

**ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE
ER REGULATORY CONTACT RECORD**

Date/Time: May 12, 2005 / 10:00 a.m.

Site Contact(s): K-H: Karen Wiemelt, Susan Serreze

Phone: 303-692-2035 – CDPHE
303/312-6312 - EPA
303/966-4226 – DOE

Agency: CDPHE: Harlen Ainscough, Dave Kruchek, Elizabeth Pottorff, Carl Spreng
EPA: Sam Garcia, Larry Kimmel
DOE: Norma Castañeda

Purpose of Contact: A meeting was held on May 12, 2005 to discuss the Metals White Paper and the North Firing Range Closeout Report

Discussion: See meeting minutes below.

Contact Record Prepared By: Susan Serreze

**May 12, 2005 Comment Resolution Meetings
For
Metals White Paper
North Firing Range Closeout Report**

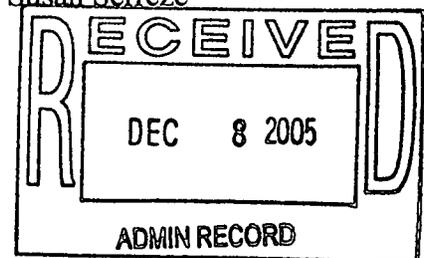
A meeting was held on May 12, 2005 to discuss the Metals White Paper and the North Firing Range Closeout Report

Attendees

DOE: Norma Castaneda
CDPHE: Harlen Ainscough, Dave Kruchek, Elizabeth Pottorff, Carl Spreng
EPA: Sam Garcia, Larry Kimmel, Todd Bechtel (Greystone)
K-H Team: Karen Wiemelt, Annette Primrose, Carla Rellegert, Susan Serreze

Report Status

Issues



BZ-A-000894

11/8

No Sitewide issues were discussed.

Specific Comments

Metals White Paper

The attached written comments were received from CDPHE and EPA. The following resolutions were agreed to:

CDPHE Comments

- Text will be clarified to explain what 10^{-6} PRG value is used.
- Will clarify in text that metals are not screened in this document.
- All other comments will be addressed.

EPA Comments

- The text will be clarified to indicate that no decisions are in this document.
- All other comments will be addressed.

Additional comments were received from CDPHE at the meeting. The following resolutions were agreed to:

- All UBCs will be added.

North Firing Range Closeout Report

The North Firing Range Closeout Report was discussed. The following resolutions were agreed to:

- Text will be added that indicates there were multiple soil removals.
- Text will be added to the DQA section to explain high recoveries.
- Text will be modified to better explain why EPA Method 6010 was used.
- The LCS table will be reviewed and corrected as necessary.
- Additional pathways will be considered in Screen 4.

Other Issues

There were no other issues for discussion.

V. Meetings

The next meeting will held on May 26, 2005 at 10:00 AM in the Breckenridge Room.

Colorado Department of Public Health and Environment

**Hazardous Materials & Waste Management Division
Comments
Preliminary Draft**

**Review of Building Historical Knowledge Related to Metals and Selected
Radionuclides Identified As Environmental Media Analytes of Interest**

White Paper

April 27, 2005

General Comments:

1. The document needs to address the 10^{-6} risk level point of departure, it is not clear what PRGs are used WRW or 10^{-6} risk. RFCA action levels should be cited in the discussions for each metal so that the process of leaving contamination between the 10^{-6} or background and the RFCA action level becomes clear.
2. The data presented is a mix of surface soil near the buildings and UBC data, which background values are used for comparisons, surface or subsurface?
3. Where is the justification for using 10 x PRGs as a screening level on the Figures? Why not use something consistent with the IABZ SAP and ER RSOP process like the 3 X rule?
4. **Acronyms:** It is assumed a list will be included in the final.
5. **Section 1.0:** The Division understands the use of this document, through professional judgment, to eliminate many constituents from further consideration. There is, however, a potential for "grey area" constituent occurrences to be eliminated rather than be quantitatively evaluated. Such include/exclude decisions should be defended in the Conclusions section to be written.
6. In the second paragraph, a discussion of why PRGs are the chosen and appropriate comparison, versus WRW or on a ppm or ppb basis of source/media, would be valuable.
7. Relative to the ChemRisk study of "off-site health risks", please discuss relative to professional judgment decisions, the differences and potential impacts of the RCFA intermediate and long-term requirement, Attachment 5, Section 2.3, "... surface water must be of sufficient quality to support any surface water use classification in both Segments 4a/4b and 5. Specifically, "All final remedies must be designed to protect surface water for any use as measured at the nearest

and/or most directly impacted surface water in Segment 4a/4b and 5 (on-site)."
Underline and () added.

- 8. Table 1, Footnote 2:** The term "WRW PRG", stated to be a 10^{-6} level, should be changed to PRG.
- 9. Table 2:0:** Thorium-232 is aligned in the wrong column.
- 10. Section 1.0 (cont.):** The third paragraph of page 4 discusses forty-six potential chemical of concern. It appears, considering Comment No. 7, that the CRA should reconsider all of forty-six not merely the twenty-five and five metals that passed onto Task 3&4 of the ChemRisk study. This may be driven in part by ecorisk, in addition to human health risk.
- 11. Section 2.0:** Relative to the last paragraph, page 9, the statements are considered valid, but levels below WRW ALs should be noted as potential sources to ground water and surface water above the RFCA Attachment 5, Section 2.3, requirements. Otherwise, this white paper might be irrelevant.
- 12. Section 2.1.1:** Relative to the third paragraph, page 10, the drinking water exposure scenario does not appear to be consistent with the Attachment 5, Section 2.3, requirements. Please, consider in the context of Comment No. 10.
- 13.** In the third paragraph, page 10, "for buildings" should be added after "soil data".
- 14. Section 2.1.2:** The Division recalls that there was one antimony exceedance at the East Firing Range, and that it was remediated along with lead at the location. Please verify and discuss if appropriate in Table 7 and Figure 2.
- 15. Section 2.1.5:** In the sixth paragraph, page 13, "(e.g. "aluminum nitrate)" should be changed to a cadmium compound, possibly nitrate.
- 16.** In the third paragraph, page 13, it is noted that cadmium plating rise solutions were sent to the Solar Ponds. It appears appropriate to add cadmium data to Table 10 and Figure 5.
- 17.** In the second paragraph, page 14, the results of the ChemRisk study, and the expected significance of the offsite release potential should not preclude, based on professional judgment, a quantitative evaluation relative to RFCA Attachment 5, Section 2.3, requirements. Please consider this a general comment relative to each constituent considered.
- 18. Section 2.1.6:** In the third paragraph, page 15, it is noted that plating wastes were once sent to the Solar Ponds. It appears appropriate to add chromium data to Table 11 and Figure 6.

- 19.** A chromium hot spot, which may have been related to scrap metal storage, was remediated east of B551, IHSS 500-158. Should data be included in Table 11 and Figure 6?
- 20. Section 2.1.8:** The Division recalls that there may have been one copper exceedance at the East Firing Range and it may have been remediated along with lead at the location. Please verify and discuss as appropriate.
- 21. Section 2.1.10:** Have lead-based paint wastes, excluding paints used for intended purposes, been considered in the study?
- 22.** Lead in soil, UBC 123, is mentioned in the text but is not in Table 15 or on Figure 10.
- 23. Table 15:** Considering the discussion of the North and East Firing Ranges in Section 2.1.10, statistics should be included in Table 15. Please consider this a general comment to the tables relative to occurrences beyond the primary focus of the IA and buildings.
- 24. Section 2.1.11:** Lithium was “destroyed” at B331 and should be added to the study. Also, lithium was reported destroyed (unable to relocate the recently read source) east of Building 779(?).
- 25. Table 16:** Building 331, and possibly Building 779, data should be added to the table (even if no detections). Figure 11 may require additions.
- 26. Figure 21 and 22:** Near Building 455, a value of 270 appears without a location symbol. Since the value is 270 pCi/g on both these Radium 226 and 228 figures, is the data valid? Please verify.

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**EPA Comments on Preliminary Draft Review of Building Historical Knowledge
Related to Metals and Selected Radionuclides Identified As Environmental Media
Analytes of Interest-White Paper**

April 2005

May 12, 2005

General Comments

It appears that several metals (cadmium, chromium, lead, mercury, and nickel) were eliminated from further evaluation based on the following criteria:

- Uses had been extremely limited in scope or duration
- Associated with insignificant quantities of the material
- Processes or forms of the material were not expected to have significant off-site releases

However, spills involving three of these metals (cadmium, chromium, and lead) were documented. Additionally, uses of these materials, based on information presented, appear to be significant in some cases, such as lead, with over 1 million pounds on site in the 1974 inventory. Please be more specific in the rationale for eliminating these metals from further consideration.

Specific Comments

1. **Page 1, second paragraph, second sentence.** The sentence states, "These AOIs are composed of 19 metals and four radionuclides (other than americium, plutonium, and uranium isotopes.)" Based on the table of contents, Table 2, and the discussions starting in Section 2.1, there are 20 metals that have been identified. Please correct this discrepancy.

This sentence also states that americium, plutonium, and uranium isotopes were not included. Additionally, beryllium is not discussed in this document. Please state the rationale or reason for not including them in this document.

2. **Page 4, second paragraph.** This paragraph discusses the ChemRisk report and how chemicals were eliminated as Analytes of Interest (AOIs). This paragraph is very confusing. The paragraph references a Stage 2 screening; however, the table identifies a Task 2, which is never mentioned in the paragraph. Additionally, the last two paragraphs state, "Based on this final screen a total of 25 materials of concern were identified and further evaluated in the Task 3&4 report. Of these 25, only five metals were identified and eventually dropped in the Task 3&4 report." These statements do not appear to be consistent with Table 2. Please

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revise this paragraph to give a better description and understanding of the ChemRisk process and more accurately reflect the information identified in Table 2.

3. **Page 7, third paragraph, first sentence.** This sentence states, "The WEMs database was implemented in 1990 and the WSRIC building books began in 1991." The partial paragraph at the top of this page makes reference to WSRIC reports, but no mention of building books is made. Please include a short discussion on WSRIC building books.
4. **Page 8, second paragraph, third sentence.** The sentence states, "Very few incidents (within a span of 50 years) occurred within a building that would have resulted in a release to the environment." This sentence would be more accurate if it stated, "Very few *documented* incidents occurred...". Please consider making this revision.
5. **Page 8, fifth paragraph, second sentence.** This sentence states, "The occurrence report indicated there was no impact to the environment." Please include the rationale for this statement, such as, samples were collected and the area was remediated or samples did not indicate the presence of contamination.
6. **Page 10, first paragraph.** This paragraph summarizes the uses of aluminum across the site, which includes use in various metallurgical operation within Buildings 444, 779, 865, and 883. However, on page 10, second paragraph, first sentence, it states, "Cadmium was used in pit construction (Building 707), however, the amounts were relatively minor in comparison to the primary materials used (plutonium, uranium, beryllium, aluminum, and stainless steel)". Please revise the text in the aluminum discussion to reflect that it was also used at Building 707, potentially in significant quantities.

