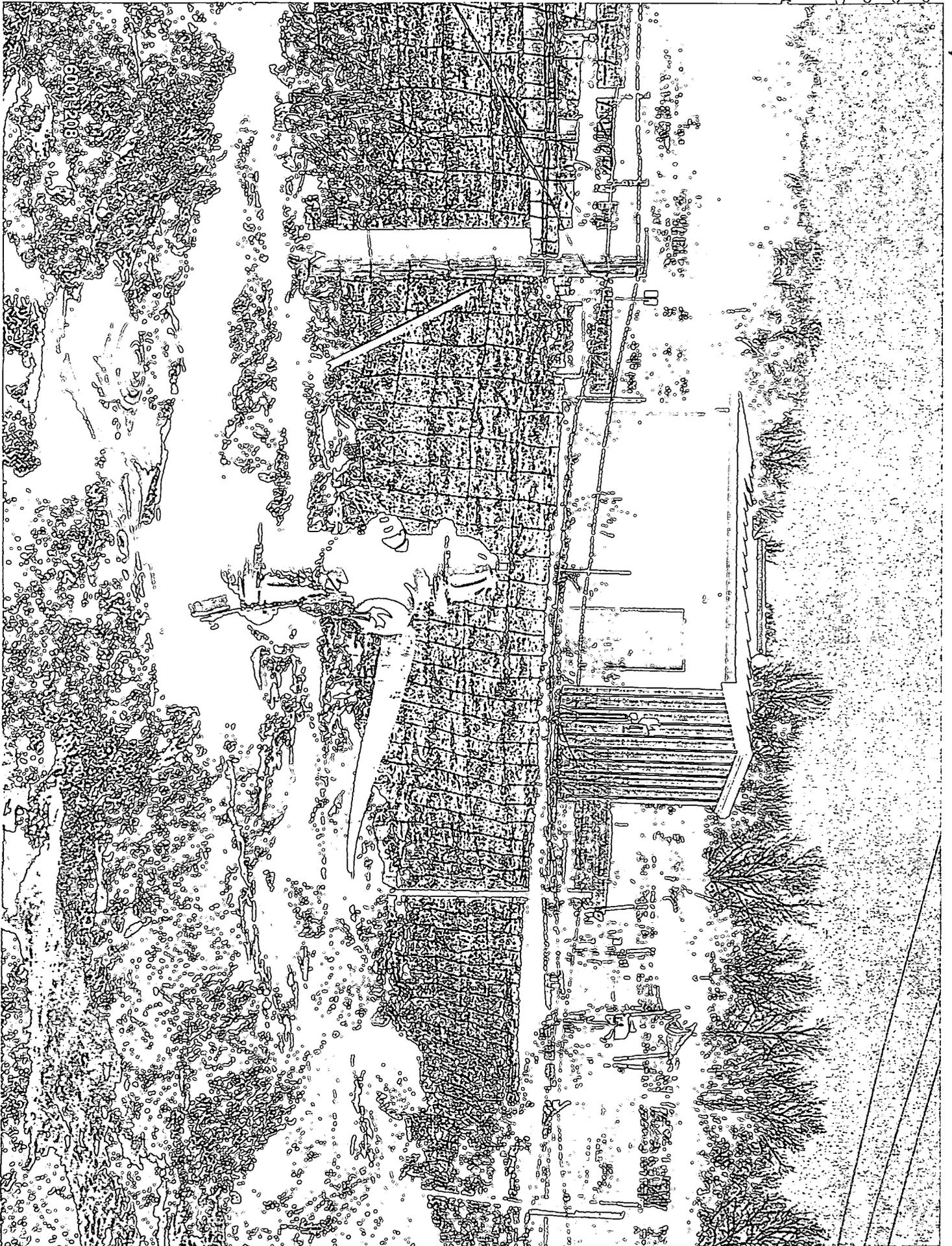


OPERABLE UNIT 5

FERNALD

000114

- Record of Decision OUS signed by U.S. EPA.....1/31/96
- Public Water to Fernald site.....2/16/96
 - All residential connections and the Crosby Road Reservoir complete.....6/30/96
- Remedial Design Work Plan for Remedial Actions at OUS submitted to EPAs includes schedules for the Soil Remediation and the Aquifer Restoration projects.....4/1/96
- Slurry Dewatering Facility to be completed and operationalJune 1996
- Prepared initial draft of the Integrated Environmental Monitoring Plan due for submittal to EPAs.....7/9/96

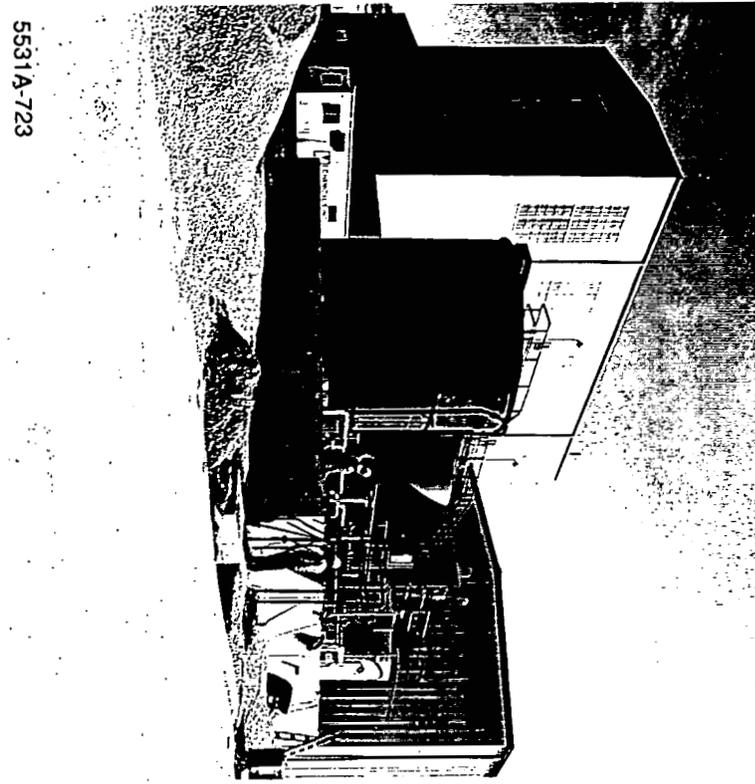


6001208

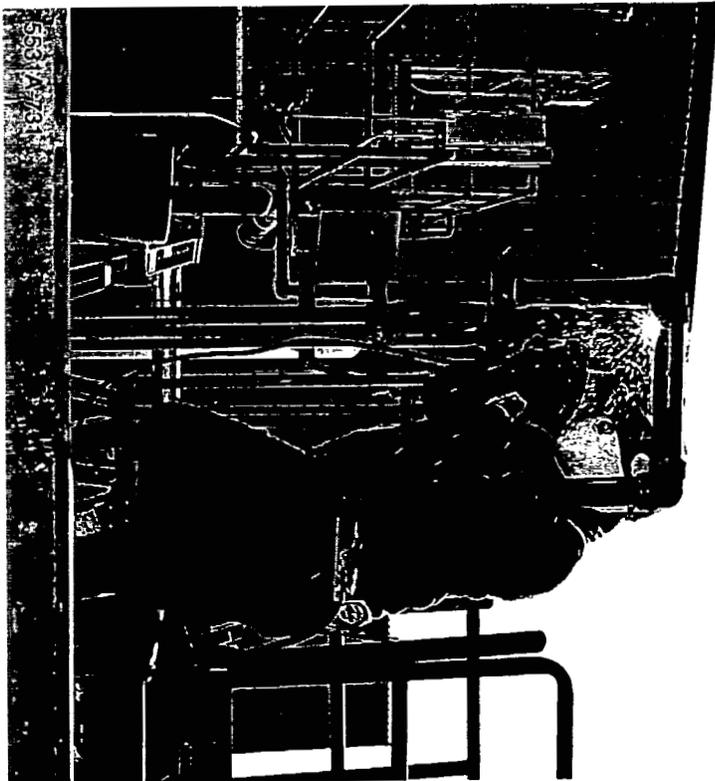


SLURRY DEWATERING

FERNALD



5531A-723



5531A-751

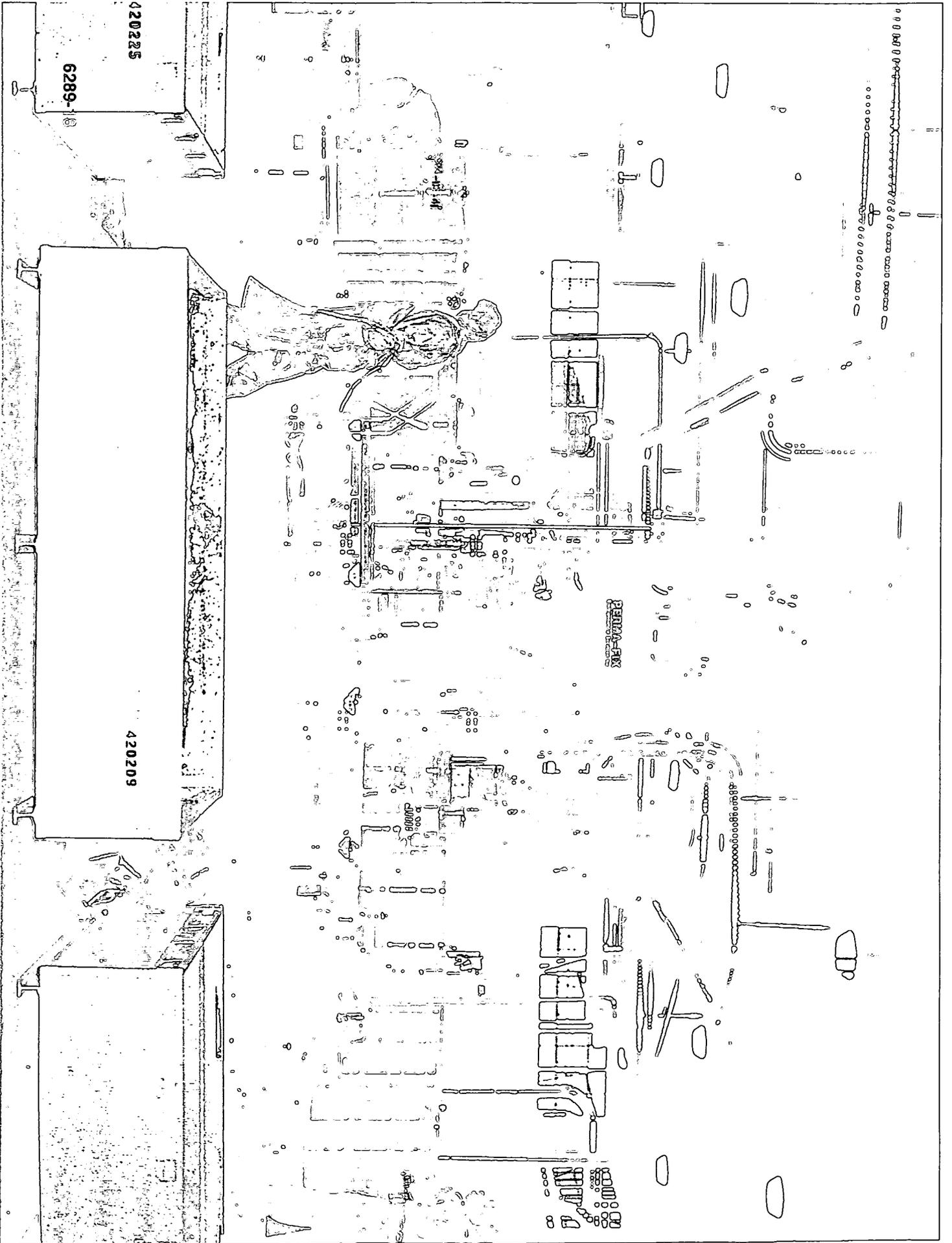


WASTE PROGRAMS MANAGEMENT

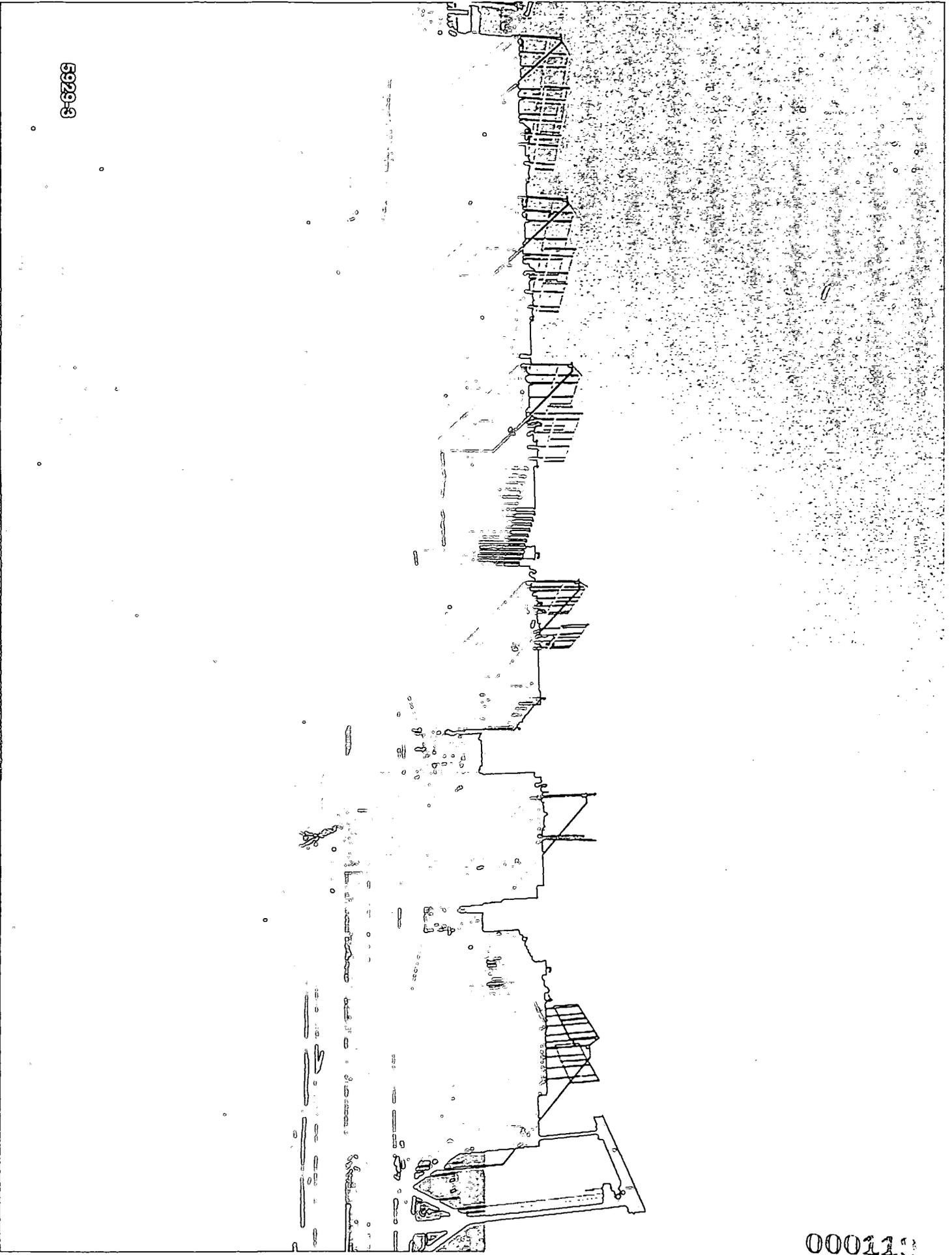
FERNALD

- Nuclear Materials Inventory (as of 3/1/96):
 - Depleted -- 8,729,392 lbs. (Current inventory)
 - Normal -- 487,782 lbs. To AlliedSignal (closes out inventory)
 - Enriched -- 6,755,572 lbs. DOE and U.S. Enrichment Corp. signed agreement on Feb 6 for USEC to serve as DOE's broker for marketing and sale of Fernald's remaining enriched uranium metal product inventory
- 113,288 cu. ft. low-level waste shipped to NTS in FY96 (October - April)
- Baseline estimate for FY96 of LLW to be shipped to NTS is 309,000 cu. ft.
- Mixed Waste Stabilization Project treated over 2200 drums of mixed waste
- 14 Tankers (51,500 gal.) of Liquid Mixed Waste shipped to TSCA Incinerator
- Thorium Overpack Project Status (5600 drums):
 - Operational Readiness Review (DOE & FERMCO) completed
 - Authorization to start and overpacking to begin.....early May '96

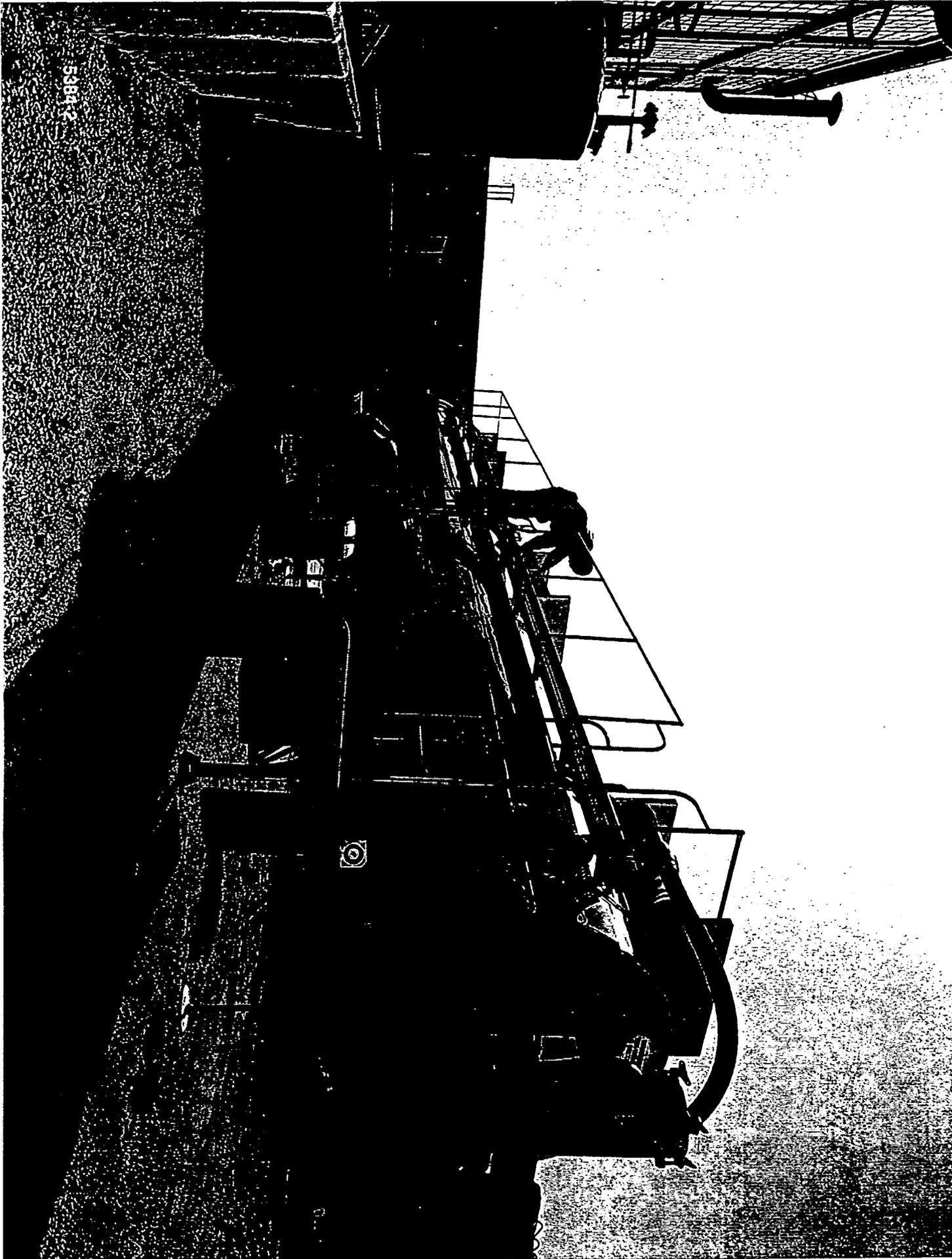
222222



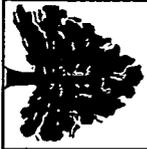
000118



5929-9



5384-2



TECHNOLOGY PROGRAMS

FERNALD

- Received award of large scale D&D technology demo for Plant 1
- Successful reinjection test indicating groundwater cleanup time potentially could be reduced
- Obtained instruments and mobile RTRAK vehicle for real-time field decision on soil cleanup
- FEMP selected for Rapid Commercialization demonstration for mixed waste
- Successfully demonstrated Road Transportable Analytical Lab for AWWT

7777

Graphics 3914-RTBAK



000122