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May 8, 1998

6446.2

RE: DOE FEMP
COMMENTS WPRAP
REMEDIAL DESIGN
PACKAGE

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

Dear Mr. Reising:

This letter provides as an attachment Ohio Environmental Protection Agency comments on the draft Waste Pits Remedial Action Project Remedial Design Package.

If you have any questions, please contact Tom Ontko or me.

Sincerely,

Tom Ontko

FOR

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

cc: Jim Saric, U.S. EPA
Terry Hagen, FDF
Ruth Vandergrift, ODH
Mark Shupe, HSI- GeoTrans, Inc.
Francie Barker, Tetra Tech EM Inc.
Manager, TPSS/DERR,CO

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Ohio Environmental Protection Agency comments on the
Draft Waste Pits Remedial Action Project
Remedial Design Package

General Comments

1) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Pg #: Line #: Code: c
Comment: The treatment strategy as outlined in this Package appears adequate to satisfy the requirements of the PCDF's WAC policy and to address transportation safety issues. Many of our comments address the details of the pit excavation and strategies to minimize and prevent additional contamination of the groundwater. Our concerns are that the rate of contaminant migration will increase due to pit excavation. Specifically, we are concerned about infiltration into the GMA during rainfalls that exceed the capacity of the storm water management system. A storm water management emergency plan should be developed (similar to the strategy established for the AWWT) that prioritizes the management of storm water so that those water sources which pose the greatest threat are preferentially treated before other storm water flows. Infiltration of stormwater into the open pits should have the highest priority.

2) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Pg #: Line #: Code: c
Comment: This Package states that the typical operating schedule for the excavation activities would be a forty hour work week and that drying operations would continue around the clock. The Package does not contain contingencies for a winter shut-down when the Pits are frozen solid. We would expect these contingencies to consider the quantities of stockpiled materials that would be required to feed the dryers, and methods to control fugitive dusts.

3) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Pg #: Line #: Code: C
Comment: This document divides information dealing with potential air emissions into several sections throughout the three documents. It would be helpful to include in future documents a comprehensive section of air emission data and control methods instead of it being scattered throughout the several volumes. The level of detail should be substantially equivalent to that typically submitted for an Ohio PTI.

4) Commenting Organization: Ohio EPA Commentor: ODH
Section #: Pg #: Line #: Code: c
Comment: The Ohio EPA is currently evaluating additional information recently provided by FDF regarding the RCRA characteristic waste issues. We will provide our guidance pertaining to these issues when that review is completed.

5) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Pg #: Line #: Code: c

Comment: This Package does not contain provisions for monitoring groundwater quality of either the Great Miami Aquifer or perched water. A monitoring plan should be developed for review and approval that assesses the impact of the Pit excavations on the water quality of the aquifer. We expect that this plan will include sampling of existing monitoring wells immediately down-gradient of the excavation activities.

6) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 4.2 Pg #: Line #: Code: c
Comment: The text and Figure4-1 are not completely clear about the distinction between excavating the wastes, the liners and the sub-soils. In the legend for Figure4-1, the pink coloring denotes "Waste excavation complete except for subsoils". From this, the reader infers that areas colored pink indicates that both the wastes and the liner have been excavated. If this is the case, the subsoils will be exposed to contaminated water infiltration for long periods of time. An approach more protective of groundwater would be to remove all of the wastes down to the liner for an entire pit before any of the liner materials are removed.

7) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Pg #: Line #: Code: c
Comment: Contingency plans should be developed to identify and patch penetrations of the glacial overburden that expose the sands and gravels of the Great Miami Aquifer. These plans should address penetrations that occur during excavation of both the waste and the liner. Excavations that completely penetrate the glacial overburden should intentionally occur only when chasing soils that are above the FRL during the subsoils excavation. During these phases, the waste materials should have already been removed from the pit. In this excavation strategy, infiltrating waters would only have contacted contaminated soils and would not have contacted waste pit materials.

8) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Pg #: Line #: Code: c
Comment: The IEMP Environmental Monitoring Status Report for Fourth Quarter 1997 reported (page3-2) that four project-specific air monitors for the waste pit area were shut off. The text went on to state that future needs for project-specific monitoring would be evaluated, but the IEMP Report provides no timetable for this evaluation.
Develop a project-specific air monitoring plan that addresses environmental impacts of the waste pit remediation. This plan should at a minimum include total particulate uranium (and other rads) concentrations at the four locations referred to in the IEMP. Additionally, radon monitoring should be performed at the WPRAP boundary.

9) Commenting Organization: Ohio EPA Commentor: ODH

Section #: Pg #: Line #: Code:
Comment: The proposed onsite lab is located close to the rail loadout area, contaminated areas, and in general proximity where elevated radon levels and rad particulates may be smeared over from pit areas or OU 4 silos. Has an assessment been performed on the impact of these conditions on other radiological analysis performed at the lab?

10) Commenting Organization: Ohio EPA Commentor: ODH
Section #: Pg #: Line #: Code:
Comment: At the April 8 overview presented by IT Corp., no data was available of the pilot runs of archival pit waste from which modeled estimates of airborne radiologicals could be made to estimate NESHAPS compliance. Please provide the relevant data with the revised version of this Design Package.

11) Commenting Organization: Ohio EPA Commentor: ODH
Section #: Pg #: Line #: Code:
Comment: Have blended wastes containing VOC's and pyrophores such as uranium and thorium fines been successfully dried without fires or explosions resulting?

12) Commenting Organization: Ohio EPA Commentor: ODH
Section #: Pg #: Line #: Code:
Comment: As the excavation and transport of pit wastes is scheduled to be a multi-year process, has there been any attempt at modeling the radiological exposures/risk to maximally exposed individuals and the general public?

13) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 5.1 Pg #: 4 Line #: na Code: C
Comment: Project specific environmental monitoring, specifically air monitoring should be addressed in the remedial design package.

Volume 1 of 3 Overview of Remedial Design

Description of the Operation and Processes, Revision B."

14) Commenting Organization: Ohio EPA Commentor: DSW
Section #: Pg #: N/A Line #: N/A Code: C
Comment: The storm water controls for storage piles is not adequately addressed in this section. Please add information as to what will be done to control erosion, sediment, and storm water from storage piles.

15) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Acronyms Pg #: ix Line #: na Code: E
Comment: Pages ix and x are duplicated on xi and xii.

16) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 2.2 Pg #: 3 Line #: 10-12 Code: C
Comment: These lines state that nontypical wastes not meeting the CDF WAC will be stockpiled in the excavation area. The design should include a stockpile for nontypical wastes outside of the excavation area in a controlled area.

17) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: 2.3.4 Pg #: 6 Line #: 22 Code: E
Comment: There is no debris shredder M-1001 in the Process Flow Diagrams. M-1501 is likely the unit referred to.

18) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 2.5 Pg #: 8 Line #: 32 Code: C
Comment: Please describe further equipment or methods used to mechanically remove wastes that will stick to the sides of the drum

19) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 2.5 Pg #: 9 Line #: 17 Code: C
Comment: Describe a drag flight conveyor and how the equipment will be utilized

20) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: 2.6 Pg#: 10 Line #: 6 Code: E
Comment: It is not clear how P-5003 feeds heat exchanger E-5002. E-5002 appears to be the spray quench E-5001 heat exchanger.

21) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: 2.6 Pg#: 10 Line #: 8 Code: E
Comment: The text "100EF" should be revised to "100 F."

22) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: 2.6 Pg#: 10 Line #: 19-21 Code: E
Comment: P-5007 and S-5009 are not on the Process Flow Diagrams. P-6001 and S-6001 should be referred to instead.

23) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.

Section #: 2.6 Pg#: 10 Line #: 23-24 Code: E
Comment: The oil/water separator appears as Z-6020 on PFD D-60-10-001

24) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: 2.6 Pg#: 10 Line #: 31 Code: E
Comment: Section 2.8.1.9 does not exist, the reference should be to Section 2.8.1.1.

25) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: 2.6 Pg#: 11 Line #: 28 Code: E
Comment: The PFD referenced should be D-60-10-001.

26) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 2.6 Pg #: 11 Line #: 22-25 Code: C
Comment: Carbon beds may be necessary for the removal of radon.

27) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 2.6 Pg #: 11 Line #: 27 Code: C
Comment: Where will wastes not meeting CDF WAC be stored, disposed and/or treated?

28) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 2.7 Pg #: 12 Line #: 13-14 Code: C
Comment: It is Ohio EPAs expectation that FDF will manage the RCRA wastes consistent with the hazardous waste regulations.

29) Commenting Organization: Ohio EPA Commentor: DSW
Section #: 2.8.2 Pg #: 18-21 Line #: N/A Code: C
Comment: Average flows from contact storm water are given, however peak flows can occur during storm events. How will contact storm water be handled during these peak events.

30) Commenting Organization: Ohio EPA Commentor: DSW
Section #: 2.8.4.4 Pg #: 25 Line #: 25-31 Code: C
Comment: Please refer to where detail of how noncontact and contact storm water will be segregated can be found.

31) Commenting Organization: Ohio EPA Commentor: DSW
Section #: 2.9.3 Pg #: 28 Line #: 26-29 Code: C
Comment: More detail is needed describing sludge handling. It is not clear if the sludge will be dewatered in the sludge holding tank or in the sites sludge handling facilities, and if the sludge will be managed with OU1 wastes or other sludge from the site or other waste.

32) Commenting Organization: Ohio EPA Commentor: DSW
Section #: 2.9.4 Pg #: 29 Line #: 7-11 Code: C
Comment: Please state whether the uranium concentration referred to is total or dissolved uranium concentration.

33) Commenting Organization: Ohio EPA Commentor: DSW
Section #: 3.1 Pg #: 31 Line #: 21-27 Code: C
Comment: This describes the logic of the flow to the Clearwell. Please describe what happens if the Clearwell is full and/or flow to the BSL is terminated.

34) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 3.1 Pg #: 31 Line #: 10-26 Code: C
Comment: Will the pumps and exposed pipes be equipped with adequate freeze protection?

35) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 3.3.1 Pg #: 33 Line #: 26-27 Code: C
Comment: How are product moisture and temperature monitored in a way that can be used to control the drying operation?

36) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 3.3.2 Pg #: 34 Line #: na Code: C
Comment: Are the instrumentation and controls for the burners standard equipment, or will new instrumentation and controls need to be developed for this process?

37) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 3.4.2 Pg #: 38 Line #: 1 Code: C
Comment: The specific radionuclides to be monitored need to be listed, and will this monitoring utilize isokinetic sampling?

38) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 4.0 Pg #: 40 Line #: na Code: C
Comment: The referenced Sampling and Analysis Plan should be included as a part of the Remedial Design.

39) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 4.2 Pg #: 41 Line #: 17 Code: C
Comment: The specific radionuclides to be analyzed for and the specific methods should be included.

40) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 4.2 Pg #: 42 Line #: 27-38 Code: C
Comment: Continuous monitoring for radionuclides, including radon, will be required by OEPA to ensure ALARA principles are applied to emissions to the public.

41) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 4.2 Pg # :42 Line #: 33-38 Code: C
Comment: A more detailed air emission design is required. Simply stating the appropriate methods is not adequate.

42) Commenting Organization: Ohio EPA Commentor: DSW
Section #: 4.2 Pg #: 42 Line #: 12-15 Code: C
Comment: Noncontact storm water will enter Paddys Run from sources in addition to the SWM Pond (see section 2.8.3 Description of Operation and Processes). These other sources should be included here and a plan should be developed for sampling and analyzing them.

43) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 4.2 Pg # 42 Line #: na Code: C
Comment: Project specific ambient and/or environmental air monitoring should be included to ensure the effectiveness of engineering controls

44) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 4.2 Pg # 43 Line #: 23-24 Code: C
Comment: The on-site laboratory should also be open for external, i.e. regulatory surveillance and audits.

45) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 5.5 Pg # 45 Line #:33-34 Code: C
Comment: Be aware that prolonged use of desiccant may lead to the desiccant becoming contaminated due to elevated ambient radon concentrations in the air. Appropriate handling of discarded desiccant must be observed.

46) Commenting Organization: Ohio EPA Commentor: DSW
Section #: 4 Pg #: Table 4-1 Code: C
Comment: Other flow patterns of noncontact storm water to Paddys Run should be included (see previous comment).

Design Criteria and Assumptions, Revision B."

47) Commenting Organization: Ohio EPA Commentor: ODH
Section #: 2.1.1 Pg #: 4 Line #: 28 Code: c
Comment: This bullet describes the assumptions made about the excavation strategy and describes the excavation phases. We have serious doubts that the clay layers are continuous beneath the pits. In other comments we have requested that additional strategies be developed to prevent the infiltration of surface waters and to monitor the impacts to the GMA.

48) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 2.1.1 Pg # 6 Line #:4-6 Code: C
Comment: As mentioned in previous comments, where will nontypical wastes be stored prior to transfer to FDF and where will FDF store, treat and/or dispose of this waste.

49) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 2.6.1 Pg # 10 Line #:42-45 Code: C
Comment: The list of functional requirements does not include a reference to DOE Orders and/or NESHAPs that require and/or imply the following on stack emissions of radon:
1.) radon flux < 20 $pCi/m^2/sec$;
2.) radon concentration above any point, anytime < 100 pCi/L; and
3.) radon concentration on the facility < 30 pCi/L annual average.

50) Commenting Organization: Ohio EPA Commentor: DSW
Section #: 2.8 Pg #: 14 Line #: General Code: C
Comment: This proposes to pump water from OU1 to the Biodenitrification Surge Lagoon. The BSL has already been reaching its storage capacity frequently (> 1/yr) so that incoming sources had to be shut down. Although the clearwell of the waste pits is currently a source of water in the BSL, the plan will provide for additional volume from OU1. Some of this volume will come from the change in the reduction of soil water holding capacity from remedial activities. Some will come from water removal activities during excavation. The BSL will also be receiving additional volume from other sources on the site such as the OSDF leachate collection system. Additional surge flow storage may be required to accommodate the additional volumes of water requiring treatment. If additional capacity is not provided, there is an increased potential for contaminated water leaving the site or entering the groundwater (e.g additional overflows to the swale by the waste pits). More detail showing all sources of water (from a site wide perspective) entering the BSL under different flow regimes and the sites hierarchy of shutdowns must be included.

51) Commenting Organization: Ohio EPA Commentor: DSW
Section #: 2.8.1 Pg #: 14-16 Line #: N/A Code: C
Comment: A functional requirement should be added to this section that restricts the

concentration of water that is discharged to or bypassed to Paddys Run to be less than the FRL.

52) Commenting Organization: Ohio EPA Commentor: ODH
Section #: 2.8.1 Pg #: 14 Line #: 41 Code: c
Comment: Please provide the requirement that drives the stated discharge limits to the BSL.

53) Commenting Organization: Ohio EPA Commentor: DSW
Section #: 2.8.1 Pg #: 15 Line #: 39-41 Code: C
Comment: State whether the storm water to be used will be "clean" or "contaminated" as defined in the bullet above.

54) Commenting Organization: Ohio EPA Commentor: DSW
Section #: 2.8.1 Pg #: 17 Line #: 3-5 Code: C
Comment: Please include the *Rainwater and Land Development* reference in this bullet.

55) Commenting Organization: Ohio EPA Commentor: DSW
Section #: 2.8.2 Pg #: 16 Line #: 32-35 Code: C
Comment: The 5 year storm seems inadequate to properly design open channels. The new north access road has roadside ditches that are eroding at the base and sides. Open channels should be designed to carry the velocity of at least a 10 year 24 hour storm with a 25 year 24 hour storm preferred.

56) Commenting Organization: Ohio EPA Commentor: ODH
Section #: 4.2 Pg #: 26 Line #: 41, Code:
Comment: The text states about 6 months are expected to be required to gain acceptance of the waste stream. Is this due to the lab capacity or expectation of high WAC flunkers per conveyance? Additional discussion on any contingencies and how excavation schedules may be impacted is warranted.

57) Commenting Organization: Ohio EPA Commentor: DSW
Section #: 7.3.1 Pg #: 38-39 Line #: 38-41, 1-4 Code: C
Comment: These two bullets should be combined.

58) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 7.3.7 Pg # 42 Line #:19-20 Code: C
Comment: Dust control policies should be the same as the FEMP Site Wide Dust Policy.

59) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: 2 Pg #: Figures 2-1 and 2-2 Line #: Code: E

Comment: The notes above the legends on Figures 2-1 and 2-2 are unreadable. In addition, the text annotations on the cross sections is distorted and only marginally readable. These figures should be recreated or produced in a manner such that all text is legible.

60) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Table 3-2a Pg # 3 of 8 Line #: na Code: C
Comment: HEPA filtration is best for *particulate* radionuclides, but not for the inert gas, radon.

61) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Table 3-2a Pg # 4 of 8 Line #: na Code: C
Comment: Radon emissions will need to be monitored to ensure that DOE Order 5400.5 and NESHAPs requirements are met. This may include treatment of exhaust gases from the dryer.

62) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Table 3-2a Pg # 6 of 8 Line #:na Code: C
Comment: When the earthen and other covers are removed, some of the waste pits will likely exceed the 20 $pCi/m^2/sec$ flux limit. Ambient radon monitoring around the perimeter of the waste pits would be useful in evaluating the effectiveness of fugitive controls in reducing radon emissions.

63) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Table 3-2a Pg # 7 of 8 Line #:na Code: C
Comment: The substantive requirements of Ohio Administrative Code (OAC) 3745-31-05(A)(3) as cited in the Record of Decision requires the employment of BAT for new air pollution sources. Compliance with the substantive requirements is required for CERCLA activities in lieu of an Ohio EPA Permit To Install (PTI) for new sources of air pollution.

The Remedial Design has incorrectly cited Ohio Administrative Code (OAC) 3745-17-07 (B)(4), (5),(6) as the governing regulations for the particulate emissions from paved roads, unpaved roads and material storage piles. OAC 3745-17-07 is applicable to "old" sources that were in existence prior to February 15, 1972. OAC 3745-31-05(A)(3) requires that new sources employ the best available technology (BAT). The BAT determination is made on a case-by-case basis. Activities such as controlling fugitive dusts from paved and unpaved roads have time and again resulted in standards that are more stringent than the standards cited in OAC 3745-17-07. The following examples have been taken from the Administrative Code for activities similar to those proposed in this Remedial Design.

Source	OAC	Standard
paved roadways	3745-17-12(F)(2)	1 minute exceedence in any

60-minute period
unpaved roadways 3745-17-12(F)(1) 3 minutes exceedence in any 60-minute period
material storage piles 3745-17-12(C)(2) 1 minute exceedence in any 60-minute period

64) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Table 3-2a Pg # 8 of 8 Line #: na Code: C
Comment: Citations governing radon emissions should include DOE Order 5400.5 6.b. (2), which states: Controls shall be designed such that Rn-222 concentrations in the atmosphere above facility surfaces or openings in addition to background levels, will not exceed: (a) 100 pCi/L at any given point; (b) An annual average concentration of 30 pCi/L over the facility site; and (c) an annual average concentration of 3 pCi/L at or above any location outside the facility site (d) Flux rates from the storage of radon producing wastes shall not exceed 20 $pCi/m^2/sec.$, as required by 40 CFR Part 61.

65) Commenting Organization: Ohio EPA Commentor: ODH
Section #: Pg #: Line #: Table 4-2 Code:
Comment: Table 4-2, CDF Radiological Acceptance Criteria, note (b) refers to U-239 when it appears this should be U-238. In addition, what does the note of 5 years for Ra-228 refer to?

Waste Characterization Summary

66) Commenting Organization: Ohio EPA Commentor: ODH
Section #: 2.6 Pg #: 7 Line #:last paragraph Code: c
Comment: Will the results of the investigation of the temperature dependence of the hydrolysis of uranium tetrafluoride be available by the next design submittal?

Process Flow Diagram(s) w/ Mass & Energy Balance, Revision B."

67) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc
Section #: Table of Contents Pg #: Line #: Code: E
Comment: Two Drawings labeled D-10-10-001 are present while Drawing D-90-10-001 is absent.

68) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: Pg#: Line #: Code: E
Comment: Equipment P-6001A appears twice on Drawing D-60-10-001 in the equipment list; the second call out should be changed to P-6001B.

Site Plans

69) Commenting Organization: Ohio EPA Commentor: DSW
Section #: Phased construction drawings Pg #: Line #: Code: C
Comment: Water flowing across the traffic routes is labeled as "non-contact" This is to be considered contact storm water. Additionally, better delineation is needed on the drawings between flows of non-contact and contact storm water.

General Arrangement Plans, Revision B."

70) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: Pg #: Line #: Code: G
Comment: The labels and notes on many of the 11X17 figures provided are unreadable.

Equipment Data Sheets/Specifications, Revision B."

71) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: 11110 Pg #: Line #: Code: G
Comment: The variation in the level of detail of the description for items to be supplied is substantial. It is recognized that some items are "off the shelf " and some must be fabricated. The difference in detail level between the various specifications, however, appears excessive.

72) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: 11110 Pg #: 11110-2 Line #: Code: C
Comment: In the second paragraph, two items are referred to by PFD identification numbers and two are not. Throughout the specifications the numbers should be used for clarity. In addition, the text refers to "an existing feed hopper and mass flow twin screw feeder (H-1001)." This implies that both the feed hopper and the twin screw feeder are not supplied by the contractor. If this is, in fact, the case, it should be stated clearly and the source of this equipment should be clarified.

73) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: 11110 Pg #:11110-2 Line #: Code: E
In the ninth line of Paragraph 1.4A, "will" should be inserted after "conveyor."

74) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: 11112 Pg #:11112-14 Line #: Code: E
Comment: In paragraph 3.1A, the text "380-volt" should be changed to "480-volt."

75) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: 11182 Pg #: Line #: Code: E
Comment: Appendix A for this section is redundant with the Appendix A included with the Design Document Design Criteria and Assumptions.

76) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: 13203 Pg #:13203-1 Line #: Code: C
Comment: This specification should include an attachment stating the relevant items of equipment that it pertains to.

77) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: 13400 Pg #:13400-2 Line #: Code: C
Comment: The following comments pertain to Paragraph 2.1A:

- Would duplex pump systems be more appropriate for the main feed pumps P-6501 and P-6507?
- Polymer should be dosed in the flocculation tank (T-6503) not the flash mix tank (T-6502).
- The clarifier sludge pump (P-6503) will handle very dilute sludge (~1 to 3% solids) so the specific gravity will be less than 1.5.
- The 100 gpm capacity of the sludge pumps (P-6503 and P-6506) seems excessive for a 250 gpm water treatment system.
- The coagulant and polymer feed tanks (T-6505 and T-6506) are makeup tanks. Pure product storage tanks and feed systems will be necessary to get material to these tanks for dilution.
- The filter feed pump (P-6507) should have a higher capacity than the previous pump P-6501.

78) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: 15080 Pg #: 15080-4 Line #: Code: E
Comment: Figure 1 referred to in Paragraph 2.1C is unreadable in the provided volume.

79) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: 15150 Pg #: 15150-3 Line #: Code: C
Comment: The following comments pertain to Paragraph 2.1A

- For consistency and clarity P-5006 and P-5009 should be referred to by different names.
- P-5007 is actually P-6001A & B in the PFD.
- There are A & B notations in the PFD for P-5001, P-5002, P-5003, P-5006, P-5008, P-5009, and P-5010. The specification should be consistent with the PFD and

indicate the duplex systems.

80) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: 15620 Pg #: 15620-4 Line #: Code: E
Comment: In Paragraph 2.4B, "Crew Compressor" should be revised to "Screw Compressor."

81) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: 15750 Pg #: 15750-1 Line #: Code: E
Comment: The title of this section "GAS STREAM REHEATER" should be revised to be consistent to the name used for the same piece of equipment in the PFDs (e.g., "OFF GAS REHEATER"). Similarly, the titles of Sections 15751, 15752, and 15860 are inconsistent with the relevant PFDs.

82) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: 15751 Pg #: 15751-3 Line #: Code: C
Comment: The performance criteria given in Paragraph 2.1G are inconsistent with the criteria shown on PFD D-50-10-001.

83) Commenting Organization: Ohio EPA Commentor: ODH
Section #: 15884 Pg #: Line #: Code: c
Comment: Carbon adsorbers are to be used to remove radon from drier off-gas. With significant throughput, it seems likely there may be buildup of gamma emitting radon progeny in the adsorber. The specifications in section 15884 do not mention the possible need to enhance shielding around this area to minimize occupational exposures.

84) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: 15931 Pg #: 15931-1 Line #: Code: E
Comment: The specification number given in Paragraph 1.1A (S-5009) is inconsistent with the number given on PFD D-60-10-001 (S-6001 and 6002). In addition, "Hydrocyclonic" should be revised to "Hydrocyclone."

85) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: 15932 Pg #: 15932-3 Line #: Code: C
Comment: The performance requirements shown in Paragraph 2.1G are inconsistent with PFD D-50-10-001 (e.g., volumetric flow rate, temperature).

Utility Plans for Portable Structures, Revision B."

86) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.

Section #: Figures Pg #: Line #: Code: E
Comment: The text on Figure 5-1 is not readable.

Point Source Emissions Data, Revision B."

87) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: General Comment Pg # na Line #:na Code: C
Comment: The data included in this section is incomplete. The design needs to include the information that would accompany a PTI, including modeling, etc, for Ohio EPA and NESHAPs requirements.

88) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 1.0 Pg #1 Line #: 3rd paragraph Code: c
Comment: This paragraph summarizes the sources of airborne pollutants. It does not include fugitive sources from roads, excavations, soil stockpiles, etc. If the intent is to summarize all potential airborne pollution sources, fugitive sources should be included.

89) Commenting Organization: Ohio EPA Commentor: OFFO
Section #:1.0 Pg #: 1 Line #: last line and continued to next page Code: c
Comment: The text states that FDF will use the estimated emissions to model fenceline exposures and emission point source limits. The modeling results will be used to evaluate the effectiveness of the gas stream treatment system. The text does not provide a schedule for performing these activities or mention a deliverable to share the results with the regulators.

90) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: 1.0 Pg #: 2 Line #: 1 Code: C
Comment: For the purposes of this draft document, any preliminary air dispersion modeling results should be made available. These results should be presented and the resulting treatment system modifications (albeit preliminary) should be discussed.

91) Commenting Organization: Ohio EPA Commentor: OFFO
Section #:1.0 Pg #: 1 Line #: last line and continued to next page Code: c
Comment: The text states that FDF will use the estimated emissions to model fenceline exposures and emission point source limits. The modeling results will be used to evaluate the effectiveness of the gas stream treatment system. The text does not provide a schedule for performing these activities or mention a deliverable to share the results with the regulators.

92) Commenting Organization: Ohio EPA Commentor: ODH
Section #: 2.0 Pg #: Line #: Code: c

Comment: This section estimates fugitive emissions. It is limited to emissions from railcar loadout and the process and dryer buildings. Not included are fugitive emissions from excavations, roads, waste piles, etc.

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Excavation Plan, Revision B."

93) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: 4.0 Pg #: 36 Line #: 32, 33 Code: C
Comment: More description of the caution to be taken to prevent excavation into the top of the Great Miami Aquifer (GMA) is needed. A plan should also be presented to prevent contamination if the GMA is breached. Waste Pit 3 and the Clearwell reportedly have only 1 foot thick clay liners directly over the sand and gravel of the GMA. Controls and associated testing should be implemented so that the liner is not breached during the removal of materials.

94) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: 4.0 Pg#: Figures 4-2 and 4-3 Line #: Code: C
Comment: It does not seem reasonable to advance the Waste Pit 5 excavation along a large face for such minimal volumes. The working face could be kept to a minimum so that sediment and erosion control and therefore water treatment would be more manageable.

95) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 4.2.5 Pg #: 22 Line #: 2 Code: c
Comment: The text states that after Waste Pit No. 1 has been certified "clean", the rainwater will no longer need to be collected and treated. We agree that this is an acceptable approach and that there are many advantages to minimizing the quantity of water that requires treatment. Since the excavation of subsoils will be directed by FDF, the actual process that will be used to certify soils as clean is outside the control of IT. It will be important to develop a process to certify that a waste pit is clean to minimize the time period between the end of excavation and final certification.

96) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 4.5 Pg #: 36 Line #: 7 Code: c
Comment: As noted in a previous general comment, we agree with the concept of a two phase excavation approach. We believe that the Neat Line Excavation should include only the cap and waste. The Directed Excavation should include the liner and the subsoils.

97) Commenting Organization: Ohio EPA Commentor: OFFO

Section #: 4.5.1 Pg #: 36 Line #: 36 Code: c
Comment: We do not understand the meaning of the first sentence of this paragraph. It is clear that the intent is to excavate from a pit within the waste rather than from the surface downwards. It is also apparent from the Phase 2 and Phase 3 excavation drawings (M-05-82-101 and 102) that the intent is to initially excavate down to final Neat Line grade and then to excavate laterally. Please rephrase this sentence.

98) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 4.5.2 Pg #: 37 Line #: Code: c
Comment: Consistent with the contaminated soil excavation strategy developed in other areas, Ohio EPA expects to review and approve plans detailing the Directed Excavation and the certification of subsoils.

99) Commenting Organization: Ohio EPA Commentor: ODH
Section #: Appendix B Pg #: drawing M-05-82-002 Code:
Comment: This Figure shows the waste pit cross sections. We have commented elsewhere that we doubt the existence of a complete clay liner in all of the pits and we have requested that contingency plans be developed if the underlying clays are breached.

100) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: Appendix B Pg#: Line #: Code: E
Comment: Revise the title of Figure M-05-82-103 to indicate 64% of Waste Pit No. 3 excavated.

101) Commenting Organization: Ohio EPA Commentor: ODH
Section #: Appendix H Pg #: H-4 Line #: Code: c
Comment: Please provide a reference or a derivation for the formula for determining % U-235.

102) Commenting Organization: Ohio EPA Commentor: ODH
Section #: Appendix H Pg #: Table H-4 Line #: Code: c
Comment: Add text to clarify how parameters such as analytical weight % and mass weight % were derived.

Pre-Operational Schedule

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Site Preparation Package, Revision B."

103) Commenting Organization: Ohio EPA Commentor: DSW
Section #: 3.0 Pg #: Figure 3-1 Line #: Code: C

Comment: Show detail of silt fence overlap when joining two lengths of silt fence. Silt fence around catch basins may need additional support such as wire fence, to hold up under the hydraulic loads, show these on details. The silt fence installation along the paved surfaces does not follow the contour, instead following along the road. Adjust drawing to show silt fence following the contour.

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104) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 2.2 Pg # 4 Line #: na Code: C
Comment: This project should utilize the standards of the FEMP Sitewide Dust Control Policy

105) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: 6.0 Pg #: 11 Line #: 32 Code: C
Comment: The indicated value of 26 inches for a 6-hour probable maximum precipitation event is excessive. A 6-hour duration storm for a 100 year return period is expected to yield between five and six inches of rainfall. The value of 26 inches should be verified and referenced. A return period should be indicated.

106) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 2.2 Pg # 4 Line #: na Code: C
Comment: This project should utilize the standards of the FEMP Sitewide Dust Control Policy

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107) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: 1.0 Pg #: 1 Line #: Code: E
Comment: No Figure 1 was included in the HASP.

108) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Pg # Line #: Code: C
Comment: The Pre-Operational HASP should include a section on protection of the public and the environment. Included in this section would be dose estimates from the project, from all sources, and individual sources; and environmental monitoring.

109) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: 3.0 Pg #: 1 Line #: Code: C
Comment: No identification and description of roles and responsibilities for personnel working at the site is included.

110) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: 4.0 Pg #: 2 Line #: Code: C
Comment: Should 29CFR1910.1450 - Laboratory Standard be included as a regulation or guideline?

111) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: 7.0 Pg #: 4 Line #: Code: C
Comment: The section should be revised in accordance with 29CFR1910.132(d) with regard to a hazard assessment certification statement, requiring the employer to certify that they have conducted a workplace hazard assessment (a qualified individual to perform the assessment must be identified).

112) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: Attachment E Pg #: Line #: Code: E
Comment: Attachments 1, 2, and 3 to POHASP Attachment E are missing.

113) Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: Attachment F Pg #: Line #: Code: E
Comment: Attachments A and B to this POHASP Attachment F are missing.