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NOV 28 2000

Mr. Gene Jablonowski
U.S. Environmental Protection Agency
Region V, SRF-5J
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

DOE-0161-01

Mr. Tom Schneider
Ohio Environmental Protection Agency
401 East 5th Street
Dayton, Ohio 45402-2911

Dear Mr. Jablonowski and Mr. Schneider:

DRAFT FINAL REMEDIAL DESIGN PACKAGE FOR THE SILOS 1 AND 2 ACCELERATED WASTE RETRIEVAL PROJECT

- References:
- 1) Letter, G. Jablonowski to J. Reising, "Disapproval of the Silos 1 and 2 Accelerated Waste Retrieval (AWR) Project Remedial Design Package," dated August 29, 2000.
 - 2) Letter, T. Schneider to J. Reising, "Comments - AWR Remedial Design Package," dated August 28, 2000.
 - 3) Letter, J. Reising to G. Jablonowski and T. Schneider, "Revised Remedial Design Package for the Silos 1 and 2 Accelerated Waste Retrieval Project," dated June 29, 2000.

Enclosed for your review and approval is a Response to Comments document and a draft Final Remedial Design (RD) Package for the Silos 1 and 2 Accelerated Waste Retrieval (AWR) Project. This documentation responds to U. S. Environmental Protection Agency (U.S. EPA) and Ohio Environmental Protection Agency (OEPA) comments received on August 29, 2000 and August 28, 2000, respectively.

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Mr. Gene Jablonowski
Mr. Tom Schneider

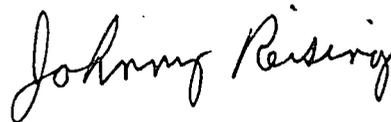
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The enclosed comment responses have been reviewed informally by U.S. EPA and OEPA. Input received at the October 11, 2000 meeting at the Fernald Environmental Management Project has also been incorporated into the comment responses and the draft Final RD Package.

If you have any questions, please contact Nina Akgündüz at (513) 648-3110.

Sincerely,



Johnny W. Reising
Fernald Remedial Action
Project Manager

FEMP:Murphy

Enclosures

cc w/enclosures:

T. Schneider, OEPA-Dayton (three copies of enclosures)
F. Hodge, Tetra Tech
M. Schupe, HSI GeoTrans
AR Coordinator, Fluor Fernald, Inc./78

cc w/o enclosures:

K. Chaney, EM-31/CLOV
S. Fauver, EM-31/CLOV
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D. Carr, Fluor Fernald, Inc./2
R. Fellman, Fluor Fernald, Inc./52-4
T. Hagen, Fluor Fernald, Inc./65-2
J. Harmon, Fluor Fernald, Inc./90
S. Hinnefeld, Fluor Fernald, Inc./31
D. Nixon, Fluor Fernald, Inc./52-4
D. Paine, Fluor Fernald, Inc./52-4
T. Walsh, Fluor Fernald, Inc./65-2
ECDC, Fluor Fernald, Inc./52-7

2

**OHIO EPA AND U.S. EPA COMMENTS
ON
SILOS 1 AND 2 ACCELERATED WASTE RETRIEVAL (AWR) PROJECT
JUNE 2000 DRAFT REMEDIAL DESIGN PACKAGE**

OHIO EPA COMMENTS

General Comment

1. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: General Comment Pg #: Line #: Code: C
Original Comment #:
Comment: The lack of continuity in the document is reflected in the absence of a consistent page number system. All future submittals at a minimum must include a consistent page numbering system. This makes for easier reviews and comment resolution. The lack of such a system reflects upon the piece meal nature of the document as a whole and the number of inconsistencies found within.

Response: As is typically the case with design package submittals, the AWR Remedial Design Package is a compilation of individual stand-alone design documents. To facilitate EPA review, RD Package page numbers have been added to all pages in the package. A table of contents referencing these new page numbers has also been included.

2. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: General Comment Pg #: Line #: Code: C
Original Comment #:
Comment: The majority of Ohio EPA's comments have been expressed during the numerous meetings we have had with DOE and its contractors regarding the AWR. It is disappointing to see that our efforts to clarify our concerns during those meetings were apparently fruitless. We expect that providing our comments in writing will ensure their inclusion in the next revision of the AWR document.

Response: This comment response document has been reviewed in draft form with OEPA and U.S. EPA. Input from this review has been incorporated into the comment response document and revised draft Remedial Design Package now being submitted for review and approval. DOE recommends a review meeting with appropriate representatives from DOE, OEPA, U.S. EPA, and contractor technical staff during review of this revised draft to clarify any technical details of the package and ensure that all concerns have been adequately addressed. DOE remains committed to fully addressing all U.S. EPA, OEPA, and stakeholder concerns regarding the AWR Project.

Section 1.0, Introduction

3. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 1.3.4 Pg #: 4 Line #: Code: C
Original Comment #:
Comment: The section should refer to the recently signed Record of Decision Amendment rather than the original ROD.
Response: The reference has been updated (RD Package page 6).

Section 2.1, Process Description

4. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 3.0 Pg #: Line #: Code: C
Original Comment #:

Comment: Despite numerous comments by Ohio EPA during previous meetings expressing our concern about the Decant Sump Tank monitoring and retrieval implementation, very little information is provided. The document needs to be revised to provide a more detailed discussion of the Decant Sump Tank integrity, design, monitoring, early retrieval, final retrieval, material disposition, etc.

Response: Recent video inspection of the sump indicates that the sump is in working condition and that its structural integrity is sound. There is no evidence to date that would indicate a breach in structural integrity of the sump tank.

The AWR design provides continuous monitoring of both sump liquid level and rate of infiltration. Setpoints have been established for liquid level in the Decant Sump tank and for rate of infiltration. During AWR mining operations, removal of liquids from the Decant Sump Tank will be triggered when liquid levels within the sump exceed 60% of capacity. Liquids removed from the sump during mining operations will be sampled and transferred to the AWWT. Other out of parameter conditions, such as continued increase in liquid level, or increase in flow into the sump tank, will also result in an alarm and initiate corrective actions including removal of liquid from the sump and, potentially, shutdown of retrieval operations.

A detailed discussion of water management during waste retrieval has been added to the Process Description document (RD Package page 19). This discussion details the implementation and control of silo material and decant sump waste retrieval, including monitoring and control; of water flow and levels in the silos and decant sump, means for detecting, and responding to changes in silo integrity, leaks, etc. More detailed discussion of these issues is provided in the System Design Description document (RD Package Appendix D).

5. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 4.5 Pg #: Line #: Code: C
Original Comment #:

Comment: Ohio EPA does not believe the proposed sampling scheme is most appropriate. The use of a percussion hammer-coring machine within the single shelled tanks is not acceptable. The number of entry and removals required to get an adequate sample volume present a substantial risk for release of contaminants within the TTA. This would create an unacceptable situation and most likely not be possible to remedy prior to final D&D. Additionally, previous efforts at sampling the silos show how difficult coring can be. Coring will only be more difficult following the slurry operation thus resulting in very low recovery rates and requiring more entry and removals. DOE should re-evaluate the proposed sampling method. A preferred method would be a valving system to allow take-off of samples during the retrieval process into pre-staged drums.

Response: Comment accepted: The present strategy for obtaining samples from the TTA storage tanks needs to mature further before details on the sampling methodology can be developed. As described in detail in the response to OEPA Comment No. 7, further implementation of the sampling approach presented in the draft Remedial Design Package is

being discontinued. The sampling scheme, as well as other details regarding the method ultimately selected for sampling of the Silo residues, will be documented for EPA review and approval in the Remedial Action Workplan for Waste Retrieval Operation.

6. Commenting Organization: Ohio EPA Commentor: OFFO

Section #: 4.5 Pg #: Line #: Code: C

Original Comment #:

Comment: Will a separate shielding system be designed for the drummed sample material? Leaving the drums within the TTA would seem to present substantial exposure issues for workers in the area.

Response: As described in the response to OEPA Comment No. 7, the design and procedures for silo residue sampling, including the number of and storage requirements for samples, are being reevaluated. The final design of the location for storage of silo residue samples will incorporate necessary shielding requirements. These details will be documented for EPA review and approval in the Remedial Action Work Plan for Waste Retrieval Operation.

7. Commenting Organization: Ohio EPA Commentor: OFFO

Section #: 4.5 Pg #: Line #: Code: C

Original Comment #:

Comment: The detailed Sampling Plan for collecting removed silo materials must be included within the Remedial Design Package or the Remedial Action Plan Package. The Plan should include details on justification for volume of sample needed, method, QA/QC, containerization, storage and secondary wastes. As modifications to the sampling approach require changes to the system design at least minimal information on sampling must be included in the RD.

Response: The present strategy for obtaining samples from the TTA storage tanks needs to mature further before details on the sampling methodology can be developed. Originally, samples from the TTA were planned to be made available to the Silos 1 and 2 full-scale remediation contractor during the early design phase of the Silos 1&2 Project for the performance of treatability and formulation testing early in the design program. The basis for the TTA sampling program is currently being reevaluated to assure it most effectively supports the technical approach ultimately chosen for implementation of Silos 1&2 remediation. It may be most effective to make samples available to support a process verification step, a process validation step or a formulation validation step during the Remedial Action phase of the project. As a result, further development of the sampling approach presented in the Remedial Design Package is being discontinued.

DOE is satisfied that necessary samples could be obtained from the multiple access ports in the TTA, from the Silos themselves during retrieval, or could be diverted from the TTA Diverter Box during transfer of material from the silos to the TTA tanks. We thus believe that there are opportunities to obtain desired samples without significant design changes and that the appropriate means and methods for obtaining the samples can be defined later in the project. These means and methods will be documented for review and approval in the Remedial Action Workplan for Waste Retrieval Operation. The RA Work Plan for Waste Retrieval Operation is currently scheduled for submittal to the EPA on or before August 30, 2002.

8. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 6.0 Pg #: Exhibit 6-1 Line #: Code: C
Original Comment #:
Comment: The figure is not readable. Provide a readable version of this exhibit.

Response: A revised version is now included (RD Package page 15).

9. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 7.0 Pg #: Line #: Code: C
Original Comment #:
Comment: The document fails to include sufficient detail on the FSMS. At what point prior to implementing FSMS will the agencies be provided a Plan detailing the FSMS activities, goals and objectives?

Response: The objectives of the FSMS are (1) ensure and optimize the safety of the design and subsequent operations, (2) optimize equipment design and operation, (3) optimize the operating scheme, (4) provide an uncontaminated training facility with a realistic simulation of operations, and (5) provide a trouble shooting model.

An operational description of FSMS program, which describes the objectives, scope and sequence of the FSMS test activities will be included in the Remedial Action Work Plan for RCS Phase 1 Operation. U.S. EPA and OEPA will be briefed on the details of and results of the FSMS program prior to, and throughout, its implementation.

10. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 7.0 Pg #: Line #: Code: C
Original Comment #:
Comment: The text states that the "FSMS will utilize the exact model of equipment used in SWRS...". Some latitude in this specification should be added. If exact models for four phases are not available, the project would have to be shut down based on this sentence. Suggest rewording.

Response: The use of the exact models of the equipment used in the Silo Waste Retrieval System (SWRS) in the FSMS has several advantages. 1) Operator Training will be realistic; 2) FSMS use for troubleshooting waste retrieval challenges will be enhanced; and 3) Provides a sources of spare parts of critical hardware. These advantages provide a method of mitigating potential schedule risk and are included in the overall project cost and schedule. The 'duplicate' equipment to be used in the FSMS will be procured in advance and therefore not result in the potential for shutdown.

11. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 8.1 Pg #: Line #: Code: C
Original Comment #:
Comment: Though the use of a fixative spray is mentioned no performance measures or criteria for the product or application are provided. The section go so far as to suggest multiple layers may be needed. Additional detail is required regarding the specifics of the fixative as well as the criteria for determining an acceptable coating has been applied.

Response: Gross decontamination of the Silo 1 and 2 interior surfaces, and subsequent fixative application, will be implemented using standard D&D practices. The fixative spray will be applied to the interior walls of Silos 1 and 2 after the surfaces have been verified to be free from visible loose contamination. The fixative will be a water-based, paint-like liquid that will seal the concrete surface and assure that any residual contamination is under the fixative layer. The criteria for application of the fixative is a uniform coating that completely seals the surface of the concrete.

Section 2.2, Process Control Plan

12. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: Exhibit 1-1 Pg #: Line #: Code: C
 Original Comment #:
 Comment: Shouldn't the diagram include a feedback from the BOP to the EMMA and RCS?
 For example during alarm conditions the BOP shuts down EMMA?

Response: Although the EMMA and RCS are independent control systems, both systems are linked to the BOP system. The BOP system continuously receives real-time monitoring, status and logging data from the EMMA and RCS systems. The control system includes feedback mechanisms to initiate shutdown of retrieval operations in response to appropriate alarm conditions.

13. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: Process Control Table Pg #: Line #: Code: C
 Original Comment #:
 Comment: The process control should be revised to include an input from the Decant Sump Tank sensors to alarm and shut down retrieval operations.

Response: Agreed. As described in the response to OEPA Comment No. 4, the Decant Sump Tank sensors will be equipped with alarms to initiate appropriate corrective actions, including shutdown of retrieval operations. The referenced table has been revised to clarify these inputs (RD Package page 35).

14. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: Process Control Table Pg #: 2 Line #: Code: C
 Original Comment #:
 Comment: Allowing 0.5 feet of waste to accumulate in the TTA sump prior to alarming is unacceptable. The alarm should be set at 1 inch of liquid maximum. Corrective action should be initiated upon alarm.

Response: The primary means of detecting, and triggering response to a leak from one of the TTA tanks will be visual monitoring of the TTA from the control room via remote surveillance cameras. Each of the four TTA tanks will be equipped with a tank foundation sump which gravity drains to the main TTA sump. Each tank will have an exposed bottom drain line draining to the central sump. Remote camera monitoring of these four sump lines will allow identification and immediate response to a leak from one of the TTA tanks.

17. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 2.3 Pg #: Set Point Table (3 of 6) Line #: Code: C
 Original Comment #:
 Comment: Several entries in this table are not readable. Provide readable page.

Response: The "Process Control Plan Key Parameters/Setpoint Table" has been replaced with a re-formatted version (RD Package pages 31 - 37).

18. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 2.3 Pg #: Set Point Table (3 of 6) Line #: Code: C
 Original Comment #:
 Comment: Provide justification and methodology for the stack set point IS-STK-20-001.

Response: The stack monitor alarm setpoint for radon is calculated based on meeting the most stringent contract limit, 0.2 WL on site during the worst meteorological conditions.

The release rate for radon of 0.104 Ci/hr corresponds to an on-site concentration of 0.11 WL
 ($\text{Chi}/Q = 4.91 \text{ E-3 sec}/\text{m}^3$)

0.2 WL corresponds to 0.189 Ci/hr

Using a stack flow rate of 9000 ft³/min (Calculation CA-FSC624-FM-001) gives the corresponding concentration in the stack.

$$0.189 \text{ Ci/hr} (10^{12} \text{ pCi/Ci}) / (9000 \text{ ft}^3/\text{min})(28.3 \text{ l/ft}^3)(60 \text{ min/hr}) = 12,400 \text{ pCi/l}$$

The high-high limit for radon release was set for 6,000 pCi/l, a round number about half of the concentration corresponding to the most restrictive limit.

Note that meeting the most restrictive limit (0.2 WL onsite) guarantees meeting other less restrictive limits. As demonstrated below, emissions at the alarm setpoint will result in an annual average fence line radon concentration of only 2.5% of the 0.5 pCi/l criterion.

Chi/Q for determination of the public dose is $5.02 \times 10^{-7} \text{ sec}/\text{m}^3$.

$$6,000 \text{ pCi/L} (900 \text{ ft}^3/\text{min})(28.3 \text{ l/ft}^3)(5.02 \times 10^{-7} \text{ sec}/\text{m}^3) / (10^{12} \text{ pCi/Ci})(60 \text{ sec/min}) =$$

$$1.28 \times 10^{-11} \text{ Ci}/\text{m}^3$$

$$1.28 \times 10^{-11} \text{ Ci}/\text{m}^3 (10^{12} \text{ pCi/Ci}) / 1000 \text{ l}/\text{m}^3 = 0.0128 \text{ pCi/l.}$$

The stack setpoint for particulates ($5 \times 10^{-12} \text{ uCi/ml}$) is based on meeting an annual dose to the public of 1% of the 10 mrem/year NESHAP subpart H criterion (0.1 mrem/year) and considering Th-230 to be the radionuclide of concern.

Assume a concentration of $5 \times 10^{-12} \text{ uCi/ml}$

$$5 \times 10^{-12} \text{ uCi/ml} (9000 \text{ ft}^3/\text{min}^*) (28,300 \text{ ml}/\text{ft}^3) / (60 \text{ sec/min}) (10^6 \text{ uCi/Ci}) =$$

$$2.12 \times 10^{-11} \text{ Ci}/\text{sec}$$

$$2.12 \times 10^{-11} \text{ Ci}/\text{sec} (5.02 \times 10^{-7} \text{ sec}/\text{m}^3)^{**} = 1.07 \times 10^{-17} \text{ Ci}/\text{m}^3 \text{ or } \text{uCi}/\text{ml}$$

The standard man breathes 22,800l/day***

22,800 l/day (365 days/year) (1000 ml/l) (1.07×10^{-17} uCi/ml)

(320,000 mrem/uCi)**** = 0.028 mrem/year

Therefore, constant emissions at the alarm setpoint of 5×10^{-12} uCi/ml in the stack will result in a maximum dose to the public to less than 0.3% of the NESHAP Subpart H criterion.

*Stack flow rate (CA-FSC624-FM-01)

**Chi/Q for dispersion (annual average) (CA-FSC624-FM-01)

***Radiological Health Handbook

****Internal Dose Conversion factor for Th-230 (DOE/EH-0071)

19. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Process Control Table Pg #: 4 Line #: Code: C
Original Comment #:
Comment: Is it correct to assume that, the low set point for the pressure across filter would indicate a failure in the filter and require immediate corrective action? If so please clarify on the table.

Response: A low delta-P alarm would indicate a hole in or breach of a filter element, and would trigger immediate corrective action. The table has been revised to clarify this alarm (RD Package page 33).

20. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 2.3 Pg #: Set Point Table (5 of 6) Line #: Code: C
Original Comment #:
Comment: "TTA Area Radiation Monitor". What is the TTA Area? DOE 5400.5 states that radon concentrations should not exceed 100 pCi/L on-site. The high set point should reflect 100 pCi/L not 800 pCi/L.

Response: Agreed. The table has been revised to specify a high setpoint of 100 pCi/l. (RD Package page 35)

Section 3.0, Sampling and Analysis

21. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 1.3 Pg #: 2 Line #: Code: C
Original Comment #:
Comment: The CSL should be approved by Fluor-Fernald to ensure that the CSL meets the requirements outlined in the SCQ.

Response: As noted in the Sampling Plan, sampling will comply with FEMP Sitewide CERCLA Quality Assurance Project Plan (FD-1000) which stipulates the requirements and approval for CSL for use at the FEMP. A list of approved CSL will be provided to Foster Wheeler to expedite the Fluor Fernald qualification process for any CSL.

22. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 2.1.2 Pg #: 4 Line #: 1 Code: E
 Original Comment #:
 Comment: Change "...rare being met." to "...are being met."

Response: Text has been corrected (RD Package page 58).

23. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 2.1.2 Pg #: 4 Line #: Code: C
 Original Comment #:
 Comment: The text states that "mitigation measures and corrective actions will be implemented accordingly". What, specifically, will the mitigation measures and corrective actions be?

Response: When out of parameter discharge conditions are encountered, the system will automatically discontinue the discharge mode of operation and move into a recycle mode of operation. When the system is in the recycle mode of operation, mining operations will be terminated and operations personnel will be removed from the silo's bridge. Corrective actions could include a number of measures. The following actions are included as examples: 1) equipment repair, 2) initiation of redundant process trains, and 3) flow rate adjustment.

Detail on the setpoints and response actions for alarms such as the radon alarms referenced in this comment is provided in the Process Control Plans (RD Package Appendices G and H). The referenced text in the Sampling and Analysis Plan (RD Package 59) has been edited to reference the Process Control Plan.

24. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 2.1.3 Pg #: Line #: Code: C
 Original Comment #:
 Comment: This is obviously an inadequate level of detail for the sampling. The Sampling Plan for the residues must be included with in the Remedial Action Plan Package submittal.

Response: See response to OEPA Comment No. 7.

25. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 2.2 Pg #: General Comment Line #: Code: C
 Original Comment #:
 Comment: FWENCO needs to be sure that the QC stated in this RD are consistent with the SCQ

Response: Section 1.3 of the Sampling and Analysis Plan(RD Package page 57), indicates that the sampling plan will comply with FEMP Sitewide CERCLA Quality Assurance Project Plan (FD-1000) requirements. The detailed sampling and analysis procedures for the AWR Project will be developed in accordance with these requirements.

26. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 2.2.4 Pg #: 5 Line #: Code: C
 Original Comment #:
 Comment: How will a field duplicate be performed on an air sample? Revise text accordingly.

Response: The air sample analyses discussed in the Sampling and Analysis Plan involve analysis of the filters from the continuous stack monitor. As the sampler contains a single filter, which is changed on a bi-weekly basis, collection of a field duplicate sample from the stack monitor is not possible. The text has been revised to clarify the use of field duplicates for water samples (RD Package page 60).

27. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 3.2.1 Pg #: 8 Line #: Code: C
Original Comment #:
Comment: Switching the sample frequency from bi-weekly to monthly will need to be approved by USEPA and OEPA.

Response: Agreed. The referenced text (RD Package page 63) has been revised text to state "The filter element will be changed every two weeks. If there is evidence of no significant build up of particulates the sampling frequency may be lengthened with the approval of the USEPA and OEPA.

28. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 3.3 Pg #: 9 Line #: Code: C
Original Comment #:
Comment: Specifically identify where the sample storage drums will be stored.

Response: See response to OEPA Comment No. 6.

29. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 4.1.1 Pg #: 11 Line #: Table 4-1 Code: C
Original Comment #:
Comment: If the WAC for Ra-226 is 100 pCi/L why is screening limit set at 185 pCi/L?

Response: The screening limit has been revised to 100pCi/l gross alpha activity. Wastewater samples with total gross alpha activity less than the 100pCi/l screening limit can be assumed to meet the AWWT radiological WAC for all alpha emitters without further analysis. Samples exceeding the screening limit will require additional analysis to confirm whether or not they meet the AWWT criteria. The Sampling Plan has been revised to clarify the screening limits (RD Package page 65).

30. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 4.3 Pg #: Line #: Code: C
Original Comment #:
Comment: As stated in a previous comment, Ohio EPA does not think the proposed sampling is appropriate. Our concerns relate to recovery rate, spill probability and tank integrity.

Response: See response to OEPA Comment No. 7.

31. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 5.6.2 Pg #: 19 Line #: Code: C
Original Comment #:
Comment: How will ASL E quality data for radon emissions from the stack be met?

12

Response: ASL Level E applies to "non-standard protocols" for data not falling under the requirements for ASL levels A through D. Quality requirements for ASL Level E data are defined on a case-by-case basis based upon the needs of the individual application. The details of the equipment calibration, preventative maintenance, and other measures employed to assure that data from the continuous radon monitor meets the quality requirements of ASL Level E will be specified in the detailed procedures for air emission monitoring developed as part of the *RCS Phase 1 And 2 Standard Operating Procedures*.

32. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 5.6.2 Pg #: 19 Line #: Code: C
 Original Comment #:
 Comment: Data validation should be performed consistent with Fluor-Fernald SCQ.

Response: Section 1.3 of the Sampling Plan (RD Package page 57) , indicates that the sampling plan will comply with FEMP Sitewide CERCLA Quality Assurance Project Plan (FD-1000) requirements.

33. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: Appendix D Pg #: A-7 Line #: Code: C
 Original Comment #:
 Comment: Specifically state the method, i.e. alpha spectroscopy, and associated detection limits.

Response: The radiological analyses listed on pp. A-7 of Appendix D are for measurements made on individual filter papers taken from the stack monitor or filter paper composites. The lower limits for detection are taken from the Procedures Manual of the EML, HASL-300. The corresponding concentrations will be determined by dividing the analytical sensitivity by the amount of stack air sampled, i.e., the integrated flow rate for a week, two weeks, or a month, depending on the frequency of filter replacement – to be determined later. For composites, the airflow will ordinarily be integrated over the six-month period of collection. The a table identifying the specific method and associated detection limit for each radionuclide has been added to the Sampling and Analysis Plan (RD Package page 83)

34. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: Appendix E Pg #: A-8 Line #: Code: C
 Original Comment #:
 Comment: The second paragraph in "II. Summary" should be deleted. It has nothing to do with this section.

Response: Agreed. The referenced paragraph has been deleted (RD Package page 84).

35. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: Appendix E Pg #: A-8 Line #: Code: C
 Original Comment #:
 Comment: In section "IV Safety", change wastewater samples to air samples.
 Response: The text has been revised as recommended (RD Package page 84).

36. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Appendix E Pg #: A-9 Line #: Code: C
Original Comment #:
Comment: V. Procedure Guide A.7 What is the frequency of the intermediate readings?
Parameters such as flow rate, temperature, and pressure should be electronically logged.

Response: Agreed. These parameters are electronically read and logged continuously by the programmable logic controller (PLC). The readings referenced in this section of the sampling and Analysis Plan are the intermediate readings manually recorded by operations personnel in their field logbooks. The frequency of these manual readings will be specified in the detailed procedures for air emission monitoring developed as part of the *RCS Phase 1 And 2 Standard Operating Procedures*.

Section 4.0, Berm Excavation Plan

37. Commenting Organization: Ohio EPA Commentor: DSW
Section #: General Pg #: NA Line #: NA Code: C
Original Comment #:
Comment: Many of the response to comments made in review of the site prep package should have been carried over to this document and were not.

Response: All OEPA comments on the AWR Project Site Preparation Package have been reviewed for applicability to this RD package. All "carry-over" comments, and appropriate responses, have been appended to this comment response document. All necessary changes to RD Package documentation have been incorporated.

38. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 1.4 Pg #: Line #: Code: C
Original Comment #:
Comment: The proposed method for addressing soils where silo leakage may have occurred is unacceptable. The method will result in dilution of above WAC materials which is specifically prohibited by the SEP and WAC attainment plans. Removal of the soils prior to WAC determination is not acceptable. If any evidence of silo leakage is present, physical soil samples should be collected and analyzed for WAC criteria prior to soil removal. Based upon the sample results the soil may be removed and dispositioned as appropriate.

Response: Due to the radiation levels at locations near the silos, excessively long count times are necessary for real-time instrumentation to produce quantitative results. The intent of the originally proposed approach was to minimize worker exposure by removing the potential leaked material and affected soil to a location where additional characterization could be conducted. In response to OEPA's concerns of possibly 'diluting' such soils during movement prior to sampling, DOE is proposing an alternate approach for WAC verification.

If berm soil impacted by leakage from the silos is to be encountered, the DOE believes that it will be at two primary locations. The first location would be in the vicinity of one of the silo decant piping penetrations within the silo tank wall or at their associated pipe blind flanges. These locations of the decant piping penetrations are known. The second location would be at a location of a crack resulting in seepage through the silo tank wall itself. If any such locations do exist, specific locations are presently unknown due to the past placement of silo berm soil.

The proposed physical sampling methodology has been developed to address both of the potential leak scenarios. In either leak scenario, it is believed that any potential leaked materials will be uncovered during excavation of the 2 feet of berm soil immediately adjacent to the silo wall. It is further assumed that leaked materials can be visually determined due to composition or visual color differences within the berm soil.

The silo waste retrieval design specifies a maximum differential of 10 feet will be maintained between the silo contents and berm soil. During waste retrieval and berm excavation operations, a procedural target of a 5 ± 1 foot differential will be employed. A WAC verification sample will be taken to correspond to each 5 feet lift of silo berm soil beginning with the surface of the second 5 feet lift near the decant piping penetrations. Additionally, two other WAC samples at randomly selected locations in the lift surface will be taken. These samples will be analyzed for total uranium prior to initiating excavation of the 5-foot lift. Once analytical results are received, excavation can commence, and the soil from that 5-foot lift can be directly dispositioned to the OSDF or SP-7 based upon the analytical results.

If all three sample results are below WAC, the soil from that lift will be directly dispositioned to the OSDF. If any of the three results exceed the WAC, then either the entire 5 feet lift can be excavated and dispositioned to SP-7, or further physical samples may be taken to further delineate the above WAC area horizontally prior to excavation. The above-WAC portion of the 5 foot lift would then be dispositioned to SP-7, while the remaining portion of the 5 feet lift can be dispositioned to the OSDF.

In cases where visual evidence of leak material is encountered, excavation of the area will be suspended and a WAC sample will be taken and analyzed for total uranium regardless of lift. Further physical samples will be taken to delineate the area horizontally and vertically to delineate above-WAC the volume to be dispositioned to SP-7. After OEPA/USEPA approval of this RD Package is received, Fluor Fernald will further detail the procedure for WAC verification sampling of the berm soil in an Excavation Monitoring Project Specific Plan, submitted for approval prior to initiating excavation.

Section 1.4 of the Berm Excavation Plan (RD Package page 96) has been revised to incorporate the monitoring strategy described above.

39. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 2.3 Pg #: Line #: Code: C
 Original Comment #:
 Comment: This section references the height differential of 10 feet. However other sections of the report reference an acceptable differential of 5 feet. Clarity should be provided regarding the acceptable differential to be implemented in the field. Then the document should be revised throughout to be consistent with the agreed upon criteria.

Response: 10 feet is the maximum allowable height differential. During waste retrieval / berm excavation operations, a procedural target height differential of $5 \text{ feet} \pm 1 \text{ foot}$ will be employed as an extra measure of safety. The text and drawing notes in the Berm Excavation Plan (RD Package page 100) has been revised to clarify the 10 foot maximum differential and intended target $5 \text{ feet} \pm 1 \text{ foot}$ differential.

40. Commenting Organization: Ohio EPA Commentor: DSW
Section #: 2.4 Pg #: 6 Line #: NA Code: C
Original Comment #:
Comment: The statement that 'A few culverts cross...' was addressed in response to comment #6 (DOE-0674-00) however no change was made to the statement in this document. Also note that it appears as though 3 rather than 2 culverts cross the perimeter road. Please revise to state how many culverts cross the road.

Response: Two culverts cross the south perimeter road, and one crosses the west road. The referenced text in the Operational Environmental Control Plan (RD Package page 119) has been revised to clarify this.

41. Commenting Organization: Ohio EPA Commentor: DSW
Section #: 2.4 Pg #: 6 Line #: NA Code: C
Original Comment #:
Comment: This states that "These control measures are outlined in greater detail in the Stormwater Drainage Plan (Document No. 40170-625-P622-17)." This document must be included as part of the environmental control plan for review. When included, please refer to by its name rather than document number.

Response: The information from the Stormwater Drainage Plan (Document No. 40170-625-P622-17) applicable to site preparation construction activities was incorporated into the AWR Project Site Preparation Package submitted to, and subsequently approved by, OEPA and U.S. EPA. This information has been updated as required to reflect the stormwater drainage and controls during final construction, berm excavation, and residue retrieval phases of the AWR Project, and has been incorporated into the Operational Environmental Control Plan (RD Package pages 187 - 215).

42. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Drwng 11FCD004 Pg #: Line #: Code: C
Original Comment #:
Comment: As stated during several previous meetings, it is unclear how the sediment traps will function. Additional detail regarding their purpose and function must be provided.

Response: Drawings with flow arrows illustrating drainage to the sediment traps southwest of Silo 1, and Detail on the calculations and basis for the purpose, size and location of these sediment traps, have been added to the Stormwater Drainage Plan now included as part of the Operational Environmental Control Plan (RD Package Section 5.3).

43. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Drwng 11FCD006 Pg #: Line #: Code: C
Original Comment #:
Comment: During previous meeting we had discussed the placement of silt fence upgradient of the concrete track as well as the pivot point to keep these surfaces free of sediment. The drawing does not indicate this silt fence.

Response: Installation of silt fence to protect the SWRS turntable and SWRS support 'track' is reflected on drawings 11FCD007, 009, and 010. This silt fence has been added to drawing 11 FCD006 (RD package pages 107, 109, 110).

44. Commenting Organization: Ohio EPA Commentor: DSW
 Section #: 2.4 and drwg 11FCD009 Pg #: NA Line #: NA Code: C
 Original Comment #:
 Comment: In comment response #16 (DOE-0674-00), it is stated that detail information about the sediment basins would be included in the Remedial Design Package. No such information could be found in this document. The sediment traps appear in the southwest corner of the drawing, but there is no information on surface water flow, drainage area, etc.
- Response: The requested detail has been added to the Operational Environmental Control Plan See response to OEPA Comment No. 42.
45. Commenting Organization: Ohio EPA Commentor: DSW
 Section #: Drwg 11FCD009 Pg #: NA Line #: NA Code: C
 Original Comment #:
 Comment: There is no indication of surface water flow around silt fences, sheet flow, etc.
- Response: Flow arrows, depicting surface water drainage and flow to silt fences, sediment traps, and other control features, have been added to the Stormwater Drainage Plan now included as part of the Operational Environmental Control Plan (see response to OEPA Comment No. 41).
46. Commenting Organization: Ohio EPA Commentor: DSW
 Section #: Drwg 11FCD007 & 008 Pg #: NA Line #: Note 4 Code: C
 Original Comment #:
 Comment: Please add to this and other similar notes on the drawings that the berm height must be maintained at 5' +/- 1' higher than the level of waste in the silos at all times.
- Response: 10 feet is the maximum allowable height differential. During waste retrieval / berm excavation operations, a procedural target height differential of 5 feet \pm 1 foot will be employed as an extra measure of safety. The text and drawing notes in the Berm Excavation Plan (RD Package pages 100) have been revised to clarify the 10 foot maximum differential and intended target 5 feet \pm 1 foot differential.
47. Commenting Organization: Ohio EPA Commentor: DSW
 Section #: Drwg 66FCD001-7 Pg #: NA Line #: NA Code: C
 Original Comment #:
 Comment: None of the changes stated in the responses to comments (DOE-0674-00) to these drawings appear to have been submitted with this package (e.g. #20, removal of proposed 18" ST).
- Response: The 18" ST line under the south gravel access drive was deleted from the design in response to OEPA comments on the AWR Site Preparation Package. As indicated in the response to OEPA Comment No. 37, RD package documentation has been reviewed and revised as necessary to ensure that all "carry-over" comments from the Site Preparation package have been incorporated.

48. Commenting Organization: Ohio EPA Commentor: DSW
Section #: 2.5 Pg #: 10 Line #: Bullet 4 Code: C
Original Comment #:
Comment: See response to comment #36 (DOE-0674-00) with respect to using matting and seeding at culvert entrances and exits.

Response: The referenced section of the Operational Environmental Control Plan (RD Package page 123) has been revised to specify matting and seeding.

Section 5, Operational Environmental Control Plan

49. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 2.4 Pg #: Line #: Code: C
Original Comment #:
Comment: Inclusion of the 'Stormwater Drainage Plan (Document No. 40710-624-P622-17)' may help clarify some of the confusion regarding stormwater controls being suggested in this package.

Response: The Stormwater Drainage Plan has been updated as required to reflect completed site preparation and to detail the controls for facility construction, berm excavation, and AWR operations activities. The Stormwater Drainage Plan is now included as Section 5.3 of the Operational Environmental Control Plan.

50. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 2.4.2 Pg #: Line #: Code: C
Original Comment #:
Comment: As stated previously, removal and stockpiling of potential leak material is not acceptable. In situ determination is required, followed by immediate transfer to SP 7 if it is found to be above WAC.

Response: See response to OEPA Comment No. 38.

51. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 2.7 Pg #: Line #: Code: C
Original Comment #:
Comment: No reference is provided for the historical flow rate. The historical flow rate must be defined if it is to be used as an action criterion.

Response: The initial flow rate action level will be calculated from historical data from Decant Sump Tank pumping. The amount of liquid removed from the tank during each pump-out, and the periods of time over which they accumulated, will be used to calculate the "historical" flow rate. As described in the response to OEPA Comment No. 4, the Programmable Logic Controller (PLC) will continuously monitor the accumulation of liquid in the Decant Sump Tank. The PLC will be programmed to provide notification of changes in liquid level and infiltration rate throughout retrieval operations.

52. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 2.7 Pg #: Line #: Code: C
 Original Comment #:
 Comment: How is flow rate determined? Will a flow meter be used and if so how is it connected? Additional detail on flow rate monitoring must be provided.

Response: a level monitor connected to the programmable logic controller (PLC) continuously monitors The liquid level in the sump. The PLC system will use the known tank volume, and the data on change in liquid level to continuously monitor flow into the tank rather than relying on a flow rate meter. Set points for liquid level and flow into the tank will be programmable and will be optimized as operations proceed. Out of parameter conditions, such as high liquid level, or increase in flow into the sump tank, will result in an alarm and initiate corrective actions including removal of liquid from the tank, and, potentially, shutdown of AWR mining operations.

53. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 2.7 Pg #: Line #: Code: C
 Original Comment #:
 Comment: A tie to the Process Control System from the flow rate monitor is needed.

Response: Agreed. See response to OEPA Comment No. 52.

54. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 2.7 Pg #: Line #: Code: C
 Original Comment #:
 Comment: The Decant Sump Tank should be pumped out prior to initiation of retrieval operations.

Response: Agreed. The liquid from the Decant Sump Tank will be pumped out prior to initiating retrieval operations.

Section 5.1, Environmental ALARA Plan

55. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: General Comment Pg #: Line #: Code: C
 Original Comment #:
 Comment: The design basis for the RCS appears to be theoretical, based on a small data set from bench-scale testing. If the RCS does not operate as designed, contingencies should be in place to rectify RCS problems. The design should allow for possible changes to the system.

Response: The limited operational experience in treating radon at the scale required in this project has been recognized and considered in designing the RCS. The following design steps have been taken to address this concern and to provide assurance that the RCS will function and operate as required given the limited experience in treating radon.

1. Two independent laboratories conducted testing of carbon radon adsorption coefficient.
2. Two renowned radon experts evaluated design of radon control system.
3. Design consist of 4 carbon beds of 40,000 lbs. of carbon each and redundant chillers and desiccant dryer systems.

material. Though RCRA is not applicable to these materials it is certainly relevant and appropriate. Appropriate RCRA storage is required for the drums.

Response: See responses to OEPA Comments No. 6 and 7. The final design and procedures for silo residue sampling will include appropriate storage, in compliance with RCRA ARARs, for all samples. The referenced section of the Waste Handling Work Plan (RD Package page 220) has been revised to specify that the design will be in accordance with these requirements.

60. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 1.3 Pg #: Line #: Code: C
 Original Comment #:
 Comment: The section suggests the residue sample containers will be free of liquids. It is difficult to envision a sampling process that will result in liquid free samples. Additional clarification must be provided. It would seem counter productive to add the required quantity of absorbent necessary to remove free liquids from this material. DOE must reconsider the entire sampling strategy and objectives regarding the residues.

Response: Comment acknowledged. See response to OEPA Comment no. 7.

61. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 1.3 Pg #: Line #: Code: C
 Original Comment #:
 Comment: Ohio EPA has not found the drawing which provided details of the equipment decontamination pad. Please reference the drawing. The drawing will need to include design of the pad as well as appropriate routing of resultant wastewater.

Response: The location of, and drainage from, the equipment decontamination pad is now identified on Drawing No. 11FCD010 (RD Package page no. 215).

62. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 3.2.3 Pg #: Line #: Code: C
 Original Comment #:
 Comment: Ohio EPA is unfamiliar with the radiological survey technique that will allow free release of material such as the surrogate material. Additional clarification of this should be provided. It is necessary to determine the appropriate release mechanism of this material prior to its generation in order to prevent it from having to be disposed in the OSDF.

Response: The surrogate material will be evaluated for free-release in accordance with the FEMP free-release policy, which is documented in site procedure RP-0009, "Radiological Requirements for the Release of Materials at the FEMP." This procedure allows a combination of factors, including process knowledge, to be used to evaluate materials for free release. The surrogate materials will be staged, mixed, stored, transferred, and containerized in new, uncontaminated equipment, piping and tanks. Radiological Control personnel will maintain a process knowledge history and other required documentation, during preparation, use, and disposition of the surrogate to support the free-release determination. The basis for the free-release determination, and requirements for verification that the surrogate has not been contaminated, will be finalized as part of Project Waste Identification and Disposal (PWID) review and approval. The referenced text has been revised (RD Package page 224) to clarify these requirements.

63. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 3.2.5 Pg #: Line #: Code: C
Original Comment #:
Comment: Obviously the HEPA filters will require off-site disposal. However additional detail should be provided on packaging and storage. It is likely the filters will contain radon daughters that may result in considerable dose.

Response: As reflected on Table 4-1 (RD Package page 228) it is recognized that based upon the location and final characterization, some of the filter elements will require off-site disposal. Procedures for routine maintenance will provide for allowing sufficient decay time prior to servicing the HEPA filters, thus minimizing dose during change-out and subsequent management of the spent filters. The majority of the activity due to short-lived radon progeny will decay within a four-hour period. In the event servicing is required prior to a sufficient decay period, the filters will be removed and stored in a protective location until sufficient decay has occurred.

64. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 3.2.7 Pg #: Line #: Code: C
Original Comment #:
Comment: It would seem appropriate that oil filters would not be radioactive and not require on-site disposal. Unless radiologically contaminated these filters should be dispositioned off-site to an appropriate facility.

Response: Routine vehicle maintenance will be performed offsite, or outside the controlled area, to allow the contractor to dispose of used oil and filters at a commercial disposal facility. The referenced text (RD Package page 225) has been revised to specify that the used filters generated onsite due to emergency maintenance in the controlled area will either be "certified for free-release and disposed at an appropriate off-site facility, or crushed and bagged for disposal as category 4 material in the OSDF."

65. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 3.2.10 Pg #: Line #: Code: C
Original Comment #:
Comment: Where will these wastes be staged prior to disposal? Alternately some of the items may be usable within the controlled area of the site rather than sent to the OSDF.

Response: After being packaged and labeled in accordance with the approved Project Waste Identification and Disposition (PWID) document, secondary waste will be staged in the AWR project area for pick-up and transportation to the appropriate storage or disposal location. Pick-up and transportation will be coordinated to assure that all waste is removed from the project area as soon as possible and to prevent the accumulation of waste in the project area. Appropriate marking, containment, access control, and inspection of waste containers staged in the AWR area will be provided in accordance with applicable ARARs and site procedures. The referenced section of the Waste Handling Work Plan has been revised to state that sampling equipment will be 'decontaminated and surveyed for *either release for on site reuse or free release*. If the equipment cannot be *re-used or free released*, the equipment will be inventoried and staged for disposal as Category 2 or 3 material in the OSDF." (RD Package page 225)

66. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 3.3.3 Pg #: Line #: Code: C
 Original Comment #:
 Comment: These types of materials should be removed at the RMIA facility. All efforts should be made to minimize the amount of packaging material brought onto the site.

Response: Agreed. Text has been added to the referenced section of the Waste Handling Work Plan (RD Package page 226) specifying the use of measures, such as removal of packaging prior to bringing equipment or materials into the controlled area, to minimize the generation of contaminated waste.

67. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 4.1 Pg #: Line #: Code: C
 Original Comment #:
 Comment: What basis is there for the use of 'removable' markings on the drums? This seems to only present the probably of unmarked drums.

Response: The referenced text has been revised (RD Package page 227) to specify that all drums will be permanently labeled prior to removal from the container staging area.

68. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 4.1 Pg #: Line #: Code: C
 Original Comment #:
 Comment: Considering the nature of the wastes stored in the drums all primary waste and sampling residue should be transferred to the Plant 1 Pad for appropriate storage.

Response: A bullet has been added to the referenced section of the Waste Handling Work Plan (RD Package page 227) specifying that all containers of Silo 1 and 2 material or Silo 1 and 2 sampling residue will be transferred to an appropriate area (e.g. Plant 1 Pad) for storage in accordance with applicable RCRA container management requirements.

69. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 4.2 Pg #: Line #: Code: C
 Original Comment #:
 Comment: The section references Drawing Number 05FCD014. No such drawing is included within the submittal to Ohio EPA.

Response: A dedicated temporary waste staging area is no longer being proposed. After being packaged and labeled in accordance with the approved Project Waste Identification and Disposition (PWID) document, secondary waste will be staged in the AWR Project area for pick-up and transportation to the appropriate storage or disposal location. Pick-up and transportation will be coordinated to assure that all waste is removed from the project area as soon as possible and to prevent the accumulation of waste in the project area. Appropriate marking, containment, access control, and inspection of waste containers staged in the AWR area will be provided in accordance with applicable ARARs and site procedures. The appropriate text has been revised (RD Package page 229).

76. Commenting Organization: Ohio EPA. Commentor: OFFO
Section #: 2.11 Pg #: 9 Line #: Code: C
Original Comment #:
Comment: The ROD stipulates that all wastes from the silos will NOT be free-released and will be disposed of at an off-site facility permitted to receive silo wastes.

Response: The following text will be added to the referenced section of the Silo Penetration and Riser Installation Plan : "All silo concrete or other material removed from the interior of Silo 1 or 2 will be packaged for offsite disposal as directed by Fluor Fernald, Inc. Any other secondary waste generated during silo penetration and riser installation..." The specific procedures for accomplishing the necessary silo dome penetrations are being reevaluated. A revised Silo Penetration and Riser Installation Plan will be submitted for review and approval as part of the Remedial Action Work Plan for RCS Phase 1 Operation.

77. Commenting Organization: Ohio EPA. Commentor: HSI GeoTrans
Section #: NA Pg.#: Drawing # SKFMD012 Line #: NA Code: C
Original Comment #:
Comment: With regard to Note #2 on the referenced drawing, the word 'hole' should precede 'completely.....'.

Response: The text will be corrected as recommended. The revised drawing will be included in the revised Silo Penetration and Riser Installation Plan.

Appendix A

78. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: General Comment Pg #: Line #: Code: C
Original Comment #:
Comment: A number of drawings have been stamped "VOID". We are not sure why these drawings were included.

Response: The void drawings were included in the Remedial Design Package dated June 2000 to document the changes from the drawings submitted in the Remedial Design Package dated December 1999. These drawings and design concepts have evolved into the design presented in the June 2000 Remedial Design Package. The revised draft RD Package contains the most recent revision of drawings applicable to the current design. A "change summary" section has been added to the RD Package introduction (RD Package page 2) identifying the significant changes since the last submittal.

79. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Drwg 10FMD009 Pg #: Line #: Code: C
Original Comment #:
Comment: This drawing depicts the direct discharge of wastewater resulting from FSMS to a stream. Such a discharge is unacceptable. All wastewater must undergo proper treatment and discharge through an appropriate NPDES point.

Response: Agreed. As the FSMS surrogate will be comprised of inert materials (clay, sand, etc.) contaminants in the water from the dewatering bed are expected to be limited to suspended solids. After being sampled, the water will be discharged to a trench or stormsewer line discharging to the retention basin northeast of Silo 4. This basin discharges to the Waste Pit Area Stormwater Runoff Control Sump, which discharges to the AWWT.

Appendix C

80. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: DWG 20FMD001 Pg #: Line #: Code: C
 Original Comment #:
 Comment: Stream #4, Air (lbs./hr) should be 2162 not 2161.

Response: Stream #4 is the total airflow from Silos 1 and 2 to the chiller. The individual Silo 1 and 2 flows were rounded to the 1081 lbs/hr value shown on the table. The 2161lbs/hr total shown on the table is the correct value.

81. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: DWG 20FMD001 Pg #: Line #: Code: C
 Original Comment #:
 Comment: It does not appear that allowances for the warming of the air after the chiller.

Response: In order to prevent reheating of the air after the chillers, the lines will be insulated, and the carbon beds will be housed in air-conditioned vaults.

Appendix D

82. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: Contents Pg #: Line #: Code: C
 Original Comment #:
 Comment: The page numbering for the Decant Sump Waste Retrieval and TTA is incorrect.

Response: The table of contents for the System Design Description document has been corrected (RD Package page 396)

83. Commenting Organization: Ohio EPA Commentor: HSI GeoTrans
 Section #: 3.0 Pg.#: 10 Line #: 4 Code: C
 Original Comment #:
 Comment: A reference is made to two documents, "Functional Requirements Document (624-P622-02)" and "Design Criteria Package (624-P622-03)". These documents may or may not provide structural calculations and design assumptions for the bridge truss structure, and indicate that overturning moment due to wind has been evaluated for the entire bridge truss with all the equipment in place. Drawings detailing the structural steel members of the bridge truss were not found in this report or the drawings that accompanied it. The structural documentation contained in this report appears to be limited to discussions of the EMMA deployment tower system (Appendix F, page 17) and the mast for the EMMA manipulator (Appendix F, page 26).

Response: The structural calculation package for the Silo Waste Retrieval System (SWRS) support structure includes the calculations and design assumptions supporting the design. These calculations include consideration of factors such as wind loads. Both Fluor Fernald and

Response: During Silo Waste Retrieval operations, the liquid level and infiltration rate in the Decant Sump Tank constantly monitored by the PLC. When removal of the liquid becomes necessary, it will be removed using a submersible pump and a tanker truck. This equipment will be available to initiate pumping on an emergency basis if required.

After silo waste retrieval has been completed, a pump and skid system will be installed over the decant Sump tank to support removal of the sludge from the bottom of the Decant Sump Tank. The current design for Decant Sump Waste Retrieval utilizes a temporary liner and dike containment system rather than a concrete pad.

87. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 4.3.1 Pg #: Line #: Code: C
 Original Comment #:
 Comment: Neither this section nor the contingency plan address how DOE will respond to the situation where flow into the decant sump significantly increases resulting in potential releases from the tank. Ohio EPA believes this is a likely scenario and that a plan for addressing higher flows into the tank should be developed prior to initiating waste retrieval.

Response: Agreed. As indicated in the response to OEPA Comment No. 4, additional detail has been added to the RD Package describing implementation and control of the waste retrieval operation, including the link between monitoring of the liquid level in the decant Sump and control of the retrieval operation (RD Package page 19).

88. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 4.3.1 Pg #: Line #: Code: C
 Original Comment #:
 Comment: The section needs to describe the process for getting wastes from within the vacuum truck into the TTA tanks. Provide a flow diagram and drawings of the connection equipment.

Response: The design of the Decant Sump Waste Retrieval System has been modified to use a double-contained hose system to transfer the slurried decant sump waste directly to the TTA. This change is reflected in the referenced section of the System Design Description (RD Package page 431) and the DWRS PFD (RD Package page 350)

89. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 4.4.1 Pg #: Line #: Code: C
 Original Comment #:
 Comment: A plan detailing the FSMS methods and objectives will need to be submitted to the agencies for review prior to initiation. Additionally how will information from the FSMS be incorporated into the RD/RA documentation and implementation.
 Response: See response to OEPA Comment No. 9.

90. Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 4.7 (9) Pg #: Line #: Code: C
 Original Comment #:
 Comment: Ground discharge of any wastewater is not acceptable. Remove reference to such. Water from the FSMS will require treatment through the AWWT or similar facility prior to discharge through an appropriate NPDES point.

Response: The referenced section of the System Design Description has been revised to specify that the wastewater from dewatering the FSMS surrogate will be sampled and discharged to a trench or stormsewer line discharging to the stormwater basin northeast of Silo 4. This basin discharges to the Waste Pit Area Stormwater Control Sump, which discharges to the AWWT.(RD Package page 447).

Appendix E

91. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: General Comment Pg #: Line #: Code: C
Original Comment #:

Comment: The set and operation of the radon monitors and high volume samplers needs to commence as soon as possible to allow for the gathering of baseline data. Provide a schedule for the installation of the referenced monitors and samplers.

Response: Installation of the four new monitoring locations is currently in process. Collection of baseline data from these locations is being initiated during the remainder of calendar year 2000.

92. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 3.1.4 Pg #: 4 of 7 Line #: Code: C
Original Comment #:

Comment: Submicron particulate sampling and/or treatment needs to be evaluated as part of the Silo 3 remediation.

Response: Agree. This issue was addressed in Operational Environmental Control Plan included in the Remedial Design Package for the Silo 3 Project. Additional discussion of the impact of submicron particles present in the Silo 3 material was provided in response to Ohio EPA comments on the Silo 3 Remedial Design Package (DOE-0592-00, August 23, 2000).

93. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 4.0 Pg #: 6 of 7 Line #: Code: C
Original Comment #:

Comment: The four additional monitoring locations for radon and particulates *will* be reported through the IEMP quarterly status reports.

Response: Agreed. The referenced text in the Silos Projects Environmental Monitoring Plan (RD Package page 242) has been revised to state that the radon and particulate data from the four new monitoring locations will be reported through the IEMP quarterly status reports.

94. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: DWG 94X-5500-G-02259 Pg #: Line #: Code: C
Original Comment #:

Comment: The monitoring location designation on the drawing does not match the location names in the test. Revise accordingly.

Response: Drawing 94X-5500-G-02259 (RD Package page 244) has been revised to include the monitoring location designations for the new monitors, consistent with the text in Section 3.1.3 of the Silos Projects Environmental Monitoring Plan.

Appendix H

95. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 2 Pg #: 4 Line #: Code: C
Original Comment #:

Comment: The text states, "Acceptable ranges of operation are 0.5 to -2 inches water gauge". This is not an acceptable range of operation. OEPA recognizes there may be momentary upset conditions that may fall within this range, but expects the silo pressure to be maintained between 0.0 to -1.0 inches water gauge.

Response: Agreed. See response to OEPA comment No. 15.

96. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 11 Pg #: 27 Line #: Code: C
Original Comment #:

Comment: The text states that the "entire system" will shut down on high-high radon alarm. Is the "entire system" the RCS or the whole AWR?

Response: When out of parameter emissions are encountered, the system will automatically discontinue the discharge mode of operation and move into a recycle mode of operation. When the system is in the recycle mode of operation, mining operations will be terminated and operations personnel will be removed from the silo's bridge.

U. S. EPA Comments

GENERAL COMMENTS

1. Commenting Organization: U.S. EPA
Section #: 2.1 and 2.2 Page #: Not applicable (NA) Line #: NA
Original General Comment #: 1
Comments: The pages in these sections are unnumbered. Similarly, the figures and exhibits are unnumbered with consecutive page numbers and Exhibit 1-1 and the index are missing. These deficiencies should be corrected.

Response: To facilitate EPA review, RD Package page numbers have been added to all pages in the package. A table of contents referencing these new page numbers has also been included.

2. Commenting Organization: U.S. EPA
Section #: 2.2 Page #: NA Line #: NA
Original General Comment #: 2
Comments: Under the "Alarms" column in the Key Parameters/Set Point Table, the table should indicate whether both high and low alarms are provided or whether only one of the alarms is furnished.

Response: All of the setpoints reflected on the table will be alarmed. If the table indicates both high and low alarms for a given instrument, then both will be alarmed.

3. Commenting Organization: U.S. EPA
Appendix #: A Page #: NA Lines #: NA
Original General Comment #: 3
Comments: A number of drawings in this appendix contain a note stating that "for general notes see drawing 05FMD004." However, this drawing is not included in this submittal. In addition, a number of drawings are listed as "reference drawings," but none of these drawings are included in this submittal. Finally, many drawings indicated in the process flow diagrams are not included in this submittal. The missing drawings should be included in the document to facilitate proper review and to provide continuity.

Response: Reference drawings noted on the Process Flow Diagrams have been included in the Revised Remedial Design Package for information.

4. Commenting Organization: U.S. EPA
Appendix #: C Page #: NA Lines #: NA
Original General Comment #: 4
Comments: The total mass and volume values shown in the mass balance tables do not agree with the flow rates, densities, and times shown. The tables should be reviewed and corrected so that all totals agree with the flow rates indicated over the times shown.

Response: The Heat and Material Balance tables have been reviewed and corrected as required. With the exception of differences due to rounding, all totals agree with the flow rates indicated over the times shown (RD Package pages 386 - 394).

SPECIFIC COMMENTS

5. Commenting Organization: U.S. EPA
 Section #: 2.1 Page #: NA Lines #: NA
 Original Specific Comment #: 1
 Comments: In subsection 6, the text states that "the ducting arrangement, in conjunction with the automated monitoring and damping system, prevents backflow of contaminated gases to the atmosphere." It is not clear how this will be achieved because the silos will be allowed to operate at +0.5 inch of water gauge (WG). If the silos will be operated at positive pressure at any time, the "contaminated gases" from the silos will backflow to the atmosphere through cracks in the silos as well as through other gaps or openings. The text should be revised to address this issue.

Response: See response to OEPA Comment No. 15.

6. Commenting Organization: U.S. EPA
 Section #: 2.1 Page #: NA Lines #: NA
 Original Specific Comment #: 2
 Comments: Exhibit 6-1 is illegible. A better quality copy should be provided.

Response: A readable version of Exhibit 6-1 has been included (RD Package page 15).

7. Commenting Organization: U.S. EPA
 Section #: 2.2 Page #: NA Lines #: NA
 Original Specific Comment #: 3
 Comments: The Key Parameters/Set Point Table indicates that the function of the instrument with Tag No. PDI-SILO-20-001 is to monitor and control silo pressure and that the response will be to "damper modulation to regain operating set point: system shut-down on unrelieved pressure conditions." It is not clear how this will work because no instrumentation drawings and loop diagrams are included in the document. However, if the pressure inside the silo is positive (+0.5 inch WG) and rising, the system will sound an alarm and then shut down if the pressure continues to rise. If the pressure is rising, the system should not shut down. In fact, it is advisable to have a standby system to prevent the silos from overpressurization. The text should be revised to address these issues.

Response: The following engineered safeguards are in place to prevent over pressurization of the silos 1) automated master/slave damper system tied to the process control system, 2) an automated pressure relief valve designed to vent through the carbon beds, HEPA filters, and the monitored discharge stack and thereby preclude continued positive-pressure operation.

The intended "operating range" for silo headspace pressure during normal operations is between 0 and -1.0 inches water gauge. Short-term excursions above this target range, up to the "never to exceed" limit of +0.5 inches water gauge, will be allowed to avoid automatic shutdown due to temporary pressure transients. The actual high pressure setpoint that will automatically annunciate the pressure relief valve will be optimized during operations but is expected to be 0.1" WC. Continued operation at positive headspace pressure will not be allowed.

Detailed discussion of the control of headspace pressure within these limits is provided in the RCS Process Control Plan (RD Package page 39).

8. Commenting Organization: U.S. EPA
Section #: 2.2 Page #: NA Lines #: NA
Original Specific Comment #: 4
Comments: In the Key Parameters/Set Point Table, for Tags No. GA-CHR-20-001B, GA-DDS-20-001A, GA-CHR-20-001A, and GA-DDS-20-001B, descriptions in the L-SP and H-SP (low and high setpoints) columns are too large to fit in the space provided. The table should be revised to correct this problem.

Response: A reformatted version of the Key Parameters/Set Point Table has been included (RD Package pages 31 - 36).

9. Commenting Organization: U.S. EPA
Section #: 2.2 Page #: NA Lines #: NA
Original Specific Comment #: 5
Comments: In the Key Parameters/Set Point Table for Tag No. 1S-STK-20-001, the descriptions in the instrument range, L-SP, H-SP, and response columns are too large to fit in the space provided. The table should be revised to correct this problem.

Response: A reformatted version of the Key Parameters/Set Point Table has been included (RD Package page 31 - 36).

10. Commenting Organization: U.S. EPA
Section #: 2.2 Page #: NA Lines #: NA
Original Specific Comment #: 6
Comments: In the Key Parameters/Set Point Table for Tags No. PIT-PMP-1-301P through PIT-SS-003, the responses read "Alerts operations of out of potential problems." Because the instruments appear to only have high-pressure alarms, it is not clear what these responses mean. The table should be revised to address this issue.

Response: The Key Parameters/Set Point Table has been revised to clarify the function of, and responses to these alarms (RD Package page 35).

11. Commenting Organization: U.S. EPA
Appendix #: A Page #: NA Lines #: NA
Original Specific Comment #: 7
Comments: Drawings No. 11FMD008, 77FMD004, and 77FMD008 are shown as voided. It is unclear how the system was modified or replaced because no explanations are provided for this change. The document should explain how the system was modified.

Response: The void drawings were originally included in the included in the Remedial Design Package dated December 1999 and were marked "VOID" and included in Remedial Design Package dated June 2000 to document the changes from the design reflected in the original package. These drawings and design concepts have evolved into the design presented in the June 2000 Remedial Design Package. The revised draft RD Package contains the most recent

revision of drawings applicable to the current design. A "change summary" section has been added to the RD Package Introduction (RD Package page 2) identifying the significant changes since the last submittal.

12. Commenting Organization: U.S. EPA
 Appendix #: A Page #: NA Lines #: NA
 Original Specific Comment #: 8
 Comments: Drawing No. 51FMD001 is shown as voided. It is unclear which system will replace this one because no reason is provided for this change. The document should explain how the system was modified.

Response: See response to U.S. EPA comment No. 11.

13. Commenting Organization: U.S. EPA
 Appendix #: A Page #: NA Lines #: NA
 Original Specific Comment #: 9
 Comments: Drawings No. 11FMD003 and 11FMD009 show "decon water" entering the sluice module. However, it is not clear what the source of the decon water is and no drawing reference is shown. The drawings should be corrected to indicate the source of the decon water.

Response: The "decon water" to the sluice module comes from the ultrafiltration system. Drawings No. 11FMD003 and 11FMD009 have been revised to indicate the source of the water (RD Package pages 332 and 337).

14. Commenting Organization: U.S. EPA
 Appendix #: A Page #: NA Lines #: NA
 Original Specific Comment #: 10
 Comments: In Drawing No. 10FMD003, it is unclear why the make-up air is introduced into the fan suction where it mixes with air that will be discharged through the stack. It is also unclear how the air flow is controlled. There are in-flow meters indicated, but it is unclear how the dampers are controlled because no process and instrumentation drawings are provided. It may be advisable to introduce make-up air into the silo directly. The design should be reviewed and revised accordingly. In addition, point identification drawings should be included to facilitate review of the proposed systems.

Response: As requested, Piping and Instrumentation Diagram (P&ID) drawings have been included (RD Package pages 488 - 535) for information to facilitate review. Detailed discussion of the strategy for managing airflow to and from the silo headspaces, and for control of headspace pressure, has been added to the Process Control Summary (RD Package page 39).

15. Commenting Organization: U.S. EPA
 Appendix #: B Page #: NA Lines #: NA
 Original Specific Comment #: 11
 Comments: Drawings No. 11FMD025, 11FMD026, and 20FMD029 are shown as voided. However, no reason is provided for voiding these drawings. The document should explain how the system was modified.

Response: See response to U.S. EPA Comment No. 11.

16. Commenting Organization: U.S. EPA
Appendix #: C Page #: NA Lines #: NA
Original Specific Comment #: 12
Comments: The mass balance tables shown in Drawing No. 10FMD001 indicate precise flows for each of the streams. It is not clear how these flows will be achieved because Drawing No. 10MFD003 does not indicate any flow measuring devices. In addition, it is not clear how the motorized dampers are controlled. The drawings should be revised to indicate all the flow measuring devices, including their control signals, interlocks, and other details to illustrate how the entire system will work.

Response: Piping and Instrumentation Diagram (P&ID) drawings have been added (RD Package pages 488 - 535) to provide the requested detail.

17. Commenting Organization: U.S. EPA
Appendix #: C Page #: NA Lines #: NA
Original Specific Comment #: 13
Comments: In Drawing No. 10FMD006, Stream No. 4 (decant water to be filtered) is shown to have a flow rate of 320 gallons per minute, and the system will be operational for 24 minutes per day. This will produce a total volume of 7,680 gallons of water, not 7,520 as shown in the mass balance table on the drawing. The table should be corrected accordingly. In addition, the total volumes shown for Streams No. 7 and 21 do not agree with the flow rates indicated and the times shown in the table. The solids also do not agree with the density, volume of slurry, and time of operation indicated. The table should be reviewed and all values corrected accordingly.

Response: The Heat and Material Balance tables have been reviewed and corrected as required (RD Package pages 386 - 394).

18. Commenting Organization: U.S. EPA
Appendix #: C Page #: NA Lines #: NA
Original Specific Comment #: 14
Comments: In the mass balance table in Drawing No. 11FMD001, the total volume and total mass shown for Streams No. 1, 4, 7 (all three), 8, 21, 28, 29, 30, and 37 do not agree with the flow rates, times, and densities indicated in the table. In addition, the total volumes do not agree with the flow rates and times shown for streams No. 10, 12, 13, and 15. It appears that all the tables in Appendix C need to be reviewed and corrected (see Original General Comment No. 4). The mass balance tables should be revised as required.

Response: The Heat and Material Balance tables have been reviewed and corrected as required.

19. Commenting Organization: U.S. EPA
Appendix #: I Page #: 8 Lines #: NA
Original Specific Comment #: 15
Comments: Original Specific Comments No. 15 and 16, 17, and 18 on the berm excavation plan and sampling plan, respectively, in the January 2000 remedial design package have not been addressed. Responses to these comments should be provided.

Response: The responses to these four comments were inadvertently omitted from the June 30, 2000 comment response document. These comments, and the responses, are included below.

**RESPONSES TO U.S. EPA COMMENTS ON JANUARY 2000 DRAFT RD PACKAGE
(OMMITTED FROM JUNE 2000 COMMENT RESPONSE)**

1. Commenting Organization: U.S. EPA
 Section #: 1.4 Page #: 2 Line #: NA
 Original Specific Comment: 15
 Comment: The text states that the soil will be continuously surveyed for the presence of contamination during excavation. Separate documents should be submitted to detail how this survey can be performed with adequate sensitivity and accuracy in the presence of the gamma interference (commonly called radioactive "shine") from the K-65 material in the silos.

Response: Comment acknowledged. See response to OEPA Comment No. 38.

2. Commenting Organization: U.S. EPA
 Section #: 2.3 Page #: 6 Line #: NA
 Original Specific Comment: 16
 Comment: The text states that method blanks will be used to monitor for the presence of interfering substances. A blank sample prepared using a new batch of reagent should be analyzed before that batch is accepted for use on actual samples. In addition, each new lot of spiking solution for laboratory control samples (discussed in Section 2.2.1) and for matrix spikes (discussed in Section 2.2.5) should be analyzed before the lot is accepted. Section 2.3 should be revised to incorporate these practices.

Response: Agreed. The Sampling and Analysis plan has been revised to specify these additional analyses (RD Package page 61).

3. Commenting Organization: U.S. EPA
 Appendices C and E Page #: NA Line #: NA
 Original Specific Comment #: 17
 Comment: Appendices C and E present procedures for collecting water and air samples, respectively. The certified-for-construction drawings, which are not yet available, should incorporate the necessary taps, sample ports, and working space for the sample activities discussed in these appendices.

Response: Agreed. The general sampling locations are reflected on the Process Control Diagrams and Piping and Instrumentation Diagram drawings. The detailed design of sampling locations, including the specific set up of the sample ports and taps, consideration working space, ALARA concerns, etc. is being addressed as part of Final Design preparation.

4. Commenting Organization: U.S. EPA
Appendix E
Original Specific Comment #: 18

Page #: NA

Line #: NA

Comment: The text states that samplers should "take intermediate readings of flow rates" and other relevant parameters. The text should specify the frequency for intermediate readings, such as once every minute, hour, or day.

Response: These parameters are electronically read and logged continuously by the programmable logic controller (PLC). The readings referenced in this section of the sampling and Analysis Plan are the intermediate readings manually recorded by operations personnel in their field logbooks. The frequency of these readings will be specified in the detailed procedures for air emission monitoring developed as part of the *RCS Phase 1 And 2 Standard Operating Procedures*.

**CARRY-OVER COMMENTS FROM 4/28/00 OEPA REVIEW
OF AWR PROJECT SITE PREPARATION PACKAGE**

1. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 8.0 Pg #: 6 Line #: Code: C
Original Comment #: 2
Comment: Since DCNs constitute changes to an approved CERCLA deliverable, Ohio EPA expects the opportunity to review and approve DCNs prior to implementation. Submittal simply for information is not acceptable.

Agreed. Using the same procedure currently utilized for the Site preparation package, DCN's impacting the approved Remedial Design Package, will be forwarded by e-mail to Ohio EPA and U.S. EPA for review and concurrence prior to implementation.

2. Commenting Organization: Ohio EPA Commentor: DSW
Section #: Attachment A, 2.2 Pg #: 4 Line #: NA
Original Comment #: 6
Comment: This states that "...a few culverts cross the southern perimeter road..." Please state how many so that we can locate all of them on the drawings.

Response: See response to OEPA RD Package Comment No. 40

3. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Attachment A, section 2.2.2 Pg #: 6 Line #: Code: C
Original Comment #: 8
Comment: The section does not reference the concrete water diversion shown on drawing 66FCDOO2. Additional clarification is needed.

Response: The concrete diversion berm (northwest of the TTA) is now reflected on drawings 11FCD003 and 11FCD009.

4. Commenting Organization: Ohio EPA Commentor: DSW
Section #: Attachment A, 2.3 Pg #: 7 Line #: NA
Original Comment #: 9
Comment: This states that culvert entrances and exits are to be protected with rip rap or geofabric. Response to comment 7 (page 2 of response to written comments, Attachment D) indicates changes would be made to section 2.3 that coir matting and natural vegetation would be used for culvert entrances and exits. These changes have not been made in all the drawings either (see comment on drawings).

Response: See response to OEPA RD Package Comment No. 48.

5. Commenting Organization: Ohio EPA Commentor: DSW
Section #: Attachment A, Appendix B Pg #: 7 of 7 Line #: NA Code: C
Original Comment #: 16
Comment: This states that "...to the sedimentation basins in the southwest corner. These sediment basins have a storage capacity of approximately 50.0 cy to protect an area less than 1 acre..." The drawings do not show these basins. Additionally, the entire area that drains to a sediment basin must be considered in sizing it, not just the disturbed or construction area.

10. Commenting Organization: Ohio EPA Commentor: DSW
Section #: Attachment B, Drawings Pg #: 66FCD006 Code: C
Original Comment #: 28

Comment: Catch basin protection detail should show reinforcing and installation detail as described in ODNR Rainwater and Land Development page 125.

Response: Inlet protection in accordance with ODNR Rainwater and Land Development, page 125 has been added around catch basins CB-02, CB-03, and CB-04 on drawings 11FCD003, 11FCD009, and 11FCD010. A note referencing page 125 of the ODNR manual has been added to these same drawings.