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Department of Energy

**Ohio Field Office
Fernald Area Office**

P. O. Box 538705
Cincinnati, Ohio 45253-8705
(513) 648-3155



NOV 18 1997

DOE-0161-98

**Mr. James A. Saric, Remedial Project Manager
U.S. Environmental Protection Agency
Region V-SRF-5J
77 West Jackson Boulevard
Chicago, Illinois 60604-3590**

**Mr. Tom Schneider, Project Manager
Ohio Environmental Protection Agency
401 East 5th Street
Dayton, Ohio 45402-2911**

Dear Mr. Saric and Mr. Schneider:

**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY COMPLIANCE
AGREEMENT/FEDERAL FACILITY AGREEMENT/REMEDIAL INVESTIGATION/FEASIBILITY
STUDY/CONSENT DECREE MONTHLY REPORT FOR OCTOBER 1, 1997, THROUGH
OCTOBER 31, 1997**

**This letter transmits the amended Consent Agreement Monthly Report for the period
October 1, 1997, through October 31, 1997. This report is formatted to reflect the
proposal presented in the letter, DOE-0395-96, J. Reising to J.A. Saric and T. Schneider,
"Phase VII Removal Actions and Reporting Requirements under the FEMP Legal
Agreements," dated January 16, 1996, and agreed to by the U.S. Environmental Protection
Agency (U.S. EPA) and Ohio Environmental Protection Agency (OEPA).**

If you have any questions, please contact me at (513) 648-3139.

Sincerely,

**Johnny W. Reising
Fernald Remedial Action
Project Manager**

Enclosure: As Stated

cc w/enc:

N. Hallein, EM-42, CLOV
G. Jablonowski, USEPA-V, 5HRE-8J
R. Beaumier, TPSS/DERR, OEPA-Columbus
F. Barker, Tetra Tech
D. Carr, FDF/52-2
T. Hagen, FDF/65-2
AR Coordinator, FDF/78

cc w/o enc:

A. Tanner, DOE-FEMP
F. Bell, ATSDR
D. S. Ward, HSI GeoTrans
J. Harmon, FDF/90
R. Heck, FDF/2
S. Hinnefeld, FDF/2
B. Irvine, FDF/65-2
T. Walsh, FDF/65-2
EDC, FDF/52-7

CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY COMPLIANCE
AGREEMENT/FEDERAL FACILITY AGREEMENT/REMEDIATION INVESTIGATION/FEASIBILITY
STUDY/CONSENT DECREE MONTHLY REPORT OCTOBER 1 - 31, 1997

Introduction

This report describes actions at the Fernald Environmental Management Project (FEMP) from October 1 through 31, 1997. The monthly report has been revised to reflect the proposal presented in the letter, DOE-0395-96, J. Reising to J.A. Saric and T. Schneider, "Phase VII Removal Actions and Reporting Requirements under the FEMP Legal Agreements", dated January 16, 1996, and agreed to by USEPA and OEPA.

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OPERABLE UNIT 1 - WASTE PITS REMEDIAL ACTION PROJECT

October 1997

- Enforceable Milestones Completed
 - None

- Major Work Initiated/Completed
 - Awarded Alternative Remedial Action Subcontracting Approach (ARASA) subcontract
 - Continued on-site rail infrastructure upgrade
 - Continued development of Transportation and Disposal Plan, a Remedial Action Work Plan (RAWP) deliverable
 - Completed Okeana trestle upgrade
 - Continued Paddy's Run trestle upgrade
 - Continued development of Waste Management Plan
 - Completed construction of Camp Run and Wynn Road offsite trestle upgrades
 - Awarded contract for procurement of radiological equipment

November 1997 (Anticipated)

- Enforceable Milestones
 - None

- Major Work to be Initiated/Completed
 - Complete draft of Transportation and Disposal Plan for initial review
 - Mobilize locomotive maintenance building erection subcontractor and start construction
 - Complete Paddy's Run trestle upgrade
 - Complete on-site rail infrastructure upgrade
 - Award contract for Shandon Yard upgrade
 - Continue development of Waste Management Plan
 - Begin implementing ARASA subcontract pre-mobilization deliverables; issue Notice to Proceed

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OPERABLE UNIT 2 - ON-SITE DISPOSAL FACILITY

Additional OU2 soils-related activities reported under OU5/Soils Characterization and Excavation Project.

October 1997

- Enforceable Milestones Completed
 - None
- Major Work Initiated/Completed
 - On-Site Disposal Facility (OSDF)
 - Completed installation of Cell 1 compacted clay liner
 - Initiated installation of Cell 1 secondary composite liner
 - Leachate Conveyance System (LCS)
 - Completed installation of southern and eastern portions of LCS
 - Completed installation of Permanent Lift Station
 - Initiated final testing of leachate lines
 - Haul Road/Relocated North Entrance Road
 - Completed Relocated North Entrance Road paving, shoulder work, and painting, and reopened road October 20, 1997
 - Completed gravel base and geotextile installation on Haul Road
 - Began asphalt paving on southern and northern portions of Haul Road

November 1997 (Anticipated)

- Enforceable Milestones
 - None
- Major Work to be Initiated/Completed
 - OSDF
 - Complete installation of leak detection system, primary liner, and leachate collection system
 - Initiate placement of protective cover
 - LCS
 - Perform systems operability testing and final testing of leachate lines
 - Perform Standard Startup Review
 - Initiate leachate collection and treatment upon placement of impacted material
 - Roads
 - Complete asphalt paving, shoulder work, and painting to finish Haul Road

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OPERABLE UNIT 3 - FACILITIES CLOSURE & DEMOLITION PROJECTS

October 1997

- Enforceable Milestones Completed
 - None
- Major Work Initiated/Completed
 - **Safe Shutdown**
 - Completed holdup material removal from various areas in Plants 2/3, 6, and 8
 - Completed energy isolation procedures in Buildings 78 and 81, and process trailers
 - Excavated underground utility lines for Plants 6 and 8
 - **D&D**
 - Boiler Plant/Water Plant
 - Continued asbestos abatement and equipment removal around boilers
 - Completed demolition of Water Plant and Railroad Scale House
 - Sized, segregated, and containerized debris from demolition activities
 - Thorium/Plant 9 Complex
 - Installed subcontractor office trailers and supporting utilities
 - Initiated mobilization activities (installation of fencing, establishment of queuing areas, etc.)

November 1997 (Anticipated)

- Enforceable Milestones
 - None
- Major Work to be Initiated/Completed
 - **Safe Shutdown**
 - Continue holdup material removal in areas of Plant 2/3 and Plant 8
 - Continue energy isolation procedures in Plants 6 and 8, and Buildings 64 and 65
 - Commence asbestos removal in Plant 2/3
 - Excavate underground utilities for Buildings 64, 65, and 69
 - Perform utility redistribution for Trailer 59
 - **D&D**
 - Continue Boiler Plant/Water Plant activities
 - Asbestos abatement
 - Equipment removal from boilers
 - Demolition of electrostatic precipitators, fly ash silo, and Clearwell Building
 - Sizing, segregation, and containerization of demolition debris

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- Thorium/Plant 9 Complex ---
 - Continue preparation of subcontractor work plans
 - Complete mobilization activities
 - Commence demolition of Magnesium Storage Warehouse (Building 32) and Plant 9
- Maintenance/Tank Farm Complex
 - Continue development of Implementation Plan

OPERABLE UNIT 4 - SILOS PROJECTS

October 1997

- Enforceable Milestones Completed
 - None
- Major Work Initiated/Completed
 - Received USEPA comments on Draft Silo 3 Explanation of Significant Differences (ESD); submitted response to comments and Revised ESD to Agencies for approval
 - Initiated preparation of Request for Proposal (RFP) for Silos 1 and 2 Multi-Tech Proof-of-Principle Testing
 - Completed re-scoping of RFP for Silo 3 Waste Project
 - Initiated development of design basis for Transfer Tank Area and Radon Control System
 - Received responses to Commerce Business Daily (CBD) announcement for Silos 1 and 2 Multi-Tech Proof-of-Principle Testing
 - Initiated scoping of Silos 1 and 2 Feasibility Study (FS) revision
 - Continued dismantlement/removal of piping and equipment at Vitrification Pilot Plant

November 1997 (Anticipated)

- Enforceable Milestones
 - Submit following deliverables to Agencies by November 21, 1997, as agreed in the OU4 Dispute Settlement Agreement:
 - Work Plan for Establishment of a Conservation Area Near the FEMP
 - Work Plan for Research Grants for Ecological Restoration

NOTE: The two Work Plans listed above are Supplemental Environmental Projects required under the OU4 Dispute Resolution dated July 22, 1997; they are to be managed and implemented under the auspices of OU5, through the Soils Characterization and Excavation Project.

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- Major Work to be Initiated/Completed
 - Release Silo 3 RFP for review and comment by Agencies, stakeholders, and potential subcontractors, contingent upon receipt of DOE-HQ concurrence
 - Issue Draft Final Silo 3 ESD for public comment; conduct public hearing on ESD at November 25, 1997, Fernald Cleanup Progress Briefing
 - Conduct mock-up testing of Silo 3 Small Scale Waste Retrieval System at Silo 4
 - Continue dismantlement/removal activities at Vitrification Pilot Plant

OPERABLE UNIT 5 - SOILS AND WATER PROJECT

October 1997

- Enforceable Milestones Completed
 - **Aquifer Restoration/Wastewater Project (ARWWP)**
 - Submitted Design, Monitoring, and Evaluation Program Plan (DMEPP) Semi-Annual Report to Agencies September 23, 1997, meeting actual milestone date of October 1, 1997
 - Submitted National Pollutant Discharge Elimination System (NPDES) Permit Renewal Application to OEPA September 22, 1997, meeting actual milestone date of October 2, 1997
 - **Soils Characterization and Excavation Project (SCEP)**
 - Submitted Prefinal Area 2 Phase I (*Southern Waste Units*) Integrated Remedial Design Package (IRDP) to Agencies October 23, 1997; delayed from milestone date of October 20, 1997, in order to resolve issues associated with Waste Acceptance Criteria (WAC) attainment strategy and real-time instrument applications raised by Agencies
- Major Work Initiated/Completed
 - **ARWWP**
 - Continued construction on Advanced Waste Water Treatment (AWWT) Ion Exchange Regeneration System; systems operability testing has been initiated
 - Continued construction activities on AWWT expansion
 - Began drilling monitoring wells for Injection Demonstration System
 - Began drilling extraction wells for South Plume Optimization Project
 - **SCEP**
 - Removed downed trees, metal debris, and approximately 35 cubic yards of contaminated soil from Paddy's Run channel, in response to recently discovered embankment erosion problem west of K-65 silos
 - Conducted field sampling activities in Area 1 Phase II (*Southern Half of East Field*) to generate data to be used in support of remediation, and in Paddy's Run Embankment area to monitor erosion

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- Submitted formal schedule extension request October 27, 1997, to delay submittal of the Area 3 (*Northern Portion of the Former Production Area*) IRDP from its current date of July 2, 1998, to March 31, 2000; extension was requested to allow:
 - Incorporation of lessons learned from Area 2 Phase I excavation activities
 - Necessary pre-design investigations and their incorporation into design effort
 - Agency review and comment on various Project Specific Plans (PSPs)
- Met with USEPA October 21, 1997, to discuss WAC attainment and real-time instrument application issues, and to discuss requested delay of Area 2 Phase I IRDP submittal
- Continued field implementation of Area 2 Phase I Site Prep package
- Continued development of IRDPs for Area 1 Phase II and Area 3

November 1997 (Anticipated)

- Enforceable Milestones
 - **ARWWP**
 - Submit Final Operations and Maintenance Master Plan to Agencies
 - Submit monthly NPDES Discharge Monitoring Report to OEPA (each report covers previous month's results)
 - **SCEP**
 - Submit Prefinal Area 1 Phase II IRDP to Agencies by November 21, 1997
- Major Work to be Initiated/Completed
 - **ARWWP**
 - Submit response to comments on DMEPP to Agencies
 - Begin relocation of Sewage Treatment Plant equipment
 - Continue all ongoing construction activities
 - **SCEP**
 - Meet with OEPA November 5, 1997, to discuss real-time instrument application and WAC attainment issues
 - Continue development of conceptual design of recommended alternative for Paddy's Run Embankment Stabilization; anticipated November submittal to Agencies
 - Continue field implementation of Area 2 Phase I Site Prep package
 - Perform and/or complete selected sampling activities in Area 2 Phase I, Area 1 Phase I (*Northern Half of East Field & Areas North of Production Area*), and Paddy's Run Embankment area; perform additional sampling in support of comparability study work
 - Continue development of Project Specific Plans (PSPs) for Area 3
 - Continue development of IRDP for Area 3

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- Submit response to comments to Agencies on:
 - Area 1 Phase I Certification Report
 - Area 2 Phase I - Southern Waste Units Site Preparation Package
- Await OEPA comments on several SCEP submittals presently in review:
 - Waste Acceptance Criteria Attainment Completion Reports, Area 1 Phase I, Eastern Portion and Western Portion, both submitted June 1997
 - Draft Sitewide Excavation Plan, submitted July 1997
 - RTRAK (Radiation Tracking System) Applicability Study Report, submitted July 1997
 - Comparability of In-Situ Gamma Spectroscopy (HPGe) and Laboratory Data Report, submitted July 1997
- Submittal of response to comments documents for reports listed above dependent upon receipt of OEPA comments

WASTE MANAGEMENT

October 1997

- Enforceable Milestones Completed
 - None
- Major Work Initiated/Completed
 - Low Level Waste
 - No shipments of low level waste to Nevada Test Site (NTS) were made during October 1997, due to ongoing suspension of Waste Stream #6 - Residues; processing of residue materials continued during month in order to develop a surplus for release when suspension is lifted

NOTE: In the September 1997 version of this report, it was incorrectly reported that the FEMP had shipped a total of 612,035 cf low level waste to NTS during FY97; actual FY97 low level waste shipping total was 612,145 cf.

- Mixed Waste Treatment Projects
 - Mixed Waste Shipping --- Prepared 307 drums of treated laundry sump cake for disposal at Envirocare; shipment completed October 28, 1997
 - Liquid Mixed Waste --- Received waste characterization sampling results on Batch #7 (19,000+ gallons of mixed waste) and began analysis; also began bulking of Batch #9 (newly generated waste streams)
 - Chemical Treatment Projects
 - Neutralization/Precipitation/Deactivation/Stabilization (NPDS) Project --- Total of 606 drums treated in this project as of October 27, 1997

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- Organic Extraction Project (RCI/Terra-Kleen) --- Completed solvent washing of soils; preliminary results indicate treatment was successful, with contaminated solvent successfully distilled and recovered for reuse, and contaminants concentrated for disposal
- Hazardous Waste/Recycling Project --- Completed second shipment of photographic chemicals October 7, 1997
- Thorium Legacy Waste Stabilization Project --- Continued characterization of thorium legacy inventory; thorium legacy waste was moved from Building 81 to Building 64/65, and subcontractor submitted Phase I documents (Safe Work Plan, Health & Safety Plan, general construction/engineering documents, etc.) for review

November 1997 (Anticipated)

- Enforceable Milestones
 - None
- Major Work to be Initiated/Completed
 - Low Level Waste
 - Resume shipments to NTS, contingent upon lifting of Waste Stream #6 suspension
 - Mixed Waste Treatment Projects
 - Liquid Mixed Waste Project --- Ship Batch #7 to TSCA Incinerator; sample Batch #8 (newly generated and recharacterized low level waste)
 - Chemical Treatment Projects
 - NPDS Project --- Process seven additional drums; evaluate additional waste for inclusion in project
 - Organic Extraction Project (RCI/Terra-Kleen) --- Complete solvent wash of sludges and debris; begin scale-up for treatment of ~250 m³ tri-mixed waste
 - Hazardous Waste/Recycling Project --- Continue preparations for Lab Pack shipment from Analytical Lab Services
 - Thorium Legacy Waste Stabilization Project --- Begin shipment of thorium low level waste to NTS; four shipments anticipated per week