



**Department of Energy**

**Ohio Field Office  
Fernald Area Office**

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



AUG 19 1997

DOE-1320-97

**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 JULY 1, 1997, THROUGH  
JULY 31, 1997**

This letter transmits the amended Consent Agreement Monthly Report for the period July 1, 1997, through July 31, 1997. The monthly 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 Agreement," 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 or your staff 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  
R. Beaumier, TPSS/DERR, OEPA-Columbus  
G. Jablonowski, USEPA-V, 5HRE-8J  
R. Geiger, PRC  
D. Carr, FDF/9  
T. Hagen, FDF/65-2  
AR Coordinator/78

cc w/o enc:

A. Tanner, DOE-FEMP  
F. Bell, ATSDR  
D. S. Ward, 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/REMEDIAL INVESTIGATION/FEASIBILITY  
STUDY/CONSENT DECREE MONTHLY REPORT JULY 1 - 31, 1997**

**Introduction**

This report describes actions at the Fernald Environmental Management Project (FEMP) from July 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**

July 1997

- Enforceable Milestones Completed
  - None
- Major Work Initiated/Completed
  - Sent Alternative Remedial Action Subcontracting Approach (ARASA) Consent Package to DOE-FEMP for approval
  - Completed construction of office annex trailers
  - Continued north railyard construction
  - Continued development of the Transportation Plan, a Remedial Action Work Plan (RAWP) deliverable
  - Continued off-site trestle construction activities
  - Initiated project-specific interactions with Envirocare
  - Initiated construction of rail maintenance building
  - DOE issued Invitation for Bid for the procurement of 135 railcars on July 25, 1997

August 1997 (Anticipated)

- Enforceable Milestones
  - None
- Major Work to be Initiated/Completed
  - Complete draft waste profile documentation for disposal of pit wastes at Envirocare
  - Continue north railyard construction
  - Continue development of the Transportation Plan
  - Continue off-site trestle construction activities
  - Initiate development of waste management plan

**OPERABLE UNIT 2**

July 1997

- Enforceable Milestones Completed
  - On-Site Disposal Facility (OSDF)
    - None
  - Soil Characterization & Excavation Project (SCEP)
    - None

(Note that DOE-FEMP has requested an extension of the July 14, 1997, milestone date for submittal of the Pre-Final Area 2 Phase I Integrated Remedial Design Package [IRDP], as documented in a letter from Johnny Reising, DOE-FEMP, to James Saric, USEPA, dated June 27, 1997; the proposed date for submittal of the IRDP is October 20, 1997.)

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- Major Work Initiated/Completed
  - OSDF
    - Closed current North Access Road on July 1, 1997, to support Phase I construction
    - Began construction of Relocated North Access Road; scheduled to open in October 1997
    - Began Cell 1 excavation in preparation for liner installation; continued work on the run-on and run-off diversion ditches
    - Continued work on the subgrade for the Haul Road
    - Completed construction of the sediment basin for OSDF Phase I
    - Installed Leachate Conveyance System lines in the areas of the Vitrification Pilot Plant Access Road, the Haul Road, and the trailers west of the main FEMP parking lot
  - SCEP
    - Continued procurement process for awarding the site preparation contract for Area 2 Phase I (Southern Waste Units); held pre-bid meeting on July 8, 1997, issued Amendments 1-4 to solicitation package between July 14 and July 24, 1997, and received five bids on July 28, 1997
    - Received comments from Agencies on both the Draft Site Preparation Plan and the Certified for Construction (CFC) drawings for Area 2 Phase I; met with OEPA on July 29, 1997, to discuss comment resolution
    - Issued technical report containing updated flood routing modeling for Paddy's Run and revised cross-sections showing flood elevations and groundwater elevations to Agencies on July 31, 1997
    - Initiated field sampling activities on July 28, 1997, under the Project-Specific Plan (PSP) for Area 2 Phase I Site Preparation Areas Sampling, which was given to the Agencies on July 29, 1997; these activities are designed to characterize soil for potential reuse in construction of Area 2 Phase I sedimentation basins, as well as for OSDF waste acceptance criteria attainment

**August 1997 (Anticipated)**

- Enforceable Milestones
  - OSDF
    - Submit OSDF Groundwater/Leak Detection and Leachate Monitoring Plan to Agencies by August 8, 1997
  - SCEP
    - None

**(Note that DOE-FEMP has requested an extension of the August 11, 1997, milestone date for submittal of the Final Design/Certified for Construction Package for Area 2 Phase I, as documented in a letter from Johnny Reising, DOE-FEMP, to James Saric, USEPA, dated June 27, 1997; the proposed date for submittal of this package is February 16, 1998.)**

- Major Work to be Initiated/Completed
  - OSDF
    - Complete excavation for the Cell 1 liner
    - Initiate installation of horizontal perched groundwater monitoring well for Cell 1; also begin installation of Cell 1 compacted clay liner

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- Perform pressure testing on installed leachate lines; begin work on the east portion (gravity section) of the leachate collection system
- Install gravel base for Relocated North Entrance Road
- SCEP
  - Award Area 2 Phase I Site Preparation contract in early August; construction anticipated to begin mid-September
  - Complete initial Area 2 Phase I PSP field sampling activities in early August, with receipt of data anticipated for early September
  - Meet with USEPA on August 5 and 6, 1997, to resolve their comments on the Area 2 Phase I Draft Site Preparation Plan and the CFC drawings; prepare formal comment responses to both USEPA and OEPA on these packages for submittal in early August
  - Continue development of the Area 2 Phase I IRDP

**OPERABLE UNIT 3**

July 1997

- Enforceable Milestones Completed
  - None
- Major Work Initiated/Completed
  - Safe Shutdown
    - Continued line draining and holdup material removal in Plant 2/3
    - Continued conducting utility disconnects in Plant 6
    - Completed holdup material removal from the Sewage Treatment Plant Incinerator
    - Continued activities in Plant 8
  - D&D
    - Continued activities in Boiler Plant/Water Plant
    - Began evaluation of responses to Request for Proposal for Thorium/Plant 9 Complex D&D Project

August 1997 (Anticipated)

- Enforceable Milestones
  - Thorium/Plant 9 Complex Implementation Plan is expected to be approved by the Agency in the month of August
- Major Work to be Initiated/Completed
  - Safe Shutdown
    - Continue line draining and holdup material removal in Plant 2/3
    - Continue activities in Plant 6
    - Continue activities in Plant 8
  - D&D
    - Continue Boiler Plant/Water Plant activities

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**OPERABLE UNIT 4**

July 1997

- **Enforceable Milestones Completed**
  - The "Agreement Resolving Dispute Concerning Denial of Request for Extension of Time for Certain Operable Unit 4 Milestones" was signed by DOE-OFO on July 14, 1997 and by USEPA Region V on July 22, 1997, establishing enforceable milestones for submittal of the Silo 3 Explanation of Significant Differences (ESD), award of the multi-tech proof-of-principle contract for Silos 1 and 2, and submittal of the draft Silo 1 and 2 FS/PP and ROD Amendment documents; the agreement also specifies implementation of five Supplemental Environmental Projects (SEP) at the FEMP and replaces existing OU4 RD/RA Work Plan milestones with the milestones established in the agreement and subsequent submittals
  
- **Major Work Initiated/Completed**
  - Conducted a Silo 3 Stabilization Workshop in Nevada on July 1, 1997; this workshop was part of an effort to provide to the Nevada stakeholders the same information that is being presented to our local stakeholders concerning evaluation of options for treatment and disposal of Silo 3 wastes
  - Attended monthly meeting of Nevada Test Site Citizens Advisory Board on July 2, 1997
  - Assisted in hosting a trip to Brookhaven National Laboratory for members of the Fernald Citizens Advisory Board (FCAB) Waste Management Committee on July 16, 1997; this one-day trip gave the committee an opportunity to receive presentations and ask specific questions concerning the two polymer-based encapsulation technologies being considered for stabilization/solidification of Silo 3 residues
  - Conducted a combined Public Workshop/FCAB Waste Management Committee Meeting on July 29, 1997, to review the detailed analysis of the three potential alternatives to vitrification of Silo 3 waste, in which cement (chemical) stabilization/solidification, polymer (micro) encapsulation, and sulfur/polymer encapsulation were compared using the criteria specified by CERCLA for the Remedial Investigation/Feasibility Study alternatives analysis process; based upon comparison of the three technologies, either cement (chemical) stabilization/solidification or a polymer-based encapsulation process will provide an acceptable alternative to vitrification for treatment of Silo 3 waste prior to offsite disposal

August 1997 (Anticipated)

- **Enforceable Milestones**
  - None
  
- **Major Work to be Initiated/Completed**
  - Finalize and review the Draft Silo 3 Explanation of Significant Differences (ESD), in preparation for its submittal to the Agencies by the September 15, 1997, date specified in the July 22, 1997, Dispute Resolution Agreement

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**OPERABLE UNIT 5**

July 1997

- Enforceable Milestones Completed
  - Aquifer Restoration Project (ARP)/Advanced Waste Water Treatment (AWWT)
    - Transmitted the Operations and Maintenance Master Plan (OMMP) for the Aquifer and Wastewater Treatment Project to the Agencies on June 30, 1997, meeting the actual milestone date of July 1, 1997; note that the South Plume Performance Monitoring and Maintenance Plan was revised and incorporated into the OMMP as Appendix A
    - The Integrated Environmental Monitoring Plan (IEMP) was approved by USEPA on July 10, 1997
  - Soils Characterization and Excavation Project (SCEP)
    - Submitted the Certification Report for Area 1 Phase I to the Agencies on June 30, 1997, meeting the actual milestone date of July 1, 1997
    - Submitted the following documents to the Agencies on July 11, 1997, meeting the actual milestone date of July 14, 1997
      - Draft Sitewide Excavation Plan (SEP)
      - Draft RTRAK (Radiological Tracking System) Applicability Study
      - Revised Draft Comparability of In-Situ Gamma Spectroscopy and Laboratory Data Report (also known as the HPGe Comparability Study or the In-Situ Characterization Comparability Study)
    - Also refer to OU2 July enforceable milestone entries presented earlier in this report because certain OU2 work is being performed within OU5
- Major Work Initiated/Completed
  - ARP/AWWT
    - Transmitted the following *information only* Certified for Construction packages to the Agencies on July 8, 1997:
      - South Field Extraction System Project
      - Injection Demonstration Project
      - South Plume Optimization Project
    - Received bids for the three projects listed above on July 24, 1997
    - Continued construction on AWWT regeneration project, which is approximately 75% complete; target operational date has been revised to November 1997
    - Continued construction on the Sewage Treatment Plant Relocation, which is approximately 50% complete
    - Issued Request for Proposal for relocation of the existing Bionitrification Effluent Treatment Facility for reuse as the new Sewage Treatment Plant
  - SCEP
    - Initiated pre-design work for development of the IRDP for Area 3 (the portion of the Former Production Area north of 2nd Street)
    - Initiated development of a Project-Specific Plan (PSP) for the northeast corner of Area 3 to delineate uranium (WAC attainment) and lead (Suspected Toxicity Characteristic Area)

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- Continued development of several Area 1 Phase II (remaining portion of the west field) PSPs, primarily concerned with WAC Attainment Delineations and Area-Specific Constituents of Concern Characterizations associated with the Sewage Treatment Plant Area
- Completed Phase II archaeological investigations of two sites in the South Field, in support of planning efforts for Area 2 Phase II and ARP/AWWT; at the present time, no further archeological study is recommended at either site

**August 1997 (Anticipated)**

- **Enforceable Milestones**
  - ARP/AWWT
    - Transmit the Final IEMP to the Agencies by August 11, 1997
  - SCEP
    - Also refer to OU2 August enforceable milestone entries presented earlier in this report because certain OU2 work is being performed within OU5
- **Major Work to be Initiated/Completed**
  - ARP/AWWT
    - Award contract for the South Field Extraction System, Injection Demonstration, and South Plume Optimization Projects
  - SCEP
    - Initiate Area 1 Phase II pre-design field sampling activities, contingent upon approval of the Area 1 Phase II PSPs mentioned above
    - Continue development of the Area 1 Phase II IRDP
    - Initiate pre-design field sampling activities under the Area 3 PSP mentioned above
    - Continue development of the Area 3 IRDP

**WASTE MANAGEMENT**

**July 1997**

- **Enforceable Milestones Completed**
  - None
- **Major Work Initiated/Completed**
  - Low Level Waste
    - Shipped 1,825.00 m<sup>3</sup> low level waste to Nevada Test Site (NTS)
  - Mixed Waste Treatment Projects
    - Liquid Mixed Waste --- Sampling performed by Lockheed Martin for acceptance of Batch #7 at the TSCA Incinerator; shipment of this waste is scheduled to be performed prior to the end of September 1997
    - Chemical Treatment Projects
      - Treated 1.00 m<sup>3</sup> mixed waste in the Neutralization/Precipitation/Deactivation/Stabilization (NPDS) Project
      - RCI Solvent Extraction Project --- Completed Construction Acceptance Testing and Systems Operability Testing

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- Thorium Stabilization Project --- Received proposals from four potential contractors in June for cement stabilization of thorium waste which is identified as mixed; these proposals were evaluated during the month of July

**August 1997 (Anticipated)**

- Enforceable Milestones
  - None
- Major Work to be Initiated/Completed
  - Mixed Waste Treatment Projects
    - Mixed Waste Shipping - Preparing over 300 drums of mixed waste for shipment to Envirocare for disposal; analytical results are expected back during the month, after which the waste profile will be prepared and submitted
    - Chemical Treatment Projects
      - RCI Solvent Extraction --- Standard Startup Review (SSR) is scheduled to begin on August 18, 1997
    - Thorium Stabilization Project --- Contract scheduled to be awarded on August 8, 1997

**THORIUM OVERPACKING PROJECT UPDATE (TOP)**

All figures cumulative as of August 1, 1997

- Overpacked 5,577 drums
- Filled 971 Thorium Overpack Containers (TOCs)
- Shipped 961 TOCs

***Overpacking of the thorium containers associated with this project was completed on May 21, 1997, 10 months ahead of schedule, significantly under budget, and at a worker exposure rate less than half of that originally estimated. TOCs shipped is 99.38% complete, leaving 10 TOCs to be shipped to the Nevada Test Site.***