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**FEDERAL FACILITY COMPLIANCE AGREEMENT (FFCA) - PROGRESS  
REPORT FOR JUNE 1989 - FEED MATERIALS PRODUCTION CENTER**

07/28/89

DOE-1392-94  
DOE-FN        USEPA  
5  
REPORT



Department of Energy

6249

FMPC Site Office  
P.O. Box 398705  
Cincinnati, Ohio 45239-8705  
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July 28, 1989  
DOE-1392-89

U. S. Environmental Protection  
Agency  
Hazardous Waste Enforcement Branch  
Region V - SHE-12  
230 South Dearborn Street  
Chicago, Illinois 60604

Dear Sir:

**FEDERAL FACILITY COMPLIANCE AGREEMENT (FFCA) - PROGRESS REPORT FOR  
JUNE 1989 - FEED MATERIALS PRODUCTION CENTER**

Enclosed please find the monthly FFCA Progress Report for the period ending June 30, 1989. The report updates DOE activities conducted in response to the Federal Facilities Compliance Agreement.

Please contact Jack Craig at FTS 774-6159, if you have any questions concerning the report provided herein.

Sincerely,

A handwritten signature in cursive script that reads "Ray Reafsnyder".

James A. Reafsnyder  
FMPC Site Manager

DP-84:Craig

Enclosure: As stated

cc w/encl.  
Ben Wilmoth, ODH  
Catherine McCord, USEPA-5  
Charles Schumann, SWOAPCA  
Tom Winston, OEPA-Dayton  
Graham Mitchell, OEPA-Dayton  
Margaret Wilson, DP-84

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bcc w/encl.:

Ray P. Berube, EH-24, FORS  
Autar Rampertaap, EH-232, FORS  
Thomas B. Hindman, DP-12, GTN  
Charles G. Halsted, DP-13, GTN  
Larry Sparks, SE-31, ORO  
Robert Cohen, GeoTrans  
Alan Van Norman, CRA  
Bob Conner, WMCO

bcc w/o encl.:

William R. Bibb, DP-80, ORO  
Richard L. Egli, SE-30, ORO

## FEDERAL FACILITIES COMPLIANCE AGREEMENT

## MONTHLY PROGRESS REPORT

Period Ending June 30, 1989

## INTRODUCTION

The Federal Facilities Compliance Agreement between the U. S. Department of Energy (DOE) and the U. S. Environmental Protection Agency (USEPA), signed July 18, 1986, requires that monthly reports be submitted to USEPA regarding 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 June 1 through June 30, 1989.

Progressive actions associated with the Federal Facilities Compliance Agreement (FFCA) continued during the month of June 1989 and are discussed below. Highlights of work performed this month include:

- o Sampling was completed on Silo 2 with the collection of two core samples from each of four manways in the silo. Inspection of the collected core samples revealed that the cores ranged from 2 to 4 feet in depth. Total depth of the material in the silo is approximately 22 feet. The inability to obtain good quality samples was attributed to the hard crust on the surface of the silo and the dampness of the material beneath the hard crust. The sampling team collected two core samples from one manway in Silo 1. Sample retention was much better from these cores, extending to approximately 12.5 feet. The drop test conducted in silo 1 revealed an extremely hard concrete-like surface. Based on findings from the drop test, modifications were made to the equipment and the sampling technique employed. The estimated completion date for sampling all K-65 silos is August 4, 1989.
- o The twenty-second RI/FS Technical Progress Report for May 1989 was transmitted to USEPA on June 14, 1989.

## WORK ASSIGNMENTS AND PROGRESS

Descriptions of ongoing work progress are presented in the following sections of this report. The status of both ongoing and completed work in support of the FFCA is summarized in Table 1 (attached). In this portion of the report and in Table 1, descriptions of actions are presented in a format consistent with that of the FFCA.

FEDERAL FACILITIES COMPLIANCE AGREEMENT  
MONTHLY PROGRESS REPORT

COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION  
AND LIABILITY ACT (CERCLA)

1. Initial Remedial Measures

*Section C*

K-65 Silos Project - Sampling was completed on Silo 2 with the collection of two core samples from each of four manways in the silo. The USEPA-approved sampling operation was conducted following the successful completion of sampling in Silo 3. Inspection of the collected core samples revealed that the cores ranged from 2 to 4 feet in depth. Total depth of the material in the silo is approximately 22 feet. The inability to obtain good quality samples was attributed to the hard crust on the surface of the silo which blocked the Virba-corer sampling tube and the dampness of the material beneath the hard crust.

The sampling team collected two core samples from one manway in Silo 1. Sample retention was much better from these cores, extending to approximately 12.5 feet. Concurrently, a drop test was performed on the material in Silo 1 to determine the consistency of the surface materials. The drop test revealed an extremely hard concrete-like surface. Based on findings from the drop test, modifications were made to the equipment and the sampling technique employed. Following the completion of Silo #1 sampling, Silo #2 will be resampled utilizing the modified sampling technique and equipment. The estimated completion date for sampling all K-65 silos is August 4, 1989.

2. Remedial Investigation/Feasibility Study (RI/FS)

*Section E*

Work Plan - As of June 30, 1989, the FMPC had not received comments on the Feasibility Study Work Plan from the USEPA. A meeting was held in Chicago, Illinois on June 8, 1989, between USEPA, OEPA, DOE, and WMC0. The 72 USEPA comments on the Facilities Testing Work Plan were addressed and resolved.

FEDERAL FACILITIES COMPLIANCE AGREEMENT  
MONTHLY PROGRESS REPORT

*Section F*

Groundwater Monitoring Program - Round 5 of the RI/FS groundwater sampling program was completed during the month of May. Analytical results are expected in approximately 60 days.

Installation of the 24 additional onsite wells specified in the first addendum to the RI/FS Work Plan Revision 3 was completed during April 1989. Installation of three of the ten additional offsite wells identified in the second addendum to the work plan was completed. Installation of the remaining seven wells is on hold pending receipt of required license agreements. DOE is currently pursuing CERCLA access authority in order to allow setup of the additional seven off-site wells.

3. Reports and Record Keeping

*Section B*

The twenty-second RI/FS Monthly Technical Progress Report for May 1989 was transmitted to USEPA on June 14, 1989.

CLEAN AIR ACT (CAA)

*Section C*

The Annual Radionuclide Air Emission Report for 1988 was submitted to the EPA on May 18, 1989.

*Section D*

Stack Tests - The stack testing schedule for 1989 was submitted to USEPA on June 16, 1989.

*Section E*

The tenth Quarterly Particulate Emission Report for the period January 9, 1989 through April 4, 1989 was submitted to USEPA on June 26, 1989. Completion of the eleventh Quarterly Particulate Emission Report is targeted for August 1989.

**FEDERAL FACILITIES COMPLIANCE AGREEMENT  
MONTHLY PROGRESS REPORT**

**RESOURCE CONSERVATION AND RECOVERY ACT (RCRA)**

*Section C*

Pit 4 Closure - The Flexible Membrane Liner (FML) contractor completed the FML installation on May 26, 1989. Testing of the FML field seams and the installation of the FML strip were also completed. With the installation complete, a weekly inspection of the FML is required by the EPA. To meet this requirement, the first inspection was completed jointly by Waste Operations (WO) and Environmental Engineering (EE). Henceforth, Waste Operations will perform the weekly inspection and complete an inspection form which will be provided to Environmental Compliance for review and initiation of any required repair work.

Seeding of the exposed soil around Pit 4 was completed. Minor repair work around the edge of the FML and dredging of the perimeter trench will be completed when the grass is firmly established. These two final actions should complete the interim cover project.

Comments received from Adena Utilities, the professional Engineer Firm certifying the closure of Pit 4, stated that certain portions of the cover construction must be corrected prior to certification. Efforts are being made by WMCO to resolve the comments made by Adena.

A post-closure plan for Pit 4 will be developed following the RI/FS.

**RADIATION DISCHARGE INFORMATION**

*Section A*

The tenth Quarterly Liquid Discharge Report covering the period January 9, 1989 through April 3, 1989, was transmitted to EPA on June 26, 1989.

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TABLE 1

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

STATUS OF ACTIONS AS OF  
June 30, 1989

ACTION	DESCRIPTION	COMPLETION TIME AFTER FFCA SIGNED	FY89 STATUS
CERCLA			
1.	INITIAL REMEDIAL MEASURES		
1.A	Develop and implement O&M procedures and work practices to control radioactive emissions, including radon gas and decay products.	60 days	Completed.
1.B	Develop and provide to EPA a plan and implementation schedule for the interim control of radon at the K-65 Silos.	30 days	Completed.
	Develop and provide to EPA a plan and implementation schedule for control of thorium compounds.		Completed.
1.C	Implement radon control plan approved by the EPA.	----	On October 14, 1988, FMPC received USEPA's comments on the K-65 sampling plan. A revised sampling plan was submitted to USEPA on December 30, 1988. USEPA approval was received on April 25, 1989 to implement the K-65 Silo sampling project. Sampling of Silo 3 was completed on May 17, 1989. Sampling of Silo 2 began the week of June 12, and was completed on June 21, 1989. Silo 1 sampling was initiated following the conclusion of Silo 2, and is expected to be completed during the week of July 10, 1989. Due to complications experienced during Silo 2 sampling, Silo 2 will be resampled immediately after Silo 1 is completed. All sampling of the K-65 Silos is anticipated to be completed by August 4, 1989.
	Implement interim control plan for thorium compounds as approved by the USEPA.		The drum filling system for thorium from Plant 8 (silo and bins) was installed during October. Packaging began November 30, 1988. Repackaging of large bin thorium was completed in January, and small bin repackaging was completed on February 3, 1989. Silo repackaging was complete March 17, 1989, completing the Plant 8 thorium repackaging project 2 weeks before the expected completion date of March 31, 1989.
2.	REMEDIAL INVESTIGATION/FEASIBILITY STUDY		

TABLE 1

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

ACTION	DESCRIPTION	STATUS OF ACTIONS AS OF June 30, 1989	
		COMPLETION TIME AFTER FFCA SIGNED	FY89 STATUS
2.A	RI/FS work is to be conducted in accordance with EPA guidelines.	NA	No action required.
2.B	-- No Action Required --	----	
2.C	Provide to EPA the analysis results for laboratory certification ---- SOW Task 7b.	45 days	Completed.
2.D	Submit a work plan to EPA for a complete sitewide RI/FS.	90 days	Completed.
2.E	Amend and submit revised RI/FS Work Plan to EPA if deficiencies are found.		As of June 30, 1989, FMPC has not received USEPA comments on the Feasibility Study Work Plan. The Facilities Testing Work Plan, an addendum that incorporated testing within and around the active FMPC production area, was submitted to USEPA November 18, 1988. An addendum for the installation of 24 additional onsite wells was transmitted to USEPA on December 20, 1988, and a second addendum for the installation of 10 additional offsite monitoring wells was transmitted December 22, 1988. During May, FMPC received comments from EPA on RI Addendum for Facilities and Suspect Areas. A response was prepared and submitted to EPA. A meeting was held in Chicago on June 8, 1989, between the USEPA, OEPA, DOE, and WMCO. The 72 USEPA comments on the Facilities Testing Work Plan were addressed and resolved.
2.F	Implement tasks detailed in the approved RI/FS Work Plan.		Installation of the 24 additional onsite wells specified in the first addendum to Rev. 3 of the RI/FS Work Plan was completed in April 1989. Installation of three of the 10 additional offsite wells identified in the second addendum to the Work Plan was completed. Installation of seven remaining wells is on hold, pending receipt of required license agreements. CERCLA Right-of-Access is currently being investigated.  Round 5 of the RI/FS groundwater sampling program was completed during the month of May. Analytical results will be available in approximately 60 days.
3.	REPORTS AND RECORD KEEPING		
3.B	Submit monthly RI/FS progress reports.		The twenty-second RI/FS progress report for May 1989 was transmitted to the USEPA on June 14, 1989.

TABLE 1

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

STATUS OF ACTIONS AS OF  
June 30, 1989

ACTION	DESCRIPTION	COMPLETION TIME AFTER FFCA SIGNED	FY89 STATUS
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 administrative controls for real-time monitors to ensure any unplanned releases will be detected and dealt with in 24 hours.	30 days	Completed.
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	Completed.
	Prepare annual progress report on installation and replacement of emission control devices.	yearly	Preparation of the second Annual Progress Report is currently in progress, and is expected to be sent to USEPA in July, 1989.
	Respond to USEPA comments on Air Monitoring Network (WDF-JAR dated 12-May-87).		Completed.
C.	Provide annual reports to EPA per 40 CFR 61.94(c).	yearly	The Annual Radionuclide Air Emission Report for CY-1988 was forwarded to USEPA on May 18, 1989.
D.1	Provide EPA yearly stack-testing schedule.	yearly	The 1989 stack testing schedule was transmitted to the USEPA on June 16, 1989.
D.2	Provide EPA with stack-test results for stacks tested that year.	45 days after test	The first five stack tests for FY88 were sent to USEPA on December 28, 1988. The second set of five reports was submitted to USEPA on February 17, 1989.
E.1	Maintain records of monthly	----	Continuing.

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TABLE 1

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

STATUS OF ACTIONS AS OF June 30, 1989			
ACTION	DESCRIPTION	COMPLETION TIME AFTER FFCA SIGNED	FY89 STATUS
	particulate matter emissions.		
E.2	Provide quarterly reports to EPA on these emissions.	quarterly	The ninth quarterly report for the period October 3, 1988 through January 9, 1989 was submitted May 12, 1989. The tenth quarterly report was transmitted to USEPA on June 26 1989. Completion of eleventh Quarterly Particulate Emissions Report is targeted for August 1989.
F.	Provide EPA with a list of environmental air monitoring equipment, including location and the O&M program.	60 days	Completed.
G.	Develop and provide EPA with an O&M program for air pollution control devices.	90 days	Completed.
RCRA			
A.	Achieve compliance with interim status regulations.	30 days	Completed.  The latest revision to the Hazardous Waste Analysis Plan was transmitted to USEPA on March 1, 1989.
A.1	Conduct a hazardous waste determination on all waste streams.	30 days	Completed.
A.2	Commence a hazardous waste analysis program.	30 days	Completed.
A.3	Update operating records pursuant to 40 CFR 265.73 and 265.309.	30 days	Completed.
A.4	Include full name, signature, and date received on manifests pursuant to 40 CFR 265.71.	30 days	Completed.
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.

TABLE 1

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

ACTION	DESCRIPTION	STATUS OF ACTIONS AS OF	
		COMPLETION TIME AFTER FFCA SIGNED	FY89 STATUS
A.7	Prepare and maintain an outline for a groundwater quality assessment program.	30 days	Completed.
B.	Submit to EPA for approval a detailed groundwater monitoring plan.	90 days	Completed. Revision 1 of the Groundwater Quality Assessment Program Plan was submitted to EPA on March 24, 1989 to fulfill comments received from W. Franz (USEPA) on May 12, 1987.
B.1	Determine groundwater flow at the RCRA-regulated units.	90 days	Completed.
B.2	Provide a map showing the locations of all RCRA monitoring wells.	90 days	Completed.
B.3	Include design and construction specifications 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	The FML installation, originally scheduled to begin by April 3, 1989, was delayed until May 1, 1989 because of soft pit surface conditions caused by recent heavy rains. FML installation was initiated on May 1 and completed on May 26, 1989.  The inspections are being performed by the Waste Operations group, with review by the Environmental Compliance group.  Seeding of exposed soil was also completed. Minor repair work around the edges of the FML and dredging of the perimeter trench will be completed after the grass has established itself.
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. (WDF-JAR dated May 12, 1987).		Completed.

TABLE 1

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

STATUS OF ACTIONS AS OF  
June 30, 1989

ACTION	DESCRIPTION	COMPLETION TIME AFTER FFCA SIGNED	FY89 STATUS
A.1	Provide EPA with existing offsite environmental monitoring program.	30 days	Completed.
A.2	Provide EPA the QA program associated with the environmental monitoring program.	30 days	Completed.
A.3	Report to USEPA, OEPA and Ohio Department of Health the results of the continuous liquid discharge samples.	quarterly	The ninth quarterly report for the period October 3, 1988 through January 9, 1989 was submitted May 12, 1989. The tenth quarterly report was transmitted to USEPA on June 26 1989.
REPORTING REQUIREMENTS			
B.	Issue monthly progress report of actions taken to ensure compliance with FFCA requirements.	30 days	May's FFCA Monthly Progress Report was transmitted to the USEPA on June 20, 1989.