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ER/WM&I Transmittals

Performance Measure		
Source/Driver: (Name & Number from ISP, IAG milestone, Mgmt. Action, Corres. Control, etc.)	**Closure #:** (Outgoing Correspondence Control #, if applicable)	**Due Date**

Ann Tyson	Alan M. Parker
Originator Name	**Contractor Manager(s)**
Ann Sieben	Tim G. Hedahl
Kaiser-Hill Program Manager(s)	**Kaiser-Hill Director**

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Document Subject:

TRANSMITTAL OF RESPONSES TO THE DOE/RFFO COMMENTS ON THE DRAFT PROPOSED ACTION MEMORANDUM AND MODIFICATION OF THE COLORADO HAZARDOUS WASTE CORRECTIVE ACTION SECTION OF THE OPERATING PERMIT FOR ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE, AND THE SAMPLING AND ANALYSIS PLAN FOR THE REMEDIATION OF RYAN'S PIT, OPERABLE UNIT 2 – AMP-059-95

Discussion and/or Comments: 95-RM-ER-0056-KH

cc:
J. L. McAnally
A. M. Parker
H. Salomon
A. M. Tyson
Correspondence Control
ER Records Center (2)

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August 22, 1995 95-RF-XXXX

Jessie M. Roberson
Assistant Manager for
Environmental Restoration
DOE/RFFO

TRANSMITTAL OF RESPONSES TO THE DOE/RFFO COMMENTS ON THE DRAFT PROPOSED ACTION MEMORANDUM AND MODIFICATION OF THE COLORADO HAZARDOUS WASTE CORRECTIVE ACTION SECTION OF THE OPERATING PERMIT FOR ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE, AND THE SAMPLING AND ANALYSIS PLAN FOR THE REMEDIATION OF RYAN'S PIT, OPERABLE UNIT 2 – TGH-XXX-95

Please find enclosed the responses to the comments submitted by DOE/RFFO on the Draft Proposed Action Memorandum and Modification of the Colorado Hazardous Waste Corrective Action Section of the Operating Permit for Rocky Flats Environmental Technology Site, and the Sampling and Analysis Plan for the Remediation of Ryan's Pit, Operable Unit 2.

If you have any questions regarding these responses, please contact Ann Sieben of my staff at (303) 966-9886.

Tim G. Hedahl
Kaiser-Hill

RYAN'S PIT DRAFT PAM/PERMIT MODIFICATION COMMENT RESPONSIVENESS SUMMARY

COMMENT RESOLUTION

Comments from Sandi MacLeod, DOE/ES&H/EGD

Comment

1. Page 1, Introduction. The introduction states that the thermal desorption treatment unit is considered a Temporary Unit under 6 CCR 1007-3, 264.553. Confirm that this treatment unit meets the RCRA definition of a tank or a container, which is a requirement in order to be considered a Temporary Unit.

Response

The TU standards allow for treatment of remediation wastes within the unit 6 CCR 1007-3, 264.553(b)(2). Also, the definition of a container is given in 6 CCR 1007-3, 260.10: "Container means any portable devise in which a material is stored, transported, *treated*, disposed of, or otherwise handled." Therefore, the unit is being defined appropriately.

Comment

2. Page 2, second bullet. The description in the first sentence seems too specific and too limiting. I suggest that it only say that the base of the container will be elevated, and remove the specifics that are stated before that.

Response

Comment incorporated. The sentence will be changed to remove the specifics and note only that the container will be elevated.

Comment

3. Pages 5 and 6, Section 2.2.4. This section states that treated soils that meet the performance standards listed can be returned to Ryan's Pit or be used as fill elsewhere. As we discussed after this morning's meeting, this is questionable. If the soils contained listed wastes, unless we receive a contained in determination from the State, it is doubtful whether the State would allow the soils to be returned to the pit or placed elsewhere on site.

Response

The State and EPA strongly recommended in a July 29, 1995 meeting that the treated soil be returned to the trench rather than being used elsewhere on the Site. As the PAM and permit modification state, the trench does not contain listed hazardous wastes.

Comment

4. Page 6, Section 3.0. This section is labeled "Decontamination" but it addresses RCRA closure requirements and would be more appropriately labeled "Closure." Also, the State will probably expect to see more information in this closure section. For example, closure performance standard, closure schedule, and final disposition of the equipment should be addressed.

Response

Accepted, the Section title will be changed from "DECONTAMINATION" to "CLOSURE." Also, a statement indicating the final disposition of the storage and treatment unit is being added to the section. This statement will essentially state that the units are being returned to owners for subsequent use after decontamination. This decontamination (following the referenced decontamination procedures) will be the closure performance standards for this task. As such, closure schedules would not be required under this TU closure.

Comment

5. Page 7, Section 5.0. This section is "Classification of Waste Material." Based on the content of this section, it seems more appropriate to combine Section 5.0 with Section 4.0 (Waste Analysis Plan).

Response

Comment incorporated. Section 5.0, Classification of Waste Material will be incorporated into Section 4.0, Waste Analysis Plan.

Comment

6. Page 7, Section 5.0. I would not recommend including this information in the permit modification because it is information that is not required by the regulations to be in a RCRA permit. Section 6.0 addresses waste minimization. Although there is a section on waste minimization in our current RCRA permit, it is not required by the regulations to be included, and Kaiser-Hill is proposing to delete it from the permit upon renewal next year. Section 7.0 addresses Air Pollution Emissions Notice (APEN), which is not a requirement under RCRA. It is not prudent to include such a requirement in a RCRA permit, because it creates one more liability for Rocky Flats, in that if we do not file an APEN, it will become a violation of the RCRA permit.

Response

This document is functioning as a PAM in addition to a Permit Modification. As such, and because of the public review, it is best to include other applicable requirements (such as APENs) that will be conducted in support of this task. It also alerts the public reviewer to the fact that topics such as air emissions are being covered and that the state of Colorado will have input into these topics. A waste minimization discussion is also being left for the same reasons.

Comment

7. Page 7, Section 8.0. This section addresses training requirements. In addition to the information discussed here, the State will expect to see information on training personnel to RCRA requirements.

Response

Additional RCRA training requirements are being evaluated and will be incorporated into the project as required.

Comment

8. One last piece of information that I would expect CDPHE RCRA permit writers to want to see in the modification is a unit specific condition sheet similar to those that are found in the current permit for permitted units. Lengthy discussions were held with CDPHE during Cleanup Workplan (CWP) negotiations regarding this information, and although the CWP has not been finalized, CDPHE permit writers made it clear that they would like to see unit specific condition sheets.

Response

Many of the items specified in the RFETS Part B Unit specific conditions section, Chapter 3, page III-6 are already specified in other parts of this permit modification. Although the comment is noted, since this requirement was not included in the permit modification outline provided by Carl Spreng of CDPHE for this proposed action, the inclusion of a unit specific conditions sheet has been omitted at this time.

RYAN'S PIT DRAFT PAM/PERMIT MODIFICATION COMMENT RESPONSIVENESS SUMMARY

COMMENT RESOLUTION

Comments from Tim Howell, DOE/OGC

Comment

1. General. Why is this being done as both a PAM and a permit modification? Is this the most streamlined way of getting this action "approved" and "implemented"?

Response

This action is being conducted under CERCLA and RCRA authority. A PAM is an Interagency Agreement vehicle for actions which incorporate both CERCLA and RCRA. It was agreed to make the document function as both a PAM and permit modification to incorporate corrective action requirements found in the RFETS Part B permit. This approach is the most streamlined way of getting this action approved and implemented. Additionally, DOE/RFFO has given specific guidance on incorporating NEPA values in CERCLA actions. By conducting this action as a CERCLA (PAM driven) action, separate NEPA documentation is not required.

Comment

2. First bullet on page 5. Be more specific on DOT requirements. Is this referring to 49 CFR 173.5 Subpart C?

Response

Comment incorporated. This bullet refers to the 49 CFR 173.5 Subpart C requirements and will be noted as such in the document.

Comment

3. First bullet on page 5. First sentence should read, "The contaminants of concern for this action are... ." "Responses action" implies CERCLA and this is a RCRA permit modification.

Response

Comment incorporated. Note, however, that this action is being conducted under both RCRA and CERCLA authority.

Comment

4. RFETS is used in the second paragraph (Section 5.0) without defining the acronym first.

Response

The RFETS acronym is defined in Section 1.0, first paragraph.

DRAFT SAMPLING AND ANALYSIS PLAN FOR THE REMEDIATION OF RYAN'S PIT

COMMENT RESOLUTION

Comments from SAIC through Roger Merrick

Comment

1. General. The objectives of the SAP as presented in Section 1.0, Introduction, do not agree with the objectives as stated in the Data Quality Objectives (DQOs) section of Appendix B. In Appendix B, Statement of the Problem, it is stated that the data quality must demonstrate the presence of liquid-phase VOCs. However, in Section 1.0 of the SAP, there is no mention of an objective to show free-phase liquids. Please correct as necessary.

Response

Incorporated. All statements about DQOs refer the reader to Appendix B. Appendix B has been revised to clearly state the objectives of the sampling and the data.

Comment

2. General. There is no discussion of what field instrumentation will be used or how field instrumentation will be used. (Note: the OU 1 Hot Spot Removal Report shows that the FIDLER is ineffective in providing real time radionuclide sensing data.)

Response

As pointed out by the reviewer, most field screening equipment have their limitations in providing quantitative data. However, the same field screening equipment is proposed for use on the project as was used during the characterization which may include photoionization detectors and FIDLERs. An onsite gas chromatograph is proposed also for providing real time organic data.

Comment

3. Page 1, Section 1, first paragraph, second sentence. Suggest providing a listing/table of the OU 2 Chemicals of Concern as presented in Technical Memorandum No. 9.

Response

Comment noted. Not all of the chemicals of concern for OU 2, identified in Technical Memorandum 9, are present in the IHSS 109 trench as evidenced by the analytical data.

Comment

4. Section 2.1, first paragraph, last sentence. Please explain what is meant by the statement that groundwater occurs "seasonally." The Draft Phase II RFI/RI Report shows the presence of groundwater under IHSS 109 both during high and low water table periods of the year.

Response

Although groundwater is present in IHSS 109 throughout the year, the water levels fluctuate up and down during high water seasons. Therefore, the groundwater in the trench fluctuates up and down below the trench with the seasonal water flows. Additionally, this section has removed from the SAP.

Comment

5. Section 2.2. Sentence is unclear. Please reword.

Response

Which sentence is unclear?

Comment

6. Section 2.2, first paragraph, second sentence. Define to what level of contamination the soils will be cleaned up to (i.e., will only stained material be removed, etc.). Also, what are the definitions of "contaminated material" and "source material"? Please expand discussion to define these two items.

Response

This section was removed from the SAP. More detail regarding cleanup levels and corresponding analytical requirements have been addressed to the DQO section of Appendix B.

Comment

7. Last paragraph of Section 2.2, fourth sentence. Provide a listing/table of the analyses to be tested for in the ground water samples.

Response

Incorporated. TCL VOA.

Comment

8. Last paragraph of Section 2.2, last sentence. Explain what criteria will be used to determine if water can be sent offsite. Suggest giving regulatory reference for treatment criteria.

Response

Water may be sent offsite if the onsite water treatment facilities cannot treat the VOCs present (I.e. chloroform, carbon tetrachloride) or free product VOCs.

Comment

9. Section 2.3, fourth paragraph. Delete this discussion. What does background geochemistry values have to do with this cleanup? This discussion seems to justify that metals are not a problem. None of the objectives talk about metals remediation and therefore this discussion appears unnecessary since this action is not a final remedy.

Response

Deleted.

Comment

10. Section 2.3. Define the acronym BSL.

Response

Background screening level

Comment

11. Section 2.3, sixth paragraph. Change the Table reference to Table 2.3-1.

Response

Incorporated.

Comment

12. Section 2.3, seventh paragraph, first and second sentences. The first sentence is confusing. Rewrite so as not to imply that ground water samples have been collected in Ryan's Pit that show similar contamination as upgradient monitor well data. Also, change the table reference number to Table 2.3-2.

Response

Incorporated.

Comment

13. Table 2.3-2. Suggest adding a footnote to provide the reference for the MCL listed in the table (i.e., State ground water standards).

Response

Incorporated.

Comment

14. Section 3.0. Provide a brief discussion of ground water sampling and analysis during this removal. this discussion should support the water analysis portion of Table 3.1

Response

Incorporated. Sampling will only occur if groundwater is produced and only to properly disposition for treatment and/or disposal.

Comment

15. Section 3.0, third paragraph, last sentence. This sentence is confusing. Expand discussion of how any soil loss will be mitigated.

Response

Samples will be collected immediately after excavation and handling will be kept to the minimum necessary to minimize loss of VOCs.

Comment

16. Section 3.0, last paragraph, last sentence. Please expand the discussion of why field GS duplication is necessary. Will real time decision be made in the field based on these results? If so, state what decisions will be made based on what criterion.

Response

Field GC will be used to validate the technique and minimize the offsite laboratory use costs.

Comment

17. Appendix B, Section 2.3.1, first paragraph, third sentence. The term "stretch milestone" means nothing to the Public, EPA, and CDPHE and should be deleted. Additionally, why is the scheduled completion data included as part of the DQOs? DQO development is used to ensure that the data collected in e field will assist in answering the problem at hand, not to meet at schedule. Please delete.

Response

The date reference is deleted.

Comment

18. Appendix B, Section 2.3.1, First paragraph, fourth sentence. See Comment No. 1 above. Nothing in the SAP discusses this objective as stated here.

Response

Incorporated. All statements on DQOs are referenced to Appendix B.

Comment

19. Appendix B, Section 2.3.1, second paragraph, second sentence. Define the term, "...appropriate margin..."

Response

Sentence has been revised to incorporate the language used in the revised PAM. "...appropriate margin..." has been deleted.

Comment

20. Appendix B, Section 2.3.1, items 1 and 2 under Decisions. See comments Nos. 1 and 19 above.

Response

The section has been revised to state the purpose of sampling is to "document to the VOC concentration levels remaining from potential residual contamination left in place."

Comment

21. Appendix B, Section 2.3.1, Study Boundaries. Delete the sentence referring to scheduled soil removal date. See comment No. 18.

Response

Incorporated.

Comment

22. Appendix B, Section 2.3.1, Study Boundaries, last sentence. Please explain how DOE will evaluate performance measure if results are not back from the laboratory for 3 to 6 months after shipment to the offsite lab?

Response

The performance measure is to break the risk pathway by completing the source removal. The source removal is currently based on the over-excavation of the trench. The laboratory results are not needed for the evaluation of the performance measure.

Comment

23. Appendix B, Section 2.3.1, Decision Rule, Item 1. What does this sentence mean? Please expand the discussion to explain what is "...an action level indicative of free product contamination..." Also, by using the average concentration from the sample set collected in and around the excavation, the representative concentration result may be diluted due to spatial variability in the excavation. Since source removal seems to be one of the objectives, it would appear to be more productive to ensure that EACH sample collected achieve the "action level." Further, delete the reference to meeting the performance goal or add "...if the sample set is greater than the action level, the performance measure is not met."

Response

The concentration values will not be averaged. The purpose of the sampling is to "document the VOC concentration levels remaining from potential residual contamination left in place."

Comment

24. Appendix B, Section 2.3.1, Decision Error Limits paragraph and following paragraph. Delete this discussion or expand discussion to explain why this is important tot the development of DQOs.

Response

Deleted.

Comment

25. Appendix B, Table 2.3-2. This table needs more detailed discussion to support the finding that 10 samples ar optimum. Also, provide the summary statistics used such as the standard deviation, etc., in calculating the optimum sample number. Finally, explain where the action level comes from since the Programmatic Preliminary Remediation Goal (PPRG) for TCE agreed to by EPA, CDPHE, and DOE for this risk scenario pathway is 5440 ppm.

Response

The sample number is obtained by running the site-specific parameters through EPA's Decision Error Feasibility Trials, Version 4.0 (9/94) software package. The PPRG for TCE was corrected.

DRAFT SAMPLING AND ANALYSIS PLAN FOR THE REMEDIATION OF RYAN'S PIT, OPERABLE UNIT 2

COMMENT RESOLUTION

Comments from Sandi MacLeod, DOE/ES&H/EGD

Comment

1. General. This document identifies a number of chemicals that were disposed in Ryan's Pit that are potentially listed hazardous wastes (e.g., tetrachloroethylene, tricloroethylene, xylene, toluene, etc.) The SAP should provide a discussion, based upon available process knowledge, as to whether any listed hazardous wastes have been disposed at this location. It is important to note that listed waste determinations are retroactive so that if any of the referenced chemicals meet the associated listed waste description, it is appropriate to classify those wastes as listed wastes at the time the wastes are excavated and actively managed.

Response

Comment noted. Discussions relating to the regulatory classification and the management of the chemicals from Ryan's Pit soils were addressed in the Source Removal PAM and the Storage and Treatment PAM/Corrective Action Permit Modification for this project.

Comment

2. Section 2.2, third paragraph. This paragraph states that contaminated soils will be staged in roll-off boxes (i.e., containers) and that temporary storage tanks may be necessary for the management of seep water.

CERCLA provides exemption from permitting requirements for removal and remedial actions that are conducted "on-site." Although permits are not required for such on-site actions, the substantive requirements of appropriate or relevant and appropriate requirements (ARARs) must be met when conducting a removal action to the extent practicable considering the urgency of the situation and the scope of the removal. Therefore, if the soil and/or seep water are designated as a RCRA hazardous waste, the technical standards of 6 CCR 1007-3 §264, Subpart I and J for containers and tanks, respectively, must be met. These technical standards must be met irrespective of whether waste will be managed within these units for less than 90 days (see 6 CCR 1007-3 §262.34).

Response

This section was placed in the SAP as an outline of the entire project. SAPs in general, and this document in particular, were not intended to provide specific waste management procedures. Rather, the PAM/Corrective Action Permit Modification outlines the requirements to safely manage waste in a compliant manner.

Comment

3. Section 2.2, third paragraph. This paragraph states that treated soil will be returned to the area of excavation.

Although returning contaminated soil to the area of contamination is generally allowed for "on-site" removal and remedial actions, during a previous accelerated cleanup meeting, RMRS stated that a RCRA permit notification would be necessary for the treatment unit that will be used to treat wastes generated during this removal. This implies that K-H has agreed to apply RCRA regulations to this removal action. If this is the case, RCRA regulations would prohibit the placement of contaminated environmental media back to the area of

excavation unless: (1) the environmental media does not exhibit any of the hazardous waste characteristics and (2) CDPHE has approved a contained-in determination for such environmental media after treatment if listed hazardous wastes have been disposed at this unit.

Response

Comment noted. Treated soils will be evaluated prior to being returned to the former trench site.

Comment

4. Section 2.3, second paragraph. This paragraph states that several additional VOCs were also detected but at concentrations less than 800 mg/kg.

Please clarify the significance of the 800 mg/kg.

Response

This summary section was plagiarized from the OU 2 RI Report. The sentence will be deleted.

Comment

5. Section 3.0, third paragraph. This paragraph states that the backhoe bucket will be decontaminated immediately prior to each sampling even to prevent cross contamination of samples.

Please provide a description of how the decontamination rinsate will be managed an the methods that will be used to determine if such rinsate requires management as a hazardous waste. Again, if listed wastes have been disposed at this site, the decontamination rinsate will require management as a listed hazardous waste.

Response

Decontamination rinsate will be managed in accordance with other equipment decontamination water from this project and is addressed by referenced SOPs in the PAM/Corrective Action Permit Modification.

DRAFT SAMPLING AND ANALYSIS PLAN FOR THE REMEDIATION OF RYAN'S PIT, OPERABLE UNIT 2

COMMENT RESOLUTION

Comments from John Stover, AMPME/ERPT

Comment

1. Table 2.3-2. Why does Table 2.3-2 not match Table 2.3-3 in PAM?

Response

Comment noted. Formatting problem with changing word processing programs. Table will be corrected.

Comment

2. Table 2.3-1. Footnote § data qualifier – use and define as in PAM

Response

Incorporated.

Comment

3. Section 2.2. What will be the disposition of soils if radionuclides are found in the final screening?

Response

If radiological contaminated soils are encountered in the trench, the proposed action will proceed a described by removing the contaminated soils from the trench and processing the material through the thermal desorber. The average concentrations of the radionuclides in the processed soils returned to the trench site are not expected to exceed the risk-based programmatic remediation goals for subsurface soils.

Comment

4. Section 2.2. Will rads and metals be treated since the soil will be removed for VOCs?

Response

There is no treatment proposed for metals and rads. The contaminants of concern for this source removal are VOCs.

Comment

5. Section 2.3. When will the metal and radionuclide analytical data be available?

Response

The rad/metal data, although unvalidated, became available July 28, 1995. The data is being incorporated into the trench characterization report for OU 2.

Comment

6. Section 2.2. Will there be a brief statement describing that this project is a source removal?

Response

Incorporated.

Comment

7. Section 2.3. What are the background screening levels of the metals and rads found in the trench? Would a table be a better presentation?

Response

The background screening levels for the metals and rads analyzed as part of the RI effort are identified in Table 2.3-1 of the PAM.

Comment

8. Section 2.3. What will occur if there are any high levels of metals and/or rads found in the soil?

Response

If the average concentration of the metals or rads exceeds their respective PPRGs, the treated soil may be either shipped offsite for disposal or stored for placement in the onsite storage cell.

Comment

9. Section 2.3. Will certain levels of metals and/or rads interfere with thermal desorption treatment processes?

Response

Since the thermal desorption unit being contracted is expected to be a low temperature thermal desorption unit, radionuclide and metals are not expected to interfere with the treatment process. The radionuclides and metals present in the soil may result in a more rigorous decontamination effort.

DRAFT SAMPLING AND ANALYSIS PLAN FOR THE REMEDIATION OF RYAN'S PIT, OPERABLE UNIT 2

COMMENT RESOLUTION

Comments from Roger A. Merrick, DOE/ER/MSA

Comment

1. Section 2.2. In the second sentence, the reference to excavating a two foot buffer around the source should be modified to state that field instrumentation will be used to guide the excavation of additional material to ensure source removal. DOE and K-H have previously agreed to remove all references to the two foot buffer because the actual buffer may be more or less than two feet.

Response

Incorporated. Section 2.2 was completely removed. Appendix B describes the use of a GC as a field screening tool to guide the removal.

Comment

2. Table 2.3-3 The table referenced in the text to contain the groundwater data is missing.

Response

The appropriate reference is Table 2.3-2.

Comment

3. Section 3.0. In the second paragraph, it states that the post-excavation soil samples from the trench sides will be taken at mid-depth. The maximum concentration of contaminants remaining in the subsurface soil is highly likely to correlate to the actual depth of the "stained" layer which is proposed to be removed and treated. Therefore, it may be wise to state that the samples will be taken from a depth to be determined in the field based on what is observed during the excavation.

Response

Incorporated. Sampling depths and positions may be adjusted to account for field observations.

Comment

4. Section 3.0. In the third paragraph, a notation needs to be made to address the decontamination of the stainless steel spatula between sample collections to prevent cross contamination.

Response

Incorporated. Spatula will be decontaminated.

Comment

5. Appendix B, Section 2.3.1. Decision Rule #1. Is this implying that as long as there are no free liquids present in the soil after thermal desorption, then the soil will be at an acceptable level to replace it in the trench? We are proposing to use a RCRA treatment unit to remove listed wastes from the soil, as a result are we not subject to the LDRs under RCRA? The cleanup criteria needs to be clearly stated.

Response

The storage/treatment PAM/Corrective Action Permit Modifications address treatment performance standards for the VOCs of concern. These standards are taken from the OSWER Directive, a Guide to Delisting of RCRA Wastes for Superfund Remedial Responses.