

3689

**COMMENTS AND RESPONSES ON THE IMPROVED  
STORAGE OF SOIL AND DEBRIS REMOVAL  
ACTION WORK PLAN**

**XX-XX-XX**

**DOE-FN/EPA  
10  
RESPONSES**



REVIEW COMMENT FORM

Document No.: 03TE03259201 Rev. No.: 0 Rev. Date: 3/25/92 OU NO.: 3  
 Title: Improved Storage of Soil & Debris Removal Action Work Plan PO NO.: 20  
 Comments Due To: WEMCO/DOE-FO  
 Reviewer: USEPA Doc. Status: Draft

No. REFERENCE AND COMMENTS COMMENT RESPONSES

General Comments

1. The time required to complete the proposed removal action may be 10 years. The U.S. Environmental Protection Agency (EPA) notes that this exceeds the time period limitation for completing a removal action (RA), which is generally 12 months. Also, the planning phase for implementation of Phase 2 of the RA is likely to exceed 6 months, which requires the preparation of an engineering evaluation and cost assessment (EE/CA) or equivalent (National Oil and Hazardous Substances Pollution Contingency Plan (NCP) 40 CFR 300.420). Considering the scope of this RA, the Department of Energy (DOE) should consider using an EE/CA or equivalent to meet NCP requirements.

If necessary, storage will occur until the RODs are issued and implemented. An engineering evaluation was conducted to select the appropriate type of facility for the storage of soil and debris. Section 4 will be modified to include a discussion of the general alternatives in addition to the specific alternatives for storage. The results of the alternative evaluation which considered protection from elements, control of runoff, long-term remediation considerations, cost, operations, maintenance, and decontamination/decommissioning will be attached to the report to meet EE/CA requirements. The text will also be expanded with a site description, background, and a discussion of receptors for contaminants of concern. It should be noted that the 12-month removal action limit does not apply to non-fund financed removals.

2. The soil and debris management plan flow diagrams are comprehensive and well presented. However, the criteria are unclear for making a decision to obtain additional data in accordance with the sampling and analysis plan. For instance, Section 7.0 provides specific procedures for analysis, but it is not clear whether sampling will be conducted in all cases or only when radiological or

The flow diagrams will be revised to specify when sampling is required. This information will also be integrated into Section 7. Sampling will be required when process knowledge and RI/FS results are not suitable for completing the FEMP Material Evaluation Form (MEF) and a storage disposition can not be



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3809

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No.	REFERENCE AND COMMENTS	COMMENT RESPONSES
-----	------------------------	-------------------

photoionization unit readings are elevated. Also, the decision criteria, discussed in Section 3.0 should be integrated into Section 7.0 for consistency.

determined.

- 3. The current schedule does not include any mechanism for reporting to EPA or EPA approval during planned removals or waste generation. It may not be realistic to generate individual sampling plans, but some mechanism for EPA notification and approval should be defined. This mechanism should include a status report that indicates what major removals are planned. where material has been remove, provides the results of any analyses, identifies the disposition of removed material, and provides an inventory of the material.

A yearly update report will be submitted by January 15 for all soil and debris dispositioned in the previous fiscal year. The report will document the activity concentrations chemical, concentrations, quantities, and the disposition of soil and debris. All activities on site which involve the generation of more than a cubic yard of soil or debris are documented through a Removal Site evaluation (RSE). The RSE tracks the activity and documents the disposition of generated soil and debris. Removal actions which are initiated on site provide an even greater amount of documentation supporting the characterization and disposition of the generated soil and debris.

Specific Comments

- 4. Section 1.3, page 1-5 , paragraph 2  
 Fifty parts per million (ppm) is the level for required incineration of polychlorinated biphenyl (PCB) contaminated waste under the Toxic Substances Control Act (TSCA); other TSCA cleanup levels may be applicable. For instance 40 CFR.761 requires cleanup to 25 ppm for fresh

The definition of PCB contaminated soil and debris will be modified. The plan is not intended to propose treatment/disposal standards. The plan will specify a concentration (action level) that will be used to determine management and storage disposition requirements.



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3689

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No.	REFERENCE AND COMMENTS	COMMENT RESPONSES
-----	------------------------	-------------------

spills in access restricted areas and 10 ppm in unrestricted areas. Also, the cleanup level for a Superfund site is lower; current policy requires cleanup to levels of 1 ppm to 10 ppm depending on the site remedy. The 50 ppm level is the level at which incineration is the only acceptable remedial option.

This conservative concentration is in accordance with the FEMP Sitewide CERCLA Quality Assurance Project Plan (SCQ)

5. Section 3.1.2, page 3-5 , paragraph 1

The material to be placed in a controlled stockpile if the activity concentration is greater than 100 pCi/g should be further analyzed for RCRA-regulated contaminants. If contaminant determination (see Section 3.3) indicates that the material is nonhazardous, then it can be sent to the controlled stockpile (see Table 3-1).

Soil that is less than 100 pCi/g (total uranium) and does not contain concentrations of regulated constituents (that exceed disposal standards) will be placed on controlled stockpiles. The storage disposition determination will be based on the MEF. RI/FS data and process knowledge will be the primary source of information when completing the MEF. Sampling/analysis will be conducted as required when suitable information does not exist.

6. Section 3.3, page 3-9 , paragraph 3

(This Section has been changed to 3.4)  
 The statement, "Physical samples and/or field measurements will be used to characterize materials when sufficient information is not available from the other data sources," is vague. The text should clearly indicate what information is adequate and when additional analysis will be needed.

The text and flow charts have been modified for clarity in specifying that the MEF will be completed with RI/FS data and process knowledge where applicable. Sampling and analysis will be performed to complete the MEF when data does not exist to complete the MEF.

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- 7. Section 3.3, page 3-9 , paragraph 4  
 (This Section has been changed to 3.4)  
 The text, starting with "At a minimum," is unclear. If this text means that analyses will be conducted on all material, then this should be clearly stated.  
 The sentence will be modified to state, "Samples that are required to complete the MEF evaluation will be collected and analyzed...."
  
- 8. Section 3.4, page 3-10, paragraph 4  
 (This Section has been changed to 3.5.1)  
 The text should clearly state that hazardous constituents will also be transferred to an improved storage facility.  
 The text will be revised to state what types of Phase I actions will be used for specific types of materials.
  
- 9. Section 3.4.6, page 3-16, paragraph 1  
 (This Section has been changed to 3.5.6)  
 PCB-contaminated soil is a hazardous substance subject to CERCLA cleanup policy. DOE should include Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) cleanup policy standards for PCBs.  
 The PCB strategy will be modified. See the response to Specific Comment #4
  
- 10 Section 3.4.7, page 3-16, paragraph 3  
 (This Section has been changed to 3.5.7)  
 It is not clear whether the hazardous waste piles referenced in Attachment 3 will be removed prior to grading in this area. Also, phase I, as described in Section 1.0, includes construction of a structure, but this activity is not addressed in this paragraph. The text should be revised to address these issues.  
 The Third Street soil and rubble pile (which has not been determined to be hazardous) will be regraded as required to facilitate construction of the SPRC. Piles that contain hazardous waste will be containerized and stored in a facility approved for hazardous waste storage during Phase I. The material will then be relocated to the CSF structure



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No.	REFERENCE AND COMMENTS	COMMENT RESPONSES
-----	------------------------	-------------------

during Phase II. Use of the Third Street soil and rubble pile will be discontinued during Phase I and Phase II (e.g. no further soil or debris will be deposited). The pile will remain until it is removed under remediation efforts.

11 Section 6.2, page 6-2, paragraph 6

The 50 ppm level is a TSCA standard that requires incineration. 40 CFR 761 Subpart G requires cleanup of "fresh spills: on soils to 25 ppm in restricted areas and 10 ppm in unrestricted areas. CERCLA policy standards should be used as the cleanup thresholds for PCBs. EPA also notes that risk-based cleanups generally fall in the rate of 2 to 25 ppm.

See the response to Specific Comment #4. Final clean-up levels will be specified in the appropriate Record of Decision.

12 Section 7.1, page 7-1, paragraph 2

The statement, "This sampling and analysis plan describes the procedures that will be undertaken to obtain analytical data of sufficient quality and quantity to characterize the soil and debris generated at the FEMP." is vague. The role of the sampling and analysis plan in contaminant determination should be discussed in detail.

The paragraph will be modified for clarity. The role of sampling and analysis in contaminant determination is discussed in the paragraph that precedes Section 7.1. The FEMP will review existing RI/FS data, previous sampling results, and process knowledge to complete an MEF and determine disposition requirements. Sampling and analysis will be performed when sufficient data is not available to complete the MEF and determine the storage disposition.



REVIEW COMMENT FORM

2099

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No. REFERENCE AND COMMENTS COMMENT RESPONSES

13 Section 7.2.1, page 7-2, paragraph 2  
 PCB analysis should be include in the assessment of hazardous constituents.

PCB analysis will be included when process knowledge determines that PCBs could be a constituent within the soil or debris.

14 Section 7.3.1, page 7-3, paragraph 3  
 The discussion of sampling techniques is vague: it does not include the rationale for deciding when sampling is required, nor does it include a mechanism for EPA review and approval. A specific sampling and analysis plans should be developed for specific projects, and these plans should be submitted for review and approval. Also, the sampling plan does not include any provisions for field screening as a means of waste assessment. This is significant because most initial waste determination will be made using hand held field instruments.

The sampling procedures will be expanded to specify when sampling will be required. (See the response to Specific Comment #12.) Should additional sampling and analysis be required, the specific methodology, or SCQ procedure will be identified on the MEF. If sampling is required, a project specific sampling and analysis plan will be prepared. Removal action work plans (and sampling/analysis plans that they may contain) will be submitted to the regulatory agencies for review. In addition, the plan will be modified to address the calibration and use of hand held field survey instruments to determine soil and debris disposition.

15 Section 7.3.1, page 7-4, paragraph 3  
 The work plan discusses the approach of using the volume of material as a means of determining the number of samples to be collected. Instead, the work plan should provide a specific approach that describes how many samples will be required under different conditions and how changing volume will affect the number of samples. For instance, statistical evaluation could be applied to

In the event that process knowledge is inadequate, then sampling will be conducted. The project specific sampling plan will specify the required number of samples for the specific volume of material. The work plan will be modified to outline a general approach to determine the number of samples that should be



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3689

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No.	REFERENCE AND COMMENTS	COMMENT RESPONSES
-----	------------------------	-------------------

existing data to determine whether the results are representative or a minimum number of samples could be collected and analyzed with additional data requirements based on representativeness or volume.

collected from a soil pile.

16 Section 7.5.1, page 7-5, paragraph 5

PCB analysis should be include in this section and in Table 7-2.

The Work Plan will be revised to include PCB analysis in this section.

17 Section 7.5.2, page 7-6

Debris sampling is discussed in Section 7.3.2, not in Section 7.4 as stated in the text.

This typographical error will be corrected.

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General Comments:

- 18 It should be clearly stated in Section 1.1, Goals and Objectives, that the field-correlated total uranium concentration of 100 pCi/g is not to be used as a final clean-up standard but only as a guideline for determining the soil storage disposition. This point should be reiterated throughout the work plan to clarify the purpose of the 100 pCi/g.
- The Work Plan will be revised to clearly state at the introduction of the 100 pCi/g action level that the activity concentration is not a final clean-up standard, but is a determination level for storage.
- 19 Page 2-1, Section 2.2, paragraph 2, Sentence 3
- The work plan is not absolutely clear as to how soil containing hazardous waste or PCBs at concentrations that exceed the regulatory standards will be containerized and stored if the total uranium activity concentration exceeds 100 pCi/g.
- This paragraph will be modified to reference the specific section where disposition and segregation is discussed, Table 3-2, Page 3-12.
- 20 Page 3-5, Section 3.1.2, paragraph 1
- Since this work plan establishes a 100 pCi/g activity concentration for total uranium in soil to determine storage requirements, the procedure for correlating hand-held radiological detection instrumentation to the 100 pCi/g activity concentration for total uranium should then be included in the work plan.
- The FEMP will use a shielded sodium-iodine detector or other appropriate field instrument to disposition soil and debris and to support/monitor project field activities. The general methodology for calibrating field equipment will be included.
- 21 Page 3-6, Section 3.2
- (This Section has been changed to 3.2.1)  
 The descriptions of the proposed improved storage facilities should be
- The descriptions will be revised to reflect the expected contaminants that will be contained in the soil

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No. REFERENCE AND COMMENTS

COMMENT RESPONSES

more specific as to the contaminant types (asbestos, VOCs, radioactive, etc.) of the materials to be accepted for storage. For example, the existing Scrap Metal (B69) Pad is the storage facility for low-level radiologically contaminated scrap metal, but the description of the Scrap Metal Pad in this work plan does not make that point clear. The facility descriptions should also include information on the approximate storage capacity, not size, of each facility and justifications for the added storage capacity should be made.

and debris. Table 4-1 (page 46) provides the size of each facility which is a basis for the storage capacity. The actual capacity of each structure is difficult to assess at this time because the facility layouts have not been completed. The FEMP will construct additional storage structures as required to ensure that adequate storage capacity is available. Detail design documentation will be provided to the US EPA for information when completed.

22 Page 3-6, Section 3.2

(This Section has been changed to 3.2.1)  
For the definition of the "Decontamination Facility Pad," the term "materials" is ambiguous and should be more descriptive in stating material types if more than just recoverable metal is to be stored there. It is also unclear as to whether this storage area is for short-term storage of items scheduled for decontamination, or for long-term storage. Further, radiologically contaminated metal that is recoverable should be stored at the Scrap Metal (B29) Pad where such a metal inventory already exists.

The term "Materials" will be deleted because the Decontamination Facility Pad (DFP) will store metal debris and equipment that can be decontaminated. The facility is intended for short term storage prior to decontamination. Metals on the scrap metal pad are likely to be removed prior to the construction of the Decontamination Facility Pad (DFP).

23 Page 3-8, Section 3.2.1, paragraph 2

The method by which the mixed waste is segregated should be described. It is not clear as to what is to be segregated, whether it is the soil and debris, or the hazardous and

The section will be revised for clarity. Soil containing mixed waste will be segregated from debris containing mixed waste. These mixed materials

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No.	REFERENCE AND COMMENTS	COMMENT RESPONSES
-----	------------------------	-------------------

radioactive components of the mixed waste.

will be segregated from other materials. A figure will also be included to show the segregation of materials proposed for the CSF. See existing discussions on pages 3-15 and 3-18.

24 Page 3-8, Section 3.2.1, paragraph 6

The work plan should state how mixed waste (waste containing both radioactive and hazardous components) is going to be segregated and stored since off-site disposal of mixed waste seems unlikely.

Storage of mixed waste will occur until the RODs specify how the material will be treated/disposed.

At this time, the DOE's Nevada Test Site (NTS) is completing their RCRA Part B Permit Application so they can accept mixed waste. It should be noted that only a small fraction of the FEMP soil and debris is expected to be mixed waste.

A conceptual floor plan of the CSF will be included in the document to illustrate how materials will be segregated.