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1-208.4

COMMENTS: OU1 30% DESIGN PACKAGES I & II

12/22/95

OEPA DOE-FN
9
COMMENTS



State of Ohio Environmental Protection Agency

Southwest District Office

401 East Fifth Street
Dayton, Ohio 45402-2911
(513) 285-6357
FAX (513) 285-6249

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George V. Voinovich
Governor

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December 22, 1995

RE: DOE FEMP
MSL 531-0297
HAMILTON COUNTY
COMMENTS: OU1 30%
DESIGN PACKAGES I & II

Mr. Johnny Reising
U.S. Department of Energy, Fernald Area Office
P.O. Box 538705
Cincinnati, OH 45253-8705

Dear Mr. Reising:

Please find as an attachment to this letter Ohio Environmental Protection Agency comments on the Operable Unit 1 Draft Preliminary Engineering Design Packages I and II. This material was received by Ohio EPA on October 23, 1995.

If you have any questions, please contact Tim Hull, (513) 285-6075 or Tom Ontko at (513) 285-6073.

Sincerely,

Timothy C. Hull

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

- cc: Jim Saric, U.S. EPA
- Terry Hagen, FERMCO
- Ruth Vandergrift, ODH
- Mike Proffitt, DD&GW
- Sharon McLellan, PRC
- Manager, TPSS/DERR,CO
- Dave Ward, GeoTrans

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(Hull) (5)
PARTIAL
ACTION RESPONSE
TO P-0088
(9294)

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Comment: Please provide a discussion of efforts made to reduce the quantity of waste generated by the D&D of the OU1 Remediation facilities. It is Ohio EPAs expectation that DOE will incorporate into the design process principles of waste minimization. This would reduce both the volume of materials going to the OSDF and the costs incurred in decontaminating materials that could be potentially recycled.

In a similar fashion, please discuss strategies to reduce the hydraulic loading to the expanded AWWT. Any reduction of process waste water streams will be reflected in lower mass loadings to the GMR.

Response:
Action:

Package I

3.) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 1.3.1 Pg #: 1-12 Line #: 3 Code: C
Original Comment #:

Comment: This sentence states that the on-site disposal facility (OSDF) **will** accept contaminated soil and debris from OU1. Please rewrite this sentence to be consistent with the OU1 ROD relating to the acceptance of residual soil contamination (ie; fourth bullet, page D-iii, final OU1 ROD).

Response:
Action:

4.) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 1.3.1 Pg #: Page 1-12 Line #: 6-7 Code: C
Original Comment #:

Comment: Please include the hazardous waste characteristic of TCLP, in the discussion of materials that will be excluded from the OSDF.

Response:
Action:

5.) Commenting Organization: Ohio EPA Commentor: DERR
Section #: Table 1-1 Pg #: 1-13 Line #: Code: C
Original Comment #:

Comment: It is unclear within this table, what the units for total uranium are. Is it mg/kg or pCi/g?

Response:
Action:

6.) Commenting Organization: Ohio EPA Commentor: DERR
Section #: 1.4.5 Pg #: 1-19 Line #: 6 Code: C
Original Comment #:

Comment: This sentence states that water sprays will be used for dust suppression. Will contaminated

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water be captured for pretreatment before disposal? Are drainage controls adequate to prevent runoff of water which is carrying contaminated dust? Same issue. Design Package II, page 5-2, line 26.

Response:
Action:

7.) Commenting Organization: Ohio EPA Commentor: DERR
Section #: 1.4.1.0 Pg #: 1-20 Line #: 21 Code: C
Original Comment #:
Comment: In the event of a power failure, can the emergency generator come online quickly enough to prevent serious equipment damage or environmental releases?
Response:
Action:

8.) Commenting Organization: Ohio EPA Commentor: DERR
Section #: 2.1.1.2 Pg #: 2-2 Line #: 24 Code: C
Original Comment #:
Comment: This sentence states that airborne dust shall be minimized during pit excavation. How will this be accomplished? If spraying is used, will the runoff be adequately contained?
Response:
Action:

9.) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 2 Pg #: 2-31 Line #: 10,14 Code: C
Original Comment #:
Comment: What are potential sources for this cooling water? Are there possible benefits to using treated ground water from the AWWT? It is Ohio EPAs expectation that all process water flows will be minimized.
Response:
Action:

10.) Commenting Organization: Ohio EPA Commentor: DERR
Section #: 2.3.2.3 Pg #: 2-34 Line #: 3-4 Code: C
Original Comment #:
Comment: Lines 3 and 4 recommend a corrosion allowance of 1/16 inch for carbon steel tanks. The Ohio EPA suggests that any tank experiencing sufficient corrosion to need that much allowance, should be replaced with stainless steel. A severely corrosive environment might concentrate damage into localized pitting corrosion, or even cracking, rather than uniformly attacking the metal. Thus a tank could be breached even if its uniform corrosive attack amounted to only 1/16th inch.
Response:
Action:
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- 11.) Commenting Organization: Ohio EPA Commentor: DERR
Section #: 2.3.6.3 Pg #: 2-50 Line #: 34-39 Code: C
Original Comment #:
Comment: Please confirm that low profile buildings can have a wind loading safety factor of only 1.0.
Response:
Action:

- 12.) Commenting Organization: Ohio EPA Commentor: DERR
Section #: 2.3.9.3 Pg #: 2-60 Line #: 37 Code: C
Original Comment #:
Comment: This line states that no safety-class services requiring emergency generator backup are anticipated. What does this statement mean and what are its implications for safety?
Response:
Action:

- 13.) Commenting Organization: Ohio EPA Commentor: DERR
Section #: ARARs & TBCs Pg #: A-7 Line #: Code: E
Original Comment #:
Comment: ARARS section, entry for air discharges has garbled text under compliance strategy.
Response:
Action:

- 14.) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Process Description Pg #: 5-4 Line #: 35 Code: C
Original Comment #:
Comment: The radon removal efficiency of the carbon beds is 0.97. The carbon beds that are to be used in the Vitrification Pilot Plant are estimated to have only 85% efficiency. Please explain the design elements in this system that will allow operation at a higher efficiency.
Response:
Action:

- 15.) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Process Description Pg #: 7-2 Line #: 14, 32 Code: c
Original Comment #:
Comment: The Ohio EPA concurs that recycling of condensate water for reuse in washing or dust control should be maximized. It is our expectation that all process water streams will be evaluated and minimized to reduce hydraulic loading to the expanded AWWT. Ohio EPA urges DOE to develop methods to reduce the volume of process waste water and storm water flows to the AWWT. If the possibility to "privatize" the OU1 operations is realized, Ohio EPA expects that there will be incentives built into the process that will encourage the sub-contractor to minimize the production of waste water.
Response:

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Action:

16.) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Grading plan Pg #: 91X-5900-G-00136 and 91X-5900-G-00137 Line #: Code: C
Original Comment #:
Comment: Several existing monitoring wells will be effected by the construction of the remediation system. Please discuss the closing of these wells and the installation of replacement wells.
Response:
Action:

17.) Commenting Organization: Ohio EPA Commentor: DERR
Section #: Dryer Specifications Pg #: 28 of 61 Line #: 28 Code: C
Original Comment #:
Comment: The requirement for a maximum deflection of 0.0002 mils between supports seems too stringent. It is doubtful such a small deflection could be practically measured, let alone achieved.
Response:
Action:

18.) Commenting Organization: Ohio EPA Commentor: DERR
Section #: Off-gas control 15060 Pipe, Fittings, Valves, etc. Pg #: 10 of 10 Line #: Code: C
Original Comment #:
Comment: Please check the design and test pressures for this off-gas system. What does -35 psig in w.g. mean? This appears wherever this section is repeated.
Response:
Action:

Package II

19.) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Excavation Plan Pg #:6-1 Line #:37 Code: C
Original Comment #:
Comment: Ohio EPA concurs that addressing public concerns is a valid reason to initiate an air monitoring program. We believe that a real-time particulate air monitoring program should be implemented regardless of the outcome of the modeling.
Response:
Action:

20.) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Excavation Plan Pg #: 6-2 Line #: 26 Code: C
Original Comment #:
Comment: Ohio EPA believes that the public concerns regarding air monitoring will be addressed best if

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Section #: GENERAL Pg #: Line #: Code: M
Original Comment #:

Comment: The option to dispose of large debris with the OU3 materials has not taken into account several critical factors that are unique to the WAC development of OU3. Specifically, the OU3 WAC for technetium-99 has been developed using a mass-based approach. The additional mass of Tc-99 from the OU1 debris has not been considered in the WAC development. Additionally, other potential constituents within the OU1 debris were not incorporated into the OU3 WAC development.

Ohio EPA believes DOE must exhaust all size-reduction opportunities prior to opting for transfer of waste pit wastes to OU3. DOE must attempt to utilize disposal opportunities at Envirocare and NTS prior to considering forwarding the material to OU3. The types of debris that can not be size-reduced has not been explicitly stated. Please give examples of the types and volumes of debris which may be potentially encountered that are not amenable to size reduction. Additionally, a justification for these estimates should be provided.

Additionally, a number of the design drawings state the materials will be disposed of on-site. Such statements are premature considering the OU3 RI/FS has yet to be approved and that such material would be more like process related metals (proposed for off-site disposal) than any other OU3 waste category.

Response:
Action:

26.) Commenting Organization: Ohio EPA Commentor: DHWM
Section #: General Pg #: Line #: Code: C
Original Comment #:
Comment: OEPA DHWM does not consider the Remedial Design document to have adequately addressed concerns associated with the management and treatment of RCRA characteristic wastes. The Remedial Design document should acknowledge that remediation activity will involve excavation and treatment of RCRA characteristic hazardous waste.
Response:
Action:

27.) Commenting Organization: Ohio EPA Commentor: DHWM
Section #: General Pg #: Line #: Code: C
Original Comment #:
Comment: Section 2.0 of the Final OU1 ROD acknowledges the uncertainty surrounding both the Hazardous Waste Management Unit (HWMU) status, and presence of RCRA characteristic wastes associated with Pit 5. The ROD indicated that a final characterization of Pit 5 waste would be completed following treatment. The ROD summarized Pit Waste concentration ranges for contaminants of concern. Remediation activity may involve excavation of regulated levels of RCRA TC waste regardless of the HWMU status of a particular waste pit. Additional RCRA characterization of waste

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material from other pits may be required prior to disposal. It would seem prudent then, to conduct remediation as if RCRA TC wastes were being managed in this activity.

Response:

Action:

28.) Commenting Organization: Ohio EPA Commentor: DHWM

Section #: Table A-3, package 1 Pg #: Line #: Code: C

Original Comment #:

Comment: Please refer to the action specific ARARs. The Ohio EPA DHWM does not agree that OAC 3745-56-51, 54 and 58 requirements do not apply to the processing of any OU1 wastes. Please reference this ARAR as outlined in the ROD. Current language in the "compliance strategy" for this ARAR is inconsistent with the ARAR in the ROD. Current language in the "compliance strategy" for this ARAR is also confusing. Please revise the ARAR to clarify applicability of hazardous waste regulations governing waste piles. Unless DOE-FEMP can show further justification as to why these ARARs are not relevant, the document should be revised to include a description of the design standard, procedures and controls developed to achieve compliance with hazardous waste management regulations appropriate to storage and treatment activity involving waste piles.

Response:

Action: