



State of Ohio Environmental Protection Agency

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FILE: _____

George V. Voinovich
Governor

November 23, 1998

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RE: DOE FEMP
COMMENTS:
IMPLEMENTATION PLAN FOR
AREA 1 PHASE II SOIL
CHARACTERIZATION AND
EXCAVATION PROJECT AND
RESPONSE TO COMMENTS

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

Dear Mr. Reising:

Ohio EPA has reviewed DOE's September 24, 1998 submittal, "Implementation Plan for Area 1 Phase II Soil Characterization and Excavation Project" and "Responses to OEPA Comments on the Draft (Revision C, November 1997) IRDP for A1PII". Attached are Ohio EPA's comments on the document.

If you have any questions, please contact me.

Sincerely,

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
- Francie Barker, Tetra Tech EM Inc.
Manager, TPSS/DERR,CO

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**OHIO EPA's RESPONSES TO DOE's COMMENTS ON OHIO EPA's TECHNICAL
REVIEW COMMENTS ON THE DRAFT (REVISION C, NOVEMBER 1997)
INTEGRATED REMEDIAL DESIGN PACKAGE FOR AREA 1 PHASE II**

Commenting Organization: OEPA Commentor: OFFO
Section #: Pg. #: 0-3 Line #: Code: C
Original Comment #:5

Comment: DOE's action was to list the requested information on the Web site. In accessing the Web site, the information requested along with information referenced in the document was not available.

Commenting Organization: OEPA Commentor: OFFO
Section #: Pg. #:0-19 Line #: Code: C
Original Comment #:60

Comment: The PSP for verification of lead-contaminated soil stabilization needs to be submitted for review *and approval*.

Commenting Organization: OEPA Commentor: OFFO
Section #: Pg. #: 0-22 Line #: Code: C
Original Comment #: 71

Comment: The Borrow Area Development Plan must be submitted for review and approval by the Agencies.

Commenting Organization: OEPA Commentor: OFFO
Section #: Pg. #: 0-26 Line #: Code: C
Original Comment #:78

Comment: The STP is located very near the FEMP boundary, and existing monitors will not clearly measure offsite impacts. OEPA recommends additional air monitoring around the STP to adequately assess potential offsite impact from excavation of contaminated soils from the footprint of the STP.

Commenting Organization: OEPA Commentor: OFFO
Section #: Pg. #: 0-37 Line #: Code: C
Original Comment #:101b

Comment: Real-time excavation-control monitoring of gamma radioactivity and organic vapor levels will not identify any Tc-99 above WAC contamination present. The text should be revised to present a strategy to evaluate Tc-99 WAC compliance in pipeline excavation.

Commenting Organization: OEPA Commentor: OFFO
Section #: Pg. #: 0-38 Line #: Code: C
Original Comment #:105b

Comment: The information regarding Figure 4 was removed and replaced with another discussion. OEPA's comment was not addressed.

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Commenting Organization: OEPA Commentor: OFFO
 Section #: Pg. #: 0-48 Line #: Code: C
 Original Comment #:140b

Comment: DOE's response does not relate to HSI-GeoTrans comment. Please clarify.

**IMPLEMENTATION PLAN FOR AREA 1 PHASE II
 SOIL CHARACTERIZATION AND EXCAVATION PROJECT
 (REVISION D, SEPTEMBER 21, 1998)**

Commenting Organization: OEPA Commentor: OFFO
 Section #: General Pg. #: Line #: Code: C
 Original Comment #:

Comment: Ohio EPA feels that a 3 dimensional model of the data to support the excavation boundaries would be of great assistance in facilitating the review of this document.

Commenting Organization: OEPA Commentor: OFFO
 Section #: General Pg. #: Line #: Code: C
 Original Comment #:

Comment: Additional sampling below the sludge drying beds needs to be performed now that a material containing Tc-99 above WAC has been placed there.

Commenting Organization: OEPA Commentor: OFFO
 Section #: General Pg. #: Line #: Code: C
 Original Comment #:

Comment: Ohio EPA does not believe that separation of SP-7 into two differentiated above WAC piles is an appropriate action. Material placed within SP-7 is above WAC and as such must be disposition off-site. Ohio EPA does not see any benefit in segregating the above WAC material. Segregation will simply lead to reducing the available space within SP-7, substantially increasing administrative controls on the pile and on the excavation project, as well as requiring additional resources and limitations on the excavation project that are not sufficiently defined within the this version of the IRDP. Finally, the proposed action is not consistent with the approved WAC Attainment Plan, which does not provide a mechanism for segregating and manifesting separate above WAC waste streams.

Commenting Organization: OEPA Commentor: OFFO
 Section #: General Pg. #: Line #: Code: C

Original Comment #:

Comment: Please provide a map showing the excavation of all soils above the FRLs.

Commenting Organization: OEPA Commentor: OFFO
 Section #: General Pg. #: Line #: Code: C
 Original Comment #:

Comment: In accordance with the Ohio EPA's letter for the temporary storage of digester sludge, this document needs to define that the removal of the sludge will occur before any other excavation begins.

Commenting Organization: OEPA Commentor: OFFO
 Section #: General Pg. #: Line #: Code: C
 Original Comment #:

Comment: A list of criteria for the segregation of above WAC debris needs to be provided.

Commenting Organization: OEPA Commentor: OFFO
 Section #: 1.2 Pg. #: 1-4 Line #: 16-18 Code: C
 Original Comment #:

Comment: In section 2.3.2.4, page 2-33, first bullet, discusses metals found exceeding the FRL in the off-property portion of RvA 14. This section should reference future activities in Area 9 for offsite soils.

Commenting Organization: OEPA Commentor: OFFO
 Section #: 1.2 Pg. #: 1-5 Line #: 12 Code: C
 Original Comment #:

Comment: Sector 1 contains wetlands which are not mentioned in the text. Please revise the text to address all wetland areas within A1PII.

Commenting Organization: OEPA Commentor: OFFO
 Section #: 1.2.2 Pg. #: 1-9 Line #: 15 - 18 Code: C
 Original Comment #:

Comment: OEPA does not believe that this area should be treated any differently than other excavation projects. WAC monitoring should be implemented as required in the WAC Plan.

Commenting Organization: OEPA Commentor: OFFO
 Section #: 1.3.3 Pg. #: 1-10 Line #: 16 - 17 Code: C
 Original Comment #:

Comment: The text should be revised to include the approximate date of submittal for the

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restoration plan design.

Commenting Organization: OEPA Commentor: OFFO
 Section #: 1.3.3.2 Pg. #: 1-11 Line #: 2 - 6 Code: C
 Original Comment #:

Comment: The 1993 Wetland Delineation Report did not address wetlands that currently exist in A1PII. A new delineation is required to define all wetlands within the A1PII excavation area.

Commenting Organization: OEPA Commentor: OFFO
 Section #: 1.4 Pg. #: 1-13 & 1-14 Line #: Code: C
 Original Comment #:

Comment: The last paragraph on page 1-13 contradicts the rest of the paragraph on page 1-14. ALARA states that hand-held instruments are used during excavation however, control monitoring is planned during certification and pre-certification only. How does this follow ALARA?

Commenting Organization: OEPA Commentor: OFFO
 Section #: 1.4 Pg. #: 1-14 Line #: 42 Code: C
 Original Comment #:

Comment: Where is the half acre not captured by storm water controls located?

Commenting Organization: OEPA Commentor: OFFO
 Section #: Figure 1-2 Pg. #: Line #: Code: C
 Original Comment #:

Comment: Revise Figure 1-2 to show North Access Road as non-certified.

Commenting Organization: OEPA Commentor: OFFO
 Section #: 2.1.1.2 Pg. #: 2-5 Line #: 18 & 19 Code: C
 Original Comment #:

Comment: When will the referenced pipeline be removed?

Commenting Organization: OEPA Commentor: OFFO
 Section #: 2.2.1 Pg. #: 2-18 Line #: 12 - 15 Code: C
 Original Comment #:

Comment: Ohio EPA obviously disagrees with the described basis of the additional removals but concurs with the actions. Ohio EPA believes the SEP supports all the proposed actions and our comment letter on the original certification report provides our reasoning.

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Commenting Organization: OEPA Commentor: OFFO
Section #: 2.2.2 Pg. #: 2-19 Line #: 22 Code: C
Original Comment #:
Comment: Why were non-overlapping HPGE measurements taken? Why not have 100% coverage?

Commenting Organization: OEPA Commentor: OFFO
Section #: 2.3.2.2 Pg. #: 2-29 Line #: 8-9 Code: C
Original Comment #:
Comment: Only surface samples were obtained in the two northern Tc-99 areas. None of the samples show depth delineation. How was the depth of excavation in these areas determined? It appears that there is insufficient data to vertically bound the excavations.

Commenting Organization: OEPA Commentor: OFFO
Section #: 2.3.2.2 Pg. #: 2-29 Line #: 8 - 15 Code: C
Original Comment #:
Comment: Additional sampling needs to be conducted in all areas where sludge was transferred from the digester to the East Drying Bed. Also, the above WAC area needs to be revised to show all areas where sludge was or will be handled.

Commenting Organization: OEPA Commentor: OFFO
Section #: 2.3.2.3 Pg. #: 2-30 Line #: 28 Code: C
Original Comment #:
Comment: Units for water should be written in mg/L, not mg/kg.

Commenting Organization: OEPA Commentor: OFFO
Section #: 2.3.2.4 Pg. #: 2-31 Line #: Code: C
Original Comment #:
Comment: How will pipe trenches be certified?

Commenting Organization: OEPA Commentor: OFFO
Section #: 2.3.2.4 Pg. #: 2-32 Line #: 4-10 Code: C
Original Comment #:
Comment: Why was the gravel only analyzed for total uranium, considering there are other major COCs in the STP area?

Commenting Organization: OEPA Commentor: OFFO
Section #: 2.3.2.4 Pg. #: 2-32 Line #: 24-26 Code: C
Original Comment #:
Comment: These sentences state that sample results are both above and below the FRL.

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Please clarify.

Commenting Organization: OEPA Commentor: OFFO
Section #: 2.3.2.4 Pg. #: 2-32 Line #: 32-38 Code: C
Original Comment #:
Comment: Why was the gravel only analyzed for total uranium, considering there are other major COCs in the STP area?

Commenting Organization: OEPA Commentor: OFFO
Section #: 2.3.2.4 Pg. #: 2-33 Line #: 10-16 Code: C
Original Comment #:
Comment: This section states that off-property soil is contaminated with metals above the FRLs. It should reference that this soil will be taken care of under Area 9 work.

Commenting Organization: OEPA Commentor: OFFO
Section #: 2.3.3.1 Pg. #: 2-35 Line #: Code: C
Original Comment #:
Comment: It appears that few samples show depth delineation were Tc-99 is concerned. How was the depth of excavation in these areas determined?

Commenting Organization: OEPA Commentor: OFFO
Section #: 2.3.3.1 Pg. #: 2-36 Line #: 7-14 Code: C
Original Comment #:
Comment: This section states that there is above WAC contamination. However, it does not specify whether these areas are being excavated. Please clarify.

Commenting Organization: OEPA Commentor: OFFO
Section #: 2.3.3.2 Pg. #: 2-36 Line #: 2-4 Code: C
Original Comment #:
Comment: This section states that the sludge will be treated as RCRA characteristic and later in the text, found that it was tested and not RCRA characteristic. The sludge must be managed as a listed RCRA waste.

Commenting Organization: OEPA Commentor: OFFO
Section #: 2.3.3.2 Pg. #: 2-37 Line #: 1-3 Code: C
Original Comment #:
Comment: Cross-contamination could have occurred between the digester and the primary settling basins during the sludge transfer. This soil should be included in the removal.

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Commenting Organization: OEPA Commentor: OFFO
 Section #: 2.3.3.2 Pg. #: 2-37 Line #: 11-14 Code: C
 Original Comment #:
 Comment: Please include the scanning results from the real-time monitoring and the boring data from the D&D of the STP incinerator.

Commenting Organization: OEPA Commentor: OFFO
 Section #: Figure 2-12 Pg. #: Line #: Code: C
 Original Comment #:
 Comment: Figure 2-12 is unclear. What are the bold numbers within the grids designating?

Commenting Organization: OEPA Commentor: OFFO
 Section #: Figure 2-16 Pg. #: Line #: Code: C
 Original Comment #:
 Comment: The data represented on Figure 2-16 is unreadable. Please clarify.

Commenting Organization: OEPA Commentor: OFFO
 Section #: Figure 2-18 Pg. #: Line #: Code: C
 Original Comment #:
 Comment: This figure shows areas which were excavated for Removal Action 14. Were these areas backfilled? Please clarify.

Commenting Organization: OEPA Commentor: OFFO
 Section #: Figure 2-24 Pg. #: Line #: Code: C
 Original Comment #:
 Comment: This figure shows areas contaminated with Tc-99 above WAC. What about the areas possibly contaminated during the transfer of the sludge from the digester to the drying beds and settling basin? Also, as mentioned before, the gravel needs to be tested for Tc-99.

Commenting Organization: OEPA Commentor: OFFO
 Section #: Figure 2-33 Pg. #: Line #: Code: C
 Original Comment #:
 Comment: This figure shows total uranium above WAC waste in the sludge drying bed. Tc-99 should also be shown in this area since the addition of digester sludge.

Commenting Organization: OEPA Commentor: OFFO
 Section #: Figure 2-35 Pg. #: Line #: Code: C
 Original Comment #:

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Comment: Figure 2-35 shows two areas that are being stripped. The figure should include areas inside the fence that are also being stripped six inches.

Commenting Organization: OEPA Commentor: OFFO
Section #: Figure 2-36 Pg. #: Line #: Code: C
Original Comment #:
Comment: Show all Ra-228 greater then 1.5 since this is the number used for certification sampling.

Commenting Organization: OEPA Commentor: OFFO
Section #: 3.1.7.1 Pg. #: 3-7 Line #: 10-11 Code: C
Original Comment #:
Comment: Why is this clean soil being stockpiled?

Commenting Organization: OEPA Commentor: OFFO
Section #: 3.2.2.1 Pg. #: 3-14 Line #: Code: C
Original Comment #:
Comment: Ohio EPA does not believe that separation of SP-7 into two differentiated above WAC piles is an appropriate action. Material placed within SP-7 is above WAC and as such must be disposition off-site. Ohio EPA does not see any benefit in segregating the above WAC material. Segregation will simply lead to reducing the available space within SP-7, substantially increasing administrative controls on the pile and on the excavation project, as well as requiring additional resources and limitations on the excavation project that are not sufficiently defined within the this version of the IRDP. Finally, the proposed action is not consistent with the approved WAC Attainment Plan, which does not provide a mechanism for segregating and manifesting separate above WAC waste streams.

Commenting Organization: OEPA Commentor: OFFO
Section #: 3.2.2.1 Pg. #: 3-14 Line #: 25-27 Code: C
Original Comment #:
Comment: Revise to include the final plan for sludge stabilization.

Commenting Organization: OEPA Commentor: OFFO
Section #: 3.2.4 Pg. #: 3-19 Line #: 3-4 Code: C
Original Comment #:
Comment: What is the time table for the deep excavations to be backfilled?

Commenting Organization: OEPA Commentor: OFFO
Section #: 3.2.5 Pg. #: 3-19 Line #: 11-18 & 20-28 Code: E

Original Comment #:
Comment: The second paragraph is a duplicate of the first. Please remove.

Commenting Organization: OEPA Commentor: OFFO
Section #: 3.2.5.1 Pg. #: 3-20 Line #: 10-24 Code: C

Original Comment #:
Comment: This section states that OSD-007 and NAR-007 stockpiles are above the FRL. However, it does not mention the type of contamination or whether these stockpiles have WAC considerations. Please clarify.

Commenting Organization: OEPA Commentor: OFFO
Section #: 3.2.5.2 Pg. #: 3-21 Line #: 14 Code: C

Original Comment #:
Comment: This line references section 3.3.3.2 which discusses pre-certification for the trap range, not the STP. Please clarify.

Commenting Organization: OEPA Commentor: OFFO
Section #: 3.3.1 Pg. #: 3-27 Line #: 21-24 Code: C

Original Comment #:
Comment: Where are the Certified Soil Stockpile Areas (CSSAs) located? They are not included on the drawings or specified in this paragraph. Please include.

Commenting Organization: OEPA Commentor: OFFO
Section #: 4.2.2.1 Pg. #: 4-5 Line #: 1-7 Code: C

Original Comment #:
Comment: The text states, "Increasing levels of visible dust indicated a need to increase dust control effort..." This sentence appears to contradict the FEMP Site-Wide Dust Control Policy. The goal for the level of visible dust is none. Increasing levels of visible dust may be a violation of OAC 3745-17. Increasing levels of visible dust indicate a lack of control and should not be tolerated. A table should be added clearly indicating the what the standards are for visible emissions.

Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 4.2.3 Pg #: General Line #: na Code: C

Original Comment #:
Comment: The document indicates that airborne radiological contaminants will be monitored via the sitewide IEMP monitoring program. The STP is located very near the FEMP boundary, and existing monitors will not clearly measure offsite impacts. OEPA recommends additional air monitoring around the STP to adequately assess potential offsite impact from excavation of contaminated soils from the footprint of the STP.

Commenting Organization: OEPA Commentor: OFFO
Section #: Appendix A/1.5.2 Pg. #: 1-12 Line #: Code: E
Original Comment #:
Comment: This section states that *once the FEMP has the new STP operational the old plant can be dismantled*. This appears to be old text, please remove.

Commenting Organization: OEPA Commentor: OFFO
Section #: Appendix A/1.5.8 Pg. #: 1-13 Line #: Code: C
Original Comment #:
Comment: SP-7 is not a **new** stockpile. Please clarify.

Commenting Organization: OEPA Commentor: OFFO
Section #: Appendix A/2.3.1/Excavation Pg. #:2-10 Line #: Code: C
Original Comment #:
Comment: This section implies that the deep excavation in the STP area will be backfilled as part of this project. Please clarify.

**TECHNICAL SPECIFICATIONS FOR REMEDIATION AREA 1 PHASE II
SITE PREPARATION AND REMEDIATION PACKAGE**

Commenting Organization: OEPA Commentor: OFFO
Section #: Tech Specs. 02100 Pg. #: 4 Line #: 3.4A Code: C
Original Comment #:
Comment: How will contact of vegetation with the ground be minimized?

Commenting Organization: OEPA Commentor: OFFO
Section #: Tech Specs.02150 Pg. #: 2 Line #: 1.4 Table Code: C
Original Comment #:
Comment: All material within the East or West Beds should be disposed offsite due to the mixing of above WAC material throughout the beds.

Commenting Organization: OEPA Commentor: OFFO
Section #: Tech Specs.02150 Pg. #:3 Line #: 1.4 Top of Table Code: C
Original Comment #:
Comment: The document must provide a basis for debris segregation as above WAC or below WAC.

//

Commenting Organization: OEPA Commentor: OFFO
Section #: Tech Specs.02205 Pg. #:1 Line #: 1.1C Code: C
Original Comment #:
Comment: Ohio EPA does not believe that it is necessary to separate the soil stockpiles, considering the time and money that would be spent in separating them.

Commenting Organization: OEPA Commentor: OFFO
Section #: Tech Specs.02205 Pg. #:6 Line #: 1.4/Item 7 Code: C
Original Comment #:
Comment: Ohio EPA believes that Tc-99 segregation is a waste of effort and increases complications.

Commenting Organization: OEPA Commentor: OFFO
Section #: Tech Specs. 02205 Pg. #:10 Line #:1.7/Item M Code: C
Original Comment #:
Comment: Item M needs to define the differences between the above and below WAC sediment materials and control structures.

Commenting Organization: OEPA Commentor: OFFO
Section #: Tech Specs.02205 Pg. #: 12 Line #: 2.2/Item D Code: C
Original Comment #:
Comment: Will both the SWU contractors and STP contractors operate equipment in SP7?

Commenting Organization: OEPA Commentor: OFFO
Section #: Tech Specs.02205 Pg. #: 18 Line #:3.2B Code: C
Original Comment #:
Comment: Separating SP-7 stockpile requires additional work, time and money with little or no benefit. Ohio EPA does not believe it is necessary.

Commenting Organization: OEPA Commentor: OFFO
Section #: Tech Specs 02205 Pg. #: 19 Line #: 3.2C/Item 2 Code: C
Original Comment #:
Comment: Revise specification to include final sludge management procedure.

Commenting Organization: OEPA Commentor: OFFO
Section #: Tech Specs.02205 Pg. #:19 Line #: 3.2E/Item 1 Code: C
Original Comment #:
Comment: Ohio EPA believes the sand filter may be above WAC since the addition of digester sludge.

Commenting Organization: OEPA Commentor: OFFO
 Section #: Tech Specs.02205 Pg. #:24 Line #: 3.8/ItemA Code: C
 Original Comment #:
 Comment: Have stockpiles NAR-007 and OSD-007 been sampled and are they below WAC? Please clarify.

Commenting Organization: OEPA Commentor: OFFO
 Section #: Tech Specs.02206 Pg. #:7 Line #: 3.3A/Item 7 Code: C
 Original Comment #:
 Comment: Ohio EPA believes the topsoil stockpile should receive interim seeding rather than a crusting agent.

Commenting Organization: OEPA Commentor: OFFO
 Section #: Tech Specs.02206 Pg. #:7 Line #: 3.3A/Item 8 Code: C
 Original Comment #:
 Comment: Why is interim seeding being proposed? Ohio EPA believes permanent seeding is appropriate following completion of borrow activities.

Commenting Organization: OEPA Commentor: OFFO
 Section #: Tech Specs.02270 Pg. #:1 Line #: 1.3A Code: C
 Original Comment #:
 Comment: References should include *Rainwater and Land Development*.

Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
 Section #: Tech Specs.02668 Pg. #:3 Line #: 2.1C Code: C
 Original Comment #:
 Comment: The HDPE transfer pipe diameter specified (4") contradicts that in Appendix D, Section 2.0 (3").

Commenting Organization: OEPA Commentor: OFFO
 Section #: Tech Specs.02900 Pg. #9 Line #: 3.5A & B Code: C
 Original Comment #:
 Comment: This specification fails to include portions of previous versions including permanent and summer seeding.

Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
 Section #: Tech Specs.15160 Pg. #:1 Line #: 1.1 Code: C
 Original Comment #:

Comment: The specification calls for a total of three pumps while Appendix D, Section 2.0 and 3.2.3 have four pumps required.

CONSTRUCTION DRAWINGS

Commenting Organization: OEPA Commentor: OFFO
Section #:Dwg. G0015 Pg. # Line #: Code: C
Original Comment #:

Comment: Construction drawings show that many of the excavations extend only to the depth of the buildings. Samples should be collected beneath these buildings during excavation to determine whether more soil should be removed.

Commenting Organization: OEPA Commentor: OFFO
Section #:Dwg. G0015 Pg. # Line #: Code: C
Original Comment #:

Comment: This construction drawing shows the digester having a flat bottom. Please correct the drawing to show the digester being conical.