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Note to: Sandra Wastler, LLUR

Through: John Austin, LLDR

From: Boby Eid, LLDR

Subject: ENVIROCARE OF UTAH - SER (ENVIRONMENTAL MONITORING, CONTROL AND SURVEILLANCE

Please find enclosed a draft of the acceptance review of Chapter 7 of the "Revised SER outline on "Environmental Monitoring, Control, and Surveillance".

Enclosure: As stated

cc: J. Austin
B. Eid
LLDR r/f

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7. ENVIRONMENTAL MONITORING, CONTROL, AND SURVEILLANCE

7. Generic Environmental Monitoring:

7.1.1. Preoperational

Envirocare of Utah relies heavily on environmental monitoring and surveillance studies conducted in 1981-82 at the South Clive Site (DOE-0097-F). Although the results reported in these studies are useful, since they are out of date (nearly 10 years old) and not specific to the site proposed to be licensed, they are considered insufficient and unreliable. Even the reported data in Sections 7.1.2.1, which belong to the south Clive site, lack significant information which must be provided beforehand to enable using such data in the SAR. The lacking information can be summarized in the following:

(a) Location of sampling points

(b) Number of samples and extent of area representation.

(c) List of analytical methods employed, results and standard deviation.

(d) Explanation of abnormal Th-230 results.

(e) Need data on radon progeny in air.

(f) Detailed information on soil analysis, vegetation, and wildlife radioisotope on soil analysis. The applicant should compare up-take coefficients with some conventional pathway model analysis and explain the high levels of Pb-210 and Po-210 in vegetation and animals.

(g) Provide comments and elaboration on the results in Tables 7.1.-7.5 as to their relationship to the 11e.(2) site.

7.1.2 Operational

The operational environmental monitoring and surveillance program suggested by Envirocare, provided in Table 7.7 and Figure 7.1, was designed for the South Clive site and not specifically for the site in question; i.e., 11e.(2) site. Most sampling stations indeed fall outside the proposed 11e.(2) area. (see Figure 7.1). Further, due to the current proposed operational monitoring program there will be mixed influence of contamination by all operational activities in the area. It is essential then to provide independent, distinct

operational monitoring and surveillance programs for the 11e.(2) area alone and to provide discussion of the method Envirocare will use to identify which operational activity is causing the contamination.

Envirocare employed environmental and surveillance results obtained during 1983-1987 at the South Clive site. Updated measurements and results should be obtained for proper safety evaluation and assessment.
The proposed program was developed originally for the South Clive site to detect and quantitate NORM radionuclides. A specific program should be developed for the 11e.(2) site and its waste materials.

Through all the text (Tables 7.1, 7.2, 7.3, 7.4, or 7.5). Uranium (308) was given as a measured parameter. Envirocare should clarify what that is.

7.1.3. Post-Operational

The post operational environmental monitoring program provided in Section 10.1 and 10.2 lacks appropriate sample representation of the proposed 11e.(2) area. Thus, the sampling program will employ only four sampling stations namely: A-3, A-5, A-10, and A-13. These stations are located well outside 11e(2) area, except for A-3 station and they are adjacent to other disposal activities; e.g. NORM area, NORM mixed waste area and DOE VITRO. It will be difficult then, using this program to discriminate between these sources of contamination. Envirocare is requested to establish a post-operational environmental monitoring program corresponding to the 11e.(2) site requested to be licensed. Justifications for number and locations of sampling stations along with sampling frequency should be provided.

7.2 Instrumentation and Methods for Environmental Monitoring:

This issue was addressed in the text in different chapters or sections scattered randomly in the text. The applicant should address this issue in a uniform manner under one title.

7.3 Area Contamination Control and Monitoring:

Although it is pointed out in the text, Section 14.4, that any equipment, rail cars, or vehicles exiting the controlled area will be monitored for contamination level, there is no specific program for such monitoring. In addition, facility contamination monitoring and control was not addressed properly in the text. Both of these matters will need to be addressed.

7.4 Airborne Radioactivity Monitoring:

This issue was discussed in Section 15.5.5.4.2. The proposed Airborne Radiation Monitoring program depends on measurements to be taken at Station A-3. However, influences of nearby storage facilities were also indicated to cause external gamma dose exposure rate of 8.1 mrem/wk. Thus, there is a need to have monitoring station with minimum influence by neighboring waste storage or handling.

7.5 Sampling Procedures and Methodology:

Sampling procedures and methodology were addressed in different parts of the text.

7.6 Long-Term Surveillance:

This issue was outlined in Chapter 10 of the text. There is a need to specify influences of other neighboring sites.

7.7 Bioassay Monitoring Program:

This issue was not addressed properly in the text and will need to be corrected.