



State of Ohio Environmental Protection Agency

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George V. Voinovich
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January 5, 2001

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

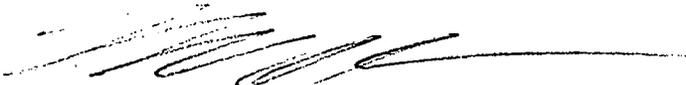
Re: **COMMENTS - AWR RD PACKAGE**

Dear Mr. Reising:

Ohio EPA has reviewed DOE's November 28, 2000 submittal, "Draft Final Remedial Design Package for the Silos 1 and 2 Accelerated Waste Retrieval Project." Attached are Ohio EPA's comments. We recommend a meeting in the near term to resolve these issues and finish up the document.

If you have any questions, please contact me at (937) 285-6466.

Sincerely,



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

cc: ✓ Jim Saric, U.S. EPA
Terry Hagen, FDF
Mark Shupe, HSI GeoTrans
Francie Hodge, Tetra Tech EM Inc.
Ruth Vandergrift, ODH

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**SILOS 1 AND 2 ACCELERATED WASTE RETRIEVAL PROJECT
REMEDIAL DESIGN PACKAGE
Draft Final, November 2000**

Process Description

1. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 2.0 Pg #: 13 Line #: na Code: C
Original Comment #:
Comment: The document states that the condensate in the hold up tank is held for as much as 40 days. What is the minimum holding time?

2. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 4.4 Pg #: 19 Line #: na Code: C
Original Comment #:
Comment: The first bullet in this section sets a alarm limit for the difference in water flow to and from the silos at 25%. What is the basis for 25%? Considering the volume of water being used to remove the silo contents a loss of 25% could result in a large environmental release.

3. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 4.4.A, B, C Pg #: 20 Line #: Code: C
Original Comment #: 4
Comment: This section is in conflict with the criteria presented in the Process Control Plan (pg.35) and Appendix D (pg 434) both of which discuss a criteria of 1inch per minute. The one inch per minute criteria is unacceptable and should be removed from the document. Such a criteria would be inconsistent based upon the level of the tank and would not provides an acceptable safety level.

4. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 4.4.A Pg #: 20 Line #: Code: C
Original Comment #: 4
Comment: Provide details on how the flow rate will be calculated using the continuous level meter that is to be installed in the decant sump tank.

5. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 4.4.A Pg #: 20 Line #: Code: C
Original Comment #: 4
Comment: Again, this document does not provide the "base line flow rate" based on historical data. This rate was requested in the previous comment submittal and has not been provided. Provide the base line flow rate for the decant sump tank.

6. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 4.4.A Pg #: 20 Line #: Code: C
Original Comment #: 4

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Comment: The step suggests an increase in monitoring if an above historical flow rate is detected. Considering that continuous monitoring is supposedly occurring, please detail the monitoring that will be increased.

7. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 4.4.B Pg #: 20 Line #: Code: C
 Original Comment #: 4
 Comment: If the tank level is at 70% and the flow rate then exceeds 5 gpm the tank will fill to near capacity (95%). If the flow rate is actually 8gpm instead of 5gpm the tank will overflow before pumping can be initiated. In order to provide an acceptable safety margin for the decant sump operation, the tank must be pumped empty prior to the start of silo content removal operations and at any time it reaches 50% of capacity. The prior limit of 70% was set because of the very slow fill rate and is not an acceptable safety margin. Additionally, the 8 hour set up time to initiate pumping of the tank is unacceptable and may result in tank overflow or releases to the environment. Prior to initiating silo content removal operations the tanker should be located in close proximity to the decant sump tank and all necessary equipment ready to initiate decant sump tank pumping.
8. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 4.4.B Pg #: 20 Line #: Code: C
 Original Comment #: 4
 Comment: The document fails to detail where waste water collected from the decant sump into the tanker will be transferred. Detail on the timely emptying of the tanker is necessary. The tanker must be able to be emptied and return to pumping expediently in order to prevent overflow of the decant sump tank.
9. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 4.4.A Pg #: 20 Line #: Code: C
 Original Comment #: 4
 Comment: As stated above, the 70% pumping limit is unacceptable for operating conditions. The appropriate pumping limit is 50%.
10. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 7.0 Pg #: 25 Line #: Code: C
 Original Comment #:
 Comment: During silo waste removal, decant water and water stored in "empty" TTA tanks are used for sluicing. During remediation decant water and extra storage will not be available for sluicing the waste out of the TTA tanks. Ensure that the future remediation facility is aware of the need to provide sluice water for the removal of waste from the TTA.

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11. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 9.2 Pg #: 28 Line #: Code: C
Original Comment #:
Comment: Will the operator of the EMMA have any prior training or experience in operating a remote system? Although the FSMS will provide an opportunity to practice, every effort should be made to find workers experienced in remote operations.
Response:
Action:
- Process Control Summary
12. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Exhibit 1.2 Pg #: 31 Line #: PDIT-SILO-20-002 and 001 Code: C
Original Comment #:
Comment: The over pressure alarm should have a time limit associated with it. At what point is "unrelieved pressure condition" determined?
13. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Exhibit 1.2 Pg #: 32 Line #: RE/RQIT-CBD-001B, et al. Code: C
Original Comment #:
Comment: What is the basis for the high setpoints? They appear to be inconsistent with stack release limits..
14. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Exhibit 1.2 Pg #: 33 Line #: STACK-20-001 Code: C
Original Comment #:
Comment: High-high set points are not listed.
15. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Exhibit 1.2 Pg #: 35 Line #: LT/LC-TNK-14-001 Code: C
Original Comment #: 4, 13
Comment: This set point is inconsistent with previous portions of the document which use gpm for actions. Additionally, the use of 1"/min does not provide an acceptable level of safety to prevent a release to the environment.
16. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 2.2.1 Pg #: 39 Line #: na Code: C
Original Comment #:
Comment: What is the length of time that the silos will be allowed to exhibit an overpressure

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situation before system shut down?

17. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 2.2.1 Pg #: DWG SKFMD047 Line #: na Code: C
 Original Comment #:
 Comment: It is understood that make-up air is necessary for consistent fan operation. How will the make-up air flow be accounted for in emission estimates? Make-up air should not be used to dilute the exiting air stream, to achieve emission limits. (Same comment for Section 2.2.7).
18. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 2.2.1 Pg #: 44 Line #: na Code: C
 Original Comment #:
 Comment: Will radon emissions from the pressure relief valves be monitored?
19. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 2.2.2 Pg #: 45 Line #: na Code: C
 Original Comment #:
 Comment: Will the silo headspace radon concentrations continue to be measured during waste removal operations?
20. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 2.2.2 Pg #: 45 Line #: na Code: C
 Original Comment #:
 Comment: Will the flexible hoses be double-walled and heat traced?
21. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 2.2.3 Pg #: 48 Line #: Code: C
 Original Comment #:
 Comment: According to this section, the method of decant sump waste retrieval is currently under development. This information should be included in the RD package. When can OEPA expect additional information?
 Response:
 Action:

Sampling Plan

22. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 2.1.3 Pg #: 59 Line #: na Code: C
 Original Comment #:
 Comment: Add note to indicate that silo residue sampling will be submitted as part of the RA Work

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Plan.

Berm Excavation Plan

23. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 1.4 Pg #: 96 Line #: Code: C
Original Comment #:

Comment: The text states that depending on the results of WAC sampling, berm soils may be placed in the OSDF. There is a possibility that the current OSDF cells may be capped and unavailable due to proposed budget constraints. Is there an alternative method of disposal?

Response:

Action:

Operational Environmental Controls Plan

24. Commenting Organization: Ohio EPA Commentor: DSW
Section #: 2.4 Pg #: 119 Line #: Code: C
Original Comment #: 40

Comment: This was revised to state that "Two culverts cross the southern perimeter road and discharge stormwater to the PPDD; one culvert crosses the west perimeter road, draining to the Waste Pit Area Runoff Control Sump." On drawing 66FCD002 it appears as though there are three culverts crossing the southern perimeter road. One 30" RCP that carries storm water from an area north of second street, takes a bend at an existing catch basin on drainage area three and exits in the PPDD at 561.04'. The catch basin in drainage area three is 12" above final grade so no storm water from the AWR project enters the 30" RCP. On either side of this pipe there are 12 storm drains. The drain to the west drains drainage area five. Drainage area five is protected from area three by a concrete water diversion and from area seven by the perimeter concrete drain and upgradient silt fence. Additionally the drainage ditch will be further protected by silt fence installed along the contours in drainage area five (although the current drawing does not show these installed along the contour but along the ditch itself). A 12' storm drain to the east of the 30' RCP drains areas 1, 2, 3, 4, and part of 5 into the existing storm water basin. We are concerned about drainage to Paddys Run and the potential for contamination of the ground water with even the most minor release from this project. Please verify that our assessment indicated in this comment of the perimeter culverts is correct.

Appendix D

25. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 4.3.1 Pg #: 431 Line #: na Code: C
Original Comment #:

Comment: The use of the 1"/min criteria is unacceptable see previous comments. Additionally, the decant sump tank must be maintained below 50% capacity.

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Drawings

- 26. Commenting Organization: Ohio EPA Commentor: DSW
 Section #: Drawings Pg #: Line #: Code: C
 Original Comment #: Carryover comments 21, 23, 28
 Comment: Inlet protection does not show up on the drawings as indicated in your response to comments. Please include inlet protection on CB-01, 02, 03, and 04. Please include detail per ODNR on the detail sheet (66FCD006). Include the inlet protection on the drawings on which the catch basins are indicated.

- 27. Commenting Organization: Ohio EPA Commentor: DSW
 Section #: Drawing 66FCD002 Pg #: Line #: Code: C
 Original Comment #: 42, carryover comment 16
 Comment: Since this and the previous two submittals have failed to document the basis for the two sediment basins, the sediment basins in the southwest corner and associated silt fences to direct flow should be changed. The drainage area is small enough that silt fences alone should be sufficient to control sediment. This will eliminate the additional soil disturbance of sediment trap construction, the disposal of stone in the sediment traps, and the misapplication of sediment fence to direct flow thereby increasing the potential for erosion at the base of silt fences. Installation of silt fence along approximately the 572 foot contour and turning the silt fence upgradient at the ends will allow the silt fence to capture sheet flow along the southwest corner and hold and filter the water to allow sediment to settle before entering the perimeter concrete drain.

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