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**FFCA MONTHLY PROGRESS REPORT FOR  
PERIOD ENDING APRIL 30, 1988**

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ENCLOSURE**

## FFCA MONTHLY PROGRESS REPORT FOR PERIOD ENDING APRIL 30, 1988

## SUMMARY

Progressive actions associated with the Federal Facilities Compliance Agreement (FFCA) continued during the month of April, 1988. Highlights of work completed this month, and a separate listing of ongoing actions are shown below.

By the end of the month, FMPC completed installing 76 monitoring wells, which completes the installation of on site wells. For the month, there were 12 new wells developed, bringing the total number of developed wells to 23. The drilling of 16 off-site wells is scheduled to begin in May.

For FY 1988, there have been five (5) stacks tested; three (3) in February and two (2) in April. During the month, four stack test reports were delivered to FMPC in rough draft, and are now under review.

The eighth monthly RI/FS technical progress report was transmitted to the USEPA on April 18, 1988.

## INTRODUCTION

As an integral part of the agreement between the U. S. Department of Energy (US DOE) and the USEPA signed on July 18, 1986, monthly reports are provided by US DOE to USEPA regarding the progress made to meet the provisions of that agreement. This report fulfills that requirement by describing actions undertaken at the Feed Materials Production Center (FMPC) during the period April 1 through April 30, 1988.

## WORK ASSIGNMENTS AND PROGRESS

The status of ongoing and completed work in support of the FFCA is summarized in Table 1. Additional descriptions of the work being performed and progress on these tasks are presented in the following sections. In both this portion of the monthly report, and in Table 1 (attached) descriptions of actions are presented in a format similar to that of the FFCA.

Comprehensive Environmental Response Compensation and Liability Act (CERCLA).

## 1. Interim Remedial Measures

## Sections I.A &amp; I.B

FMPC Standard Operating Procedures are being revised sitewide to address EPA comments received on the CERCLA section of the FFCA.

## Section I.C

The Interim Completion Report for Exterior Foam Application/Radon Treatment System is under review and will be forwarded to USEPA. The design for the internal foaming of the K-65 silos was sent out for industry review, and their comments have been received. Based on these responses, some modifications to the design have been identified as necessary, and a subtask is ongoing to modify the design. The sampling of the silos was scheduled to occur one month after internal foaming, but due to expected design modifications, sampling is anticipated prior to stabilization.

The NEPA Checklist for the original 212 drums of Thorium has been forwarded to DOE for approval and signature. Purchase requisitions have been prepared for the overpacking equipment. Project documentation, including the Design Review, Operational Readiness Review, and QA Plan is completed.

ASI/IT is currently performing a radiological analysis for the proposed Thorium warehouse. The study is to determine if FMPC will exceed its FSAR gamma level limit, established by USEPA, if all the drummed Thorium were to be stored in one warehouse.

USEPA-Region 5 comments on the Plant 8 Thorium Technical Information Package (TIP) were discussed in a working session held with USEPA during this reporting period. A draft package addressing USEPA comments has been prepared and is in review. The contractor for this project will require two weeks for mobilization and will begin as soon as EPA approval is received.

## 2. Remedial Investigation/Feasibility Study (RI/FS) Section 2.A to 2.D

Work on these sections is complete.

## Section 2.E

The Work Plan Revision 3 and supporting documents were transmitted to USEPA on March 31, 1988. The Work Plan Revision 3 incorporates necessary revisions resultant from EPA's comments received to date on the RI/FS Work Plan.

## Section 2.F

During the reporting period, ASI installed 14 additional monitoring wells (234, 110, 131, 134, 139, 133, 141, 369, 174, 242, 173, 142, 175, 180) which completes the installation of on-site wells. During April, 647.0 lineal feet of drilling was completed. The installation of 16 offsite wells is scheduled to begin during the first week in May.

Monitoring well development was completed on twelve additional wells during April. Through April 30, 1988, twenty-three 200 and 300 series wells have been developed under the site-wide RI/FS. This completes the development of 200 and 300 series wells onsite but outside the Production Area and Waste Storage Area.

FMPC has approved the licensing agreement to be used with the landowners of proposed off-site well locations. One landowner has signed this agreement and well drilling began May 6 on his property. Negotiations continue with other landowners to obtain their permission for drilling. FMPC has contacted the State of Ohio Department of Transportation and Hamilton County to pursue the possibility of locating some of the off-site wells on highway right-of-ways.

The HSL results from monitoring well #184 were provided to USEPA during the April TIE meeting. Results showed the water contained only normal anions and cations. The USEPA agreed that well purge water could be sent to the General Sump.

Surface radiological surveys continued during the reporting period. A total of 69 locations have been staked, and 120 samples collected at 37 locations. The Ultra Sonic Ranging and Data system (USRAD) was acquired from the Oak Ridge National Laboratory (ORNL) on March 28, 1988 to speed up surface sampling over certain terrains. Numerous problems have developed with the USRAD, and it has been returned to ORNL for repair. Sampling is continuing using SPA-3 and FIDLER systems.

On April 18, WMCO, ASI, and Ohio EPA conducted a tour of Paddy's Run near the K-65 silos to determine possible groundwater seeps. Several seeps were found, and ASI is developing these for sampling.

FMPC received a supplemental data package on the Characterization Investigation Study (CIS). The package provided geotechnical results collected from waste storage facilities. Analyses included testing results for physical and engineering properties of pit material. The data package has been transmitted to those performing the RI/FS and CIS for information.

### Section 2.G to 2.L

Work has not yet begun on these items.

## 3. Reports and Record Keeping

### Section 3.B

The eighth RI/FS monthly technical progress report was transmitted to USEPA on April 18, 1988. The ninth monthly technical progress report will be transmitted to USEPA by the 20th of May.

## Clean Air Act (CAA)

### Section B - Items 1 through 4

The FMPC deliverable addressing Section B - Items 1 through 4 of the Clean Air Act Section of the FFCA was transmitted to USEPA in August 1986.

A May 12, 1987 letter from William D. Franz to James A. Reafsnyder stated that the FMPC air monitoring network should be reevaluated for its ability to measure representative concentrations of air pollutants. An evaluation of the FMPC air monitoring network was performed in December, 1986. Mr Franz's concerns on the location of air monitoring station No. 6 were addressed during the joint OEPA/USEPA inspection on July 14-17, 1987. Modifications to existing monitoring stations to meet EPA siting criteria were completed in April.

The FFCA annual progress report addressing the Clean Air Act Section of the FFCA on the replacement of air pollution control devices was submitted to USEPA on April 4, 1988. This report provides the status and proposed replacement schedule for 57 existing dust collectors. The current status of these is as follows: one has been completed; 23 are scheduled for completion; three have been cancelled; 17 do not yet have dates established; and 13 are on hold due to N-Reactor cold stand-by status.

### Section C

Under the FFCA, DOE will comply with the reporting provisions contained in 40 CFR 61.94 (c). Under these provisions, the DOE is required to, by June 1 annually, submit a report which includes the results of monitoring emissions from points

subject to 40 CFR 61 Sub-part H and their associated dose calculations. The annual report for calendar year 1986 emissions was provided to EPA in 1987, in accordance with the requirements of 40 CFR 61.94 (c). The annual report for calendar year 1987 is currently under review, and will be submitted to USEPA in May, 1988.

#### Section D.I & D.2

The yearly particulate stack testing schedule for FY-88 was transmitted to EPA on December 31, 1987. The results of the FY-87 stack tests are complete. The ten (10) particulate stack test reports for 1987, including radiological results, were transmitted to USEPA on March 18, 1988.

Stack tests have been completed on five FMPC emission points during FY 1988. Samples collected have been analyzed by Weston Analytics. The draft report of these tests is currently being reviewed.

#### Section E.2

The sixth Quarterly Particulate Emission Report covering the period from January 4, 1988, through April 11, 1988, will be transmitted to USEPA in May.

#### Sections F and G

Work on these sections is complete.

### Resource Conservation and Recovery Act (RCRA)

#### Sections A and B - Items A.I through A.7 and Items B.I through B.5

USEPA-Region V provided comments on Sections A and B in December 1986. Both Sections were revised to reflect USEPA comments. The revised Section A was transmitted to the USEPA on January 23, 1987. The revised Section B was transmitted to the USEPA on January 28, 1987.

A May 12, 1987 letter from William D. Franz to James A. Reafsnnyder provided a second round of USEPA comments on these revised FFCA deliverables. WMCO submitted a Waste Characterization Report to DOE on March 29, 1988, which was subsequently forwarded to EPA on March 31, 1988, in response to RCRA Item A.I. The Waste Characterization Report answers the majority of EPA's RCRA concerns as spelled out in the Franz letter. FMPC's response to the remaining comments is anticipated by the end of May.

## Section C.I

Work on this item is complete.

### Radiation Discharge Information

#### Section A with Items A.1, A.2, and A.3

The FMPC off-site environmental monitoring program and the associated quality assurance plan were provided to USEPA in August 1986. A May 12, 1987 letter from William D. Franz to James A. Reafsnyder provided USEPA comments on these documents.

Five Quarterly Liquid Discharge Reports have been transmitted to the EPA thus far. The sixth report covering the period from January 4, 1988 through April 11, 1988, will be transmitted to the USEPA during May.

TABLE 1.

STATUS OF ASSIGNMENTS FOR WORK REQUIRED ON  
FEDERAL FACILITIES COMPLIANCE AGREEMENT ACTIONS

STATUS OF ACTIONS AS OF 30-Apr-88			
ACTION	DESCRIPTION	COMPLETION TIME AFTER FFCA SIGNED	STATUS
<b>CERCLA ACTIONS</b>			
1	<b>INTERIM REMEDIAL MEASURES</b>		
1.A.	Develop and implement O&M procedures and work practices to control radioactive emissions, including radon gas and decay products.	60 days	Completed. Comments were received from U.S. EPA on June 2, 1987. A comment response was transmitted to U.S. EPA on July 10, 1987. SOPs in process of being revised.
1.B.	Develop and provide to EPA a plan and implementation schedule for the control of radon at the K-65 silos.	30 days	Revised deliverable was transmitted to EPA on January 23, 1987. Second set of comments on original August 17, 1986 submittal received June 17, 1987. A comment response was transmitted to U.S. EPA on July 10, 1987.
	Develop & provide to EPA a plan & implementation schedule for control of thorium compounds.		This schedule was provided to US EPA in the revised deliverable transmitted on January 23, 1987. Updates of thorium repackaging activities were presented to the US EPA during the February TIE meeting.
1.C.	Implement radon control plan approved by the EPA.	----	Phase VI (external foaming) of K-65 interim remedial action was completed Dec. 6, 1987. Phases I-IV (internal foaming) are being re-evaluated due to original design concerns.
	Implement interim control plan for thorium compounds as approved by the US EPA.		The Technical Summary of Plant 8 (silos & bins) thorium repackaging was transmitted to USEPA on 17-Feb-88. USEPA comments on the summary were issued on 25-Mar-88. Formal responses to the comments were received by DOE from WMCO on April 15, and are being reviewed for transmittal to USEPA. After approval by USEPA and DOE, the subcontractor will begin construction of the removal equipment and containment facilities. Construction was to have started in mid April, but has been delayed until the Technical Summary is approved.
2	<b>REMEDIAL INVESTIGATION/INVESTIGATION STUDY</b>		
2.A.	RI/FS work to be conducted in accordance with EPA guidelines.	NA	No Action Required.
2.B.	-- No Action Required --	----	
2.C.	Provide to EPA analysis results for laboratory certification ----	45 days	Completed.

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ACTION	DESCRIPTION	COMPLETION TIME AFTER FFCA SIGNED	STATUS
SOW Task 7b.			
2.D.	Submit to EPA Work Plan for a complete sitewide RI/FS.	90 days	Work plan transmitted December 19, 1986. Supporting documents were transmitted on January 30, 1987.
2.E	Amend and submit revised RI/FS work plan to EPA if deficiencies are found.		Draft comments received from U.S. EPA on May 14, 1987. Final comments issued from U.S. EPA June 24, 1987. Comment responses and a revised Work Plan were transmitted to EPA on August 24, 1987.
			USEPA comments on the Work Plan Rev. 1 were received on December 28, 1987. The Work Plan Rev. 2 was transmitted to USEPA on February 11, 1988. Revision 3 of the Work Plan and supporting documentation was transmitted to USEPA on March 31, 1988. Revision 3 of the Work Plan incorporates all EPA comments received to date and minor consistency changes identified by FMPC personnel.
2.F	Implement tasks detailed in the approved RI/FS Work Plan.		A conditional approval to initiate drilling 45 RI/FS monitoring wells was received from USEPA. Drilling of the wells was initiated on August 25, 1987. The FMPC received approval for installation of remainder of the monitoring wells on February 18, 1988. A total of 76 groundwater monitoring wells were completed by April 30, 1988, completing the drilling of all on-site wells. Off site well installation will begin in May.
3	REPORTS AND RECORD KEEPING		
3.B	RI/FS Progress Report		The eighth monthly RI/FS progress report was transmitted to US EPA on April 18, 1988.
CLEAN AIR ACT			
A.	-- No Action Required --		
B.1.	Install real-time alarm monitors on all MAJOR emission points. Also list non-alarmed emission points.	30 days	Completed.
B.2.	Establish and implement administra-	30 days	Completed.

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		COMPLETION TIME AFTER FFCA SIGNED	STATUS
	tive controls for real-time monitors to ensure any unplanned releases will be detected and dealt with in 24 hours.		
B.3.	Establish and implement sample collection and analysis procedures and a QA plan to monitor ALL radionuclide emission points.	30 days	Completed.
B.4.	Establish schedule for the installation and replacement of emission control devices.	30 days	The schedule is included with the Annual Progress Report, sent to USEPA on April 4, 1988. A total of 57 dust collectors will be replaced. One has been completed.
	Prepare annual progress report on installation and replacement of emission control devices.	annually	The first Annual Progress Report on the Replacement of Air Pollution Control Devices-FFCA, Clean Air Act Section was submitted to USEPA on April 4, 1988.
	Respond to U.S. EPA comments on Air Monitoring Network WDF-JAR dated 12-May-87.		Completed. WDF concerns on monitoring station no. 6 addressed in July 14-17, 1987 meeting at the FMPC. Modifications to address WDF concerns on FMPC monitoring stations meeting EPA siting criteria were completed by April 30, 1988.
C.	Provide annual reports to EPA per 40 CFR 61.94(c)	yearly	The annual report for CY-1986 was transmitted to EPA in 1987. The next annual report is due for transmittal by June 1, 1988.
D.1	Provide EPA yearly stack-testing schedule.	yearly	Completed. The first annual stack testing schedule was transmitted to EPA in December, 1986. A revised schedule was transmitted July 24, 1987. The second schedule was transmitted to DOE November 6, 1987 and transmitted to EPA on December 31, 1987.
D.2	Provide EPA stack-test results for stacks tested that year.	45 days after test analyses completed	Final stack tests were completed in September, 1987. Stack test results for 10 stacks (including particulate radiological results) were submitted to EPA on March 18, 1988. Stack tests have been completed on five FMPC emission points during FY 1988. The draft reports for four of these tests are currently being reviewed.
E.1	Maintain records of monthly	----	Continuing.

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ACTION	DESCRIPTION	COMPLETION TIME AFTER FFCA SIGNED	STATUS
	particulate matter emissions.		
E.2	Provide quarterly reports to EPA on these emissions.	quarterly	The initial report was transmitted on December 12, 1986. The second report was issued April 20, 1987. The third report was issued July 29, 1987. The fourth report was issued October 19, 1987. The fifth quarterly report was transmitted to EPA during the month of March. The sixth Quarterly Particulate Emission Report covering the period of Jan. 4-Apr. 11, 1988 period will be transmitted to USEPA in May.
F.	Provide EPA list of environmental air monitoring equipment, including location and the O&M program.	60 days	Completed.
G.	Develop and provide EPA an O&M program for air pollution control devices.	90 days	Completed.
RCRA			
A.	Achieve compliance with interim status regulations.	30 days	Revisions to the A1-A7 submittals transmitted on January 23, 1987. Additional comments received on May 12, 1987. FMPC's response to the remaining comments is anticipated by the end of May, 1988.  A Hazardous Waste Analysis Plan was transmitted to USEPA on March 22, 1988.
A.1.	Conduct hazardous waste determination on all waste streams.	30 days	Completed.
A.2.	Commence a hazardous waste analysis program.	30 days	Completed.
A.3.	Update of operating records pursuant to 40 CFR 265.73 and 265.309.	30 days	Completed.
A.4.	Include full name and signature and date received on manifests pursuant to 40 CFR 265.71.	30 days	Completed.

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ACTION	DESCRIPTION	COMPLETION TIME AFTER FFCA SIGNED	STATUS
A.5.	Update the facility closure plan to reflect the year the facility expects to begin closure.	30 days	Completed.
A.6.	Begin collection of all run-off from the active portions of pit 4.	30 days	Completed.
A.7.	Prepare and maintain outline for a groundwater quality assessment program.	30 days	Completed.
B.	Submit to EPA for approval a detailed groundwater monitoring plan.	90 days	Complete. Additional comments received from US EPA on May 12, 1987. Response to be transmitted to U.S. EPA following completion of internal review.
B.1.	Determine groundwater flow at the RCRA regulated units.	90 days	Completed.
B.2.	Provide map showing location of all RCRA monitoring wells.	90 days	Completed.
B.3.	Include design and construction specs for all RCRA wells.	90 days	Completed.
B.4.	Monitor for all Appendix VIII constituents, including radionuclides.	90 days	Completed.
B.5.	Include a sampling and analysis plan to meet 40 CFR 265.92.	90 days	Completed
C.1.	Develop a closure plan for the landfill pursuant to 40 CFR 265.112.	60 days	Final closure plan was transmitted to US EPA on July 29, 1987. OEPA granted approval of the closure plan on February 9, 1988.
C.2.	Develop a post-closure plan for the landfill pursuant to 40 CFR 265.118.	60 days	To be developed following RI/FS.
RADIATION DISCHARGE INFORMATION			
A.	Respond to USEPA comments on Items A.1. - A.3. MDF-JAR dated 12-May-87.		In progress
A.1	Provide EPA with existing offsite	30 days	Completed.

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STATUS OF ACTIONS AS OF 30-Apr-88			
ACTION	DESCRIPTION	COMPLETION TIME AFTER FFCA SIGNED	STATUS
	environmental monitoring program.		
A.2	Provide EPA the QA program associated with the environmental monitoring program.	30 days	Completed.
A.3	Report to U.S. EPA, OEPA and Ohio Department of Health the results of the continuous liquid discharge samples.	quarterly	Initial report transmitted on December 12, 1986. Second report transmitted April 20, 1987. Third report transmitted July 29, 1987. Fourth report was transmitted in November, 1987. The fifth quarterly report was transmitted to USEPA on March 18, 1988. The sixth quarterly report will be transmitted to USEPA during May.
REPORTING REQUIREMENTS			
B	Issue monthly progress report of actions taken to ensure compliance with FFCA requirements.	30 days	Aug. 86 issued to US EPA Sep. 86. Sep. 86 issued to US EPA Oct. 86. Oct. 86 issued to US EPA Nov. 86. Nov. 86 issued to US EPA Dec. 86. Dec. 86 issued to US EPA Jan. 87. Jan. 87 issued to US EPA Feb. 87. Feb. 87 issued to US EPA Mar. 87. Mar. 87 issued to US EPA Apr. 87. Apr. 87 issued to US EPA May 87. May 87 issued to US EPA Jun. 87. Jun. 87 issued to US EPA Jul. 87. Jul. 87 issued to US EPA Aug. 87. Aug. 87 issued to US EPA Sep. 87. Sep. 87 issued to US EPA Oct. 87. Oct. 87 issued to US EPA Nov. 87. Nov. 87 issued to US EPA Dec. 87. Dec. 87 issued to US EPA Jan. 88. Jan. 88 issued to US EPA Feb. 88. Feb. 88 issued to US EPA Mar. 88. Mar. 88 issued to US EPA Apr. 88.