



Department of Energy

Ohio Field Office
Fernald Area Office

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



2179

APR 15 1999

Mr. James A. Saric, Remedial Project Manager

DOE-0647-99

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/REMEDIATION INVESTIGATION/FEASIBILITY
STUDY/CONSENT DECREE MONTHLY REPORT FOR THE PERIOD OF JANUARY 1, 1999,
THROUGH JANUARY 31, 1999, AND QUARTERLY REPORT FOR THE PERIOD OF
JANUARY 1, 1999, THROUGH MARCH 31, 1999, INCLUDING REMOVAL ACTION
STATUS REPORT**

This letter transmits the amended Consent Agreement Monthly Report for the period of January 1, 1999, through January 31, 1999, and the Quarterly Report for the period January 1, 1999, through March 31, 1999. This report is formatted to reflect the proposal presented in Letter DOE-0395-96, J. Reising to J. A. Saric and T. Schneider, "Phase VII Removal Actions and Reporting Requirements under the Fernald Environmental Management Project 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

FEMP:Reising

Enclosures

Mr. James A. Saric
Mr. Tom Schneider

-2-

APR 15 1999

cc w/enclosures:

N. Hallein, EM-42, CLOV
G. Jablonowski, USEPA-V, SRF-5J
R. Beaumier, TPSS/DERR, OEPA-Columbus
D. Sarno, FCAB
V. Dastillung, FRESH

2179

P. Dunn, FRESH
F. Barker, Tetra Tech
D. Carr, FDF/52-2
T. Hagen, FDF/65-2
T. Walsh, FDF/65-2
AR Coordinator, FDF/78

cc w/o enclosures:

A. Tanner, OH/FEMP
F. Bell, ATSDR
M. Schupe, HSI GeoTrans
J. Harmon, FDF/90
R. Heck, FDF/2
S. Hinnefeld, FDF/31
B. Irvine, FDF/65-2
ECDC, FDF/52-7

**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY COMPLIANCE
AGREEMENT/FEDERAL FACILITY AGREEMENT/REMEDIATION INVESTIGATION/FEASIBILITY
STUDY/CONSENT DECREE MONTHLY REPORT MARCH 1 THROUGH 31, 1999, AND
QUARTERLY REPORT JANUARY 1, 1999 THROUGH MARCH 31, 1999 INCLUDING
REMOVAL ACTION STATUS REPORT**

Introduction

This report describes actions at the Fernald Environmental Management Project (FEMP) from January 1, 1999 through March 31, 1999. The monthly and quarterly reports have 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.

The Department of Energy - Fernald, has given direction to utilize the submittal of the Quarterly Integrated Environmental Monitoring Plan (IEMP) reports to satisfy the effluent radionuclide reporting requirements of the Consolidated Consent Agreement/Federal Facility Compliance Agreement/Federal Facility Agreement/Remedial Investigation/Feasibility Study/Consent Decree Quarterly Report.

**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY COMPLIANCE
AGREEMENT/FEDERAL FACILITY AGREEMENT/REMEDIAL INVESTIGATION/FEASIBILITY
STUDY/CONSENT DECREE MONTHLY REPORT MARCH 1 THROUGH 31, 1999, AND
QUARTERLY REPORT JANUARY 1, 1999 THROUGH MARCH 31, 1999 INCLUDING
REMOVAL ACTION STATUS REPORT**

OPERABLE UNIT 1 - WASTE PITS REMEDIAL ACTION PROJECT

January 1999

- **Enforceable Milestones**
 - None

- **Major Work Initiated/Continued/Completed**
 - Received comments on First Load Out Work Plan from OEPA
 - Continued review of First Load Out Work Plan by USEPA
 - Continued review of draft RA deliverables by OEPA
 - Continued to revise RA Deliverables to address USEPA comments
 - Continued construction of waste processing facility
 - Continued training of FAT&LC personnel for ARASA Operations
 - Continued Review of Rail Tender

February 1999

- **Enforceable Milestones**
 - Initiation of Operations (i.e. Loading of Wastes) began February 23, 1999, ahead of the actual milestone date of March 1, 1999

- **Major Work Initiated/Continued/Completed**
 - Received U.S. and Ohio EPA's conditionally approved First Load Out Work Plan
 - Completed FDF comment resolution and resubmitted First Load Out Work Plan to Agencies as final
 - Received OEPA comments of the draft RA deliverables on February 13, 1999
 - Continued FDF revision of RA Deliverables to address USEPA and OEPA comments
 - Completed construction of facilities needed for First Load Out activities by IT Corporation
 - Continued with completion of remaining facilities for First Load Out
 - Completed training of First Load Out personnel for First Load out
 - Continued training of FAT&LC personnel for full Operations
 - Initiated and completed SSR for First Load Out Activities
 - Issued limited authorization to Operate to IT Corporation
 - Continued negotiations of Rail Tender with CSXT and Union Pacific

**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY COMPLIANCE
AGREEMENT/FEDERAL FACILITY AGREEMENT/REMEDIAL INVESTIGATION/FEASIBILITY
STUDY/CONSENT DECREE MONTHLY REPORT MARCH 1 THROUGH 31, 1999, AND
QUARTERLY REPORT JANUARY 1, 1999 THROUGH MARCH 31, 1999 INCLUDING
REMOVAL ACTION STATUS REPORT**

March 1999

- Enforceable Milestones
 - Initiation of Operations
- Major Work Initiated/Continued/Completed
 - Continued FDF revision of RA Deliverables to address USEPA and OEPA comments
 - Continued with completion of remaining facilities
 - Continued training of personnel for full Operations
 - Continued review of Rail Tender

April 1999 (Anticipated)

- Enforceable Milestones
 - None
- Major Work to be Initiated/Continued/Completed
 - Complete revision of RA deliverables and resubmits to Agencies for review and approval
 - Complete review of Rail Tender
 - Continue with completion of remaining facilities
 - Continue training of personnel for full Operations
 - Initiate First Rail Shipment to Envirocare

OPERABLE UNIT 2 - ON-SITE DISPOSAL FACILITY AND SOIL CHARACTERIZATION AND EXCAVATION PROJECT

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

January 1999

- Enforceable Milestones
 - On-Site Disposal Facility (OSDF)
 - None

CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT/REMEDIAL INVESTIGATION/FEASIBILITY STUDY/CONSENT DECREE MONTHLY REPORT MARCH 1 THROUGH 31, 1999, AND QUARTERLY REPORT JANUARY 1, 1999 THROUGH MARCH 31, 1999 INCLUDING REMOVAL ACTION STATUS REPORT

- Soil Characterization and Excavation Project (SCEP)
- None

- Major Work Initiated/Continued/Completed
 - On-Site Disposal Facility
 - Placed crusting agent on exposed surfaces in accordance with the Surface Water and Erosion Control Plan
 - Continued to evaluate the amount of clay that can be derived from the Borrow Area
 - Soil Characterization and Excavation Project (SCEP)
 - Continued Precertification activities for Area 2, Phase III for Radiation Tracking System (RTRAK)
 - Continued construction of Site preparation facilities
 - Awarded mobilization contract to Severson Environmental Services in regard to the Trap Range
 - Natural Resource Restoration
 - Continued discussions with Natural Resource Trustees regarding settlement of Ohio's claim
 - Began to develop Findings and Responsiveness Summary regarding public comments received on the proposed final land-use at the FEMP
 - Continued project activities in the On-Property Public Access Habitat Area
 - Continue preparation of the Appraisal Report of the Conservation Area

February 1999

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

**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY COMPLIANCE
AGREEMENT/FEDERAL FACILITY AGREEMENT/REMEDIAL INVESTIGATION/FEASIBILITY
STUDY/CONSENT DECREE MONTHLY REPORT MARCH 1 THROUGH 31, 1999, AND
QUARTERLY REPORT JANUARY 1, 1999 THROUGH MARCH 31, 1999 INCLUDING
REMOVAL ACTION STATUS REPORT**

- Major Work Initiated/Continued/Completed
 - On-Site Disposal Facility
 - Began to locate and repair leaks in the Leachate Transmission Line
 - Implemented Contingency Plan for Leachate Management for Cells 1 and 2
 - Initiated investigation associated with leaks
 - Continued to evaluate the amount of clay that might be derived from the Borrow Area
 - Soil Characterization and Excavation Project (SCEP)
 - Continued Precertification activities for Area 2, Phase III for Radiation Tracking System (RTRAK)
 - Continued construction of Site preparation facilities
 - Began treatability study in regard to the Trap Range
 - Issued revised Area 1, Phase II Supplemental Characterization package to regulators on February 12, 1999
 - Received OEPA approval on WAC Attainment Sampling Report on February 5, 1999
 - Natural Resource Restoration
 - Continued discussions with Natural Resource Trustees regarding settlement of Ohio's claim
 - Continue to develop Findings and Responsiveness Summary regarding public comments received on the proposed final land-use at the FEMP
 - Continued project activities in the On-Property Public Access Habitat Area
 - Continue preparation of the Appraisal Report of the Conservation Area; final negotiations with the land owner will begin upon completion of the Appraisal Report

March 1999

- Enforceable Milestones
 - None
- Major Work Initiated/Continued/Completed
 - On-Site Disposal Facility
 - Evaluated leachate line repairs and other alternatives.
 - Initiate failure analysis associated with Leachate Line Leaks

CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT/REMEDIAL INVESTIGATION/FEASIBILITY STUDY/CONSENT DECREE MONTHLY REPORT MARCH 1 THROUGH 31, 1999, AND QUARTERLY REPORT JANUARY 1, 1999 THROUGH MARCH 31, 1999 INCLUDING REMOVAL ACTION STATUS REPORT

- Soil Characterization and Excavation Project (SCEP)
 - Submitted Draft Certification Design Letter (CDL) Project Specific Plan (PSP) for Area 2 Phase III to the agencies on March 31, 1999
- Natural Resource Restoration
 - Conducted first Natural Resource Working Group on March 11, 1999. Wetland mitigation design was approved and settlement documents are being drafted
 - Continued project activities in the On-Property Public Access Habitat Area
- Ecological Research Projects
 - Projects are in progress
 - Identification and Control of Invasive Species
 - Plots have been fenced
 - Seedlings are being planted in plots
 - A1P1 Vegetation plots have been flagged
 - Ecological restoration case study was awarded to Texas Southern University

April 1999 (Anticipated)

- Enforceable Milestones
 - None
- Major Work to be Initiated/Continued/Completed
 - On-Site Disposal Facility
 - Issue Leachate System Analysis Report
 - Initiate construction of Cell 3 clay liner
 - Restart screening of clay material in Borrow Area
 - Soil Characterization and Excavation Project (SCEP)
 - Complete certification to allow initiation of construction of OSDF Cell 3
 - Begin review of submittals for Sewage Treatment Plant Excavation Package. Authorize mobilization and begin construction activities
 - Complete IRDP for LSP and submit to EPA

**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY COMPLIANCE
AGREEMENT/FEDERAL FACILITY AGREEMENT/REMEDIAL INVESTIGATION/FEASIBILITY
STUDY/CONSENT DECREE MONTHLY REPORT MARCH 1 THROUGH 31, 1999, AND
QUARTERLY REPORT JANUARY 1, 1999 THROUGH MARCH 31, 1999 INCLUDING
REMOVAL ACTION STATUS REPORT**

- Natural Resource Restoration
 - Await USEPA approval of Wetland mitigation design
 - Issue DOE Finding and Responsiveness Summary
- Ecological Research Projects
 - Continue project activities

OPERABLE UNIT 3 - FACILITIES CLOSURE AND DEMOLITION PROJECT

January 1999

- Enforceable Milestones
 - None
- Major Work Initiate/Continued/Completed
 - Facilities Shutdown Projects
 - Continued activities
 - Completed removal of various material
 - Completed transfer of 99 drums of hold-up material from Plant 6 to Plant 1 pad
 - Facility Demolition/Supplemental Environmental Projects
 - Conducted Plant 6 EWC D&D Storyboard
 - Transmitted the Plant 5 Complex D&D Implementation Plan to DOE for submittal to the Agencies
 - Analyzed HWMU#50 - UNH Tanks, Building 3E/Hot Raffinate: Rinseate samples. Analytical results are well below RCRA limits for Barium, Chromium, Mercury and Lead, no further rinsing/sampling is required in Building 3E for HWMU #50. HWMU #50 Closure is in the process of being completed (Demobilization is in progress)
 - Began development of the Project Completion Report for the Thorium/Plant9 Complex D&D Project
 - Finalized the D&D Project Completion Report for submittal to the regulatory agencies
 - Conducted internal review of The Boiler Plant/Water Plant Project Completion Report
 - Building 12 Relocation
 - Continued carpenter shop renovation activities in Service Building
 - Continued relocation of equipment from Building 12 to Building 30/45
 - Continued cleaning miscellaneous debris and trash in Building 12
 - Continued electrical test shop fabrication

**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY COMPLIANCE
AGREEMENT/FEDERAL FACILITY AGREEMENT/REMEDIAL INVESTIGATION/FEASIBILITY
STUDY/CONSENT DECREE MONTHLY REPORT MARCH 1 THROUGH 31, 1999, AND
QUARTERLY REPORT JANUARY 1, 1999 THROUGH MARCH 31, 1999 INCLUDING
REMOVAL ACTION STATUS REPORT**

- Technical Services
 - Poured concrete for R-Track Building
 - Issued Traveler for Plant 3 HWMU #28
 - Received conditional acceptance for Building 30/45 Maintenance Relocation
 - Completed field work for HWMU #50
- Boiler Plant/Water Plant/Thorium/Plant 9
 - Completed equipment decontamination
 - Began Draft Project Closeout Report
- Maintenance/Tank Farm D&D and Water Storage Tank Project
 - Suspended field activities for construction of new water storage tank because of severe weather and lack of approved submittals
 - Issued contractor notice to proceed for tank farm D&D and pipe bridge D&D.

February 1999

- Enforceable Milestones
 - Completed SEP Recycling Milestone on February 27, 1999, with shipment of 225 tons of rail, 130 tons of spike plates, 6 tons of spikes and 143 tons of metal skids to Alaron Corporation in Wampum, PA for decontamination and unrestricted release and/or use
- Major Work Initiate/Continued/Completed
 - Facilities Shutdown Projects
 - Continued activities
 - Completed removal of various material
 - Completed transfer of 120 drums of hold-up material to the Plant 1 pad
 - Facility Demolition/Supplemental Environmental Projects
 - Completed rinsing and sampling of the Trane Incinerator Components, and sent samples to the FDF Lab for analysis
 - Received analysis results from HWMU 28, Trane Incinerator, with the exception of the acid feed tank, all equipment analytical results were less than RCRA closure guidance concentrations.
 - Began to dismantle and dispose of Trane Incinerator equipment with the exception of the acid tank. The acid tank needs to be rinsed, sampled and analyzed.
 - Shipped over 589 tons of copper to Oak Ridge as a property transfer
 - Building 12 Relocation
 - Completed disconnecting, cleaning and relocating of equipment from Building 12 to Building 30/45
 - Completed removing miscellaneous debris and trash in Building 12

**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY COMPLIANCE
AGREEMENT/FEDERAL FACILITY AGREEMENT/REMEDIAL INVESTIGATION/FEASIBILITY
STUDY/CONSENT DECREE MONTHLY REPORT MARCH 1 THROUGH 31, 1999, AND
QUARTERLY REPORT JANUARY 1, 1999 THROUGH MARCH 31, 1999 INCLUDING
REMOVAL ACTION STATUS REPORT**

- Completed building occupancy inspection and relocation of maintenance personnel from Building 12 to Building 30/45

- Technical Services
 - Completed the development of manpower unit rates
 - Completed Traveler for temporary power to Plant 6 Perched Water System
- Boiler Plant/Water Plant/Thorium/Plant 9
 - Completed Thorium/Plant 9 Complex D&D Project with subcontractor, NSC, on February 8, 1999
- Maintenance/Tank Farm D&D and Water Storage Tank Project
 - Field activities remain suspended

March 1999

- Enforceable Milestones
 - None

- Major Work Initiated/Continued/Completed
 - Facilities Shutdown Projects
 - Completed scheduled Safe Shutdown activities in Plant 6
 - Completed the shutdown of Building 12
 - Facility Demolition/Supplemental Environmental Projects
 - Issued draft Plant 6/East Warehouse Implementation Plan for peer review
 - Issued draft comment response to OEPA comments for peer review on the Boiler/Water Plant for DOE response to the OEPA
 - Worked on developing the Project Completion Report for Thorium/Plant 9
 - Updated master plot plan to incorporate changes
 - Building 12 Relocation
 - Completed painting of Building 30/45 Maintenance Shop
 - Technical Services
 - Completed and signed off Maintenance Relocation Project
 - Completed and signed off Satellite Electric Shop
 - Completed Plant 3 HWMU #28 portion of punch list work
 - Completed annual Construction Functional Area Assessment
 - Completed Traveler for temporary power to Plant 6 Perched Water System
 - Boiler Plant/Water Plant/Thorium/Plant 9
 - Complete and submit Project Closeout Report to the Agency
 - Maintenance/Tank Farm D&D and Water Storage Tank Project
 - Resumed activities for construction of new water storage tank
 - Resumed activities for D&D of Tank Farm and Pipe Bridges

**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY COMPLIANCE
AGREEMENT/FEDERAL FACILITY AGREEMENT/REMEDIATION INVESTIGATION/FEASIBILITY
STUDY/CONSENT DECREE MONTHLY REPORT MARCH 1 THROUGH 31, 1999, AND
QUARTERLY REPORT JANUARY 1, 1999 THROUGH MARCH 31, 1999 INCLUDING
REMOVAL ACTION STATUS REPORT**

April 1999 (Anticipated)

- Enforceable Milestones
 - None

- Major Work to be Initiated/Continued/Completed
 - Facilities Shutdown Projects
 - Isolate the two pipe bridges south of the Tank Farm
 - Facility Demolition/Supplemental Environmental Projects
 - Issue the Thorium/Plant 9 D&D Project Completion Report
 - Prepare and distribute the Plant 5 Complex Implementation Final Plan
 - Submit Supplemental Environmental Project Final Report to Agencies by April 26, 1999
 - Incorporate comments into Plant 6 Implementation Plan and issue to DOE for review by April 23, 1999
 - Review and coordinate facilities relocation land use concerns for all projects
 - Issue Revision 10 of the master plot plan
 - Develop a generic D&D proposal regarding "Performance Grades" that can be presented to the Technical Review Board
 - Building 12 Relocation
 - Continue spray paint booth fabrication activities
 - Continue electric test shop fabrication activities
 - Technical Services
 - Plan Locomotive D&D
 - Maintenance/Tank Farm D&D and Water Storage Tank Project
 - Continue D&D activities in the Tank Farm Complex
 - Continue asbestos abatement and D&D of the Pipe Bridges
 - Begin D&D of Bldg. 12A
 - Continue construction activities related to the new Water Storage Tank Project

OPERABLE UNIT 4 - SILOS PROJECT

January 1999

- Enforceable Milestones
 - None

**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY COMPLIANCE
AGREEMENT/FEDERAL FACILITY AGREEMENT/REMEDIAL INVESTIGATION/FEASIBILITY
STUDY/CONSENT DECREE MONTHLY REPORT MARCH 1 THROUGH 31, 1999, AND
QUARTERLY REPORT JANUARY 1, 1999 THROUGH MARCH 31, 1999 INCLUDING
REMOVAL ACTION STATUS REPORT**

- Major Work Initiated/Continued/Completed
 - ~~Completed Trailer Upgrade portion of Silos Infrastructure Project~~
 - Silo 1 and 2 Project
 - Initiated internal FDF review of initial sections of Silos 1 and 2 FS revision in preparation for submittal to DOE
 - Responded to OEPA comments on the design package and Wetland Permitting Cross-walk for the Silos Infrastructure Project
 - Observed 72-hour Proof of Principle demonstration tests at EnVitCo (vitrification-joule heated), Chem-Nuclear Services (chemical stabilization - other) and IT (chemical stabilization-cement based). Tests were also observed by DOE, USEPA, and Silo CAT team.
 - Conducted kickoff meeting with Theta Engineering on VitPP Waste Disposition contract
 - Silo 3 Project
 - Issued Notice to proceed to RMRS for Silo 3 remediation contract

February 1999

- Enforceable Milestones
 - None
- Major Work Initiated/Continued/Completed
 - Received VitPP Waste Disposition Project Plan from Theta Engineering for review and comment
 - Received OEPA approval of the Design Package for the Roads and Electrical Upgrade portion of the Silos Infrastructure project; issued Notice to Proceed and Authorization to Mobilize to Staver Group
 - Silo 1 and 2 Project
 - Awarded contract for Silos 1 and 2 Accelerated Waste Retrieval (AWR) Project to Foster Wheeler Environmental Corp. on February 26, 1999
 - Submitted draft cost models alternatives in support of and evaluation of the Silos 1 and 2 Feasibility Study to DOE for review
 - Silo 3 Project
 - Received draft Baseline Schedule for the Silo 3 project from RMRS. Initiated FDF review of the baseline schedule and preparation of a draft Remedial Design Deliverables Schedule
 - Conducted an alignment meeting between FDF and DOE Silo Project personnel and key RMRS personnel; personnel from OEPA and USEPA attended portions of the meeting

**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY COMPLIANCE
AGREEMENT/FEDERAL FACILITY AGREEMENT/REMEDIATION INVESTIGATION/FEASIBILITY
STUDY/CONSENT DECREE MONTHLY REPORT MARCH 1 THROUGH 31, 1999, AND
QUARTERLY REPORT JANUARY 1, 1999 THROUGH MARCH 31, 1999 INCLUDING
REMOVAL ACTION STATUS REPORT**

March 1999

- Enforceable Milestones
 - Submitted Silo 3 Remedial Design Deliverables Schedule to the Agencies on March 16, 1999
- Major Work Initiated/Continued/Completed
 - Finalized RMRS Baseline Schedule for the Silo 3 Project
 - Issued Notice to Proceed to Foster Wheeler for the Silos 1 and 2 Accelerated Waste Retrieval Project
 - Initiated construction activities for the Roads and Electrical upgrades portion of the Silos Infrastructure Project
 - Obtained draft Proof of Principle Test reports from the four POP contractors; initiated FDF/DOE review of the draft reports

April 1999 (Anticipated)

- Enforceable Milestones
 - None
- Major Work to be Initiated/Completed
 - Finalize Project Plan for the VitPP Waste disposition project
 - Submit comments on draft test Reports to Proof of Principle Testing contractors
 - Finalize Project Management Plan and Quality Assurance Plan for the Silo 3 Project

OPERABLE UNIT 5 - AQUIFER RESTORATION AND WASTEWATER PROJECT

January 1999

- Enforceable Milestones
 - Submitted monthly NPDES Discharge Monitoring Report to OEPA on January 14, 1999, covering the month of December
 - Submitted the NPDES Noncompliance Report to the OEPA on January 14, 1999 covering the month of December

**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY COMPLIANCE
AGREEMENT/FEDERAL FACILITY AGREEMENT/REMEDIAL INVESTIGATION/FEASIBILITY
STUDY/CONSENT DECREE MONTHLY REPORT MARCH 1 THROUGH 31, 1999, AND
QUARTERLY REPORT JANUARY 1, 1999 THROUGH MARCH 31, 1999 INCLUDING
REMOVAL ACTION STATUS REPORT**

- Exceeded the OU5 established limit of 20 parts per billion (ppb) monthly average uranium concentration discharge in the FEMP effluent discharge to the Great Miami River. NOTE: The USEPA and OEPA were notified of the exceedance. The occurrence is being evaluated and will be discussed during the weekly conference calls in February.
- Work to be Initiated/Continued/Completed
 - Submitted the November 1998 Operating Report for the Re-Injection Demonstration on January 13, 1999 for transmittal to the Agencies (transmittal was made January 15, 1999)
 - Issued Notice to Proceed to the Staver Group to construct the Sludge Removal System on January 21, 1999
 - Issued Certified for Construction Drawings on January 29, 1999 for AWWT Lab Expansion Project
 - Initiated evaluation of resin regeneration process with respect to its role in maintaining compliance with FEMP's performance-based effluent uranium discharge limit of 20 parts per billion (ppb)
 - Initiated evaluation of significant uranium contamination in the site's Sewage Treatment Plant
 - Discussed December 1999 exceedance of discharge limit of 20 parts per billion to the Great Miami River during conference call, no specific actions will be required and an agreement was made to implement changes previously discussed in advance of revising the OM&MP plan

February 1999

- Enforceable Milestones
 - Submitted monthly NPDES Discharge Monitoring Report to OEPA on February 12, 1999, covering the month January
 - Submitted the NPDES Noncompliance Report to the OEPA on February 12, 1999 covering the month of January
 - Met the established limit of 20 parts per billion (ppb) monthly average uranium concentration discharge in the FEMP effluent discharge to the Great Miami River as required by the OU5 ROD

**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY COMPLIANCE
AGREEMENT/FEDERAL FACILITY AGREEMENT/REMEDIATION INVESTIGATION/FEASIBILITY
STUDY/CONSENT DECREE MONTHLY REPORT MARCH 1 THROUGH 31, 1999, AND
QUARTERLY REPORT JANUARY 1, 1999 THROUGH MARCH 31, 1999 INCLUDING
REMOVAL ACTION STATUS REPORT**

- Work Initiated/Continued/Completed
 - Submitted the December 1998 Operating Report for the Re-Injection Demonstration transmittal to the Agencies (DOE transmitted to Agencies on February 17, 1999)
 - Prepared the initial draft of the revised Operations and Maintenance Master plan (OMMP) for Aquifer Restoration and Wastewater Treatment
 - Prepared initial drafts of the groundwater section of the IEMP quarterly report for 4th quarter 1998
 - Prepared responses to the Agency's comments pertaining to groundwater on the 3rd quarter 1998 IEMP report and on the October 1998 revision of the IEMP

March 1999

- Enforceable Milestones
 - Submitted monthly NPDES Discharge Monitoring Report to the OEPA on March 12, 1999 covering the month of February
 - Submitted the NPDES Noncompliance Report to the OEPA on March 12, 1999 covering the month of February
 - Met 20 parts per billion (ppb) monthly average uranium discharge to Great Miami River as required by OU5 Record of Decision
 - Submitted the January 1999 Operating Report for the Re-Injection Demonstration on March 23, 1999 to DOE for transmittal to the Agencies
- Major Work Initiated/Continued/Completed
 - Issued the final design for the Stormwater Retention Basin (SWRB) portion of the Sludge Removal System (SRS) to The Staver Group for construction implementation on March 16, 1999
 - Remobilized the ozone injection system construction at the Bio-Surge Lagoon (BSL). The BSL ozone system is expected to be completed by April 16, 1999
 - Initiated construction of Ozone Injection at Stormwater Retention Basin (SWRB) on March 22, 1999
 - Began demolition of existing AWWT Lab to support AWWT Lab Expansion
 - SWRB construction for the Sludge Removal System is approximately 50% complete
 - Construction of Surge Lagoon has been initiated

**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY COMPLIANCE
AGREEMENT/FEDERAL FACILITY AGREEMENT/REMEDIAL INVESTIGATION/FEASIBILITY
STUDY/CONSENT DECREE MONTHLY REPORT MARCH 1 THROUGH 31, 1999, AND
QUARTERLY REPORT JANUARY 1, 1999 THROUGH MARCH 31, 1999 INCLUDING
REMOVAL ACTION STATUS REPORT**

April 1999 (Anticipated)

- Enforceable Milestones
 - Submit monthly NPDES Discharge Monitoring Report to the OEPA each month (covers the previous month)
 - Submit monthly 1999 Operating Report for the Re-Injection Demonstration to DOE for transmittal to the Agencies
 - Meet 20 parts per billion (ppb) monthly average uranium discharge to Great Miami River as required by OU5 Record of Decision

- Major Work to be Initiated/Continued/Completed
 - Continue to geoprobe in South Field area
 - Submit revised OMMP to the U.S. EPA and Ohio EPA after addressing internal (FDF and DOE) comments
 - Complete construction of the Ozone Injection System and turn over to Operations by April 30, 1999. (SWRB and BSL of the Sludge Removal Systems)
 - Continue construction at the SWRB and Surge Lagoon
 - Remove methanol from existing tank at Surge Lagoon
 - Complete construction of the BDN (Biodenitrification) Bypass Project on April 30, 1999
 - Award contract and start construction of AWWT Lab Expansion
 - Start construction of SWRB area drainage improvement

WASTE MANAGEMENT

January 1999

- Enforceable Milestones
 - None

- Work Initiated/Continued/Completed
 - Mixed Waste Shipping
 - Continued to identify sampling and container requirements for waste materials determined to be candidate for shipment to a permitted commercial disposal facility. Upon this determination, 143 drums will be shipped to the permitted facility

CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY COMPLIANCE
AGREEMENT/FEDERAL FACILITY AGREEMENT/REMEDIATION INVESTIGATION/FEASIBILITY
STUDY/CONSENT DECREE MONTHLY REPORT MARCH 1 THROUGH 31, 1999, AND
QUARTERLY REPORT JANUARY 1, 1999 THROUGH MARCH 31, 1999 INCLUDING
REMOVAL ACTION STATUS REPORT

- Liquid Mixed Waste Project
 - Continued TSCA Incinerator DOT certification activities
 - Continued to work toward obtaining a shipment date for the shipment of Batch 7 for treatment, shipment of Batch 8 will follow
 - Continued to evaluate newly generated waste streams for bulking into Batch 9, Batch 10 and Batch 11
 - Continued bulking of remaining 500 gallons of oils from Plant 6. This was not completed due to problems with viscosity of the oils
- Neutralization/Precipitation/Deactivation/Stabilization (NPDS) Project
 - This project is complete. A letter acknowledging concurrence from USEPA on the 61 drums of treated sodium sulfate was forwarded to DOE-FN and will be included in the waste stream profile for NTS review. No further container activities will be conducted until profiles are approved by NTS
- Thorium Legacy Waste Project
 - Finalized the root cause investigation of the December 11, 1998, Motor Vehicle Operator (MVO) off-normal occurrence when a HEPA unit was dropped from a fork truck; preventive actions are in place
 - Continued Integrated Safety Management (ISM) presentation preparation
 - Repackaged nine boxes for shipment to NTS, making total boxes repackaged to date 36
- RCI Solvent Extraction Project
 - Awaiting issuance of task order for the removal of the remaining waste from the OEP tanks to tote tanks to be bulked into Batch 9
 - Conducted task order walk down on January 29, 1999
- Organic Treatment Project (OTP)
 - Completed verification of MEF characterization files to data in SWIFTS for the Debris and PCB Solids subproject under OTP
 - Recommended that Fire Training Facility wastes should go to OSDF after meetings with Waste Characterization, Waste Acceptance Organization, and Environmental Compliance. This will result in a significant cost savings
 - Completed technical review of Material & Energy Corporations's (M&EC) draft delivery order, which included verification of MEF characterization files to data in SWIFTS of all subprojects in the OTP
 - Conducted meeting with M&EC and FEMP personnel to discuss future analytical protocols for characterization of waste based on treatment, rather than disposal

**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY COMPLIANCE
AGREEMENT/FEDERAL FACILITY AGREEMENT/REMEDIATION INVESTIGATION/FEASIBILITY
STUDY/CONSENT DECREE MONTHLY REPORT MARCH 1 THROUGH 31, 1999, AND
QUARTERLY REPORT JANUARY 1, 1999 THROUGH MARCH 31, 1999 INCLUDING
REMOVAL ACTION STATUS REPORT**

February 1999

- Enforceable Milestones
 - None

- Work Initiated/Continued/Completed
 - Mixed Waste Shipping
 - Continued to identify sampling and container requirements for waste materials determined to be candidate for shipment to a permitted commercial disposal facility. Upon this determination, 143 drums will be shipped to the permitted facility
 - Liquid Mixed Waste Project
 - Received approval from TSCA Incinerator and the State of Tennessee for the shipment of Batch 7 for treatment and of Batch 8, that will follow
 - Continued DOT certification activities and Technical Review Board review prior to setting shipping date for Batch 7
 - Continued to evaluate newly generated waste streams for bulking into Batch 9, Batch 10 and Batch 11
 - Neutralization/Precipitation/Deactivation/Stabilization (NPDS) Project
 - This project is complete. A letter acknowledging USEPA's concurrence regarding the acceptability of the 61 drums of treated sodium sulfate was forwarded to DOE-FN and will be included in the waste stream profile for NTS review. No further container activities will be conducted until profiles are approved by NTS
 - Thorium Legacy Waste Project
 - Repackaged 55 boxes for shipment to NTS, making total boxes repackaged to date 103
 - Worked with Maintenance to rectify problems with the scale in Building 64 and the HEPA units
 - RCI Solvent Extraction Project
 - Awaiting manpower to complete task order for the removal of the remaining waste from the OEP tanks to tote tanks to be bulked into Batch 9
 - Organic Treatment Project (OTP)
 - Met with Broad Spectrum vendor in Oak Ridge, Tennessee, to evaluate schedule and cost alternatives between treating at their facility or on site
 - Met with Broad Spectrum Contracts personnel for Bechtel Jacobs regarding differences in contract issues between Oak Ridge and FEMP

**CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY COMPLIANCE
AGREEMENT/FEDERAL FACILITY AGREEMENT/REMEDIAL INVESTIGATION/FEASIBILITY
STUDY/CONSENT DECREE MONTHLY REPORT MARCH 1 THROUGH 31, 1999, AND
QUARTERLY REPORT JANUARY 1, 1999 THROUGH MARCH 31, 1999 INCLUDING
REMOVAL ACTION STATUS REPORT**

- Prepared final scope of work and pricing in conjunction with Material & Energy Corporations's (M&EC) task order to prepare submittal for Advance Consent Package for DOE approval for project award/funding
- Commenced characterization of radiological constituents for DOT requirements
- Continued evaluation of FDF wastes bound for OSDF
- Hazardous Waste/Recycling
 - Began writing a Training Evaluation Standard for newly issued lead acid battery procedure

March 1999

- Enforceable Milestones
 - None
- Work Initiated/Continued/Completed
 - Mixed Waste Shipping
 - Completing determination of additional requirements for shipment of wastes to a permitted commercial disposal facility. Upon this determination, WTP will ship 143 drums to permitted facility
 - Liquid Mixed Waste Project
 - Approval from TSCA Incinerator and the State of Tennessee has been received for Batch 7 and Batch 8 shipment to TSCA Incinerator for treatment.
 - Evaluation of newly generated waste streams continues for bulking into Batch 9, Batch 10, and Batch 11
 - Completed bulking of approximately 3,800 gallons of oils from Plant 6 Safe Shutdown into Batch 9 liquid bulking tank
 - Activities to remove the remaining waste from the Building 80 Organic Extraction Project tanks to tote tanks to be bulked into Batch 9 have been completed
 - Neutralization/Precipitation/Deactivation/Stabilization (NPDS) Project
 - This project is complete. A letter acknowledging USEPA's concurrence regarding the acceptability of the 61 drums of treated sodium sulfide was forwarded to DOE and will be included in the waste stream profile for NTS review. No further container activities will be conducted until profiles are approved by NTS.
 - Thorium Legacy Waste Project
 - Repackaged 50 boxes of Low Level Waste for shipment to NTS and 39 boxes of Mixed Waste. Total boxes repackaged to date is 212

CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY COMPLIANCE AGREEMENT/FEDERAL FACILITY AGREEMENT/REMEDIAL INVESTIGATION/FEASIBILITY STUDY/CONSENT DECREE MONTHLY REPORT MARCH 1 THROUGH 31, 1999, AND QUARTERLY REPORT JANUARY 1, 1999 THROUGH MARCH 31, 1999 INCLUDING REMOVAL ACTION STATUS REPORT

- RCI Solvent Extraction Project
 - Completed the removal of waste from the OEP tanks to tote tanks to be bulked into Batch 9
- Organic Treatment Project
 - FDF and Materials & Energy Corporation (M&EC) signed a contract for treatment of organic mixed waste
 - Continue radiological characterization for container shipping. The SOW is a reduced scope of treatment, which would include only First Article Testing (of chosen Treatment technology) on approximately 9 percent of the legacy containers for current fiscal year
- Hazardous Waste/Recycling
 - Shipped photochemicals from Drafting Services in Springdale to Safety-Kleen
 - Reviewed comments to Vitrification Pilot Plant Waste Disposal project
 - Extended the Safety-Kleen contract an additional year with two, one-year options
 - Completed shipment of 4- and 8-foot fluorescent lamps (totaling almost 3,300 lamps)
 - Repackaged NiCad batteries and light ballasts currently stored in the Clean Side Locker in preparation for the next electrical waste shipment
 - Began preparations for the upcoming April labpack of old, unused chemicals in the Laboratory Building
- Site Treatment Plant (STP)
 - A meeting was held with OEPA to discuss a process for establishing new milestone dates for newly identified/newly generated waste streams
- Nuclear Material
 - Continue working with the Oak Ridge Field Office to finalize implementation planning for nuclear materials transfer
 - Continue working on plan for disposal of newly declared wastes
 - Continue working toward June 1, 1999 submittal of a schedule for disposition of nuclear materials and re-evaluation of the existing milestone for disposition of low level legacy waste

April 1999 (Anticipated)

- Enforceable Milestones
 - None

CONSOLIDATED CONSENT AGREEMENT/FEDERAL FACILITY COMPLIANCE
AGREEMENT/FEDERAL FACILITY AGREEMENT/REMEDIATION INVESTIGATION/FEASIBILITY
STUDY/CONSENT DECREE MONTHLY REPORT MARCH 1 THROUGH 31, 1999, AND
QUARTERLY REPORT JANUARY 1, 1999 THROUGH MARCH 31, 1999 INCLUDING
REMOVAL ACTION STATUS REPORT

- Major Work to be Initiated/Continued/Completed
 - NPDS Project
 - In light of the completion of the NPDS project, WTP has been working to finalize arrangements to release approximately 60 drums of cement to Permafix, as well as contaminated equipment as a result of the project.
 - Thorium Legacy Waste Project
 - Continue repackaging operations
 - Continue working on a storage and treatment plan for MW Thorium
 - RCI Solvent Extraction Project
 - Complete decontamination and decommissioning activities.
 - Liquid Mixed Waste Project
 - Complete operations decontamination and decommissioning activities and bulk OEP D&D water into Batch 9, weather and volume permitting
 - Initiate sampling request for Batch 9 after bulking of tote tanks and D&D water
 - Initiate Batch 8 shipment planning efforts for late April 1999 shipping commencement
 - Hazardous Waste/Recycling
 - Release for distribution procedure PKGG-T-0018, Receipt and Packaging of Non-Radiologically Contaminated Waste at the Clean Side Locker. Training will develop a Technical Evaluation Standard for PKGG-T-0015, FEMP Spent Lead-Acid Battery Management
 - Continue preparations for April 13 & 14 labpack. Labpack is tentatively scheduled to be shipped on April 29
 - Repack broken fluorescent lamps
 - Mixed Waste Shipping
 - Ship 143 candidate drums upon final determination of additional requirements for shipment of wastes to a permitted commercial disposal facility. Upon completion of radiological characterization, container Department of Transportation (DOT) reviews will begin
 - Organic Treatment Project
 - Continue toward dispositioning of waste streams from the Fire Training Facility through the OSDF, rather than through treatment in the OTP, as a cost savings effort

ATTACHMENT A & B

**EFFLUENT AND RADON DATA
ARE NOW REPORTED IN THE IEMP SUBMITTAL**

ATTACHMENT C**REMOVAL ACTION STATUS REPORT**

Note: All Removal Action except 3, 9, 12, 17, 26 and 27 are completed and closed. Removal Action 3, 9, 12, 17, 26 and 27 are Programmatic Removal Actions and work continues under them. All documentation for work done this quarter under these Programmatic Removal Actions is located in the Post-Rod files. Gradually work performed under these actions is being phased out and being done pursuant to appropriate Remedial Actions.

REMOVAL ACTION NAME	#	STATUS	CLOSURE DATE	SCOPE
Water Under FEMP Buildings (A: Plant 6 Contaminated Perched Water	1	Closed	September 13, 1995	Pump water from extraction wells underneath Plants 2/3, 6, 8, and 9. Treat extracted water for volatile organic chemicals and uranium removal before discharge
Waste Pit Area Runoff Control	2	Closed	July 2, 1992	Collect and treat contaminated storm water run-off from the waste pit area
South Plume	3	Closed, transferred to Post-ROD	May 22, 1997	Collect and treat contaminated storm water from waste pit area, install new alternate water supply, pump a discharge groundwater from South Plume, install and operate interim Advanced Waste Water Treatment System, Conduct groundwater monitoring and institutional controls, conduct groundwater modeling and geochemical investigation
lo 1 and 2	4	Closed	May 17, 1994	Install bentonite cap to reduce and monitor radon emissions, provide follow-on monitoring
-65 Decant Sump Tank	5	Closed	March 5, 1993	Periodically remove liquid from K-65 decant sump tank
Waste Pit 6 - Exposed Material	6	Closed	March 25, 1992	Eliminate potential airborne contamination by resubmerging exposed pit material
Plant One Pad Continuing Release	7	Closed	February 16, 1995	Implement run-on/off control, install new pad, and upgrade existing Plant 1 Storage Pad
Active Flyash Piles/ South Field Area	8	Closed	December 23, 1991	Install plastic chain link barrier and post warning signs
Removal of Waste Inventory	9	Closed - Transferred to Post-ROD	May 22, 1997	Disposition of low-level waste off-site
Active Flyash Pile Controls	10	Closed	May 16, 1997	Complete interim surface stabilization and complete active Flyash pile controls
Site 5 Experimental Treatment Facility (ETS)	11	Closed	April 22, 1992	Remove contents, structure, and filter material. Backfill and cap with clay cover
Safe Shutdown	12	Closed - Transferred to Post-ROD	May 22, 1997	Remove uranium and other material from former processing equipment and ship material and equipment off-site
Plant 1 Ore Silos	13	Closed	November 6, 1995	Dismantle fourteen ore silos and their support structures
Contaminated Soils Adjacent to Solid Waste Incinerator at the Sewage Treatment Plant	14	Closed	January 3, 1995	Isolate or remove and dispose of contaminated soils from the vicinity of the sewage treatment plant
Scrap Metals Pile	15	Closed	November 14, 1994	Disposition of LLW Ferrous/non-ferrous scrap metal, Containerize and dispose of scrap copper
Collect Uncontrolled Production Area Runoff - Northeast	16	Closed	May 22, 1997	Collect storm water run-off from the northeast perimeter of the former production area in the Storm Water Retention Basin
Improved Storage of Soil and Debris	17	Closed - Transferred to Post-ROD	May 22, 1997	Improve storage of existing and future generated soils and debris
Control Exposed Material in Pit 5	18	Closed	May 13, 1993	Eliminate potential airborne contamination by re-submerging exposed pit material
Plant 7 Dismantling	19	Closed	August 18, 1995	Dismantle and dispose of the Plant 7 structure
Uranium Nitrate Neutralization Project	20	Closed	January 16, 1997	Neutralize, filter and package UNH inventory
Silo 3	21	Closed	February 24, 1993	Mitigate the potential release of hazardous waste material by covering and sealing dust collector hopper, removing dust collector, and capping and covering obvious release pathways
Waste Pit Area Containment Improvement	22	Closed	August 1, 1993	Stabilize south barrier of Pit 4; regarding drainage ditches along Pits 3, 4, 5, and 6; and resurface road between Pits 3, 4, 5, and 6

22

REMOVAL ACTION NAME	#	STATUS	CLOSURE DATE	SCOPE
Active Flyash Pile	23	Closed	June 29, 1992	Conduct field investigation to identify locations requiring material removal
Lot Plant Sump	24	Closed	January 14, 1994	Remove liquid and sludge from the sump
Sulfuric Acid Rail Car	25	Closed	November 12, 1993	Remove residual contents from tank car and decontaminate and dispose of tank car
Asbestos Removal	26	Closed - Transferred to Post-ROD	May 22, 1997	Mitigate the potential for contaminant and migration of asbestos fibers
Management of Contaminated Structures	27	Closed - Transferred to Post-ROD	May 22, 1997	Management of contaminated structures
Fire Training Facility	28	Closed	July 11, 1995	Remove, decontaminate, dispose, treat or store contaminated structures, equipment, and soil from the former Fire Training Facility
Erosion Control of Inactive Flyash Pile; AKA: Temporary Nitrate Storage Tanks	29	Closed	March 2, 1994	Mitigate the threat of erosion induced slope failure and discharge of flyash to Paddy's Run
C2 Warehouse Well	30	Closed	May 28, 1997	Minimize future groundwater contamination by intercepting contaminated seeps that drain from the South Field and Inactive Flyash Pile and infiltrate to the GMA
South Field and Inactive Flyash Piles Seepage Control Project	31	Closed	December 6, 1995	