

Colorado Department of Public Health and Environment
Hazardous Materials & Waste Management Division

Revised

Comments

Draft Industrial Area

Sampling and Analysis Plan

Addendum #IA-03-08 (B331)

IHSS Group 300-2

May 2003

General Comments:

1. Based on the HRR and IASAP, Appendix C, it does not appear that the opportunity to conduct biased sampling has been fully considered.
2. On May 22, 2003, Division personnel made a site visit accompanied by contractor personnel. It is now evident based on an inspection of Building 331's construction that the reported addition to the "eastern end" consisted of the present living quarters, not the entire east-west oriented "high bays" of the fire department. Consequently, six borings proposed in the southern portion of IHSS 134(S,) beneath B331 and intended principally to search for lithium residues, appear to be unnecessary. Descriptions concerning the destruction of lithium in the corner of the "L" further suggest that the basic configuration of B331 was in place before lithium construction commenced.
3. It appears that statistical samples proposed to address potential B331 UBC could be deferred until the concrete slab is removed and the soil has been screened for surface radionuclide, i.e., uranium. Consequently, please indicate when the UBC samples will be collected relative to slab removal. If after removal, please indicate how the biased locations beneath the building (based on cracks, joints, drains, visual evidence, etc) will be preserved to support sample collection.
4. If sampling is to occur prior to slab removal, and opportunities for biased sampling are limited, the grid for UBC 331 should be established separately of the statistical grid for IHSS 134(S) to accommodate two or three more sampling points beneath or immediately adjacent to the UBC carve out.

Specific Comments:

5. **Section 2.0:** The HRR and IASAP both discuss Building 331, the B331 parking lot, and Building 335 in relation to specific lithium destruction sites. Lithium destruction was reported to have occurred in the L-shaped corner of Building 331, in the parking lot, and "midway" between B331 and B335. Of note, contractor personnel believe that B335 was originally located eastward of B331 not in its final northern location. B335 was known to be portable. A search for drawings to confirm, or refute, an eastern location of B335 is under way.
6. The Division believes that attempts should be made to define each of the reported sites to support biased sampling in this or some future addendum. Please show the previous location(s) of B335, the B331 parking lot, and then propose biased samples where possible. The current corner area of the L-shape should be considered for biased sampling, i.e. three locations 5-6 meters N-NE, NE and E-NE of BW40-011.

7. Lithium was also reported to have contaminated the roof. Although re-roofing occurred after the specific incident, down spouts may have concentrated lithium back to the ground surface (or parking area) before re-roofing took place. Thus, down spout outfalls should be considered individually for biased sampling (changing the statistical samples under this area of the building to biased samples). An attempt should be made to locate, on drawings or by direct evidence, any down spouts that may have been removed due to the addition discussed in Comment No. 10.
8. **Figure 1:** Please change the figure as needed to shown the entirety of B331 and IHSS 134(S).
9. **Section 3.0:** It is indicated that since there are no process waste lines or foundation drains, no judgmental sampling is identified or will be performed unless specific field conditions suggest otherwise. However, it is known that a metallurgical R&D laboratory was located in B331 from 1953 to 1968. This lab handled uranium and beryllium, as well as other possible hazardous materials. The lab is indicated to have utilized rooms 113, 114, 115, 116, and 117. It is also indicated that an old sanitary drain, located in room 114, has been covered with a steel plate and labeled as containing radioactive contamination. Also, rooms 114 and 117 are included on the list of Be areas due to beryllium operations associated with the metallurgical laboratory. Therefore, this information needs to be included in this proposal and specific biased sampling locations should be identified to properly investigate concerns associated with this activity and issues. These rooms and drains should be included on appropriate figures. On May 22, the Division observed drain locations, within the UBC carve out, where radionuclide contamination is indicated.
10. **Figure 2:** The figure shows the UBC area extending eastward, relative to Figure 3, into IHSS 134(S). The inspection of May 22 confirmed that the "addition" was constructed in one, but probably two phases, based on configurations, roof lines, and construction materials. This suggests that lithium destruction probably occurred prior to the addition(s) such that soil samples beneath the structure must still consider lithium destruction and UBC concerns. A long time employee stated that the northern portion of the "addition" contained a lathe. Consequently, surface samples, not just sub-surface samples, should be evaluated for VOCs. Please correct Figure 3 and make changes, as appropriate, to Table 2 and 3. The opportunity for biased samples in the "addition" must also be considered.



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