

OCT 10 1990

MEMORANDUM FOR: Paul H. Lohaus, Chief
Operations Branch
Division of Low-Level Waste
Management and Decommissioning, NMSS

FROM: Charles J. Haughney, Chief
Fuel Cycle Safety Branch
Division of Industrial and
Medical Nuclear Safety, NMSS

SUBJECT: ACCEPTANCE REVIEW OF ENVIROCARE LICENSE APPLICATION
DATED NOVEMBER 14, 1989

Per your request, my staff has performed an acceptance review of the subject application and concluded that sufficient information was provided in the area of radiation safety. Since the application is acceptable in this area, we have preformed a more detailed review and enclosed specific comments on the applicant's proposed radiation safety program and organization, as well as on several generic issues which should be addressed. The review focused primarily on Sections 1, 4, 7, and 8 of the application. However, no comments are provided on the radiation safety manual which we view as demonstrative information and should not be included in the license conditions section.

If you have any questions, please contact Scott Pennington at X-20693.

Original Signed By:

Charles J. Haughney, Chief
Fuel Cycle Safety Branch
Division of Industrial and
Medical Nuclear Safety, NMSS

Enclosure: As stated

Distribution w/encl.

Docket No. 40-8989

NMSS R/F
SPennington

NRC File Center
IMNS Central File
GGnugnoli

IMUF R/F
GBidinger

IMSB R/F
VLTharpe

OFC:IMUF:	IMUF:	IMUF:	IMSB
NAME:SPennington:mh:	VLTharpe:	GHBidinger:	CHaughney
DATE:10/09/90:	10/10/90:	10/10/90:	10/10/90:

OFFICIAL RECORD COPY

9010120086 901010
PDR ADOCK 04008989
C PDC

NF17

Comments on Envirocare's Proposed
Radiation Safety Program
License Application dated
November 14, 1989

Generic Issues

The applicant should revise the structure of the application to clearly segregate the proposed license conditions from the demonstrative information.

In many of the conditions proposed by the applicant, the terms "is," "are," "will be," and "must be" are used to denote services or actions. These terms should be replaced with "shall be."

The applicant may prefer not to post areas or label individual radioactive material containers as required by 10 CFR 20.203. If so, the applicant should request an exemption from the requirements and include the following words on the perimeter signs: Any area or container in this facility may contain radioactive materials.

The applicant should propose license conditions for the following:

- Action levels for external exposures, contamination levels, environmental monitoring results, etc., which will initiate investigations and/or corrective actions to prevent recurrence.
- A monitoring program for the release of liquid effluents, if appropriate.
- Written procedures for operations and for the radiation safety and environmental monitoring programs. A procedure should be included for the review and approval of these procedures and a frequency provided for the review of these procedures for adequacy.
- A list of the types of records that will be maintained and the retention periods for these records.
- All personnel should monitor for contamination when exiting the controlled area.

Specific Comments

Section

Comment

1.2.4.14

This section discusses buildings which will be wholly or partly within the restricted/controlled area. The locations of these buildings are shown in Figure 1.3. Figure 1.3 should clearly show the area and buildings within the restricted/controlled area boundary.

Specific Comments

<u>Section</u>	<u>Comment</u>
1.2.4.16	If any of the water to be used in the decontamination areas is to be released offsite, a monitoring program and action levels are needed to demonstrate compliance with 10 CFR 20.106.
1.2.4.17	In accordance with 20.3(a)(14), the restricted area shall not include any areas used as residential quarters. The applicant should clearly state that the living quarters of security personnel will not be within the restricted area.
4.4.4.1	The analyses of the quarterly composite air samples should include an analysis for natural thorium.
4.4.4.5	Vegetation samples should be collected at least semi-annually, and an analysis for natural thorium should be included.
Figure 4.1	The "Incoming Shipment Spread Sheet" should provide places to record radiation and contamination levels, labelling, and placarding for incoming radioactive material shipments. The requirements for labelling and placarding as well as radiation and contamination limits can be found in 10 CFR Part 71 and 49 CFR Parts 170-189.
Table 4.7	The ground water samples should be analyzed for natural thorium. The sample analyses described for vegetation, wild life, and soil do not reflect the analyses discussed in Sections 4.4.4.4 and 4.4.4.5.
7.4.3	The applicant should state the position(s) responsible for preparing, reviewing, and approving training materials.
7.4.6	The applicant should commit to contamination limits for the reuse of protective clothing (gloves, coveralls, shoes, boots, etc.). In Sections 7.4.8.1 and 7.4.8.2, it appears that workers provide their own shoes or reuse shoes provided by the company. The applicant should clarify the use of shoes in this section and provide release and/or reuse contamination limits. The applicant should also state who is responsible for decontaminating protective clothing and where the decontamination and storage of the clothing will be located.

Specific Comments

<u>Section</u>	<u>Comment</u>
7.4.7	Since the applicant may be handling thorium mill tailings, the alpha contamination limits for skin and clothing, as well as for shoe soles should be 200 and 1,000 dpm/100 cm ² , respectively. As a result, GM-pancake probes may be ineffective for personnel monitoring.
7.4.8.2	In the last sentence of this section, the word "personnel" and the table containing the contamination levels should be removed. This sentence should reference Table 5.1.
7.4.8.3	References in this section to URC-24, Appendix A, Table 1, are not applicable and should be replaced with 10 CFR Part 20, Appendix B, Table 1, Column 1. In addition to Th-230 and Ra-226, the composited air filters should be analyzed to determine the presence of natural thorium. The 2E-12 microcuries/ml action level should also require the collection and analysis of fecal samples to evaluate natural thorium intakes by workers.
7.4.10	The applicant should correct the inconsistencies between this Section, Section 8.1.2, and Figure 8.1 regarding position titles and the organizational structure.
8.2.3	The applicant should state the minimum years of supervisory experience required of the incumbent. Item 3 of this section is inappropriate and should be deleted.
8.2.4	This section does not provide minimum training and experience requirements in radiation safety for health physics technicians and radiation monitors.
Section 8.4	The specific responsibilities of the health physics supervisor should include the preparation of an annual report summarizing and evaluating all of the radiological measurements made at the facility, including airborne radioactivity, surface contamination, internal and external exposures, effluents, and environmental monitoring. This report should be provided to the company's president and other levels of management as necessary for appropriate action. In addition, frequencies should be provided for the performance of reviews and audits of the areas discussed in paragraph III., item G.