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**TRANSMITTAL OF RESPONSES TO SUPPLEMENTAL COMMENTS ON THE
OPERABLE UNIT 4 VITRIFICATION PILOT PLANT PHASE I
TREATABILITY STUDY WORK PLAN, REVISION 1 AND TRANSMITTAL OF
REVISION 2 OF WORK PLAN**

06/19/96

**DOE-1030-96
DOE-FN EPAS
11
RESPONSES**



Department of Energy

Ohio Field Office
Fernald Area Office

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



JUN 19 1996

DOE-1030-96

Mr. James A. Saric, Remedial Project Director
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:

**TRANSMITTAL OF RESPONSES TO SUPPLEMENTAL COMMENTS ON THE OPERABLE
UNIT 4 VITRIFICATION PILOT PLANT PHASE I TREATABILITY STUDY WORK PLAN,
REVISION 1, AND TRANSMITTAL OF REVISION 2 OF WORK PLAN**

Enclosed is the comment response document which addresses the supplemental comments received as a result of your review of the *Operable Unit 4 Vitrification Pilot Plant Phase I Treatability Study Work Plan, Revision 1* (February 1996). Also enclosed is Revision 2 of the subject work plan, which incorporates all Environmental Protection Agency (EPA) comments to date, in accordance with your letters of April 11, 1996, and June 5, 1996, and your facsimile of May 29, 1996. A copy of the red-line, strike-out of Revision 1 is also included to help you review the final document.

Based on our conversation and your letter of June 5, 1996, this submittal of Revision 2 of the work plan satisfies the completion of the Phase I Treatability Study Work Plan submittal and the EPA's approval of the initiation of Phase I operations with the slurry feed operation of the Vitrification Pilot Plant melter.

If you have any additional questions or concerns, please contact Nina Akgunduz at (513) 648-3110.

Sincerely,



Johnny W. Reising
Fernald Remedial Action
Project Manager

FN:Akgunduz

Enclosures: As Stated

cc w/encs:

- R. L. Nace, EM-423/GTN
- G. Jablonowski, USEPA-V, 5HRE-8J
Manager, TSPP/DERR, OEPA-Columbus
- T. Schneider, OEPA-Dayton (3 copies of enc(s))
- F. Bell, ATSDR
- D. S. Ward, GeoTrans
- R. Vandergrift, ODOH
- S. McClellan, PRC
- T. Hagen, FERMCO/65-2
- J. Harmon, FERMCO/90
AR Coordinator, FERMCO/78

cc w/o encs:

- C. Little, FERMCO/2
- R. Heck, FERMCO/52-5

**OPERABLE UNIT 4
VITRIFICATION PILOT PLANT
PHASE I
TREATABILITY STUDY WORK PLAN,
REVISION 1**

RESPONSE TO COMMENTS

**Fernald Environmental Management Project
Fernald, Ohio**



June 1996

**U.S. DEPARTMENT OF ENERGY
Fernald Field Office**

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APPENDIX A

Letter, James A. Saric to Johnny W. Reising, "OU4 Vitrification Pilot Plant Treatability Study Work Plan," dated June 5, 1996.

U.S. EPA Comments on the Operable Unit 4 Vitrification Pilot Plant Phase I Treatability Study Work Plan, Rev. 1 (Supplemental Comments)

RESPONSES TO USEPA SUPPLEMENTAL COMMENTS ON THE
OPERABLE UNIT 4 VITRIFICATION PILOT PLANT
PHASE I TREATABILITY STUDY WORK PLAN,
REVISION 1

Commenting Organization: U.S. EPA Commentor: Saric
Section #: 3.2 Page #: 3-2 Line #: Table 3-1
DOE Response #: 1 (Original Specific Comment #: 8)

Comment: The original specific comment requests clarification of the performance objective of achieving a relative humidity less than or equal to 15 percent. The Department of Energy (DOE) should modify the response to this comment by providing either (1) an absolute humidity or (2) relative humidity at a specified temperature.

Response: The objective for the air effluent from the Desiccant Tower will be modified to include relative humidity and temperature.

Action: In Table 3-1, the Performance Objective for the Desiccant Tower will be changed to: "≤15 percent relative humidity at 130°F."

Commenting Organization: U.S. EPA Commentor: Saric
Section #: 6.4 - 6.11 Page #: 6-13 to 6-15 Line #: NA
DOE Response #: 2 (Original Specific Comment #: 15)

Comment: The original specific comment requests that DOE provide additional detail for sections that discuss the data quality objectives; analytical support levels; and data reduction, verification, and quantification; performance and system audits; calculations of data quality indicators; corrective action; and quality assurance (QA) reports to management. DOE's response indicates that summary level information will be added to those sections, as necessary. DOE should incorporate only summary level information that is specific to the pilot study being conducted. Moreover, the summary level information should be sufficiently detailed so that a reviewer can assess independently the adequacy of the proposed data quality objectives, analytical support levels, and other information in the work plan.

Response: Considerable detail specific to VITPP data quality objectives, analytical support levels and related issues has been added to the work plan. Information added includes a table showing analytical methods to be used; definition of analytical support levels and examples of their use; description of QA activities and reports; and additional information on data monitoring and reduction.

Action: FERMC0 has reviewed level of detail now in work plan to verify that it meets intent of comment.

**RESPONSES TO USEPA SUPPLEMENTAL COMMENTS ON THE
OPERABLE UNIT 4 VITRIFICATION PILOT PLANT
PHASE I TREATABILITY STUDY WORK PLAN,
REVISION 1 (Cont.)**

Commenting Organization: U.S. EPA Commentor: Saric

Section #: 8.0 Page #: 8-1 Line #: NA

DOE Response #: 3 (Original Specific Comment #: 17)

Comment: The original specific comment requests that the work plan propose the validation of wastewater data for metals, pH, nitrates, and total suspended solids, as well as off-gas data for total metals. DOE's response indicates that wastewater and off-gas data will not be validated because those data are collected to obtain more for process information, rather than to support environmental requirements. DOE should modify the objectives so that they agree clearly with the manner in which DOE plans to use the data.

Response: Data quality objectives will be revised as requested to accurately reflect intended use of data.

Action: Revise data quality objective consistent with intended use of wastewater and off-gas data for process information.

Commenting Organization: U.S. EPA Commentor: Saric

Section #: 10.1 Page #: 10-2 Line #: 6-27

DOE Response #: 4 (Original Specific Comment #: 19)

Comment: The original specific comment states that the list of waste streams is incomplete and should be revised to include building sump effluent, cooling tower blowdown, used desiccant, and any other waste stream. DOE's response indicates that those waste streams will not be added to the work plan because they are not constituents of liquid effluents in pipelines. DOE should include characterization information for these waste streams because these waste streams contribute to discharge concentrations from the advanced wastewater treatment system.

Response: The lists in Section 10.1 were included to identify ancillary waste streams requiring characterization by standard site characterization procedures. Building sump effluent, cooling tower blowdown, used desiccant, and other anticipated waste streams from operation of the VITPP will be routinely sampled and characterized prior to release to the Advanced Wastewater Treatment (AWWT) System. For example, sampling point #17 from the Building Sump Effluent will be analyzed for RCRA metals, nitrate, pH, total dissolved solids, and total suspended solids. These data will be made available to the AWWT operators and used to confirm process knowledge characterization of these liquid process wastes.

The list will be revised to include the liquid waste streams.

**RESPONSES TO USEPA SUPPLEMENTAL COMMENTS ON THE
OPERABLE UNIT 4 VITRIFICATION PILOT PLANT
PHASE I TREATABILITY STUDY WORK PLAN,
REVISION 1 (Cont.)**

Action: The following will be added to the end of Section 10.1:

"Liquid waste streams which will be generated during Phase I and will combine in the Building Sump Tank for ultimate disposal to the AWWT include the following:

- Pretreated process wastewater
- Cooling Tower blowdown
- Used desiccant
- Sink drainage
- Scrubber purge
- Rainwater

This combined waste stream will be routinely characterized as described in Section 6.0, Sampling and Analysis."



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 REGION 5
 77 WEST JACKSON BOULEVARD
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REPLY TO THE ATTENTION OF

Mr. Johnny W. Reising
 United States Department of Energy
 Feed Materials Production Center
 P.O. Box 398705
 Cincinnati, Ohio 45239-8705

SRF-5J

RE: OU 4 Vitrification
 Pilot Plant
 Treatability Study
 Work Plan

Dear Mr. Reising:

The United States Environmental Protection Agency (U.S. EPA) has completed its review of the United States Department of Energy's (U.S. DOE) Responses to Comments (RTC) on the Operable Unit (OU) 4 Vitrification Pilot Plant phase I treatability study work plan.

Attached are U.S. EPA's comments on the work plan. U.S. EPA hand delivered draft comments to U. S. DOE on May 29, 1996. U.S. DOE sent, via facsimile, responses to U. S. EPA's comments on June 3, 1996. A subsequent conference call was held between U.S. DOE and U.S. EPA on June 5, 1996, discussing the comments and their resolution.

As a result of those meetings U.S. EPA hereby approves the RTC pending incorporation of the responses, sent via facsimile and discussed at the meeting, into the revised work plan.

U.S. DOE must submit a revised final work plan within thirty (30) days receipt of this letter.

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Please contact me at (312) 886-0992 if you have any questions regarding this matter.

Sincerely,



James A. Saric
Remedial Project Manager
Federal Facilities Section
SFD Remedial Response Branch #2

Enclosure

cc: Tom Schneider, OEPA-SWDO
Jack Baublitz, U.S. DOE-HDQ
John Bradburne, FERMCO
Charles Little, FERMCO
Terry Hagen, FERMCO
Michael Yates, FERMCO

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Commenting Organization: U.S. EPA

Commentor: Saric

Section #: 10.1

Page #: 10-2

Line #: 6 - 27

DOE Response #: 4 (Original Specific Comment #: 19)

Comment: The original specific comment states that the list of waste streams is incomplete and should be revised to include building sump effluent, cooling tower blowdown, used desiccant, and any other waste stream. DOE's response indicates that those waste streams will not be added to the work plan because they are not constituents of liquid effluents in pipelines. DOE should include characterization information for these waste streams because these waste streams contribute to discharge concentrations from the advanced wastewater treatment system.