

051460020 05-H 60020-12-0044
P.01
314-0028

File in 049

Category: B-3

Title "Comments from DOE on TM#1

**Remediation Project Management
Facsimile Transmission**

Part A.
- Tanks.

cc: ETE
D. Beenter
M. Visocky
F. Hobbs

1 of 12

Date: 2/2/94

Attention: Joyce Magishima

Department: JACOBS Engineering

Telephone #: 595-8855

Fax #: 595-8857

Subject: 049 comments TM 1 from DOE

Sender: BRUCE PETERMAN

Sender Telephone #: 966-8659

Sender Fax #: 8556

You should receive 12 pages, including this cover sheet. If you do not receive all the pages, please call the number above.

COMMENTS:

FYI comments on 049 TM #1
from DOE/RFO. Pls. review and
call me if you have any questions.
We need to begin disseminating the
comments. I'll send ~~to~~ a
formal copy when I receive them

Thanks!

Bruce P.

ADMIN RECORD

A-0009-000366

1/12
HE

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Date: 1/27/94

UNCLASSIFIED FAX

ROCKY FLATS OFFICE
DEPARTMENT OF ENERGY
ENVIRONMENTAL RESTORATION DIVISION
P.O. BOX 928
GOLDEN, CO 80402-0928

TO: Bruce Peterman/Suzanne Berman FAX: 8659
EG&G PHONE: 8556

FROM: Bruce Thatcher FAX: (303)966-4871
PHONE: 3532 VERIFY: (303)966-4538

MESSAGE:

FYI. DOE/RFO Comments on OU 9 TM#1.
Will Follow up w/Formal transmittal.
Delay due to DOE RFO reorganization.

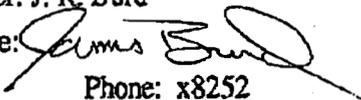
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GENERAL COMMENTS

- 1) DOE/RFO memorandum ERD:BKT:13648 dated December 7, 1993 requested that we not initiate RFI/RI activities at active tanks in OU 9 until use of the tanks is discontinued. Therefore, we request that EG&G verify that those tanks included in TM-1 for Phase I RFI/RI activity are indeed inactive tanks. Tanks that are currently active should be accurately identified in Table 1-1. No further explanation is necessary in the TM except to state that these active tanks will be investigated when they become inactive in the future.
- 2) OU 9 tanks that have gone through RCRA/CHWA closure in the past should be clearly identified in the TM. Relevant information to the Phase I RFI/RI should be provided as an appendix to the TM. In addition, since closure may not have addressed radionuclides and all relevant chemical contaminants, it is likely that Phase I RFI/RI activities will be necessary. These activities should be included in the TM if appropriate. No tentative or unclear statements regarding closure will be accepted (see 2nd par., page 13 of 27).
- 3) OU 9 tanks should not be closed under the the RFP RCRA Part B Permit outside of the Interagency Agreement (IA) process for CERCLA/RCRA/CHWA. Their inclusion in the IA requires closure to be consistent with the Part B Permit, but under the direction of DOE/RFO and EG&G Environmental Restoration personnel with the full participation of the U.S. Environmental Protection Agency. Thus, EG&G ERM needs to be in the driver's seat for these OU-9 tanks.
- 4) It should be verified that past activities at Tank T-27 cover all the potential contaminants. If it is not true, Phase I RFI/RI activities should be expanded as appropriate. In addition, verify that all previous investigation results have been included in the Appendices (including field and laboratory procedures).

AMER REVIEW OF TECHNICAL DOCUMENTS

REVIEW COMMENT RECORD

Document Reviewed (Title, Number, Revision, Date, etc.) OU9 TM1 Volume I, Part A Outside Tank Investigation	Reviewer: J. R. Burd Signature:  Date: _____ Phone: x8252 Organization: ER/RFO	Agreement with Dispositions: Date: Reviewer: Document Preparer:
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*Comment Type: E = Essential (agreement must be documented for other than verbatim incorporation); S = Suggested; Non-C = Nonconcurrency

Comment No.	Comment Type*	Para. No.	Comment	Disposition
1	S	2.2	The site walk should have identified any obvious signs of contamination from leaks of operations associated with the tanks. This information would be important in locating surface soil/soil boring sample sites.	
2	E	2.2	The text indicates that 2 tanks are present at the T-3 locations. Table 7.4 of the OU9 work plan indicates that the only outside tank at T-3 is an aboveground tank. I presume that the site walk identified a tank that was not included in the work plan.	
3	E	3.1.1	Use lower case "e" for HPGe in 5th sentence of 1st paragraph.	
4	E	3.1.4	Incidental Water Sampling is not indicated in the work plan for tank investigations (work plan section 7.3.2 - Tank Investigation). Incidental water will be sampled if encountered in test pits according to the second paragraph of work plan section 7.2.1, but this refers to test pits associated with pipeline investigations. The next sentence in this paragraph discusses tank investigations and does not indicate incidental water sampling. I recommend incidental water sampling if water is encountered even though it is not covered in the approved work plan.	

AMER REVIEW OF TECHNICAL DOCUMENTS
REVIEW COMMENT RECORD CONTINUATION SHEET

Document Reviewed (Title, Number, Revision, Date, etc.)				Reviewer: J. R. Burd	Agreement with Dispositions:
				Date:	Date:
				Phone: x8252	Reviewer:
				Organization: ER/RFO	Document Preparer:
5	E	3.1.5	Surface Soil Sampling is confined by the work plan (section 7.3.2 & specifically 7.3.2.1 - <u>Sampling of Borings</u>) to grab samples taken from a 6-inch cube at the surface at soil boring locations. I didn't find any other reference to surface soil sampling in the work plan for tank investigations. This section should apply only to surface soil samples associated with soil borings.		
6	E	3.1.5	Collecting composite soil samples to determine if contamination is present will lead to multiple additional samples even if only low levels of contamination are found. We would be better off tanking grab samples at locations that have surface evidence of a spill such as staining or radiation. If no evidence of a spill is found, collect one sample at a likely place for spills such as at the fill point or at the connection to the outlet pipeline.		
7	S	3.1.6	If former underground storage tanks were enclosed within a concrete vault, soil samples from along the center lines of the former tank locations will be of probable clean backfill. An additional sample should be taken from a point of opportunity along the outside perimeter of the vaults at the depth of the bottom of the vault. T-1 was removed but documentation does not indicate if a vault was present.		

FEB-2-94 WED 15:41
 JHN-21-94 THU 10:55

ENV RESTORATION DIVISION
 FAX NO. 4871

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REVIEW COMMENT RECORD CONTINUATION SHEET

FEB-2-94 MED 15:42
 JUN-21-94 10:00

ENV RESTORATION DIVISION FAX NO. 4871

Document Reviewed (Title, Number, Revision, Date, etc.)			Reviewer: J. R. Burd	Agreement with Dispositions:
			Date: Phone: x8252	Date:
			Organization: ER/RFO	Reviewer:
				Document Preparer:
8	E	3.1.6	The depth of the sample below the bottom of the tank is inconsistently shown in the work plan. The work plan text indicates that the sample will be taken at 1 to 3 feet below the bottom of the tank for underground tanks (second bullet under <u>Sampling of Borings</u> in 7.3.2.1) but figure 7-6 of the work plan indicates that the borings will be taken at 1 foot below the bottom of the underground tanks. TM1 does not resolve this inconsistency. It references the figure and quotes the text from the work plan. I recommend that the text be altered to reflect the more restrictive case of Figure 7-6 because it is generally best to sample as near as possible to the point of the potential release.	
9	S	3.1.6	Table 7-6 gives several examples of different tank, bedrock, and water table relationships for soil sampling configurations. The first example shows the water table above the bottom of the tank. In this case a soil sample is taken from the saturated zone one foot below the bottom of the tank as well as at the water table. The saturated zone soil sample will not truly represent the soil character because it will be impacted by potential groundwater contamination. A better approach would be to collect only groundwater samples in the saturated zone. Collect saturated zone soil samples only if contaminants may be present as solids in the saturated zone. Section 3.1.7 of this TM addresses the groundwater issue by indicating HydroPunch or equivalent groundwater sampling techniques in boreholes that encounter saturation. Specify saturated soil sampling only if solid contaminants are anticipated.	

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FEB-2-94 MED 15:42
 JHM_2/7-94 1HU 10:30

ENV RESTORATION DIVISION FAX NO. 4871

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Document Reviewed (Title, Number, Revision, Date, etc.)			Reviewer: J. R. Burd	Agreement with Dispositions:
			Date: Phone: x8252	Date:
			Organization: ER/RFO	Reviewer:
				Document Preparer:
10	E	3.1.6	Sampling in areas where previous sampling indicates contamination is indicated as a grab sample at the surface and a composite of 2-foot samples to the water table, base of tank, or bedrock, whichever is encountered first. This sampling is not covered in the work plan and should be included with the investigation of extent. The extent investigations will be covered in a later TM that discusses the Stage 2 investigation as specified in Section 1.2 of this TM.	
11	S	3.2.1	A soil sample is indicated at the former T-1 locations from the unsaturated zone. This sample will in all likely hood be from backfill along the former tank centerline at a depth of 2 feet. What are the goals for this sample? None of the potential contaminants are light NAPLs. The most likely place to find contaminants will be in the groundwater at a depth equivalent to the bottom of the former tank along the former tank centerline. A soil or "old" backfill sample even in the saturated zone at the point of release is a likely place to look if the contaminants might have been emplaced as the solid portion of a slurry.	
12	E	3.2.2	The last paragraph lists "semi-volatiles/polychlorinated biphenyls". They are separate analyses and should be listed separately and not combined with a slash even though they are apparently being collected in the same bottle.	

AMER REVIEW OF TECHNICAL DOCUMENTS
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			Organization: ER/RFO	Document Preparer:
13	E	3.2.2	The priority of groundwater parameter sampling in case of limited available sample volume lists alpha spectrum first yet Table 5-2 does not provide a volume (or other information) for this analyte. The priority of sampling should be based not only on the importance of the analytes but also on the volume of sample required. If the volume of water available is insufficient for the most important analyte then those with lower volume requirements should be sampled first. It is always a good idea to sample for VOCs first because they are typically important, require a low volume, and may be volatilized by the sampling activity.	
14	E	3.2.4 3.2.5	<p>These sections describe inactive tanks (T-8 in 3.2.4 and T-9 & 10 in 3.2.5) that are now part of the plenum deluge catch tank system for retention of potentially contaminated fire water. These tanks are included in the RFI/RI investigation according to the OU9 work plan 2.2.3.3 third bullet. The investigation of these tanks will not be undertaken in the RFI/RI study as indicated in correspondence since the work plan approval.</p> <p>However, the text in 3.2.4 indicates that T-8 will not undergo investigation because of its inclusion in the catch tank system. The text in 3.2.5 indicates that both T-9 and 10 will be investigated. Table 3-1 of this TM indicates that tanks T-8 and 9 will not be investigated because they are included in the catch tank system. This table and the text are inconsistent. Make the TM internally consistent.</p>	

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			Organization: ER/RFO	Reviewer:
				Document Preparer:
15	E	3.2.5	<p>The fourth paragraph indicates that 4 borings will be drilled at each accessible side of the vaults containing the tanks (T-9 & 10). Table 3-1 lists 4 borings for T-10. The wording in the text is confusing in as much as it implies 4 borings on each side of the vault. The text goes on to say that no boring will be installed on the west side because this area is being investigated as part of IHSS 118.1 of OU8. Therefore, the text should indicate 3 borings, 1 at each of the other sides of the tank. Figure 3-4 shows the boring locations for these tanks. It places 4 borings, one at each corner of the presumed vault. Make the text, tables, and figure consistent with each other and with the work plan (see comment 14).</p> <p>Table 2.3 of the OU9 work plan lists the potential interactions of OU9 sites with those in other OUs. This tank and IHSS 118.1 are listed but so are numerous other OU9 sites. Make sure that all other tank investigations listed in this TM that have potential interactions with other OUs are identified in the TM and that the Integrated FSP now in preparation also lists the appropriate interactions.</p>	
16	S	3.2.6	<p>This section discusses active tanks that will not be investigated as part of this RFI/RI. TM Table 1-1 lists all the tanks in OU9 and their current status. It identifies active tanks and should also specify that these tanks will be dropped from further consideration in this TM. No further mention of these tanks then needs be made.</p>	

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 JHN-21-94 1HU 10:01
 ENV RESURMILION DIVISION FAX NO. 48/1

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AMER REVIEW OF TECHNICAL DOCUMENTS
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Document Reviewed (Title, Number, Revision, Date, etc.)			Reviewer: J. R. Burd	Agreement with Dispositions:
			Date:	Date:
			Phone: x8252	Reviewer:
			Organization: ER/RFO	Document Preparer:
17	E	3.2.7	The text indicates that these 2 tanks were closed in compliance with RCRA perhaps in 1989. If closed under an approved closure plan, no additional work is necessary unless the tanks are listed in the IAG and radionuclides are involved. Check status of these 2 tanks.	
18	E	3.2.8	The text discusses the investigation at the former locations of tanks T-15 and 17. Tanks at these 2 locations have been removed and the excavations presumably backfilled. The contaminated soil that was removed was stockpiled elsewhere and is being investigated under different OUs. The T-15 and 17 locations are being investigated concurrently with the T-14 and 16 sites. The HPGe survey proposed for the T-14 & 16 site (Figure 3-5) may not be sufficient for the T-15 & 17 site. Please make sure that the survey that will be conducted is sufficient for the T-15 & 17 site.	
19	E	3.2.9	Similar comments to those in Comment 15 regarding confusing wording relative to the number of borings to be installed.	

FEB-2-94 WED 15:45
 JAN-27-94 THU 16:57

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Document Reviewed (Title, Number, Revision, Date, etc.)			Reviewer: J. R. Burd	Agreement with Dispositions:
			Date:	Date:
			Phone: x8252	Reviewer:
			Organization: ER/RFO	Document Preparer:
20	E	3.2.10	Tank T-27, an above ground tank, was apparently removed after a wet spot was observed on the concrete pad under the tank. This TM indicates only an HPGe survey in the vicinity. Analyses of 3 soil samples for uranium isotopes was conducted on 3 samples collected on 2 sides of the T-27 pad. The results of these analyses indicate that the soil is similar to some Rocky Flats reference soil (Appendix D). The T-27 tank received wastes from the T-21 and 22 tanks. They received a broader spectrum of materials than uranium. It is doubtful that no further soil sampling at the site can be based on the results presented in Appendix D. The unknowns expressed in Appendix D concerning the source of the reference soil, the possibility for other constituents in the T-27 tank liquids, and the sample locations which are on only 2 sides of the T-27 pad are critical. The sample locations proposed for T-21 & 22 which are adjacent to the T-27 pad generally replicate the uranium isotope sample locations described in Appendix D. Additional samples should be taken for appropriate analytes (as described in section 3.2.9 for T-21 & 22) on the previously unsampled sides of the T-27 pad.	

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 JHN-27-94 THU 16:58

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AMER REVIEW OF TECHNICAL DOCUMENTS
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Document Reviewed (Title, Number, Revision, Date, etc.)			Reviewer: J. R. Burd Date: Phone: x8252 Organization: ER/RFO	Agreement with Dispositions: Date: Reviewer: Document Preparer:
21	E	4.0	The Field Procedures text relies heavily on EMD OPs. Many of these OPs have numerous Document Change Notices (DCN) and some OPs have DCNs that are restricted in scope to specific OUs. In some cases the number of DCNs is excessive as observed in Formal Audit 93-QA-LI-004 or may violate the Site-Wide QAPJP concerning DCNs with scope limited to specific OUs. The response from W. S. Busby dated December 2, 1993 to the audit indicates that OPs will be revised accordingly (Issue 3c of Attachment A to Busby's response). The revisions have probably not been completed and no schedule for revisions is included in the Busby letter. Please assure that all referenced OPs as necessary are revised according to the December 2 response. This is necessary to assure successful execution of the work proposed in this TM.	

FEB-2-94 WED 15:46
 JAN-27-94 THU 16:58
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