RESPONSES TO U.S. EPA AND OEPA COMMENTS ON REVISED FOCUSED FEASIBILITY STUDY/PROPOSED PLAN FOR OPERABLE UNIT 4 SILO 3 REMEDIAL ACTION

USEPA TECHNICAL REVIEW COMMENTS

GENERAL COMMENTS

1. Commenting Organization: U.S. EPA Commentor: Jablonowski
Section #: Not Applicable (NA) Page #: NA Line #: NA
General Comment #: 1
The revised focused feasibility study/proposed plan (PP) should be revised to provide more detail on how the proposed alternate remedy will be protective of human health and the environment. Therefore, the following information discussed below should be included in the PP:

1) The PP should be revised to explain why not treating the Silo 3 waste for toxicity characteristic metals will be protective of human health and the environment. Specifically, the PP should explain why the metal concentrations in the waste will not pose a threat to workers during on-site waste handling and to other receptors during waste transportation. Where applicable, this explanation should include a summary of remedial investigation (RI) data on metal concentrations in the waste and associated risk assessment findings.

Response: Agree, however as a result of stakeholder concerns with the dispersability of the Silo 3 materials in transit, DOE has now elected to pursue a new treatment approach, that addresses both material dispersability and the mobility of leachable metals in the Silo 3 residues. DOE is therefore no longer pursuing a no treatment alternative. This new approach includes the addition of a chemical reagent to provide a reduction in the mobility of some or all of the metals in the residues. As discussed with the agencies and the stakeholders, this revised approach is being implemented as a best management practice and therefore has no quantitative performance standards attached to it. While DOE's best management commitment addresses stakeholder concerns, the actual level of protectiveness is defined by the waste acceptance criteria of the receiving facility, and the shipping requirements during transit. This revised approach is not necessary to comply with either the health-protective acceptance criteria, or the shipping requirements. Rather, the revised best management commitment approach provides an incremental benefit above and beyond the requirements that the cognizant decision-makers have

concluded is cost effective and therefore meaningful to the performance of the remedy.

Action: The revised Silo 3 Proposed Plan now includes the new waste treatment approach as part of the preferred remedy for Silo 3.

2) The PP should clearly address the National Contingency Plan's (NCP) preference for treatment of principal threat material and why an exception should be made for the Silo 3 material.

Response: Agreed. The revised treatment approach now includes a discussion of the statutory preference for treatment. As noted in the revised document, that preference weighed into the decision making to adopt the revised approach as the preferred alternative.

Action: Incorporate this discussion into the Proposed Plan accordingly.

3) The PP should be revised to explain why not treating the Silo 3 waste will not result in increased risk for on-site workers. Specifically, the PP should summarize how the remedial design (RD) for Silo 3 will be protective of on-site workers during waste handling. Where applicable, this summary should focus on use of automated versus manual waste handling techniques and other release controls.

Response: Agreed. With the revised treatment approach, a discussion has been provided in the Description of the Proposed Revised Remedy and the Evaluation of the Alternatives section of the Proposed Plan to discuss the controls necessary to protect the onsite worker during waste handling activities.

Action: Incorporate this discussion into the Proposed Plan accordingly.

4) The PP states that the routine transportation risk was found to be significantly less than 10^{-6} and therefore meets the requirements of the currently approved remedy. However, Appendix B indicates that the transportation risk posed under a hypothetical accident scenario exceeds 10^{-6}. Therefore, the PP should be revised to explain why there is a very low probability of a transportation accident occurring. In addition, the PP should be revised to briefly describe emergency response procedures to be implemented in the event of an accident, including the Fernald Environmental Management Project (FEMP) transportation emergency plan and the procedures of carriers and local authorities along the transportation route.

Response: Agreed. Attachment 3 (formerly Appendix B) of the Proposed Plan (PP) will be modified to include the probability data for Severity Class 3 through 8 accidents. The PP also will be modified to identify additional measures that are implemented to ensure the safe transport of radioactive

material from the FEMP. Although measures to be implemented are identified in the PP, the PP is not the proper document for a detailed description of the FEMP Emergency Response Procedure for a transportation accident. If necessary, the FEMP Emergency Response Procedure for a transportation accident will be included in the Transportation and Disposal Plan.

In addition, the original RADTRAN5 runs assumed full release of material from Severity Class 3 through Severity Class 8 accidents. This was a very conservative and unrealistic assumption because it assumes, in the case of a truck accident, that the sealand container and all seven soft-sided bags with liners are destroyed resulting in the full release of Silo 3 material. However, it is unlikely that an accident of Severity Class 3 through 8 would generate the necessary force that would result in the full release of Silo 3 material. Therefore, the input parameters for a hypothetical accident have been revised for both the currently approved remedy and the proposed revised remedy. The amount of Silo 3 material released during an accident is now contingent upon the severity of the accident conditions. Only under the most severe accident conditions (Severity Class 8), does there result in a full release of Silo 3 material from the lift-liners and the sealand container. The airborne release fractions and respirable fractions have also been modified to be consistent with the properties of the specific form of the waste, untreated versus cement-based. References for the input parameters have been included in the supplement to the PP. These parameters will impact the dose, both internal and external, received by an exposed population during a hypothetical accident.

Action: The PP has been revised to include data for accident probability, identify additional safety measures for transport of radioactive material, modified input parameters and the resulting output data, and references for the input parameters.

5) The risk and dose associated with the inhalation of untreated Silo 3 material under an accident scenario should be expressed in a way that allows evaluation of realistic acute radiation exposure events. The following should be provided: 1) dose per milligram for inhaled Silo 3 material; 2) ranges for expected uptakes and associated doses for individuals at an accident scene; and 3) comparisons to dose limits such those prescribed by DOE's administrative dose limit, NRC's occupational limit, NESHAP limits, etc. This should allow a more realistic assessment of the risks associated with the shipment of Silo 3 materials, and support a decision basis for whether the Silo 3 material should be shipped in a dispersible or non-dispersible form. While the likelihood of an accident is low, the potential radiation dose to those exposed in an accident incident should be better understood.

Response: Disagree. RADTRAN5 output files provide data on dose to the maximum exposed individual during routine transport and during a

hypothetical accident. RADTRAN5 also provides data on the dose to an exposed population under both scenarios.

RADTRAN5 provides the necessary information from a modeling perspective of the risk posed by the transportation of the Silo 3 material without the need for calculating the dose per milligram of inhaled Silo 3 material. This calculation is not an output of the model and cannot be readily provided, and may not yield information useful to a reviewer of a Proposed Plan.

The output data for a hypothetical accident has been divided into Severity Classes. Associated with each Severity Class is the probability of an accident occurring over the shipping campaign, the resulting dose to an exposed population should the accident occur, and the incremental lifetime cancer risk to an exposed individual assuming an even distribution of dose across the exposed population. This provides a range of exposure and risk to a population over a corresponding range of accident severities. The RADTRAN5 model does not provide output fields examining doses to individuals at accident scenes.

Comparison of RADTRAN5 data to DOE's administrative limits, NRC's occupational limit, and NESHAP limits is neither appropriate nor in the scope of this document. The limits provided by these regulations do not apply to a transportation accident.

Action: The PP will be modified to divide the output model data for accidents by severity class providing accident probability, dose to an exposed population should accident occur, and the incremental lifetime cancer risk to an exposed individual assuming an even distribution of dose across the exposed population.

6) The PP indicates that the alternate remedy will meet the waste acceptance criteria (WAC) for either the Nevada Test Site (NTS) or a permitted commercial disposal facility (PCDF). However, a more detailed discussion of compliance with the WAC for NTS and a representative PCDF should be provided. Specifically, the PP should summarize the elements of the NTS WAC and representative PCDF WAC that are most relevant to the Silo 3 waste, such as concentrations of site-specific radionuclides and metals as well as physical properties such as free liquid content.

Response: Agree. The Nevada Test Site has been selected as the representative DOE disposal facility. Text has been added to the Discussion of overall Protection of Human Health and the Environment to indicate the key or principal elements of the NTS WAC.

Action: Text incorporated into the revised Proposed Plan as discussed in the response above.

2. Commenting Organization: U.S. EPA Commentor: Jablonowski
Section #: NA Page #: NA Line #: NA
General Comment #: 2
As it stands currently, only NTS could possibly accept untreated Silo 3 material. It is evident that DOE does not want to perform on-site treatment of Silo 3 material regardless of disposal options available. This PP and its cost comparison (Appendix C) emphasize rail transport and disposal at a PCDF, while it is not clearly evident that a PCDF could currently accept untreated Silo 3 material for disposal. It would seem appropriate that the alternative "no-treatment" remedy should be comprised of what is currently permissible, and that is shipment by truck to NTS. Other potential disposal options, such as a PCDF or another DOE site for example, could be discussed and should be regarded as contingencies (subject to EPA approval) if they become available, as well as the transportation modes associated with those disposal sites.

Response: Agreed. Based on the discussions held in Chicago in November, the Proposed Plan will be simplified to only compare two alternatives: the 1998 ESD Silo 3 remedy, and the new revised approach that includes the treatment for dispersability and metals mobility. For consistency in alternative comparison (and cost estimating), both alternatives will adopt truck transport to the Nevada Test Site as the representative option for shipping and disposal. The other options are discussed only as options for consideration later (i.e., regarded as contingencies, subject to EPA approval as the commentor suggests).

Action: Incorporate this discussion into the Proposed Plan accordingly.

3. Commenting Organization: U.S. EPA Commentor: Jablonowski
Section #: NA Page #: NA Line #: NA
General Comment #: 3
The PP should be revised to provide more detail on how the proposed alternate remedy will comply with applicable or relevant and appropriate requirements (ARAR). Specifically, the PP should briefly identify the ARAR compliance strategies for the Silo 3 RD.

Response: Agreed. Discussion has been added about how RCRA ARARs were adopted as relevant and appropriate requirements in the original Operable Unit 4 ROD, and what that means to the revised remedy. An ARARs table for the preferred alternative is also included as Attachment 2 in the companion supplement to the Proposed Plan.

Action: Incorporate this discussion into the Proposed Plan accordingly. Detailed compliance strategies for each ARAR will be documented in the remedial design documentation prepared after completion of the remedy selection and approval process.

4. Commenting Organization: U.S. EPA Commentor: Jablonowski
Section #: NA Page #: NA Line #: NA
General Comment #: 4
Important information presented in Appendix B and used in the associated RADTRAN5 calculations is not documented. For example, sources are not provided for the proposed package-specific and vehicle-specific parameters (Table 1), including package dimensions and the average distance from the crew to the package. Similarly, Table 2 presents

radionuclide contents for transportation options, but the list of radionuclides assumed to be present in the waste, the activity of each radionuclide, and the basis for the radionuclide-specific curies per overpack container are all undocumented. Finally, the proposed accident releases fractions for rail and truck transportation presented in Tables 5 and 6, respectively, are undocumented. Appendix B should be revised to clearly document the sources and bases of all parameter values used in the RADTRAN5 calculations.

Important information presented in Appendix B and used in the associated RADTRAN5 calculations is not documented. For example, sources are not provided for the proposed package-specific and vehicle-specific parameters (Table 1), including package dimensions and the average distance from the crew to the package. Similarly, Table 2 presents radionuclide contents for transportation options, but the list of radionuclides assumed to be present in the waste, the activity of each radionuclide, and the basis for the radionuclide-specific curies per overpack container are all undocumented. Finally, the proposed accident releases fractions for rail and truck transportation presented in Tables 5 and 6, respectively, are undocumented. Appendix B should be revised to clearly document the sources and bases of all parameter values used in the RADTRAN5 calculations.

Response: Agreed.

Action: Attachment 3 in the new supplement to the PP (formerly Appendix B) has been modified to include references for the how the input parameters were determined.

5. Commenting Organization: U.S. EPA Commentor: Barwick
Section #: NA Page #: NA Line #: NA
General Comment #: 5
The draft proposed plan proposes off-site disposal either at NTS or a permitted commercial disposal facility (PCDF) with the exact location to be determined later. Each option has certain advantages but also may have different implications for transportation or waste treatment issues. DOE should in a focused manner identify the factors it will consider when selecting the disposal site, what it will do to address any transportation or treatment issues, and describe how it will involve the public in that process. This focused discussion must have enough detail so that members of the public can fairly evaluate the elements of each disposal scenario.

Response: Consistent with discussions between DOE, USEPA and Fluor Fernald, the Proposed Plan has been updated to focus on NTS disposal with the potential to utilize a commercial disposal facility in the event appropriate licensing is put in place. DOE intends to utilize the most economical disposal approach that complies with the ROD requirements and the EPA offsite policy. The treatment and packaging configuration for the proposed revised remedy is not anticipated to be impacted by the decision on the disposal location. DOE will consult with EPA, OEPA, and the public on the final disposal location after a clear path has been identified. As discussed at the Chicago meeting, disposal at NTS has been used as the representative approach to permit a fair comparison of the alternatives.

Action: The Proposed Plan has been revised to use NTS disposal as the representative alternative, with a discussion on the potential for disposal at a commercial facility. A statement on the intent of DOE to comply with the offsite policy and utilize the most cost effective disposal location has been added to text of the Proposed Plan.

6. Commenting Organization: U.S. EPA Commentor: Barwick
Section #: NA Page #: NA Line #: NA
General Comment #: 6
DOE identifies RCRA requirements as ARARs. More specifically, DOE states that RCRA is applicable to any non-exempt material and, impliedly, relevant and appropriate as to the 11(e)(2) material. Under CERCLA, off-site actions need comply only with applicable ARARs. RCRA was listed as a relevant and appropriate ARAR for 11(e)(2) material in prior Silo 3 documents because on-site treatment of 11(e)(2) material was part of the proposed remedy.

Response: Agreed. The RCRA ARARs discussion has been revamped in this revised Proposed Plan, and speaks specifically to the way RCRA was adopted as relevant and appropriate in the original 1998 ESD Silo 3 remedy, and what that means for the new revised remedy.

Action: Incorporate this discussion in the Proposed Plan accordingly.

7. Commenting Organization: U.S. EPA Commentor: Barwick
Section #: NA Page #: NA Line #: NA
General Comment #: 7
Under the draft proposed plan, on-site treatment of 11(e)(2) material is proposed only if necessary to meet transportation requirements. If the 11(e)(2) material is treated on-site, RCRA requirements may be relevant and appropriate ARARs for that treatment. Therefore, any on-site treatment may have to meet RCRA requirements (e.g., TCLP). If the 11(e)(2) material is shipped for off-site treatment and/or disposal without any on-site treatment, RCRA requirements are not applicable and, therefore, not ARARs. (Note: DOE is correct that RCRA requirements are ARARs for any non-11(e)(2) materials that are determined to be hazardous waste).

Response: Agreed.

Action: The selection and development of the revised approach reflects this concept.

8. Commenting Organization: U.S. EPA Commentor: Barwick
Section #: NA Page #: NA Line #: NA
General Comment #: 8
In Section 7.1.2.2, DOE should more fully explain why the Section 121(b) of CERCLA preference for remedies employing treatment will not be met in this case. Relevant considerations, such as risk to on-site workers (among other things), are included elsewhere in the draft proposed plan but are not presented in a focused discussion of the Section 121(b) preference. DOE should include consideration of whether any on-site risk is simply being shifted off-site versus being entirely avoided.

Response: Agreed. With the new revised treatment approach, DOE will be treating the waste, and thus a commitment to meeting the CERCLA Section 121 statutory preference for treatment will be acknowledged.

Action: Incorporate appropriate CERCLA Section 121 statutory preference for treatment language.

9. Commenting Organization: U.S. EPA Commentor: Jablonowski
Section #: Appendix C Page #: C-1 Lines #: N/A
General Comment #: 9
Appendix C provides a cost comparison for the "Currently Approved Remedy (Treatment Off-Site)" versus the "Alternative Remedy (Non-Treatment)." Off-site treatment may have been considered in the OU3 Explanation of Significant Difference, but it was never something that was aggressively pursued. The last time anyone was really trying to do anything with the Silo 3 material, it was on-site treatment. What should probably be compared is an "on-site treatment remedy" versus a "no-treatment remedy" versus a "conditioning for dispersibility remedy," considering the current open discussion with stakeholders on dispersion control.

Response: Agreed.

Action: The cost comparison now reflects on-site treatment (currently approved remedy) vs. waste conditioning (proposed alternate remedy).

SPECIFIC COMMENTS

10. Commenting Organization: U.S. EPA Commentor: Barwick
Section #: 1.0 Page #: 1-2 Line #: 2
Specific Comment #: 1
Listing on the NPL reflects the degree of risk to human health and the environment posed by conditions at the FEMP and, concomitantly, the relative importance placed by the Federal government on the site.

Response: Agreed.

Action: The revised Proposed Plan revamps the introductory sections, and more clearly discusses the risks posed by the Silo 3 materials at the FEMP.

11. Commenting Organization: U.S. EPA Commentor: Barwick
Section #: 2.1.2 Page #: 2-7 Line #: 11
Specific Comment #: 2
What is meant by "following completion of the NTS waste approval process?" Is this a reference to the NTS WAC procedure or does it indicate that the NTS revision to its WAC is pending?

Response: The revision to the NTSWAC that allows disposal of untreated Silo 3 material as 11(e)(2) material is contained in Revision 4 of the NTSWAC, which was approved in February 2002. The "NTS waste approval process" referenced in the Proposed Plan refers

to the routine waste profile review and approval procedure implemented under the NTSWAC.

Action: N/A

12. Commenting Organization: U.S. EPA Commentor: Jablonowski
Section #: 2.1.2 Page #: 2-7 Lines #: 13 to 22
Specific Comment #: 3
The text should be revised to state whether FEMP has received or will receive written confirmations of acceptance of untreated Silo 3 waste (similar to the letters received regarding NTS acceptance of Silo 3 waste) from prospective PCDFs and their regulating states.

Response: The text has been revised to discuss the status of attempts by commercial disposal facilities to obtain the necessary licensing to receive the Silo 3 material untreated. As of the issuance of the revised Proposed Plan the necessary licensing had not been obtained. The Proposed Plan uses the NTS disposal option as the representative option, as discussed at the Chicago meeting.

Action: Text revisions have been made consistent with the discussion in the response above.

13. Commenting Organization: U.S. EPA Commentor: Barwick
Section #: 2.2.4 Page #: 2-14 Line #: 21
Specific Comment #: 4
Should "successfully completing" read "failing to complete?"

Response: The referenced text no longer appears in the document.

Action: N/A

14. Commenting Organization: U.S. EPA Commentor: Barwick
Section #: 2.2.4 Page #: 2-15 Line #: 13
Specific Comment #: 5
Insert "or to ensure safe transport" after "facility."

Response: The referenced text no longer appears in the document.

Action: N/A

15. Commenting Organization: U.S. EPA Commentor: Jablonowski
Section #: 2.2.4 Page #: 2-16 Lines #: 1 to 2
Specific Comment #: 6
The text states that "treatment, above the level, if any, that is required to achieve WAC which have been demonstrated to be protective, results in negative impacts on the balancing criteria." The text should be revised to clarify whether level being referred to is the toxicity characteristic leaching procedure regulatory level or another level.

Response: The referenced text no longer appears in the document.

Action: N/A

16. Commenting Organization: U.S. EPA Commentor: Jablonowski
Section #: 6.2 & 6.2.3 Page #: 6-4 Lines #: 19-20
General Comment #: 7
The text states that estimated costs have been developed for both on-site and off-site treatment in Appendix C; only off-site treatment is developed in Appendix C. Off-site treatment costs described in Section 6.2.3 are inconsistent with off-site treatment costs developed in Appendix C, like off by $2-million.

Response: Comment Acknowledged.

Action: The Cost estimates (now contained in Attachment 4 in the supplement to the Proposed Plan) have been totally revised to reflect on-site treatment (currently approved remedy) and waste conditioning (proposed alternate remedy), with shipment by truck to the Nevada Test Site for disposal.

17. Commenting Organization: U.S. EPA Commentor: Jablonowski
Section #: 6.2.1.1 Page #: 6-5 Lines #: 1 to 14
Specific Comment #: 8
The risk and dose associated with the inhalation of untreated Silo 3 material under an accident scenario should be expressed in a way that allows evaluation of realistic acute radiation exposure events. The following should be provided: 1) dose per milligram for inhaled Silo 3 material; 2) ranges for expected uptakes and associated doses for individuals at an accident scene; and 3) comparisons to dose limits such those prescribed by DOE's administrative dose limit, NRC's occupational limit, NESHAP limits, etc. This should allow a more realistic assessment of the risks associated with the shipment of Silo 3 materials, and support a decision basis for whether the Silo 3 material should shipped in a dispersible or non-dispersible form.

Response: RADTRAN5 output files provide data on dose to the maximum exposed individual during routine transport and during a hypothetical accident. RADTRAN5 also provides data on the dose to an exposed population under both scenarios. 1) RADTRAN5 provides the necessary information from a modeling perspective of the risk posed by the transportation of the Silo 3 material without the need for calculating the dose per milligram of inhaled Silo 3 material. This calculation is not in the scope of the PP and does not provide any information that would prove beneficial in the selection of an appropriate remedy for the remediation of Silo 3 material. 2) The output data for a hypothetical accident has been divided into Severity Classes. Associated with each Severity Class is the probability of an accident occurring over the shipping campaign, the resulting dose to an exposed population should the accident occur, and the incremental lifetime cancer risk to an exposed individual assuming an even distribution of dose across the exposed population. This provides a range of exposure and risk to a population over a corresponding range of accident severities. 3) Comparison of RADTRAN5 data to DOE's administrative limits, NRC's occupational limit, and NESHAP limits is neither appropriate

nor in the scope of this document. The limits provided by these regulations do not apply to a transportation accident.

Action: The PP has been revised to provide output data for accidents by severity class providing accident probability, dose to an exposed population should accident occur, and the incremental lifetime cancer risk to an exposed individual assuming an even distribution of dose across the exposed population.

18. Commenting Organization: U.S. EPA Commentor: Jablonowski
Section #: 6.3.1.1 Page #: 6-7 Lines #: 12 to 14
Specific Comment #: 9
The text summarizes the results of the transportation risk evaluation presented in Appendix B. The text should be revised to specify that the risk evaluation in Appendix B does not include pretreatment of waste prior to its packaging.

Response: The risk evaluation for the proposed revised remedy, documented in Attachment 3 in the Proposed Plan Supplement, does not take credit for the reduction in dispersability expected to result from the additive addition during packaging.

Action: This assumption is specifically documented in Attachment 3 in the supplement to the Proposed Plan and is discussed in the short-term effectiveness discussion in the Proposed Plan.

RESPONSES TO OHIO EPA COMMENTS

1. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: General Comment Pg #: Line #: na Code: C
Original Comment #:
Comment: Throughout the document, disposal in a PCDF is used as part of the final remedy. However, as Ohio EPA understands the current status of Envirocare, no PCDF is currently permitted to accept the Silo 3 material untreated as suggested in the preferred alternative. The document must be clarified to clearly state that the disposal options presented in the preferred alternative are currently viable alternatives. As discussed during the development of the Silo 3 ESD several years ago, it is unacceptable to select an alternative that is not currently viable.

Response: Agree. The Text has been revised to provide clarification on the current availability of commercial disposal options for the Silo 3 material.

Action: See response above.

2. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: General Comment Pg #: Line #: na Code: C
Original Comment #:
Comment: The document does not make a clear case for not treating the silo contents. In particular, it fails to address the NCP's statutory preference for treatment of primary threat materials. In our discussions of the Silo 3 ESD this was one of the basic reasons for treating the material. The public has a significant interest in knowing why DOE proposes to not treat the waste and the document fails to provide a resounding case for no treatment. Some where in the document there needs to be a clear statement of why DOE is proposing to not treat waste that in two previous decision documents (original ROD and ESD) required treatment and why that change in position should be acceptable to the public.

Response: Agree. DOE is now committing to the revised treatment remedy, so the concerns over not treating the silo contents should be diminished by the new preferred alternative.

Action: The new revised Proposed Plan will present the revised treatment remedy, and demonstrate why it is now the preferred plan.

3. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: General Comment Pg #: Line #: na Code: C
Original Comment #:
Comment: This pretreatment option is not fully developed. Several times the document states that pretreatment will be required if necessary, but doesn't explain what the criteria will be to determine if pretreatment is needed. The option to pre-treat to diminish dispersability should be documented both in the cost sections and cost appendix as well as in the risk section and appendix.

Response: Comment acknowledged. The preferred remedy now includes a commitment treatment, to the degree reasonably implementable, to reduce material dispersability and the mobility of metals.

Action: The cost of this treatment is included in the cost estimates. To provide a conservative evaluation of transportation risk, however, the risk calculations for the proposed revised remedy take no credit for the reduction in dispersability provided by the treatment.

4. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: General Comment Pg #: Line #: na Code: C
Original Comment #:
Comment: DOE should include a copy of the letter from NTS stating it will accept untreated Silo 3 material as an appendix to document the change in acceptance criteria since the ESD.

Response: Agreed.

Action: The subject letter is now included as Attachment 1 in the supplement to the Proposed Plan.

5. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 4.1 Pg #: 4-1 Line #: 17-18 Code: C
Original Comment #:
Comment: The concrete pipe trench was not removed in 2002. Partial removal of the K-65 trench was completed in 2002 but that was primarily outside the boundaries of OU4. The portion of the trench within OU4 remains and was filled with gravel.

Response: Agreed.

Action: The text referencing the K-65 trench no longer appears in the Proposed Plan.

6. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 4.1 Scope and Role Pg #: 4-4 Line #: na Code: C
Original Comment #:
Comment: Change "that" to "than"

Response: The referenced text has been replaced.

Action: N/A

7. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Section 6 Pg #: Line #: na Code: C
Original Comment #:
Comment: How is container disposal and/or reuse evaluated within the existing and preferred remedies? It would seem this is a significant cost factor in any disposal option, which includes NTS. And since NTS is the only viable option for the preferred alternative it must include costs for container disposal.

Response: The currently approved and proposed revised remedies have been revised to reflect shipment by truck to the Nevada Test Site for disposal. The cost data has been revised to reflect this change, including the costs for purchase and disposal of the cargo containers (as required by the NTS).

Action: Revised cost estimates for the currently approved and proposed revised remedies are documented in Attachment 4 of the supplement to the Proposed Plan.

8. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Section 6 Pg #: Line #: na Code: C
Original Comment #:
Comment: How are costs of remediation facility D&D and disposal incorporated into the cost estimates? It is likely the cost of the D&D and disposal of the facility will be a significant factor in the overall project cost particularly if the facility must be disposed of off-site do to the OSDF being closed. Thus favoring a smaller on-site facility.

Response: The revised cost estimates for both the currently approved and proposed revised remedies include the costs for D&D of the Silo 3 retrieval, processing, and packaging facilities. The estimates assume disposal in the OSDF. Due to the smaller facility size, and reduced equipment requirements, the D&D costs for the proposed revised remedy are estimated to be lower than those for the currently approved remedy.

Action: Revised cost estimates for the currently approved and proposed revised remedies are documented in Attachment 4 of the Supplement to the Proposed Plan.

9. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 6.2.3 Pg #: 6-6 Line #: na Code: C
Original Comment #:
Comment: Neither this section nor Appendix C provides a sufficient discussion of these costs. In particular it is unclear how the On-Site Treatment option can cost 65% more in capitol costs yet only 5% more in D&D costs than the Off-Site Treatment option. Additionally, the incremental volume increase is not discussed nor the projected treatment cost/yd on-site vs off-site.

Response: The cost estimate for on-site treatment has been revised to reflect a 15% increase in D&D costs. The substantial increase in capital costs is not realized in D&D costs, because the equipment used in D&D is able to tear down the facility and its contents in a reasonably equivalent period of time despite the addition of treatment equipment.

The cost estimates were also revised to reflect the volume increase for both the currently approved remedy (on-site treatment) and the proposed revised remedy (liquid waste treatment additives). Operations costs for both remedies reflect the labor and associated costs for treatment/waste conditioning.

Action: Revised cost estimates for the currently approved and proposed revised remedies are documented in Attachment 4 of the supplement to the Proposed Plan.

10. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 6.2.3 Pg #: 6-6 Line #: na Code: C
Original Comment #:
Comment: It is not very reassuring when the cost numbers presented in Appendix C do not match those in this section. Overall cost for Off-site treatment is $39.9M on pg 6-6 and 37.8M on pg C-1. Construction Management and Startup cost $1.9M on pg 6-6 and $2.8M on pg C-1. These kind of errors/inconsistencies do not provide much weight to DOE's argument that a 20% cost difference means the existing remedy does not provide an acceptable incremental increase in protectiveness.

Response: The cost data have been revised for both remedies, and the text and attachments have been updated.

Action: Revised cost estimates for the currently approved and proposed revised remedies are documented in Attachment 4 of the supplement to the Proposed Plan.

11. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 6.3.3 Pg #: 6-8 Line #: na Code: C
Original Comment #:
Comment: Again there are significant discrepancies between this section and Appendix C and within Appendix C. Costs for treatment and disposal under the "Alternate Remedy" pg 6-8 $3.4M, pg c-1 $3.4M, and pg c-5 $8.6M.

Response: The cost data have been revised for both remedies, and the text and attachments have been updated.

Action: Revised cost estimates for the currently approved and proposed revised remedies are documented in Attachment 4 of the Supplement to the Proposed Plan.

12. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 7.0 Pg #: Line #: na Code: C
Original Comment #:
Comment: No where in this section nor section 6 are schedules for the alternatives presented or discussed. Schedule is usually presented as an important factor in evaluating alternatives. It should be included within the document even if it is to simply say they are equivalent, if that is the case.

Response: Agree. Text has been added to the Implementability and Cost sections to address the estimated schedule for project implementation.

Action: See response above.

13. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 7.1.2.5 Pg #: 7-10 Line #: 1-4 Code: C
Original Comment #:
Comment: DOE in the previous paragraph states that the cost estimates are considered +50/-30% accurate. Yet in this paragraph suggests the costs differences of 44% and 21% are real

and significant. This would seem to be an inaccurate conclusion considering the relative accuracy of the costs. Additionally, considering DOE heavily emphasizes this theoretical difference of 21% in its justification for selection of a new remedy additional clarification is required to assert this is a real difference rather than just a numerical exercise.

Response: Agree. The text has been revised to reduce the implied significance of the difference in the estimates between the remedies. The discussion focuses on the elimination of the treatment systems to meet the TCLP limits under the proposed revised alternative and the implications this change would have on cost.

Action: Text in the cost section revised consistent with the response above.

14. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 8.0 Pg #: 14-15 Line #: na Code: C
Original Comment #:
Comment: DOE states the there is a "A significant (greater than 20%) increase in cost" for the existing remedy. However, previously in the document it states that the accuracy of the cost estimates is "+50%/-30%." Additional, justification as to how DOE can claim this to be a significant difference in light of the error intrinsic in the cost estimates is needed.

Response: See response to 13 above.

Action: See response to number 13.

15. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 8.0 Pg #: 19-20 Line #: na Code: C
Original Comment #:
Comment: This sentence is inappropriate and suggest the utilization of "alternate treatment technologies to the maximum extent practical" when in reality the preferred alternative eliminates any treatment technology. The second portion of the sentence must be removed or the paragraph reworded to state the obvious that treatment isn't being conducted.

Response: Agree. The new preferred alternative discussed in the revised Proposed Plan employs treatment for dispersability control and metals mobility (and the earlier "no treatment" alternative has been dropped). This should alleviate the concern raised in this comment.

Action: The new revised Proposed Plan will be recommending a revised treatment alternative as the preferred alternative.

16. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Appendix A Pg #: A-7 Line #: na Code: C
Original Comment #:
Comment: This section needs to be revised to acknowledge that the Indiana Bat has been captured on-site during monitoring events. Therefore the requirement is applicable.

Response: Comment acknowledged.

Action: The ARAR table (now included as Attachment 2 in the Proposed Plan Supplement) has been revised as recommended.

17. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Appendix C, Disposal Pg #: c-4 Line #: na Code: C
Original Comment #:
Comment: Considering there is only one facility currently available to accept the untreated Silo 3 material, it is inappropriate to use Envirocare as the costed disposal site for the alternate remedy. Costs for the alternate remedy must be developed using currently available disposal options. As Ohio EPA understands it the only such facility is NTS.

Response: Agreed.

Action: The text and cost estimates have been revised to reflect truck shipment and disposal at the Nevada Test Site as the representative option for comparison of the two alternatives.