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FEB 09 2000

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DOE-0365-00

Mr. Michael Savage, Assistant Chief
Ohio Environmental Protection Agency
Division of Hazardous Waste Management
1800 Watermark Drive
Columbus, Ohio 43216-1049

Dear Mr. Pardi and Mr. Savage:

PROPOSED MILESTONES TO THE FERNALD ENVIRONMENTAL MANAGEMENT PROJECT SITE TREATMENT PLAN

- References:
- 1) Letter, J. Craig, DOE-FEMP, to P. Pardi, OEPA, and M. Savage, OEPA, "Notification of the Need to Amend the Fernald Site Treatment Plan," dated December 21, 1999
 - 2) Letter, J. Craig, DOE-FEMP, to P. Pardi, OEPA, and M. Savage, OEPA, "Fernald Environmental Management Project Fiscal Year 1999 Site Treatment Plan Annual Update," dated December 29, 1999
 - 3) Letter, J. Craig, DOE-FEMP, to P. Pardi, OEPA, and M. Savage, OEPA, "Notification of the Need to Amend the Fernald Site Treatment Plan," dated December 31, 1998

Enclosed are proposed milestones to the Fernald Environmental Management Project's (FEMP) Federal Facility Compliance Act (FFCA) Site Treatment Plan (STP) to establish schedules for treatment of the thorium legacy mixed waste inventory. The submittal of these treatment schedules meets the requirements identified in Section 3.3 of the proposed amendments to the STP submitted to the Ohio Environmental Protection Agency (OEPA) in December 1999 (Reference 1).

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FEB 09 2000

Mr. Paul Pardi
Mr. Michael Savage

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The Silo 3 Project is currently being evaluated as an option for treating these wastes. The FEMP will also continue to evaluate and pursue other options, including on-site and off-site treatment. Stabilization will be the primary treatment method, although other types of treatment may be required to address constituents such as Toxic Characteristic Leachate Procedure (TCLP) organics and mercury that are associated with a small subset of waste within this population.

A detailed schedule for treating thorium legacy mixed wastes cannot be provided at this time because it may be contingent upon detailed schedules, which will be established for the processing of Silo 3 material. Treatment of Silo 3 material is currently planned to occur in Fiscal Year (FY) 2002. As a result, FEMP is proposing a September 30, 2002, milestone for entering into a contract for treatment of the thorium legacy mixed wastes inventory and a September 30, 2002, milestone for providing additional schedules for waste treatment.

Replacement pages to the proposed amendments to the STP submitted to OEPA in December 1999 (Reference 1) are provided as Enclosure 1. The text changes are reflected on Pages 14 and 15, and are identified by redlines or strikeouts for easy identification. A current version of the STP, that incorporates all proposed changes (References 1 and 2), which have been submitted to the December 1998 approved STP (Reference 3) including the proposed milestones for treatment of the thorium legacy mixed waste, is provided as Enclosure 2. The proposed changes to the approved STP are identified by redlines or strikeouts.

If you have any questions, please contact John Sattler at (513) 648-3145.

Sincerely,



Jack R. Craig
Project Manager

FEMP:Danner

Enclosure

cc w/enclosure:

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ENCLOSURE 1

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3.1.10**Waste Streams for which Technology Exists - Uranium Waste Disposition (UWD) Materials**

FEMP has identified mixed waste included in a population of uranium materials declared waste in December 1998. A portion of these materials are enriched (contain greater than 1% U235) and may require blending to reduce uranium content prior to processing. Stabilization options being evaluated for these waste streams include on-site treatment or securing a contract with an off-site treatment facility.

Schedule for Entering into Contract: The contract for implementation of this preferred option will be entered into by June 30, 2003 †

Schedule for Providing Additional Milestones for Treatment: Additional milestones for treating the UWD inventory will be provided by December 31, 2003 †

3.1.11**Waste Streams for Which Technology Exists - Thorium Legacy Mixed Waste Stabilization Project**

The Thorium Mixed Waste Stabilization Project involves treatment of the thorium legacy mixed waste inventory. These wastes will be stored in an approved location while evaluating stabilization options, which include on-site treatment or securing a contract with an off-site commercial treatment facility.

Schedule for Entering into Contract: The contract for implementation of this preferred option will be entered into by September 30, 2002 †

Schedule for Providing Additional Milestones for Treatment: Additional milestones for treating the thorium legacy mixed waste inventory will be provided by September 30, 2002 †

3.2 Mixed Waste Streams for which Technology Exists but Needs Adaption or for which No Technology Exists

FEMP has not identified any mixed waste streams for which significant adaptation and technology development is required for treatment. After final characterization, which will occur as a part of the project management process, certain variances may be requested. Specifically, there may be some constituents for which the Land Disposal Restriction (LDR) treatment standard is incineration. FEMP may request a variance to allow chemical destruction or stabilization. Also, certain debris may require a technology, which is not practical; therefore, a variance may be requested for these wastes.

3.3 Mixed Waste Streams Requiring Further Characterization or for which Technology Assessment Has Not Been Done

All FEMP mixed low level waste streams identified in the STP have a Preferred Option for treatment.

~~3.3.1 Thorium Legacy Mixed Waste~~

~~The FEMP has identified mixed waste included in a population of thorium legacy waste. A full technology assessment has not yet been completed. The FEMP will submit a proposed amendment to the STP specifying the associated target dates or milestones for the treatment of these wastes by January 31, 2000. †~~

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ENCLOSURE 2

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SITE TREATMENT PLAN

PLAN VOLUME

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Plan Volume Summary

The Plan Volume is the second of two volumes that comprise the Proposed Site Treatment Plan (PSTP). The Plan Volume identifies treatment capacity to be developed and associated schedules as required by the Federal Facility Compliance Act (FFCA Act). The Plan Volume also addresses implementation of the PSTP and establishes milestones and target dates that will be enforced by the implementing FFCA Act Order. It references, but does not duplicate, details on the options as discussed in the Background Volume.

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**FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
PROPOSED SITE TREATMENT PLAN
PLAN VOLUME**

1.0 PURPOSE AND SCOPE

- 1.1** The U.S. Department of Energy (DOE) is required to prepare a plan for developing treatment capacities and technologies for each facility at which DOE generates or stores mixed waste, pursuant to Section 3021(b) of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C 6939c(b), as amended by Section 105(a) of the Federal Facility Compliance Act [(P.L.102-386) (FFCAct)]. The mixed waste must be treated or otherwise managed in accordance with the land disposal restriction standards under Section 3004 of RCRA. Upon submission of the plan to the appropriate regulatory agency, the FFCAct requires the recipient agency to solicit and consider public comments, and approve, approve with modification, or disapprove the plan within six months. The agency is to consult with Environmental Protection Agency (EPA) and any State in which a facility affected by the plan is located. Upon approval of a plan, the regulatory agency must issue a FFCAct Order requiring compliance with the approved plan.
- 1.2** The DOE Fernald Office, hereinafter referred to as Department of Energy, Fernald Environmental Management Project (DOE-FEMP), has prepared this PSTP for mixed waste at FEMP, which identifies how DOE-FEMP proposes to obtain treatment of the site's mixed waste or develop technologies for treatment where technologies do not exist or need modification. For some waste streams, a plan and schedules for characterizing wastes, undertaking technology assessments, and for providing the required plans and schedules for developing capacities and technologies, as appropriate, are provided.
- 1.3** This section intentionally left blank.
- 1.4** This section intentionally left blank.
- 1.5** This section intentionally left blank.
- 1.6** This section intentionally left blank.

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2.0 IMPLEMENTATION OF THE PROPOSED SITE TREATMENT PLAN

The mechanisms and procedures for administering and implementing the treatment plans and schedules in Sections 3.0 through 5.0 of the Plan Volume will be established in the FFCAct Order.

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2.2 Modification of Technologies

Emerging or new technologies not yet considered that provide opportunities to manage waste more safely, effectively, and at lower cost than the current technologies identified in the PSTP may be identified in the future. Working closely with regulators and other interested parties during the implementation of the PSTP, DOE will continue to evaluate and develop technologies that offer potential advantages in the areas of public acceptance, risk abatement, performance, and life-cycle cost. Should more promising technologies be identified, DOE may request a modification of its PSTP in accordance with provisions of the implementing FFCAct Order.

3.0 MIXED LOW LEVEL WASTE STREAMS

The Plan Volume of the PSTP establishes overall schedules for achieving compliance with LDR requirements for mixed wastes at the FEMP. The schedules include those activities required to bring existing waste treatment facilities or technologies into operation, and those required to develop new facilities and capacity for treatment. The assumptions upon which individual schedules are dependent are contained in Sections 3.0 through 5.0 of the Background Volume. The schedules may be affected if the underlying assumptions change. The project completion dates provided on the schedules do not include final disposition of treatment residues. Dates provided in the Plan Volume schedules become enforceable through the procedure established in the implementing FFCAct Order.

3.1 Mixed Waste Streams for which Technology Exists

FEMP has identified seven Preferred Options for the treatment of characterized mixed low-level waste streams in inventory. Only minor modifications of the Preferred Option, if any, are needed to treat the wastes. These preferred options and their respective waste streams are presented in Sections 3.1.1 through 3.1.7.

3.1.1 Waste Stream for which Technology Exists - Preferred Option: Hydrofluoric Acid (HF) Neutralization System

Project Name: HF RCRA Closure

FEMP mixed waste stream for which the Preferred Option is identified as the HF Neutralization System is listed in Table 1 of the Background

Volume. Treatment can be accomplished through the use of on-site existing facilities. Treatment of this single waste stream is planned as a RCRA Closure of a Hazardous Waste Management Unit (HWMU) using the HF Neutralization System. Detailed information on this treatment is located in Section 3.1.1 of the Background Volume.

Consistent with closure plan requirements, this project is expected to be completed within 180 days after final approval of the Closure Plan Information and Data (CPID) from the Ohio Environmental Protection Agency (OEPA). The schedules presented below reflect dates established by the approved closure plan.

MIXED WASTE STREAM FOR WHICH TECHNOLOGY EXISTS

Project Start Date: January 31, 1992 (COMPLETED)

Schedule for submitting all applicable permit applications:
Not applicable. Treatment of this waste stream will be performed under a RCRA Closure of a HWMU. The CPID for this project was submitted on July 17, 1994, and approved by the OEPA in February 1995. (COMPLETED)

Schedule for entering into contracts: The contract necessary for this project is in place. (COMPLETED)

Schedule for initiating construction: December 31, 1994 (COMPLETED)

Schedule for conducting systems testing: June 30, 1995 (COMPLETED)

Schedule for commencing operations: June 30, 1995 (COMPLETED)

Schedule for processing backlogged and currently generated mixed wastes: June 30, 1995 through August 30, 1995 (COMPLETED)

Project Completion Date: September 30, 1995 (COMPLETED)

PROJECT UPDATE

Treatment of this waste stream was completed as scheduled.

**3.1.2 Waste Stream for which Technology Exists - Preferred Option:
Uranyl Nitrate Hexahydrate (UNH) Treatment System**

Project Name: UNH Neutralization System

FEMP mixed waste stream for which the Preferred Option is identified as the UNH Treatment System is listed in Table 2 of the Background Volume. For clarity, it should be noted the scope of waste treatment under this Preferred Option is more extensive than that covered by the Director's Final Findings and Orders (DF&O), dated December 27, 1994, directing treatment of UNH material. Specifically, this Preferred Option includes treatment of approximately 30,000 gallons of radiologically contaminated nitric acid from the Nitric Acid Recovery (NAR) system. This waste stream was not included within the above-referenced DF&O. Treatment of the UNH waste stream associated with this preferred option was completed by September 25, 1995. Treatment can be accomplished through the use of on-site existing facilities augmented with new piping and new skid-mounted pumps. FEMP is a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) site and has been working with U.S. Environmental Protection Agency (U.S. EPA) and OEPA to treat this waste on-site through CERCLA Removal Action #20. Detailed information on this treatment is located in Section 3.1.2 of the Background Volume.

The construction phase of the UNH Neutralization System is scheduled and proceeding.

MIXED WASTE STREAM FOR WHICH TECHNOLOGY EXISTS

Project Start Date: November 30, 1993 (COMPLETED)

Schedule for submitting all applicable permit applications:
Not applicable. No permit required. Treatment of this waste will be performed under CERCLA Removal Action #20. (COMPLETED)

Schedule for entering into contracts: No contracts anticipated.

Schedule for initiating construction: May 31, 1994 (COMPLETED)

Schedule for conducting systems testing: March 24, 1995 (COMPLETED)

Schedule for commencing operations: Operations is the date the FEMP began treatment utilizing this Preferred Option.
March 24, 1995 (COMPLETED)

Schedule for processing backlogged and currently generated mixed wastes: March 24, 1995 - April 30, 1996

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Project Completion Date: April 30, 1996†

† Denotes milestone dates

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**3.1.3 Waste Stream for which Technology Exists - Preferred Option:
Thorium Nitrate Treatment System**

Project Name: Thorium Nitrate

FEMP mixed waste stream for which the Preferred Option is identified as Thorium Nitrate Treatment System is listed in Table 3 in the Background Volume. Treatment of this single waste stream is planned under CERCLA Removal Action #9. Treatment of this waste stream will occur on-site using a vendor provided service. Detailed information on the alternatives is located in Section 3.1.3 of the Background Volume.

MIXED WASTE STREAM FOR WHICH TECHNOLOGY EXISTS

Project Start Date: December 31, 1994 (COMPLETED)

Schedule for submitting all applicable permit applications:

Not applicable. Treatment of this waste stream will be performed under CERCLA Removal Action #9. The Project Specific Plan for this project was submitted in August 31, 1995. (COMPLETED)

Schedule for entering into contracts: Award contract with vendor for treatment. May 31, 1995 (COMPLETED)

Schedule for initiating construction: Vendor will supply and mobilize equipment needed for treatment. August 31, 1995 (COMPLETED)

Schedule for conducting systems testing: Systems testing will determine Operational Readiness using water to simulate operations. September 30, 1995 (COMPLETED)

Schedule for commencing operations: Operations will begin with the recirculation of the thorium waste as specified in the Project Specific Work Plan. September 30, 1995 (COMPLETED)

Schedule for processing backlogged and currently generated mixed wastes: September 30, 1995 - February 29, 1996

Project Completion Date: February 29, 1996†

† Denotes milestone dates

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**3.1.4 Waste Streams for which Technology Exists - Preferred Option:
Wastewater Treatment, Phase I**

Project Name: Liquid Mixed Waste Project

FEMP mixed waste streams for which the Preferred Option is identified as Wastewater Treatment are located in Table 4 of the Background Volume. Treatment of these waste streams will occur on-site in an existing facility. This project is part of the Liquid Mixed Waste Project. Liquids are will be bulked, tested and a determination will be made whether they are acceptable for the FEMP Wastewater Treatment System (WWTS). Detailed information on this treatment is located in Section 3.1.4 of the Background Volume.

The Liquid Mixed Waste Project is designed to address treatment and disposal of all liquid mixed waste currently in storage through the WWTS or the Toxic Substance Control Act (TSCA) Incinerator Preferred Options.

MIXED WASTE STREAMS FOR WHICH TECHNOLOGY EXISTS

Project Start Date: October 31, 1994 (COMPLETED)

Schedule for submitting all applicable permit applications:

Not applicable. This project ~~will be~~ was initiated as part of CERCLA Removal Action #9 (RA #9). RA #9 ~~will be~~ was modified to clarify the scope of work and ~~will be~~ is consistent with FEMP's Investigation Derived Waste (IDW) policy and National Pollutant Discharge Elimination System (NPDES) permit and ~~will meet~~ meets the requirements of the RCRA waste water treatment unit exclusion. Activities conducted under Remedial Action #9 have been incorporated into the Operable Unit 3 Final Record of Decision (ROD).

Schedule for entering into contracts: No contract is required.

Schedule for initiating construction: No construction is required for this project.

Schedule for conducting systems testing: Tank set-up and testing of WWTS is complete. October 31, 1994 (COMPLETED)

Schedule for commencing operations: Operations is the date the FEMP will begin treatment utilizing this Preferred Option. February 29, 1996† (COMPLETED)

Schedule for processing backlogged and currently generated mixed wastes: February 29, 1996 through September 30, 1996 (COMPLETED)

Project Completion Date: September 30, 1996† (COMPLETED)

**3.1.4.1 Waste Streams for which Technology Exists - Preferred Option:
Wastewater Treatment, Phase II**

Section 3.1.4.1 provides updated schedules for treating FEMP mixed waste streams for which the preferred option is Wastewater Treatment. As part of Phase II of this preferred option, these waste streams will be treated on-site using FEMP's Advanced Waste Water Treatment System (AWWT).

Waste waters are introduced into the AWWT-Slurry Dewatering Facility for precipitation and filtration of metal constituents. Filtrate from this process is directed to AWWT Phase 2, which consists of an activated carbon adsorption unit operation. Organic constituents are removed with the filter cake from the precipitation/filtration process or treated through AWWT Phase 2 if they remain in the filtrate.

Schedule for Initiating Treatment of Mixed Wastes Identified in the 1998 STP Annual Update: November 1, 1999† (COMPLETED)

Project Completion Date: March 1, 2000†

† Denotes milestone dates

**3.1.5 Waste Streams for which Technology Exists - Preferred Option:
Ohio Mobile Stabilization System**

Project Name: Stabilization Project

FEMP mixed waste streams for which the Preferred Option is identified as Ohio Mobile Stabilization System are listed in Table 5 of the Background Volume. Treatment of these waste streams will occur on-site using a vendor provided mobile service. Detailed information on this treatment is located in Section 3.1.5 of the Background Volume.

FEMP published a request for information in the *Commerce Business Daily*. Multiple responses were received from companies capable of performing Mobile Stabilization.

FEMP ~~will implement~~ implemented the Stabilization Project as part of CERCLA Removal Action #9 (RA #9.) ~~however, treatment operations will not begin prior to OEPA approval.~~ Treatment operations began after obtaining OEPA approval. Activities conducted under Removal Action #9 have been incorporated into the Operable Unit 3 Final ROD.

MIXED WASTE STREAMS FOR WHICH TECHNOLOGY EXISTS

Project Start Date: October 31, 1994 (COMPLETED)

Schedule for submitting all applicable permit applications:

Not applicable. This project ~~will be~~ was initiated as part of Remedial Action #9. Activities conducted under Removal Action #9 have been incorporated into the Operable Unit 3 Final ROD. The Project Specific Plan for this project was submitted in September 30, 1995. (COMPLETED)

Schedule for entering into contracts: May 31, 1995 (COMPLETED)

Schedule for initiating construction: Vendor will supply a fully constructed mobile system. October 31, 1995† (COMPLETED)

Schedule for conducting systems testing: November 30, 1995†
Complete Operational Readiness Review. (COMPLETED)

Schedule for commencing operations: Operations is the date FEMP will begin treatment utilizing this Preferred Option. November 30, 1995† (COMPLETED)

Schedule for processing backlogged mixed wastes:
November 30, 1995 through September 30, 1996 (COMPLETED)

**3.1.5 Waste Streams for which Technology Exists - Preferred Option:
Ohio Mobile Stabilization System (cont.)**

Project Completion Date: September 30, 1996† **(COMPLETED)**

† Denotes milestone dates

**3.1.6 Waste Streams for which Technology Exists - Preferred Option:
Ohio Mobile Chemical Treatment System**

Project Name: Chemical Treatment Project

FEMP mixed waste streams where the Preferred Option is identified as Ohio Mobile Chemical Treatment System are listed in Table 6 of the Background Volume. Treatment of these waste streams will occur on-site using vendor provided services, except for some debris (as defined in RCRA) macroencapsulation, which will occur off-site at a commercial facility. Detailed information on this treatment is located in Section 3.1.6 of the Background Volume.

~~Treatment of the Thorium Legacy Wastes will occur under the Stabilization Subproject of the Chemical Treatment Preferred Option. The thorium mixed waste inventory will be relocated to an approved location while evaluating stabilization options, which include onsite treatment or securing a contract with an offsite commercial treatment facility. Currently, 417 containers of hazardous thorium waste are scheduled to be treated and shipped to the Nevada Test Site. Characterization efforts may cause the number to increase in the future.~~

Multiple contracts will be entered into for the performance of treatment for each technology in the Chemical Treatment Project. Specific work plans will be developed for each on-site treatment technology. The technology specific work plans will be submitted to the State for approval. Construction of the facilities will be initiated upon State approval of the technology specific work plans.

MIXED WASTE STREAMS FOR WHICH TECHNOLOGY EXISTS

Project Start Date: October 31, 1994 **(COMPLETED)**

Schedule for submitting all applicable permit applications:

~~Not applicable. It is anticipated that this project will be initiated as part of CERCLA Removal Action #9. This project was initiated as part of CERCLA Removal Action #9. Activities conducted under this removal action have been incorporated into the Operable Unit 3 Final ROD. The Draft Work Plan for this project will be submitted in~~

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November 30, 1995.† (COMPLETED)

**3.1.6 Waste Streams for which Technology Exists - Preferred Option:
Ohio Mobile Chemical Treatment System (cont.)**

A schedule for commencing operations will be provided in each technology project specific work plan submitted for approval.

Schedule for entering into contracts: The contract for implementation of the first technology will be entered into in April 30, 1996.† (COMPLETED)

Additional contracts entered into under this Preferred Option will trigger the establishment of the following target dates/milestones:

The project specific work plan for each technology will be submitted for approval within 120 days of entering into the contract.†

~~The contract for the last technology will be entered into in September 30, 2000.~~

Schedule for initiating construction: Vendor will supply a fully constructed mobile system. Construction for each technology will be initiated within 30 days of approval of the project specific work plan.†

Schedule for conducting systems testing: Operational Readiness and systems testing will be completed 120 days after completion of treatment facility construction.†

Schedule for commencing operations: Treatment will be initiated within 14 days of completion of system testing for each technology.†

Schedule for processing backlogged and currently generated mixed wastes: February 28, 1997, through September 30, 2001, a schedule for processing backlogged and currently generated mixed waste will be provided by technology in each project specific work plan submitted for approval.

Project Completion Date: September 30, 2001 † The last project conducted as part of Ohio Mobile Chemical Treatment System was completed on August 19, 1998.

† Denotes milestone dates

**3.1.7 Waste Streams for which Technology Exists - Preferred Option:
TSCA Incinerator, Phase I**

Project Name: Liquid Mixed Waste Project

FEMP mixed waste streams (liquid portion only) for which the Preferred Option is identified as the TSCA Incinerator are listed in Table 7 of the Background Volume. Treatment of these waste streams will occur off-site at the DOE K-25 site in Oak Ridge, Tennessee.

FEMP is currently allotted 693,000 pounds or approximately 318,780 kilograms of mixed low level waste treatment capacity per year at the TSCA Incinerator. FEMP plans to bulk mixed waste for shipment to the TSCA Incinerator. Detailed information on this treatment is located in Section 3.1.7 of the Background Volume.

Bulking and transport of these wastes will be was implemented as part of CERCLA Removal Action #9. However, these activities will not begin prior to OEPA approval. These activities began after obtaining OEPA approval. Activities conducted under this removal action have been incorporated into the Operable Unit 3 Final ROD.

The milestone dates for TSCA Incinerator are shipping dates. The shipping dates are dependent on acceptance of the waste by the Oak Ridge Reservation TSCA Incinerator and the State of Tennessee.

The Liquid Mixed Waste Project is designed to address treatment and disposal of all liquid mixed waste currently in storage through the WWTS or the TSCA Incinerator Preferred Options.

MIXED WASTE STREAMS FOR WHICH TECHNOLOGY EXISTS

Project Start Date: October 1994 (COMPLETED)

Schedule for submitting all applicable permit applications: Not applicable. This project will be was initiated as part of RA #9. (COMPLETED)

Schedule for entering into contracts: Contracting complete (DOE facility to DOE facility agreement). (COMPLETED)

Schedule for initiating construction: No construction is required for this project.

**3.1.7 Waste Streams for which Technology Exists - Preferred Option:
TSCA Incinerator (cont.)**

Schedule for conducting systems testing: Tank set-up and testing were completed in October 1994. October 31, 1994 (COMPLETED)

Schedule for commencing operations: Operations began with the bulking of waste streams. June 30, 1995 (COMPLETED)

Schedule for processing backlogged and currently generated mixed wastes: June 30, 1995 through September 30, 1996 (COMPLETED)

Project Completion Date: Shipments from the FEMP to the TSCA Incinerator will be complete by September 30, 1996† (COMPLETED)

**3.1.7.1 Waste Streams for which Technology Exists - Preferred Option:
TSCA Incinerator, Phase II**

Phase II of the TSCA Incinerator Preferred Option provides updated schedules for the shipment of individual batches of liquid mixed waste to the TSCA Incinerator. These schedules are based on the TSCA Incinerator Fiscal Year 2000 Burn Plan. Since capacity is allocated on a fiscal year basis, schedules for shipping additional batches of liquid mixed waste will be established in future amendments to the STP.

Schedule for Completing Shipment: Shipment of Batches 9, 10, and 11 to the TSCA Incinerator will be completed by September 30, 2000†

Schedule for Providing Additional Milestones for Shipment: Schedules for shipping additional batches of mixed waste to the TSCA Incinerator will be provided by December 31, 2000†

† Denotes milestone dates

3.1.8 Waste Streams for which Technology Exists - Organic Treatment Project

The Organic Treatment Project involves the off-site shipment of mixed wastes containing organic constituents and debris for treatment to Materials and Energy Corporation in Oak Ridge, Tennessee. Treatment will be conducted under the DOE complex-wide Broad Spectrum contract.

Schedule for Entering into Contract: March 31, 1999 †
(COMPLETED)

Schedule for Initiating Preparation of Wastes for Transport: September 15, 1999 † (COMPLETED)

Schedule for Completing Shipment for Off-Site Treatment of Mixed Wastes Identified in the 1998 STP Annual Update: September 30, 2001 †

3.1.9 Waste Streams for which Technology Exists - Inorganic Treatment Project

The Inorganic Treatment Project involves the shipment of mixed waste off-site to a commercial facility for treatment of inorganic constituents.

Schedule for Entering into Contract: March 31, 2001 †
Schedule for Initiating Preparation of Wastes for Transport: October 1, 2001 †

Schedule for Completing Shipment for Off-Site Treatment of Mixed Wastes Identified in the 1998 Annual STP Update: September 30, 2002 †

3.1.10

Waste Streams for which Technology Exists - Uranium Waste Disposition (UWD) Materials

FEMP has identified mixed waste included in a population of uranium materials declared waste in December 1998. A portion of these materials are enriched (contain greater than 1% U235) and may require blending to reduce uranium content prior to processing. Stabilization options being evaluated for these waste streams include on-site treatment or securing a contract with an off-site treatment facility.

Schedule for Entering into Contract: The contract for implementation of this preferred option will be entered into by June 30, 2003 †

Schedule for Providing Additional Milestones for Treatment: Additional milestones for treating the UWD inventory will be provided by December 31, 2003 †

3.1.11

Waste Streams for Which Technology Exists - Thorium Legacy Mixed Waste Stabilization Project

The Thorium Mixed Waste Stabilization Project involves treatment of the thorium legacy mixed waste inventory. These wastes will be stored in an approved location while evaluating stabilization options which include on-site treatment or securing a contract with an off-site commercial treatment facility.

Schedule for Entering into Contract: The contract for implementation of this preferred option will be entered into by September 30, 2002 †

Schedule for Providing Additional Milestones for Treatment: Additional milestones for treating the thorium legacy mixed waste inventory will be provided by September 30, 2002 †

3.2 Mixed Waste Streams for which Technology Exists but Needs Adaption or for which No Technology Exists

FEMP has not identified any mixed waste streams for which significant adaptation and technology development is required for treatment. After final characterization, which will occur as a part of the project management process, certain variances may be requested. Specifically, there may be some constituents for which the Land Disposal Restriction (LDR) treatment standard is incineration. FEMP may request a variance to allow chemical destruction or stabilization. Also, certain debris may require a technology which is not practical; therefore a variance may be requested for these wastes.

3.3 Mixed Waste Streams Requiring Further Characterization or for which Technology Assessment Has Not Been Done

All FEMP mixed low-level waste streams identified in the STP have a Preferred Option for treatment.

4.0 This section intentionally left blank.

5.0 This section intentionally left blank.