OU4 PILOT PLANT TREATABILITY WP - COMMENTS

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George V. Voinovich
Governor

May 6, 1994

Re: DOE FEMP
MSL #531-0297
OU4 PILOT PLANT
TREATABILITY WP -
COMMENTS

Mr. Jack Craig
Project Manager
U.S. DOE FEMP
P.O. Box 398705
Cincinnati, OH 45329-8705

Dear Mr. Craig:

This letter provides Ohio EPA comments on the Operable Unit 4 Pilot Plant Phase I Treatability Study Work Plan submitted to Ohio EPA on February 28, 1994. Ohio EPA regrets the delay in providing commenting on this document.

If you should have any questions, please contact Kelly Kaletsky or me.

Sincerely,

Thomas A. Schneider
Fernald Project Manager
Office of Federal Facilities Oversight

cc: Jenifer Kwasniewski, DERR
Mike Proffitt, DDAGW
Jim Saric, U.S. EPA
Ken Alkema, FERMCO
Lisa August, GeoTrans
Robert Owen, ODH
Jean Michaels, PRC

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OHIO EPA COMMENTS
ON
OPERABLE UNIT 4 PILOT PLANT PHASE I

1) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 1.4.2 Pg #: 1-9 Line #: Code: C
Original Comment #:
Comment: The text states "essentially all of the radon initially present in the sample is released during vitrification.." Please provide detailed information regarding the capture and control of radon and other contaminants in the off-gas stream.

Response:
Action:

2) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 1.2 Pg #: 1-3 Line #: Code: C
Original Comment #:
Comment: Radon, according to the FEMP, is known to be emanating from the silos through cracks and at structural joints of Silos 1 and 2. If the structural integrity allows for the escape of radon, what will the FEMP do to control any potential liquid leakage during the vitrification process if the water pressure method of extraction is used?

Response:
Action:

3) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 2.3 Pg #: 2-4 Line #: Code: C
Original Comment #:
Comment: One of the alternatives described in the document allows for the removal of the silo material using water pressure and a slurry pump. Another alternative describes removal by utilizing a vacuum and cutter-head device. It is unclear whether one or both of these methods are being considered. Provide an explanation of the difference between these two methods, including the advantages and disadvantages of both, and which method(s) will be used.

Response:
Action:

4) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 3.2.5 Pg #: 3-2 Line #: Code: C
Original Comment #:
Comment: The FEMP needs to provide more detailed information regarding the vitrification equipment. The data supplied in this document is too vague.

Response:
Action:

5) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Figure 4-3 Pg #: 4-5 Line # Code: C
Original Comment #:
Comment: The Silo 4 superstructure diagram is difficult to read and understand. Please provide either a more simplified and/or larger diagram.

Response:
Action:

6) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 4.1.1 Pg #: 4-6 Line #: Code: C
Original Comment #:
Comment: The text states that "off-gas control will be demonstrated via a glove-bag type barrier." Please describe a glove-bag type barrier and how this will be utilized.

Response:
Action:

7) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 4.1.2 Pg #: 4-7 Line #: Code: C
Original Comment #:
Comment: The information in the document regarding the components of the off-gas system is inadequate. Please provide more detailed information on the operation of the off-gas system. Also include a diagram or schematic drawing showing the components and their location within the system.

Response:
Action:

8) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 4.1.2 Pg #: 4-7 Line #: Code: C
Original Comment #:
Comment: How similar are the surrogate materials that will be used in the pilot study to the actual materials that will be vitrified in the melter? Will any of the different constituents in the other silos cause the vitrification process to vary?

Response:
Action:

9) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 6.1 Pg #: 6-1 Line #: Code: C
Original Comment #:
Comment: Please describe the level of soil remediation that will be performed at the vitrification site. There exists the potential for a release during the vitrification process, therefore, remediation may again be necessary after the project is completed. DOE should provide a justification for the levels of contamination to be remediated.

Response:
Action:

10) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 10.3 Pg #: 10-3 Line #: Code: C
Original Comment #:
Comment: Dumpsters will be used to collect scrap for disposal at a sanitary landfill. List where the scap will be generated and what will be and will not be contaminated. Please provide information describing how it will be determined if the material to be disposed is non-radioactive and/or non-hazardous.

Response:
Action:

11) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 16.4 Pg #: 16-5 Line #: Code: C
Original Comment #:
Comment: The document states that emissions from the vitrification facility shall be vented through a vitrification off-gas system. Provide more detailed information on the off-gas system. In addition, further describe the stack monitoring system to be used. The information given in the text is not detailed enough to determine the effectiveness of the proposed equipment.

Response:
Action:

12. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 1.2 Pg #: 1-3 Line #: Code: C
Original Comment #:
Comment: Since Silo 4 has not been used, how is the FEMP assuring the safety and structural integrity of the silo during the cold run when Bentogrout and water are introduced into the silo? If the silo has remained empty for several years, the structure may not be able to withstand the pressure of the material.

Response:
Action:

13) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: General Comment Pg #: Line #: Code:
Original Comment #:
Comment: This pilot project should be used to develop reductions for air and water usage. A closed-loop system should be considered for water usage in the material removal and slurry process as well as recirculation of the off-gas resulting from the vitrification process.

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