

Response Letter to Utah on Land Ownership Issue

COMSECY-01-0001

January 2, 2001

MEMORANDUM TO: Chairman Meserve
Commissioner Dicus
Commissioner Diaz
Commissioner McGaffigan
Commissioner Merrifield

FROM: William D. Travers */RA/*
Executive Director For Operations

SUBJECT: RESPONSE LETTER TO UTAH ON LAND OWNERSHIP ISSUE

I have attached a proposed letter ([Attachment 1](#)) to Mr. William J. Sinclair, Director of the Utah Division of Radiation Control, responding to his request for Commission comments or concerns on an Envirocare of Utah, Inc., petition for exemption to the government land ownership rule for Class B and C waste. [Attachment 2](#)  is Mr. Sinclair's incoming request and Attachment 3 provides historical background information on the Envirocare site land ownership exemption previously granted for Class A waste.

The staff's proposed response notes that long-term control and protection is an essential consideration in finding reasonable assurance that the public will be protected from the hazards associated with Class B and C waste. For this reason, NRC's Part 61 requires either State or Federal ownership, which provides one of the multiple barriers to protect the site from disturbance in the future and to protect individuals from potential exposure that would be associated with unauthorized site intrusion.

The staff notes that it did not conduct a detailed technical review, given the absence of a review by Utah staff. It may be possible to provide long-term protection and control in a manner that would obviate the need for actual government ownership. However, based on its limited review of the exemption request, the staff does not believe that the NRC would grant such an exemption for disposal of Class B and C waste in the absence of clear evidence that the level of long-term control and protection afforded by Envirocare's proposal is essentially similar to that which would be provided by government ownership. (The staff's supporting technical rationale is an [enclosure](#) to Attachment 1.)

In addition, the staff's proposed response recognizes Utah's legislative proposal to establish a surveillance and maintenance fund, funded by fees assessed on the disposal of Class B and C waste, to fund activities such as environmental monitoring, and fence and sign replacement after the end of the 100 year institutional control period. The proposed legislation would also allow the transfer of ownership of the site to the Federal or State government at the end of the institutional control period. Staff notes it may be appropriate to await the passage of this legislation, and assurance of assumption of government ownership at the end of 100 years, before granting this exemption.

The Utah Radiation Control Board issued a Public Notice announcing a public comment period to commence on November 14, 2000 and to end on December 13, 2000. Due to the large number of requests to speak at a December 1, 2000 public meeting, two additional public meetings were scheduled in early January 2001, and the comment period was extended to January 12, 2001. Staff proposes to send the attached comments to Mr. Sinclair by January 12, 2001. Comments and advice from the Commission would be appreciated by January 11, 2001.

SECY, please track.

Contact: Lloyd Bolling, STP
415-2327

Attachments: 1. [Proposed Letter to W. J. Sinclair](#)
2. [November 9, 2000 Letter to P. H. Lohaus from W. J. Sinclair, UT](#) 
3. [Historical Background Information on the Envirocare Site](#)

cc: SECY
OCA
OGC
OPA
OCIO
OCFO

DRAFT

ATTACHMENT 1

Mr. William J. Sinclair, Director
Division of Radiation Control
Department of Environmental Quality
168 North 1950 West
P.O. Box 144850
Salt Lake City, Utah 84114-4850

Dear Mr. Sinclair:

I am responding to your November 9, 2000 letter, which enclosed a petition filed by Envirocare of Utah, Inc. (Envirocare), for exemption to the governmental land ownership requirement in Utah regulations. You also enclosed a public notice on the process the Radiation Control Board will use in making the rule exemption determination. You indicate you are providing us an early copy of the petition and notice in the event we have comments or concerns with the exemption request. The original notice requested comments by December 13, 2000. We understand that the comment period was extended to January 12, 2001. We offer the following comments.

As an Agreement State, Utah has authority to license a Low-Level Waste (LLW) disposal facility in accordance with its regulations that are compatible with the Nuclear Regulatory Commission's (NRC) 10 CFR Part 61. This authority includes the ability to grant exemptions from specific requirements when public health and safety is adequately protected. As discussed in our April 12, 2000 letter, we believe the previous exemption rationale applicable to Class A waste and naturally occurring radioactive material needs to be thoroughly examined by Utah for applicability to Class B and C waste. The review should include a determination whether the bases for the previous exemption from the land ownership requirements continue to apply to the disposal of Class B and C waste. The supporting technical rationale for our recommendation, which is summarized below, is enclosed.

During the licensing phase, land ownership must be considered and addressed on the merits of Part 61 regulations (or equivalent Agreement State regulations) to provide defense-in-depth to ensure long-term control and protection. This is provided through a combination of controls: siting, design, waste form, and institutional controls including government land ownership. Under our regulations (10 CFR 61.10 and 61.14), Federal or State land ownership is required at the time the license is issued.

Additional waste form and facility design requirements are placed on Class B and C waste and long-term institutional land control through government ownership takes on added importance. Specifically, Class B and C waste is significantly more hazardous than Class A waste and requires greater assurance that intruders will not be exposed to the radioactive material that the facility contains. Reliable long-term control and protection is an essential consideration in finding reasonable assurance that the public will be protected from the hazards associated with Class B and C waste. For this reason, NRC rules require an applicant to obtain either State or Federal ownership if this kind of waste is to be licensed for disposal. Also, as reflected in our Part 61 implementing guidance and history of other LLW disposal facilities, government land ownership has been an essential approach to address long-term institutional control. Government ownership would also be consistent with past practices associated with the following sites: Beatty, NV; Sheffield, IL; Maxey Flats, KY; West Valley, NY; and Barnwell, SC.

Although NRC staff has not reviewed this specific exemption request or rationale in detail, in light of the above, in the absence of clear evidence that the level of long-term control and protection afforded by Envirocare's proposal is essentially similar to that which would be provided by government ownership, the staff does not believe that NRC would grant a similar exemption request.

We understand that there is proposed legislation pending, which is designed to allow for transfer of ownership of the site to the Federal or State government at the end of the 100 year institutional control period. It may be appropriate to await the passage of this legislation, and assurance of assumption of government ownership at the end of 100 years, before granting this exemption.

As noted above, we have not performed an independent detailed de novo review of the exemption request. However, after you complete your review, if there are technical or policy issues where you have questions, or you need further assistance in interpretation of NRC regulations in Part 61 or implementing guidance, please let us know.

Sincerely,

Paul H. Lohaus, Director
Office of State and Tribal Programs

Enclosure: As stated

ENCLOSURE

Considerations for Envirocare's Exemption Request From Government Land Ownership for Class B/C LLW

I. Protecting potential intruders onto a disposal site and into buried waste from radiation exposures from Class B/C

radioactive waste:

- A. One of the four fundamental "performance objectives" in 10 CFR Part 61 is protection of an inadvertent intruder onto the disposal site. In order to demonstrate that an intruder is protected, Part 61 contains a number of specific requirements that work together to protect persons who might unknowingly come into contact with radioactive waste. Government ownership is one of these controls that act as a system for protection of public health and safety. Other controls include the following:
- A waste classification system that categorizes waste by the hazard it poses to intruders and which provides a basis for employing additional controls for the higher hazard wastes. A working exposure limit of 500 mrem/y is the basis for the waste classification system in Part 61.
 - Siting requirements that limit upstream drainage areas, areas with erosion, landsliding, or weathering, that would inundate the waste disposal areas and possibly expose waste to members of the public, or avoiding areas with natural resources that could be exploited and expose individuals to radioactive waste.
 - Specification of particular forms of waste that will maintain their structural integrity for long periods of time and thereby limit exposures to an inadvertent intruder in comparison with dust or soil-like material, or material that has no structural integrity.
 - The use of long lasting (500 year) structural barriers, or increased depth of disposal, for Class C waste, to reduce the probability of human intrusion.
 - The implementation of institutional controls by the government land owner.
- B. Class B and C LLW are significantly more hazardous than Class A, and thus the reliability of institutional controls is more important. The specific radioactivity of Class C waste, depending upon the radionuclide, is up to several hundred to several thousand times more than Class A. While Class A generally requires little or no shielding to protect people, unshielded Class C waste can cause a lethal radiation dose, based on a 20 minute exposure at a 3 foot distance. In addition, Class C waste does not decay to levels that are protective of an inadvertent intruder until 500 years have elapsed. Thus, both the time of hazard to the intruder and the consequences of exposure are greater for these wastes than for Class A.
- C. The principle behind government land ownership is that governments are longer lasting than private companies, and would be more likely to ensure that the interests of the public were served in the long term. Although the government could have oversight of a privately held site, "ownership" of the site by a government would provide greater assurance that persons would not use the site or the land in inappropriate ways that would cause radiation exposures.
- D. Institutional controls, and their lack of reliability in the long term, have received significant attention in the last several years. For example:
- The June 2000 National Academy of Sciences' report, "Long-Term Institutional Management of U.S. Department of Energy Legacy Waste Sites," states that "...there is no convincing evidence that institutional controls and other stewardship measures are reliable over the long-term." Any steps that might lessen the effectiveness of these controls would exacerbate this situation.
 - A 1998 report entitled, "Long-Term Stewardship and the Nuclear Weapons Complex: The Challenge Ahead," by the Center for Risk Management, Resources for the Future, stated, "Another, and perhaps more effective, form of institutional control available for federal facilities [more effective than DOE implementing mechanisms that inform any renters or purchasers of DOE land and facilities of the hazards involved] is continued federal government ownership and control. The federal government can restrict the use of land, surface water, and groundwater on land it owns and controls."
 - In its February 6, 1995, letter to Chairman Selin, the ACNW expressed the following views regarding private ownership of LLW sites:

"The Advisory Committee on Nuclear Waste (ACNW) has concluded that there are no fundamental reasons why private ownership of low-level waste (LLW) disposal sites should be prohibited but finds that several related issues require deliberate and cautious action by the Commission. The first concerns the assurance of the protection of the health and safety of the public and of the environment (protection function). We recognize that the extent to which assurance of adequacy of the protection function is obtained may be strongly influenced by Agreement State laws and the extent to which the NRC exercises surveillance of the quality of the Agreement State activities. During the recent Commission policy discussions of adequacy and compatibility, the topic of provisions for private ownership of waste disposal sites was not included. We believe that the NRC needs to include explicit statements for pertinent requirements under the heading of adequacy and compatibility if the Commission proceeds with generic approval of private ownership of waste sites. In addition, the NRC should require effective and timely transfer of ownership to another responsible and capable entity, such as the

State, when any changes in the private ownership provision for waste sites, including dissolution of the corporate entity, are effected. The measure of adequacy and compatibility of Agreement State operations should include effective and frequent monitoring and evaluation of private entities that are responsible for waste sites."

II. On the need to increase public confidence

- A. In a Federal Register notice of August 3, 1994, NRC announced that it was considering amending its regulations to allow private ownership of LLW facilities sites as an alternative to the current requirement for Federal or State ownership. In SECY-95-152, the staff recommended that the Commission not proceed with a rulemaking to allow private land ownership of LLW disposal sites (a recommendation subsequently adopted by the Commission), based on the comments received. In that paper, the staff stated:

"This change [i.e., revising our rules to allow private ownership of LLW sites] could also generate significant public misunderstanding and unwarranted public concern about the potential rollback of other LLW disposal requirements. The Idaho National Engineering Laboratory's National Low-Level Waste Management Program summarized this issue, stating:

For over three decades the public has been led to believe that all LLW disposal sites would necessarily be owned and controlled by either a Federal or State government. This, we believe, has been an important factor in convincing many proponent groups and State and local LLW advisory groups that LLW can and will be disposed of in a safe manner. To now try and convince these groups that Federal or State ownership of LLW disposal sites is not required, may be difficult and generate a significant credibility problem.

- B. Although comments on the Advanced Notice of Proposed Rulemaking for private land ownership of LLW sites were mixed, members of the public were generally opposed to private ownership.
- C. In its letter to Chairman Selin on this topic, the ACNW stated the following regarding public confidence and private land ownership:

"We believe that the procedures used by the NRC that involve open meetings, public and other stakeholder participation, judicial review, and other factors give all interested parties ample opportunity to have their views transmitted and considered. We believe that the importance of transferring accountability for the protection function to a private entity with a likely modest life compared to the hazard life of the waste requires procedures comparable to those used by the NRC. The NRC should ensure that privatization of ownership of LLW disposal sites involves procedures that are at least as open and accessible to stakeholders as those procedures managed according to the policies and regulations of the NRC."

The State of Utah has extended the comment period for the requested exemption from Envirocare from the government land ownership provisions and scheduled two more public meetings in the month of January because of the interest of the public in this action.

ATTACHMENT 3

BACKGROUND INFORMATION ON UTAH LAND OWNERSHIP EXEMPTION FOR THE ENVIROCARE OF UTAH, INC. (ENVIROCARE) SITE

The State of Utah became an Agreement State on March 29, 1984. The original Agreement did not include the authority to regulate 11e.(2) byproduct material or commercial disposal of low-level radioactive waste (LLRW) containing byproduct, source or special nuclear material (agreement material).

On November 18, 1987, Utah granted S. K. Hart Engineering (now Envirocare) an exemption from the land ownership requirement for their Naturally Occurring Radioactive Material (NORM) disposal facility. Utah's initial license for operation of the S. K. Hart Engineering disposal facility was issued on February 2, 1988.

On July 17, 1989, Utah requested an amendment to its Agreement to add authority to regulate the disposal of commercial LLRW containing agreement material. The amendment to Utah's Agreement became effective on May 9, 1990.

NRC entered into the amended Agreement with the knowledge that Utah did not have legislative authority to own land used for disposal of LLRW. Utah's Part 61 equivalent regulation contained a section compatible with NRC's rule that disposal of LLRW received from other persons would be permitted only on land owned by the Federal or State government.

In September 1990, Envirocare requested the State to amend their license to authorize receipt of LLRW containing agreement material. On March 8, 1991, Utah, on its own initiative, issued an exemption from the land ownership requirement for the expanded scope of operations. The license authorizing operation of the expanded facility was granted on March 21, 1991.

In April 1992, the NRC staff reviewed Utah's Radiation Control Program and determined that the program was adequate to protect public health and safety, and compatible with NRC's program subject to satisfactory resolution of significant Category I comments relating to the technical quality of the licensing action for the expanded Envirocare LLRW license. The staff transmitted their findings to Utah in a letter dated September 2, 1992. Follow-up questions on the exemption from the land ownership requirement were sent to Utah on December 24, 1992. Utah responded to these questions in letters dated February 12 and March 17, 1993. The details on the staff's evaluation, staff's actions, Utah's response, and Commission review of this matter are contained in SECY-93-136 dated May 18, 1993 and associated Staff Requirements Memorandum (SRM) dated June 28, 1993. The Commission determined that the Utah land ownership exemption was acceptable given the controls put in place by Utah and provided additional restrictive covenants were put in place.

The June 28, 1993 SRM for SECY-93-136, also directed the staff to prepare and publish an advance notice of proposed rulemaking (ANPRM) designed to seek public input on the advisability of proceeding with rulemaking to reflect the Commission's decision on resolution of the Utah land ownership issue in a generic manner in 10 CFR Part 61. The ANPRM was published in the Federal Register on August 3, 1994 (59 FR 39485) with a 60-day comment period. The comment period was subsequently extended an additional 60 days.

In SECY-95-152, the staff provided a recommendation to the Commission, based on the ANPRM, on whether to proceed with a proposed rule to amend Part 61. The ANPRM generated a significant number of comments (49). Most comments (4 to 1) took a definitive position against initiating a proposed rule. Based on analysis of public comments, the staff concluded that the ANPRM should be withdrawn. The paper noted that without Federal or State government land ownership, there is, as a general matter, no Federal guarantee of a responsible organization with legal obligation to clean up potential unanticipated contamination if a private company is no longer in business. Staff stated it believed that the most effective use of NRC resources would be to provide assistance on a case-by-case basis, if needed, to any State or Compact planning to allow private ownership. The June 30, 1995 SRM for SECY-95-152, provided Commission approval to publish a Federal Register notice that would withdraw the ANPRM. The notice was published on July 18, 1995 (60 FR 36744).

On September 21, 1992, US Ecology, Inc. filed a petition with the NRC requesting that the Commission revoke or suspend the Utah Agreement for regulating the commercial disposal of LLRW, because of Utah's failure to require State or Federal land ownership. This petition was noticed in the Federal Register on November 13, 1992 (57 FR 53941). The petition followed a ruling by the U.S. District Court for the Western District of Washington which dismissed without prejudice US Ecology's site ownership claim against NRC. The ruling stated that US Ecology should exhaust its administrative remedies before the NRC.

Based upon the information contained in SECY-93-136 and staff evaluation of additional issues raised by the petitioner, the NRC determined that the State of Utah's rationale of exercising effective control of the waste disposal site without State or Federal ownership was not unreasonable and would not warrant revocation or suspension of the Utah Agreement. In a Director's Decision dated January 26, 1995, the petitioners' request to revoke or suspend the Utah Agreement State program for failure to require State or Federal land ownership at the Envirocare LLRW site was denied in accordance with 10 CFR 2.206. In accordance with Commission procedures, the decision became effective on February 20, 1995.

The State of Utah has a 10 CFR Part 61 compatible rule, UAC R313-25, previously R447-25. The requirement in 10 CFR 61.59(a) regarding land ownership specifies that disposal of radioactive waste received from others may only be permitted on land owned in fee by the Federal or a State government. The State of Utah issued the exemption from the State or Federal land ownership requirement pursuant to URC-12-125, which provides that the State may grant "such exemptions or exceptions from the requirements of these regulations as it determines are authorized by law and will not result in undue hazard to public health and safety or property." This Utah exemption provision is compatible with 10 CFR Part 61.6.

Management Directive 5.9 details the Commission's Policy on Adequacy and Compatibility of Agreement State Programs. The compatibility category assigned to 10 CFR Part 61.59 is Health and Safety (H&S). Regulations designated as H&S, although not required for compatibility, should be adopted by Agreement States because of their health and safety significance.

By letters dated December 14, 1999 and February 28, 2000, Utah requested NRC views on extension of the government land ownership exemption given their receipt of an application from Envirocare to expand operations to include Class B & C waste.

The staff requested Commission review of a proposed response to the December 14, 1999 and February 28, 2000 letters, via SECY-00-0066. SRM-00-0066 approved the staff's proposed letter which was dispatched to the State of Utah, on April 12, 2000. The letter stated that a reexamination of the exemption would be appropriate during the B & C licensing phase.

By letter dated November 9, 2000, Utah provided the staff a copy of a petition filed by Envirocare of Utah, Inc. for exemption to the governmental land ownership requirement in Utah regulations. Also enclosed, was a public notice on the process the Radiation Control Board will use in making the rule exemption determination. Utah indicated that they provided us an early copy of the petition and notice in the event we have comments or concerns with the exemption request. The notice requests comments by December 13, 2000. The staff prepared a response to the November 9, 2000 letter.

Finally, Envirocare holds a license from NRC for disposal of 11(e).2 byproduct material at the site. Upon license termination, ownership of that portion of the site will convey to either the Federal or State government under the general license in 10 CFR 40.28. A disposal cell adjacent to the site contains 11(e).2 byproduct material from DOE Title I clean up

activities at Salt Lake City. This disposal area is owned by DOE and is under DOE custody and surveillance under a general license in 190 CFR 40.27.