

**DOE RESPONSES TO OHIO EPA COMMENTS ON THE
DRAFT INTEGRATED REMEDIAL DESIGN PACKAGE FOR AREA 1, PHASE II
(REVISION D, SEPTEMBER 1998)**

- 1) 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.
 Response: Information for Area 1 Phase II will be placed on the Fernald Soil Characterization and Excavation Project (SCEP) web site in the near future.
 Action: Information from the A1PII Characterization Package will be placed on the SCEP web site.
- 2) 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*.
 Response: FDF will provide copies of the Verification of Treatment Sampling Plan to the USEPA and OEPA for review and approval.
 Action: The words "and approval" will be added for clarification.
- 3) 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.
 Response: Noted. However, pending ongoing contract negotiations, the STP Excavation contract may be awarded to Petro. If so, Petro may elect to borrow material from the OSDF Borrow area that is currently under development, in accordance with the OSDF Borrow Area Development Plan. Therefore, the STP Backfill Borrow Area may not be developed until fill material is needed for the Phase II Rerouted North Entrance Road contract.
 Action: The STP Backfill Borrow Area Development Plan will be submitted for review by the regulatory agencies prior to development under the appropriate contract.

4) 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.

Response: Agreed. In addition to the Integrated Environmental Monitoring Plan (IEMP) air monitoring network along the FEMP property fenceline, a high volume environmental air monitor was placed in service in June 1998 near the STP project boundary. This monitor is located slightly east-southeast of the STP, south of Air Monitoring Station (AMS) 3 and north of AMS 29, along the east property fenceline. Samples have been collected biweekly for total particulate analyses. These monitors will continue to operate until all excavation activities at the STP have been completed.

In addition to IEMP and project-specific environmental air monitoring, radiological monitors will be placed in similar locations in order to monitor potential radiological exposure in the work area. This will further the project's ability to monitor impacts from the STP Excavation.

Action: Monitor the STP project boundary until excavation activities have been completed.

5) 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.

Response: The excavation monitoring approach that will be used in A1PII is outlined in the A1PII Supplemental Characterization Package; as described herein, the monitoring approach will be developed in greater detail in future PSPs. The A1PII Supplemental Characterization Package presents detailed methods for handling above-WAC material and utility trench excavations.

Action: Information is presented in the A1PII Supplemental Characterization Package.

6) 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.

Response: Appendix B-8 has been deleted from the Implementation Plan. Figure 4 in this defunct Appendix showed the RTRAK measurements for radium-226. As discussed in the Certification Report for A1PII Sector 1, 2a, and the Conveyance Ditch radium-226 was not present in Sector 1 and the area has been certified. As discussed in the Certification

Report the RTRAK radium-226 data is considered to be suspect. Furthermore, the majority of other elevated radium-226 areas shown on Figure 4 are all within the planned six inch stripping areas. Radium data is presented in the A1PII Supplemental Characterization Package.

Action: Information is presented in the A1PII Supplemental Characterization Package.

- 7) 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.

Response: Additional data and modeling have since been used to define the area to be stabilized and excavated. This defined area encompasses 4.3 acres. This area is consistent with the model shown in the A1PII Trap Range Characterization Summary and the excavation boundary shown in the Trap Range Stabilization construction drawings. These documents have been approved by OEPA (Reference: DOE-FEMP Approval of Trap Range Stabilization Package, Letter from OEPA to DOE, November 30, 1998).

Action: No action.

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

- 8) 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.

Response: Agreed.

Action: The A1PII Supplemental Characterization Package includes figures that present data, modeling results and excavation limits on single figures. This information will also be posted on the SCEP web site.

- 9) 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.

Response: Agreed.

Action: The A1PII Supplemental Characterization Package summarizes the history and proposed remediation approach for the sludge drying beds. Additional sampling below the sludge drying beds is proposed within that package and will be detailed in a future PSP.

10) 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.

Response: The segregation of SP-7 stockpile into two separate above-WAC areas serves two purposes. The higher moisture content (i.e., close to 50 percent) of stabilized digester sludge will be of future concern to those responsible for shipment of that waste to an off-site disposal facility. Segregation of this waste from the material currently stockpiled at SP-7 may facilitate future controlled mixing of this waste with drier material to meet physical WAC for the off-site disposal facility. Furthermore, segmented gates technology may permit further screening of material currently segregated as above-WAC uranium soil for WAC attainment, thus reducing the volume of above-WAC uranium soil requiring off-site disposal. Application of the segmented gates technology may ultimately reduce remediation costs without adverse affect to the environment.

With regard to inconsistencies in the proposed SP-7 approach with the current WAC Attainment Plan with, waste streams are defined by source and stockpile MTLs. The east portion of SP-7 will be defined in IIMS database by northings and eastings as a unique MTL, separate from that designated for the main portion of SP-7. This does not conflict with the WAC Attainment Plan.

Action: No action at this time. DOE will continue to evaluate the benefits of segregating the SP-7 stockpile into separate above-WAC areas.

11) 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.

Response: Agreed.

Action: The A1PII Supplemental Characterization Package will be submitted to the regulatory agencies for review. This package will provide "user friendly," detailed figures including plans and cross-sections of areas to be excavated. They will include data, model results, excavation limits for FRL and above-WAC excavations.

12) Commenting Organization: OEPA
Section #: General Pg. #: Line #:
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.

Response: Agreed. However, prior to stabilization and removal of above-WAC digester sludge, site preparation activities in the STP area (such as installation of surface water control system components, creation of buffer areas, etc) and work outside the STP area (such as construction of STP Haul Road) must be completed. The above-WAC digester sludge will then be stabilized with above-WAC technetium-99 soil that will be excavated from the STP area. Therefore, above-WAC technetium-99 soil excavation must occur prior to, and simultaneous with, digester sludge stabilization. This stabilized digester sludge will then be removed from the STP area and hauled to SP-7. For practical and logistical reasons, digester sludge must be stabilized and removed before other excavation activities are performed within the STP area. For scheduling reasons, excavation activities that are outside the STP area (such as utility removal and soil stripping) and independent of the STP area may occur simultaneous with digester sludge stabilization and excavation. Specification Section 02205 of the STP Excavation Package requires the contractor to submit a detailed schedule for approval prior to beginning work.

Action: The A1PII Supplemental Characterization Package explicitly states that digester sludge stabilization and excavation must be completed before other excavation activities will be performed in the STP area.

13) Commenting Organization: OEPA
Section #: General Pg. #: Line #:
Original Comment #:

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

Response: Revision 0 of Specification Section 02205 of the STP Excavation Package presents detailed requirements to the contractor for segregation and handling of above-WAC debris. As described in that specification above-WAC debris will either be hauled to SP-7 or placed in containers in the A1PII Special Materials Transfer Area (SMTA).

Action: No Action.

14) Commenting Organization: OEPA
Section #: 1.2 Pg. #: 1-4 Line #: 16-18
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.

Response: Agreed. The IRDP will be revised to reflect a discussion known off-site contamination, and will reference future remedial activities for Area 9.

Action: Revise the IRDP to include a discussion of known off-site contamination, which includes elevated metal results in the Removal 14 excavation area.

15) 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.

Response: The newly formed wetland area is located south of the Sewage Treatment Plant in the East Field. On June 25, 1998, the wetland area was evaluated using the three parameters (hydrophytic vegetation, hydric soils, and hydrology) outlined in the 1987 Army Corps of Engineers Wetland Delineation Manual. Based upon the evaluation, this area was determined to be a 1.0-acre jurisdictional wetland. OEPA and USEPA will be notified of the additional wetland acreage and the intent to compensate for impacts to this additional wetland area through the CERCLA process and the FEMP Wetland Mitigation Plan. The approach for wetland mitigation has been discussed with the USEPA and OEPA in the past and the Wetland Mitigation Plan has been developed as part of the Natural Resource Restoration Plan.

Action: No Action.

16) 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 then other excavation projects. WAC monitoring should be implemented as required in the WAC Plan.

Response: Excavation in the STP area will be in accordance with Approach D in the SEP. As described in the A1PII Supplemental Characterization Package, the STP area has been characterized to establish the limits of above-WAC material (both total uranium and technetium-99) and sufficient data has been collected to estimate the limit of FRL contamination by modeling. Excavation will be performed in a sequential manner in the following two major phases: 1) excavation of above-WAC surface material (primarily sludge and surface soil), and 2) STP deep excavation to FRL. After removal of above-WAC material, the excavation will proceed to the FRLs with constant visual monitoring and rad scanning for occupational exposure. Precertification and certification sampling will then be performed in accordance with a CDL. Due to the amount of data available, additional monitoring during excavation is not necessary. Also, additional monitoring may present a safety hazard because of the relatively confined area required for the work.

The nature of the STP area is different from the A2PI Southern Waste Units (SWU) excavation project area. The SWUs are landfills that were constructed over a long period of time with heterogenous manner with waste material. The STP was constructed over a short time period with native and construction materials. Therefore as described in the referenced section of the Implementation Plan, the excavation and monitoring approach for each is different; more monitoring was required for the SWUs in accordance with the SEP.

Action: Additional information and clarification is presented in the A1PII Supplemental Characterization Package.

17) 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 restoration plan-design.

Response: The approximate submittal date for specific natural resource restoration projects are indicated in Section 4.0, Table 4-1 of the Draft Final Natural Resource Impact Assessment and Natural Resource Restoration Plan, July 1998. The first design submittal was tentatively set for submission in FY 1998 with subsequent design submittals proposed at the rate of one per year through FY 2007.

Action: No action.

18) 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.

Response: See response to OEPA Comment #15.

Action: See action for OEPA Comment #15.

19) 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?

Response: One of the key components of the OU5 ROD is "to the extent economically practical, detection limits achievable with hand held instruments will be used to reduce the final remediation level for on-property soil containing nonleachable uranium from 80 ppm to 50 ppm." As described and illustrated in the A1PII Supplemental Characterization Package, surface soil in A1PII will be excavated to the 82 ppm final remediation level (FRL). To the extent practical, additional material will be excavated to reach the 50 ppm level. This activity will more than double the quantity of material to be generated from soil stripping with in A1PII. This very step of reducing the cleanup level to 50 ppm is in conformance to the ALARA principle. At the time the OU5 ROD was signed in 1995, real-time technology was still being developed. Phrases in the OU5 ROD proposed that hand-held instruments will be used to establish the 50 ppm line; hand held technology with this capability is not approved and/or available at the FEMP. Therefore, after years of technology development, real-time instruments will

be used in Precertification to determine compliance with the FRL in lieu of hand held instruments. This realtime equipment will be used to comply with ALARA principles.

Action: Additional information and clarification regarding the 50 ppm cleanup level is presented in the A1PII Supplemental Characterization Package.

20) 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?

Response: The text is a generalization that a disturbed area of less than 1/2 acre can be managed through the use of silt fence or other best management practices. This is in accordance with the ODNR "Rainwater and Land Development", page 11, Steps for Planning and Design, IV.B.1.

Action: No action.

21) 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.

Response: Agreed. Figure 1-2 will be revised to shown the North Access Road as non-certified. Also included in the revised IRDP submittal will be an updated copy of the Certified and Characterized for Reuse Area Map.

Action: Revise Figure 1-2 and include an updated copy of the Certified and Characterized for Reuse Area Map.

22) 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?

Response: The Fuel Gas Line in the area of the OSDF Sediment Basin on the east side of A1PII was abandoned. It was removed during excavation of the OSDF Sediment Basin.

Action: Text will be revised prior to issuance of the final Implementation Plan.

23) 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.

Response: Comment acknowledged.

Action: No action.



- 24) Commenting Organization: OEPA
 Section #: 2.2.2 Pg. #: 2-19 Line #: 22 Commentor: OFFO
 Code: C
 Original Comment #:
 Comment: Why were non-overlapping HPGe measurements taken? Why not have 100% coverage?
 Response: All surface soil in A1PII was surveyed for FRLs with real-time equipment. Non-overlapping HPGe measurements were taken in areas that were covered by 100 percent RTRAK. HPGe coverage was 100 percent in areas inaccessible to the RTRAK, such as along the southeastern boundary of the site where the grade was too steep to drive the RTRAK.
 Action: No Action.
- 25) Commenting Organization: OEPA
 Section #: 2.3.2.2 Pg. #: 2-29 Line #: 8-9 Commentor: OFFO
 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.
 Response: There are approximately 80 sample locations in the STP area delineating the technetium-99 above-WAC contamination. Review of this data shows that with the exception of one location (adjacent to the North Trickling Filter) all above-WAC Tc-99 contamination is within the top 6 inches. Furthermore, for the subject areas seven samples bound the one elevated technetium-99 results and, six bound the other. All the bounding samples show no contamination at the surface or at depth. The planned excavation of this area is 6 inches; based on existing data this will envelope all the above-WAC contamination.
 Action: The above information is presented within the A1PII Supplemental Characterization Package.
- 26) Commenting Organization: OEPA
 Section #: 2.3.2.2 Pg. #: 2-29 Line #: 8-15 Commentor: OFFO
 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.
 Response: As discussed with the OEPA during a telecom on November 9, 1998, the areas identified with above-WAC technetium-99 contamination in the surface soil will be expanded. The areas where above-WAC digester sludge was transported (from the digester tank to the sludge drying beds, and from the digester tank to the primary settling basins), and the areas surrounding the locations where the above-WAC digester sludge will be stabilized (digester tank and primary settling basins) will be treated as above-WAC technetium-99 contaminated soil. Six inches of surface soil will be excavated from these areas and handled as above-WAC technetium-99 contaminated

material; soil in the vicinity of stabilizing activities will not be removed until the stabilization in that area is completed to minimize the potential for recontamination.

Action: A figure in the A1PII Supplemental Characterization Package presents the expanded limits of the surface soil that will be handled as above-WAC technetium-99 contaminated soil. This expanded limit will then be incorporated into the STP Excavation construction drawings by DCN.

27) 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.

Response: Agreed.

Action: Units for water will be changed to mg/L.

28) 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?

Response: Pipe trench excavation and certification methods presented in the A1PII Supplemental Characterization Package will be incorporated into the design by DCN. Additional certification details will be presented in a future PSP and CDL.

Action: The pipe trench excavation and certification approach is presented in the A1PII Supplemental Characterization Package. This approach will be incorporated into the design by DCN. Details will be provided in a future PSP and CDL.

29) 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?

Response: Sampling of the gravel was conducted prior to the discovery of the other major COCs. At the time of sampling, only uranium was indicated as the major COC for the STP area. Sampling was conducted to fill a data gap for total uranium only in gravel.

Action: No Action.

30) 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. Please clarify.

Response: Results were above FRL, but below WAC.

Action: The sentence will be rewritten to state, "The levels were 32.1 and 69.3 mg/kg, *well below* the OSDF WAC."

- 31) 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?

Response: See response to OEPA Comment #29.

Action: See action for OEPA Comment #29.

- 32) 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.

Response: See response to OEPA Comment #14.

Action: No Action.

- 33) 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?

Response: See response to OEPA Comment #25.

Action: See action for OEPA Comment #25.

- 34) 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.

Response: These areas will be excavated and handled as above-WAC material. This issue is clarified in the A1PII Supplemental Characterization Package.

Action: This issue is addressed in the A1PII Supplemental Characterization Package. Prior to issuance of the final Implementation Plan, a sentence will be added stating, "There are three areas within the STP area that are above-WAC for total uranium; two of these areas will be hauled to SP-7 as above-WAC uranium material. The third is also contaminated with technetium-99 and will be treated as above-WAC technetium-99 material."

35) 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.

Response: Note. The sludge cake was characterized as a listed RCRA hazardous, low level radioactive waste and will be handled as a listed RCRA waste. The A1PII Supplemental Characterization Package summarizes the history of the sludge cake and describes its characterization.

Action: Requested information is presented in the A1PII Supplemental Characterization Package.

36) 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.

Response: Areas that may have been contaminated with above-WAC digester sludge as a result of material movement and/or stabilizing activities will be treated as above-WAC, technetium-99 contaminated material. See response to OEPA Comment #26.

Action: See action for OEPA Comment #26.

37) 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.

Response: Data from the STP Incinerator area sampling is presented in the A1PII Supplemental Characterization Package. See response to OEPA Comment #11.

Action: See action for OEPA Comment #11.

38) 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?

Response: This figure was used for various purposes during the predesign investigation of A1PII. The bolded numbers (numerical designation of acres for real-time monitoring) were not turned off for this generation of the figure. Please disregard the bolded numbers.

Action: No action.

- 39) 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.
 Response: See response to Comment #11.
 Action: See action for Comment #11.
- 40) 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.
 Response: The RA 14 Final Report (November 1994) indicates they were backfilled.
 Action: No Action.
- 41) 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.
 Response: The areas that may be contaminated with above-WAC digester sludge as a result of material movement and/or stabilizing activities will be treated as above-WAC, technetium-99 contaminated material as described in Response to OEPA Comment #26. The sand and gravel below the sludge drying beds will be analyzed for technetium-99 as described in Response to OEPA Comment #9.
 Action: See actions for OEPA Comments #26 and #9.
- 42) 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.
 Response: See response to OEPA Comment #11.
 Action: See action for OEPA Comment #11.
- 43) Commenting Organization: OEPA Commentor: OFFO
 Section #: Figure 2-35 Pg. #: Line #: Code: C
 Original Comment #:
 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.

Response: The entire STP area will be stripped to a minimum depth of 6 inches in accordance with the A1PII Supplemental Characterization Package accompanying this response.

Action: This requirement will be communicated more clearly on the STP Excavation construction drawings by DCN.

44) 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.

Response: The figure currently shows all results above 1.5 pCi/g, the Legend is incorrect.

Action: The figure will be revised.

45) 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?

Response: Clean topsoil is being temporarily stockpiled to cover areas disturbed during borrow activities and to potentially cap the OSDF.

Action: No action.

46) 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.

Response: See response to OEPA Comment #10.

Action: See action for OEPA Comment #10.

47) 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.

Response: The above-WAC digester sludge will be stabilized by combining 2 parts of above-WAC digester sludge with one part of above-WAC technetium-99 contaminated soil. Details regarding the rationale for this approach are presented in the "Characterization and Disposition of Digester Sludge and Associated Debris in the Sewage Treatment Plant Area" which is attached to the A1PII Supplemental Characterization Package. Construction requirements are presented in Revision 0 of Specification Section 02205 of the STP Excavation Package.

Action: No Action.

48) 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?

Response: The STP deep excavation will be backfilled by the Phase II North Entrance Road contractor as part of the road construction work. This work is scheduled to begin in the summer of the year 2000.

Action: No Action.

49) 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.

Response: Noted.

Action: The duplicate paragraph in Section 3.2.5 will be deleted.

50) 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.

Response: Noted. Stockpiles NAR-007 and OSD-007 have been sampled and are below WAC. Data on these stockpiles is presented in the Area 1 Stockpile Inventory and Waste Acceptance Criteria Attainment Report, July 1998, as transmitted to OEPA for approval (DOE-1036-98, Reising to Saric and Schneider, July 24, 1998).

Action: Section 3.2.5.1 will be revised prior to issuance of the Final Implementation Plan to clarify existing data on stockpiles NAR-007 and OSD-007.

- 51) 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.
 Response: Noted.
 Action: Reference to Section 3.3.3.2 will be revised to the appropriate text relating to precertification of the STP.
- 52) 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.
 Response: Certified Soil Stockpile Areas (CSSAs) will not be utilized and will be deleted from future submittals.
 Action: Section 3.3.1 text will be revised to delete references to CSSAs.
- 53) 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.
 Response: Noted. The approved sitewide FEMP Integrated Environmental Monitoring Plan Section 6.2.2 and Fugitive Dust Control Requirements manual specify the visible emissions standards and the fugitive dust emission controls that must be implemented.
 Action: No Action.
- 54) Commenting Organization: OEPA 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.
 Response: See response to OEPA Comment #4.
 Action: See action for OEPA Comment #4.

55) 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.

Response: Noted.

Action: Text will be revised prior to issuance of Revision 1 of the DCP.

56) 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.

Response: Noted.

Action: Text will be revised prior to issuance of Revision 1 of the DCP.

57) 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.

Response: Noted.

Action: The DCP will be revised to clarify that the STP excavation contractor is not responsible for backfilling STP deep excavations.

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

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

Response: The sentence is intended to keep the contractor from dragging vegetation over soil contamination areas and potentially disturbing the soil and contaminating the vegetation. This specification has worked successfully on other projects.

Action: No Action.

59) Commenting Organization: OEPA Commentor: OFFO
 Section #: Tech Spec. 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.

Response: The west sludge drying bed was never constructed or operated. Material that is located on the west sludge drying bed may not require off-site disposal. This issue is addressed in the A1PII Supplemental Characterization Package.

Action: The proposed remediation approach is presented in the A1PII Supplemental Characterization Package.

60) Commenting Organization: OEPA Commentor: OFFO
 Section #: Tech Spec. 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.

Response: Related Section 02205, Item 1.7.D, states that the criteria for segregating above-WAC and below-WAC debris is specified in the IMPP and WAC Attainment Plan for the OSDF. This issue is addressed in the A1PII Supplemental Characterization Package. WAC determination will be made by WAO in the field (this entity is referred to as "Construction Manager" in the technical specifications).

Action: No Action.

61) Commenting Organization: OEPA Commentor: OFFO
 Section #: Tech Spec. 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.

Response: See response to OEPA Comment #10.

Action: See action for OEPA Comment #10.

62) Commenting Organization: OEPA Commentor: OFFO
 Section #: Tech Spec. 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.

Response: See response to OEPA Comment #10.

Action: See action for OEPA Comment #10.

63) Commenting Organization: OEPA Commentor: OFFO
 Section #: Tech Spec. 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.

Response: See Section 02205, Item 3.7 regarding sampling, removal, and disposal of sediment. The Construction Manager identifies the sediment as meeting or exceeding WAC and specifies the appropriate disposition based on sampling results.

Action: No action.

64) Commenting Organization: OEPA Commentor: OFFO
 Section #: Tech Spec. 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?

Response: Yes. However, these two contractors may be the same, pending ongoing contract negotiations.

Action: No Action.

65) Commenting Organization: OEPA Commentor: OFFO
 Section #: Tech Spec. 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.

Response: See response to OEPA Comment #10.

Action: See action for OEPA Comment #10.

66) 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.

Response: The digester sludge management procedure is presented in the A1PII Supplemental Characterization Package. Construction requirements are presented in the STP Excavation technical specifications. See response to OEPA Comment #47.

Action: No action.

67) Commenting Organization: OEPA Commentor: OFFO
 Section #: Tech Spec. 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.

Response: See response to OEPA Comment #9.

Action: The specification will be revised by DCN to allow ten working days for sampling and analysis. See action for OEPA Comment #9.

68) Commenting Organization: OEPA Commentor: OFFO
 Section #: Tech Spec. 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.

Response: Stockpiles NAR-007 and OSD-007 have been sampled and are below WAC. Data on these stockpiles is presented in the Area 1 Stockpile Inventory and Waste Acceptance Criteria Attainment Report, July 1998, as transmitted to OEPA for approval (DOE-1036-98, Reising to Saric and Schneider, July 24, 1998).

Action: No action.

69) Commenting Organization: OEPA Commentor: OFFO
 Section #: Tech Spec. 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.

Response: Agreed.

Action: Section 02206 will be revised by DCN to specify that the topsoil stockpile will receive interim seeding.

70) Commenting Organization: OEPA Commentor: OFFO
 Section #: Tech Spec. 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.

Response: Section 02206 specifies interim seeding for the STP Backfill Borrow Area upon completion of borrow activities under the STP Excavation contract. The STP Backfill Borrow Area may not be developed under this contract; even if it is, the STP Backfill Borrow Area will be further disturbed by the Phase II North Entrance Road contractor approximately one year later.

Action: No action.

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

Response: Revision 0 of STP Excavation technical specifications Section 02270 includes the Rainwater and Land Development reference.

Action: No action.

72) Commenting Organization: OEPA Commentor: HSI GeoTrans
 Section #: Tech Spec. 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").

Response: Section 02668 is correct in specifying a 4" pipe diameter. Appendix D requires revision.

Action: Appendix D will be revised to reflect the current design of a 4" diameter HDPE transfer pipe.

73) Commenting Organization: OEPA Commentor: OFFO
 Section #: Tech Spec. 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.

Response: Permanent seeding was removed from the standard Section 02900 for the purposes of this contract because its use is not currently planned. However, summer seeding appears to apply.

Action: Section 02900 will be revised to include specifications for summer seeding.

74) Commenting Organization: OEPA Commentor: HSI GeoTrans
 Section #: Tech Spec. 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.

Response: Section 15160 is correct in specifying three pumps. Revision 0 of Appendix D was revised to reflect the current design of three pumps.

Action: No action.

CONSTRUCTION DRAWINGS

75) 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.

Response: The limits of below ground structures shown on the cross-sections are "at approximate locations and depths." The actual extent of excavation beneath buildings will be determined by field conditions and analytical results in accordance with Excavation Approach D of the SEP.

Action: Construction drawings will be revised to more accurately illustrate the building foundations and underlying drainage layers. Technical specifications and design drawings will be revisited to verify that the excavation approach is communicated appropriately to the contractor. Technical changes will be incorporated by DCNs.

- 76) Commenting Organization: OEPA
Section #: Dwg. G0015 Pg. #: Line #: Commentor: OFFO
Original Comment #: Code: C
- Comment: This construction drawing shows the digester having a flat bottom. Please correct the drawing to show the digester being conical.
- Response: Noted. The limits of below-ground structures shown on the construction drawings are "at approximate-locations and depths." The contractor was referred to design and as-built drawings (referenced drawings) for construction details. Actual excavation will be determined by field conditions.
- Action: Construction drawings will be revised to show the digester with a conical bottom.