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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

JUL 2 8 1992

MEMORANDUM FOR: Carlton C. Kammerer, Director
Office of State Programs

FROM: Richard L. Bangart, Director
Division of Low-Level Waste Management
and Decommissioning, NMSS

SUBJECT: ANALYSIS OF THE "ENVIROCARE OF UTAH, INC. RADIOACTIVE MATERIAL LICENSE NO. UT 2300249 LAND OWNERSHIP EXEMPTION," DATED MAY 8, 1992

The Division of Low-Level Waste Management and Decommissioning (LLWM) has completed a review of the May 8, 1992, Land Ownership Exemption package for Envirocare of Utah, Inc., (Envirocare) Radioactive Material License No. UT 2300249, and has concluded that the State of Utah did not provide a sufficient rationale.

Based on our review, we understand the rationale for the exemption[1] from the requirement for state or federal government land ownership, is based on four findings:[2] 1) The State of Utah, through its Division of Radiation Control, does not have legal authorization to own the land; 2) regulations for hazardous waste disposal allow use of financial assurance methods, rather than state or federal Government ownership, for long-term surveillance, monitoring and custodial activities; and 3) Envirocare maintains a Division of Radiation Control (DRC) approved trust fund in an amount sufficient to fund third party closure of the site, should it be necessary. The trust fund also includes funds for routine surveillance, monitoring, and custodial activities, for a period of 100 years following site closure. This trust fund and the appointed trustee, are intended to replace governmental land ownership. Finally, the exemption identifies provisions and authorities under State law which relate to Utah's ability to regulate and control the facility, both today, and in the future. On this basis, the State of Utah has determined that private ownership does not relate to or present undue hazard to public health and safety, and has granted the exemption.

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[1] Letter from L.F. Anderson (Bureau of Radiation Control) to K. Semnani (Envirocare of Utah, Inc.) dated March 8, 1991.

[2] Land Ownership Exemption for Envirocare of Utah, Inc., Radioactive Material License No. UT 2300249, dated May 8, 1992.
See also: State of Utah Safety Evaluation Report, Envirocare of Utah, Inc.

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The rationale is insufficient to justify the land ownership exemption. Neither of the first two arguments for the land ownership exemption appear to be valid bases for the exemption. The State of Utah's lack of legal authorization to own the land does not provide a basis for the exemption, but a reason. It is not clear that all possibilities for providing government land ownership have been investigated.

The second argument, that hazardous waste disposal is permitted on privately owned land, with financial assurance for long-term custodial activities is irrelevant to the issues at hand. Hazardous and radioactive wastes are not directly correlated as far as regulations go; therefore, a policy related to one in no way sets a precedent for the other.

In addition, neither Envirocare nor the State appear to have developed any technical analyses to show that the types, quantities, concentrations and half-lives of the radionuclides in the waste would permit the site to be left open to unrestricted use following the 100 year active institutional control period, and do not warrant government ownership. Summarily stating that private ownership is not contrary to public health and safety is inadequate. There has been no demonstration, technical or otherwise, that private ownership following the active institutional control period will provide adequate protection of the public health and safety.

Historically, disposal site operators have been unprepared for the extent of maintenance problems that have arisen during and after site closure, and have been unable to cope, even to the point of abandoning the site. These problems have led to economic and social resource commitments that were not originally anticipated. 10 CFR Part 61 was designed to avoid this type of predicament. The requirements for government ownership and for financial surety are an integral part of the 10 CFR Part 61 requirements which specifically attempt to prevent this kind of problem during and after site closure. The trust agreement provided by Envirocare is also designed to avoid this type of problem, with funding for surveillance, monitoring, and custodial activities, and funding to provide for third party closure in the event that Envirocare "unilaterally withdraws" from site operations. In theory, this will result in a similar situation to that furnished by government ownership, for the period of active institutional control, except for a lack of clear ownership and any changes necessary with respect to licensing procedures (see Enclosure (1)). However, the trust fund that Utah proposes as a replacement for government land ownership is already required in existing regulations in addition to land ownership, not in place of it. Furthermore, the version of the trust fund agreement (Draft Trust Agreement) that the staff has reviewed, appears to be incomplete. See Enclosure (1) for details.

Finally, as Utah has noted, the government land ownership requirement is based in part on the likelihood that a government will outlast private entities, providing long-term control of a site. This is a key issue with respect to both active and passive institutional controls. As noted in the Draft EIS for 10 CFR Part 61, "...the most significant concepts for long-term passive institutional control...are those of control of the land by a governmental organization, land-use restrictions in the form of titles or deeds, and

multiplicity of records." Although passive controls (following the 100 year active institutional control period) cannot be relied upon, this does not preclude their importance with respect to the continued protection of the health and safety of the public, continued control of the site, prevention of inadvertent intrusion, and protection of disposal site integrity. For example, government ownership "helps to ensure that such motives as profit and loss do not lead to possible abandonment of the property, or sale for inappropriate uses" (Draft EIS for 10 CFR Part 61). The Land Ownership Exemption rationale does not show how the substitute mechanism would provide adequate controls (comparable to governmental land ownership) following the active institutional control period.

In summary, the State of Utah has argued that exemption from government ownership poses no threat to public health and safety, but has not demonstrated that claim. They propose a trustee and trust agreement in place of government ownership, but this type of financial arrangement is already required, and the financial assurance package appears unsatisfactory. In addition, there are unresolved issues regarding post-closure licensing requirements and regarding long-term site control following the 100 year active institutional control period. The Division of Low-Level Waste Management and Decommissioning concludes that the State of Utah has not provided an adequate basis for the exemption of the Envirocare of Utah disposal site from the requirement for land ownership by state or federal government.

Sincerely,

Original Signed By
RICHARD L. BANGART

Richard L. Bangart, Director
Division of Low-Level Waste Management
and Decommissioning, NMSS

Enclosure:
As stated

Distribution:	*Central File	NMSS r/f	LLWB r/f	LLWM r/f
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ACNW YES ___ NO X

*SEE PREVIOUS CONCURRENCE

SUBJECT ABSTRACT: ANALYSIS OF THE "ENVIROCARE OF UTAH, INC. RADIOACTIVE MATERIAL LICENSE NO. UT 2300249 LAND OWNERSHIP EXEMPTION," DATED MAY 8, 1992

OFC	LLWB*	LLWB*	LLWB*	OGC	LLWM	LLWM
NAME	JDavis	JKane	PLohaus	STreby	WBrach	RBangart
DATE	07/08/92	07/08/92	07/09/92	7/17/92	/92	07/27/92

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Richard L. Bangart, Director
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Additional Specific Issues Resulting from
LLWM Staff Review of Land Ownership Exemption Rationale

I. Ownership of Land

Without government ownership, there is no clearly responsible party for this disposal site following the 100 year active institutional control period. During the 100 year active institutional control period, either Envirocare, or the Trustee under State direction, will provide surveillance, monitoring and custodial activities. Following the 100 year active institutional control period, the trust agreement will be ended, however, and any remaining funds returned to Envirocare, if the company is still intact. At the end of the 100 year period, it is unclear what controls would be exercised if any adverse actions were taken, for example, selling the site. The exemption references existing Utah State laws which could provide the means to control the disposal site. The majority of the quotations from Utah Code Annotated provided in the exemption, however, do not appear to clearly address this type of situation. Without federal or state government ownership of the site, it is unclear who will ultimately be responsible for the site when Envirocare/the Trustee has completed the 100 year active institutional control period, or if Envirocare/the Trustee were to leave the site precipitously.

II. Licensing Procedures

The issue of licensing has not been addressed at all in the rationale for the exemption. Normally, responsibility for the disposal site is maintained by the licensee for at least five years following closure. Following closure and the period of post-closure observation and maintenance, the license may be transferred to the site owner under the conditions specified in R447-25-16 of the Utah Low-Level Radioactive Waste Disposal Rules (or 10 CFR 61.30). In addition, under Section 151(a)(2) of Public Law 97-425, the Nuclear Regulatory Commission may be required to review and approve Agreement State financial arrangements for long-term monitoring and maintenance of a specific site before the site operator can be relieved of licensed responsibility. It is not clear who the licensee would be following the five year post-closure period, nor is there any discussion of the licensing procedure, or the means by which the conditions of R447-25-16 would be verified, and the financial arrangements reviewed. Some plans or requirements for licensing procedures to correspond to the changes necessitated by the land ownership exemption should have been considered.

III. Draft Trust Agreement

A. Although it seems fundamental to the exemption rationale, no financial surety information was submitted with the final Land Ownership Exemption package.

B. In the cost estimates for site closure:

1) There are no provisions for the transfer of site records to the appropriate municipality, county, county zoning board, State officials, local and federal agencies, etc. (10 CFR 61.80(e)).

2) There are no provisions for the placement of monuments, trench markers or warning signs.

3) Current excavation and construction costs indicate that the estimate provided may underestimate the actual cost of activities.

4) It is difficult to review the dimensions and amounts provided for the fencing, excavation, radon barrier, rock barrier, etc., without drawings that present adequate details; however, the quantities seem low upon a cursory review.

C. In the cost estimates for the active institutional control period:

1) Envirocare has planned for four wells to be sampled twice each year for 5 years, then annually. This number of wells appears low in recognition of the larger number of wells required by the State in review of the license application. The environmental monitoring plan is normally based on site history and stability, and may prove to be either more or less strenuous than what is currently estimated. It is suggested that the fund arrangement be calculated using a more conservative estimate of the number of wells requiring monitoring inspections, and the frequency of those inspections.

2) In addition, funding is provided for annual post-closure inspections, but no funding is provided for items of routine custodial activities, or repairs, if necessary, such as removing debris, control of vegetation, fence repair, repair or replacement of monitoring equipment, or minor repair of disposal unit covers.

3) Most importantly, no funding is provided for contingencies. Although specific costs cannot be calculated for possible future contingencies or activities such as replacement of a large portion of a disposal unit cover, some provision should be made for this type of event.

4) On page 10-11, the amounts listed for Gamma Radiation Monitoring and Radon Monitors are only calculated for 1 quarter rather than 4 quarters per year. This should be explained or corrected.

D. The surety agreement and cost estimates as a whole have several arithmetic inconsistencies, which we expect will be corrected in the final document. For example:

1) On page 10-2, paragraph 3, quantity C is listed as 400,000 cubic yards (CY); however, elsewhere in the document, (pages 10-3, and 10-5), the amount is listed as 450,000 CY. This amount (450,000 CY) is used in all calculations. The amount on page 10-2 should be corrected.

2) At the top of page 10-3, quantities A, B, C and D are added. The sum is 465,000 CY. Quantities A, B, C, and D, when summed, equal 500,000. It should be made clear that quantities A and B are part of quantity C, and that the equation should be C + D = 465,000.

3) It is unclear where the amounts on Schedules A and B, $233,582.20 and $393,972.12, respectively, come from.

4) The quantity for "Place Radon Barrier" is listed as 165,000 CY in paragraph 10.6.5. The quantity is listed as 166,500 CY in Table 10.3. This discrepancy should be corrected.

5) The quantity for "Produce Rock Erosion" is listed as 63,500 CY in Table 10.3; however, paragraph 10.6.6 states that "Envirocare currently has enough rock on the site to complete the 465,000 cubic yard embankment." There appears to be a conflict. This should be clarified or corrected.

6) The cost per unit for "Unloading Waste" is listed as $3.50/CY in paragraph 10.4. The cost per unit is listed as $8.50/CY in Table 10.3. This discrepancy should be corrected.

7) The cost per unit for "Place Radon Barrier" is listed as $2.00/CY in paragraph 10.4. The cost per unit is listed as $1.75/CY in Table 10.3. This discrepancy should be corrected.

8) Paragraph 10.6.3 states that $250 has been added to "Unload Waste" to decontaminate and release 70 rail cars after unloading, if necessary. It is unclear whether the amount ($250) is intended to be per rail car, or for all 70 rail cars. If it is intended to cover all 70 rail cars, $3.57 per rail car seems very low. This should be clarified and/or corrected. In addition, this amount is not reflected in Table 10.3.

9) Paragraph 10.6.11 states that fifteen percent of construction cost will be used for Administration. It is unclear what construction costs the amount provided for Administration is calculated from. This should be clarified.

E. In addition, 10 CFR Part 61.62(d) requires that the amount of surety liability change in accordance with predicted costs of future closure and stabilization. The Draft Trust Agreement reviewed by the LLWM proposes that the amount of the trust be reviewed on a yearly basis to ensure that the total surety is sufficient to account for inflation or other adjustments. This should be required in the final surety document.

F. Finally, the trust fund addresses only the periods of site operation, closure and 100 years after closure. The fund is dissolved after 100 years, and any remaining money returned to Envirocare. This is standard; however, if the surety arrangement is designed to compensate for lack of land-ownership, it seems that some mention of the passive institutional control period should be made.