



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

Document No. 10949

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Dirk Kempthorne, Governor
C. Stephen Allred, Director

July 16, 2001

Ms. Kathleen Hain, Manager
Environmental Restoration Program
U.S. Department of Energy
Idaho Operations Office
850 Energy Drive
Idaho Falls, Idaho 83401-1563

RE: **Draft OU 3-14 Remedial Investigation/Feasibility Study Additional Soil Sites
Summary Report**

Dear Ms. Hain:

The Idaho Department of Environmental Quality (IDEQ) has completed its review of the above-referenced document, and provides the enclosed comments. IDEQ received the draft on June 14, 2001.

If you have any questions regarding these comments, please contact me at (208) 373-0556.

Sincerely,

A handwritten signature in cursive script that reads "Clyde Cody".

Clyde Cody
INEEL WAG Manager
IDEQ Technical Services Group

CC/jc

cc: Talley Jenkins, USDOE-ID
Wayne Pierre, USEPA, Region X
Daryl Koch, IDEQ-WMRD

Enclosure

**IDEQ Technical Comments for OU 3-14 Remedial Investigation/Feasibility Study
Additional Soil Sites Summary Report (Draft)**

July 16, 2001

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General Comments

Given the information presented in the draft document which was derived from 1994 and 2000 information, and coupled with a current review by IDEQ RCRA staff, it appears that CPP-81 may not be appropriate for inclusion as a CERCLA OU 3-14 site, but rather under RCRA as part of the closed Calciner Pilot Plant.

It is noted that this was a Track 1 site determined in 1994 to be a "No Further Action" site by the agencies and that further uncertainties regarding residual trace compounds, such as mercury, would be documented based on historical information which is now summarized in the draft report.

Therefore, the issue remaining, regardless of the final risk assessment, is whether or not this site should have its final action documented under the FFA/CO or HWMA program. As the RCRA program is currently evaluating the information presented in this document and other information regarding the Calciner Pilot Plant, we cannot at this time concur in placing CPP-81 within OU 3-14 nor give our final endorsement that this site requires "No Further Action".

Specific Comments

CPP-61

1. Figure 1-1, page 1-2

Figure 1-1 is very vague and lacking in specifics when compared to Figure 2-1, where CPP-82 is correctly divided into three sites, a legend and North arrow are provided, and the sites can be placed in the larger context of INTEC facilities. Consider removing Figure 1-1.

2. Figure 2-2 and Table 2-1, pages 2-3 and 2-4

The sample locations shown in Figure 2-2, and the sample coordinates provided in Table 2-1, plotted on a grid with the NW corner of building CPP-613 as the origin, bear no resemblance to each other. One or the other is apparently in error, and this in turn casts doubt as to where exactly the samples were collected. Please discuss.

3. Section 2.4, first paragraph after bullets, page 2-6

This section discusses the removal of soil and concrete (total of nine contaminated hot-spots) due to rad concerns. Based on this discussion, there appears to have been no PCB evaluation of these soils and concrete prior to disposal.

4. **Section 2.6, third paragraph (last of section), page 2-10**

The pictures of the concrete forms in Appendix B do show a hole with a concrete form, as stated, but do not “clearly” demonstrate that the soil in and around the original transformer pad was removed, nor placed in segregated piles. Neither can be inferred from the referenced photos in Appendix B.

The remainder of the paragraph appears to describe a situation where there was confusion or indecision concerning confirmation sampling of the bottom of the excavation prior to infilling. The outcome as described is not really clear. Please explain.

5. **Section 2.7, third bullet, page 2-11**

It may be presumptive at this time to claim that “the area of CPP-61 at INTEC will not likely ever be a residential area”. Please explain if a decision to opt for an industrial use after 2095 has been documented, and where.

6. **Section 2.7, fourth bullet, page 2-11**

The discussion here, and an examination of Table 2-2, indicate that soil sample analyses revealed levels of PCBs in sample #20 at 5.2 and 4.0 ppm at depths of 72 and 78 inches, respectively. Despite the low concentrations, these are still indicative of PCB levels above non-detect, and since sample #20 is in the main area of soil contamination, it appears that samples should have been collected to verify non-detect at depth. Please discuss.

7. **Section 2.7.1, third bullet, page 2-12**

There is neither any narrative nor figures that “clearly” indicate soil removal “three feet beyond” areas of visible contamination. If there is information that can demonstrate this, please include in the document.

8. **Section 2.7.1, last bullet, page 2-12**

The exposure point concentration is important for estimating risk, not the total amount of PCB present in a given volume of soil.

9. **Section 2.7.2, page 2-12**

Generally, the highest detected concentration is compared to the screening value in order to determine if additional characterization is necessary. Based on the sample data presented, additional characterization would be warranted based on

either the residential PRG of 2.2E-01 mg/kg or the industrial PRG of 1.0E+00 mg/kg.

10. **Section 2.7.2, Tables 2-4 and 2-5, Page 2-13**

It is not clear why risk-based concentrations based on individual exposure route sub-models are presented in these tables. Since all three exposure routes are assumed to occur in a residential or industrial scenario, the appropriate number for screening is the integrated number.

11. **Section 2.7.2, discussion and bullets on page 2-14**

Inadequate justification is presented for rejecting a potential future residential scenario. In the event that an industrial scenario is warranted, it is appropriate to compare the 95% UCL of sample data to the PRG of 1.0E+00. If a decision is made that a risk level of 1E-4 is acceptable, the cancer PRG becomes 1.0E+02, and the noncancer PRG of 111.4+01 then becomes the limiting factor. It appears that the average level of site contamination is below 14 mg/kg, so the level of risk associated with this site would be acceptable. However, before this conclusion can be reached, a better case must be made for basing risk decisions on an industrial scenario.

CPP-81

12. **Section 3.3, last paragraph, page 3-1**

It is not clear how the statement "No leaks were observed during the removal action, indicating that no previous release to the environment had occurred during the 1986 Run #15 or during the flushing operation." was determined. The VOG line was a conduit for off-gas, and during Run #115 and the flushing operation the piping was essentially carrying relatively clear fluids so a leak would not be apparent (as compared to a petroleum leak). Also, the pipe was abandoned in place and there are no indications that, during or after flushing, the entire line and surrounding soil were exposed for scrutiny.

13. **Section 3.5.1, first bullet, page 3-5**

The evidence presented so far is not incontrovertible that no leaks have occurred. This can only be ascertained by sampling and analysis of soils adjacent to and beneath the line.

**IDEQ Technical Comments for OU 3-14 Remedial Investigation/Feasibility Study
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14. Section 3.5.1, first bullet on page 3-6

This discussion pertaining to the absence of mercury is appreciated. However, a simple analysis for mercury would have obviated the need for this discussion, as the “evidence” presented and discussed is inferred and not based on analyses.

15. Section 5.2, page 5-1

The third sentence again refers to analytical data that “clearly” demonstrates that residual levels of cadmium, chromium, and mercury are at levels below regulatory concerns. However, this is not “clear” for mercury, as the stated Hg concentration of 0.5 mg/kg is an inferred concentration based on the other contaminants, and was not demonstrated through analytical methods.

CPP-82

16. Section 4.4, pages 4-7 to 4-9

This section describes the incident at Location C, which included the breakage of line SWNH-110717 and the subsequent spillage of 500 gallons of wastewater. Despite the relatively well detailed account of the incident, it is not clear what the contents of the wastewater was, and also why composite sampling of the wastewater for RCRA hazardous metals for the month preceding the rupture was thought to preclude the necessity for sampling the impacted soils during the incident. Confirmation sampling and analysis would have been more credible than the statement “This gives good reason to believe that no hazardous materials were released.” (page 4-9, first paragraph). Please discuss.