



REQUEST REPLY BY 1/9/01

UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

COMSECY-01-0001

January 2, 2001

*Approved with edits to  
letter and enclosure  
E. Mc Guffigan  
1/5/01*

MEMORANDUM TO:

Chairman Meserve  
Commissioner Dicus  
Commissioner Diaz  
Commissioner McGaffigan  
Commissioner Merrifield

FROM:

William D. Travers *William Travers*  
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

Contact: Lloyd Bolling, STP  
415-2327

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.

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

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.

x  
x  
x

We understand that there is proposed <sup>State</sup> 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.

x  
x

We would consider it

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

## **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. X  
*to an individual*
    - 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

ENCLOSURE

Insert (see attached.)

HNND

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 announced findings and are somewhat conflicted.

HNND

- 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."

***Commissioner McGaffigan's Insert for COMSECY-01-0001***

The following bullet should be added as bullet one under Section D of the enclosure to the proposed letter to the State of Utah regarding Envirocare's land ownership exemption request.

- The December 2000 Resources for the Future report entitled, "Long-Term Stewardship of Contaminated Sites -- Trust Funds as Mechanisms for Financing and Oversight," concludes that State and private trust funds are more likely than a Federal stewardship trust fund to successfully assure financing and oversight of long-term stewardship. While Federal funds will be needed for work at Federal facilities, it is unclear whether Federal agencies currently have the legal ability to use Federal funds to finance State or private trusts, and Federal trust funds are more vulnerable to political or economic pressures. "On balance, the laws surrounding administration of private charitable trusts make them the preferred option for funding long-term stewardship, with State and local trust funds close behind."