

STATE OF COLORADO

Bill Owens, Governor
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Dedicated to protecting and improving the health and environment of the people of Colorado

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Colorado Department
of Public Health
and Environment

February 10, 2005

Mr. Joseph Legare
Director, Project Management Division
U.S. Department of Energy
Rocky Flats Field Office
10808 Highway 93, Unit A
Golden, Colorado 80403-8200

Re: Approval, Draft Environmental Restoration, RCRA Standard Operating Protocol For Routine Soil Remediation, FY05 Notification #05-02, IHSS Group 500-3, January 2005

Dear Mr. Legare:

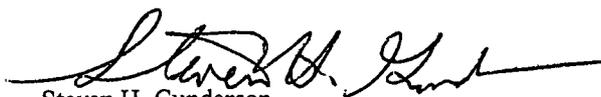
The Colorado Department of Public Health and Environment, Hazardous Materials and Waste Management Division (the Division) hereby grants approval for the subject FY 05 Notification. Comment resolution meetings and subsequent revisions were successful in resolving the Division's comments. Attached are the initial comments, issued by the Division, on the November 2004 draft document. Additional comments on the January 2005 revision, submitted electronically, are included.

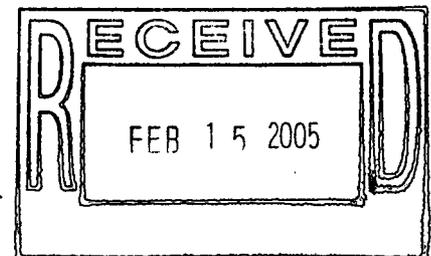
The principle issues were:

- Clarification of whether the contamination was below the building slab or beneath a sub-grade structure, i.e. the tunnel.
- Extending the Notification to include the removal of potential contamination beneath the slab in addition to known contamination at sampling location CD44-005.
- Discussion of the more recent radionuclide exceedences seen at SW 93 and GS 10, and the potential for overland flow to spread contamination to surface water, to promote the placement of erosion/sediment controls in the area after ER activities are completed.
- Acknowledgement that subsurface soils may be contaminated, based on contamination of the surface soil at CD44-005, followed by revisions to SSRS, Screen 4, to include a discussion on the potential radiological contamination of ground water.
- Ensuring that OPWL lines, if not removed, are properly grouted.

We look forward to confirming that the principle issues have been addressed, and that additional changes as specified, are reflected in the final document. If you have any questions regarding this correspondence, please contact me at (303) 692-3367, Harlen Ainscough at 303-692-3337 or David Kruchek at 303-693-3328.

Sincerely,


Steven H. Gunderson
RFCA Project Coordinator

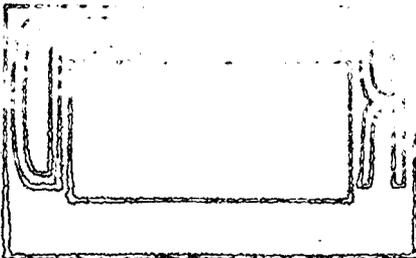


Mr. Legare
February 10, 2005
Page 2

Attachment

cc: Mark Aguilar, EPA
Larry Kimmel, EPA
Dave Shelton, KH
Steve Nesta, K-H

Mark Sattelberg, U.S.F&W
Norma Castaneda, DOE
Karen Wiemelt, KH
Administrative Records Building T130G



Colorado Department of Public Health and Environment

Hazardous Materials & Waste Management Division

Comments

Draft Environmental Restoration RCRA Standard Operating Protocol
For
Routine Soil Remediation
FY05 Notification #05-02,
IHSS Group 500-3

November 2004

Specific Comments:

1. **Section 2.1:** In the first bullet, for public information, please state whether the hot spot is beneath the slab, the tunnel, or some other current sub-grade feature. It has been common for the first (A interval) beneath "below grade" concrete to be measured from zero feet, making Table 2 inconclusive.
2. **Section 2.2:** The SSRSs are not bound at three feet for non-radionuclides and six feet for radionuclides as indicated, please correct. Additionally, please insert "*sampling*" between "*confirmation results*".
3. **Figure 2:** Please show all sample results exceeding background or MDLs/RLs as normally presented.
4. **Screen 4:** In the second paragraph, first and last sentences, the references to erodibility are redundant. For clarity, please consider making the last sentence the opening sentence, the second to last sentence the second sentence, followed by the remaining text. By moving the general statements to the beginning, the flow to the third and fourth paragraphs will not be disrupted.
5. Additionally, - Please continue the discussion to also include the more recent exceedences seen at SW 93 and GS 10. Also need to properly draw conclusions regarding the potential for pathways to surface water, not just groundwater (this would include possible disturbances from the land reconfiguration of this area). Overland flow could move contamination to surface water, as potentially seen from the B779 and 774 areas. In addition, the sample results need to be provided to help make a determination as to the potential for the "rarely detected" VOCs to be a possible source concern for groundwater. Appropriate erosion/sediment controls need to be placed in this area after ER activities are completed.
6. In the fourth paragraph of Screen 4, the discussion is not supported by a figure depicting the surface water stations. Please add a figure. Additionally, following "*GS40 and GS 10, which*" of the narrative, please insert "*west to east*" for added clarity.
7. **Section 2.3, Objective 1:** A review of the SAP addendum for IHSS Group 500-3 indicates that both A and B samples were to be collected at CD44-005. Accordingly, that specific data, by exclusion from this draft document, indicate that excavation to 0.5 feet would be sufficient. If so, please modify Objective 1 accordingly. If desired, the volume estimate in Table 1 may be reduced. However, please indicate that remediation will also be conducted as appropriate if additional contamination is found during slab removal.
8. Additionally, reference to 3 nCi at 3 feet is not appropriate. Please change to the appropriate levels or remove.
9. **Section 2.3 Objective 2:** The OPWLs must be properly grouted if not removed. Also, the associated soil and lines should be removed if found to be contaminated during slab removal. Please change the text to include these possibilities.
10. **Section 2.3, Objective 3:** Please add a specific discussion on confirmation sampling after considering Comment No. 7. Sidewall confirmation samples may be sufficient.
11. Section 2.4 - A map should also be provided that documents all areas where remediation actions occurred, as well as all remaining contamination above background or MDLs/RLs.
12. **Section 2.4.2:** As stated above in Comment No. 5, please change the discussion in the next to last paragraph on page 8 (both) to include discussion of the recent elevated SW93 detections as well as the 1999 instance.
13. **Section 2.4.3:** In the heading beginning, "*Do monitoring results....*", if area monitoring wells have not shown exceedences of transuranics, since the hot spot to be removed is a Pu/Am occurrence, please discuss. Consideration of

the "groundwater impacts from the area under consideration" should be specific to the potential of the contaminant source, Pu/Am.

14. **Section 2.4.3:** Please provide the data requested in Comment No. 3, to properly address the lack of possible VOC source.
15. **Page 8:** Copies received by the Division contained duplicate page 8s.
16. **Section 3.0:** Discussion of this accelerated action is not recalled and is not shown in the ER Field Project Status, dated November 16, 2004, provided at the November meeting. Please change to, and include the discussion at the December meeting.

Additional Comments to the January 2005 Revised Notification, via E-mail

1. Although this Notification may indeed be provided to specifically remove the contamination found during the SAP investigation, it has also been previously determined/discussed that potential soil contamination may be found during slab removal of B559, 561, and 528, which would also be remediated utilizing this Notification and the ER RSOP. Currently this Notification is specific only to the contamination found at location CD44-005. As such, this Notification should be open enough to recognize additional possible remediation if necessary, and as discussed in Section 2.3. Therefore...suggest the following changes; 1) Introduction, 3rd paragraph, 1st sentence - change to ...and the "currently identified" areas requiring remediation ...; 2) Section 2.0, 1st paragraph on Page 5, 1st sentence - change to ...sampling location CD44-005, "as well as other areas that may be identified during demolition activities."

2. Section 2.2 - Screen 1 should be changed from Yes to "No". This since there is at least one exceedence of WRW action levels at sample location CD44-005. Although a deeper sample was not collected due to the high levels of contamination found in the 6 inch sample, it must be assumed that the deeper interval would also be contaminated for the purposes of this SSRS evaluation discussion. Therefore, Screens 2 and 3 should be included in this evaluation. Or an appropriate discussion regarding the potential of subsurface contamination and these screens provided.

3. Section 2.2, Screen 4 - a) Please change the Screen 4 discussion to include discussion of the potential subsurface contamination as identified/discussed previously in Section 2.0. b) Also, please modify the 1st sentence on page 8 to read ...has been identified. "However, since the exceedences seen at GS10 have not been detected at GS 40 the majority of the plutonium and americium loading to South Walnut Creek appears to occur between ..." c) Please change the last sentence in the 2nd paragraph on page 8 by changing the "will"s to "should". that is, "...revegetation should reduce..." and "...the area should substantially mitigate...". d) Please provide the specific wells included in the review as discussed in the 4th paragraph on page 8. Also please provide and explanation for the statement, "There were no plutonium exceedences in any of the upgradient or downgradient wells." especially considering the previous sentence that discusses the RFCA exceedences of plutonium, and the following statement "that IHSS Group 500-3 is a likely source for the observed contamination." Make modifications to this discussion as necessary to provide an appropriate discussion of these issues. e) Please modify the summary discussion in the last paragraph of Section 2.2 on page 9. Specifically the statement that, "Groundwater is not an active pathway for radionuclide transport in this area." This considering the previous discussion of groundwater contamination.

4. Figure 3 - Please provide Units for all contaminants. 5. Section 2.3 - It is specifically stated in the 1st bullet that there would be consultation with CDPHE to make the final determination regarding removal of the slab, which would include removal of contaminated portions of the slab. However, it must be recognized that consultation with CDPHE is also necessary for all actions as described, that approval of this notification is not the final approval for these limited actions as herein identified. All proposed actions regarding the remaining structure must be performed as required in the ER RSOP as well as the Facility Disposition RSOP. It would be appreciated if this was noted in this discussion.

6. Section 2.4.2, 2nd paragraph on page 11 - Please change the last sentence by changing the "will"s to "should". That is, "...revegetation should reduce..." and "...the area should substantially mitigate...".

7. Section 2.4.3 - Please provide the specific wells included in the review as discussed.

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