

the disposal of LLW. Envirocare is also licensed by Utah to dispose of mixed-radioactive and hazardous wastes. In addition, Envirocare has an NRC license (SMC-1559) to dispose of waste containing 11(e)(2) byproduct material.

In letters dated July 3, 2002, and July 29, 2002, Envirocare requested that the 1999 Order be amended as discussed below. Staff's safety analysis for the revisions to the 1999 Order are discussed in the companion Safety Evaluation Report (SER).

II. Environmental Assessment (EA)

Identification of Proposed Action

Envirocare proposes that NRC amend the 1999 Order as follows: (1) Include stabilization of liquid waste streams containing SNM; (2) include the thermal desorption process; (3) change the homogenous contiguous mass limit from 145 kg to 600 kg; (4) change the language and SNM limit associated with footnotes "c" and "d" of Condition 1 to reflect all materials in Conditions 2 and 3; and (5) omit the confirmatory testing requirements for debris waste.

Need for the Proposed Action

The 1999 Order limited certain mixed waste processing activities to those specifically approved in the Order. Envirocare is expanding its mixed waste processing capabilities to include stabilization of liquid waste streams and thermal desorption for economic reasons. Moreover, Envirocare's State of Utah licenses have been modified to include these processes, and revision of the 1999 Order is required to allow for treatment by these processes of waste streams containing SNM. Envirocare has been operating under the Order since 1999 and believes that some conditions need to be clarified.

Alternatives to the Proposed Action

The NRC staff considered two alternatives to the proposed action. One alternative to the proposed action would be to not revise the exemption (no-action alternative). Another alternative would be to revise the exemption as requested by Envirocare but with additional conditions.

Affected Environment

NRC has prepared an environmental impact statement (EIS) (NUREG-1476), SERs, and EAs for its licensing action. The affected environment is discussed in detail in NUREG-1476.

Environmental Impacts of the Alternatives

No Action Alternative: For the no-action alternative, the environmental impacts would be the same as evaluated

in the Environmental Assessment (64 FR 26463, May 14, 1999) to support the 1999 Order. The regulations regarding SNM possession in 10 CFR part 150 set mass limits whereby a licensee is exempted from the licensing requirements of 10 CFR part 70 and can be regulated by an Agreement State. The licensing requirements in 10 CFR part 70 apply to persons possessing greater than critical mass quantities (as defined in 10 CFR 150.11). The principle emphasis of 10 CFR part 70 is criticality safety and safeguarding SNM against diversion or sabotage. The NRC staff considers that criticality safety can be maintained by relying on concentration limits, under the specified conditions. These concentration limits are considered an alternative definition of quantities not sufficient to form a critical mass to the weight limits in 10 CFR 150.11; thereby, assuring the same level of protection. The 1999 EA concluded that the 1999 Order would have no significant radiological or nonradiological environmental impacts.

Proposed Action: For the proposed actions, the environmental impacts of changing the homogenous contiguous mass limit from 145 kg to 600 kg and changing the language and SNM limit associated with footnotes "c" and "d" of Condition 1 to reflect all materials in Conditions 2 and 3 would have the same environmental impacts as the 1999 Order and the no action alternative. In the SER supporting the revision to the 1999 Order, staff concluded that including stabilization of liquid waste streams containing SNM and thermal desorption process, and omitting the confirmatory testing requirements for debris waste could increase the risk of an inadvertent criticality. The environmental impacts from a criticality accident at the Envirocare site would include human health impacts to worker and possible loss of life to a few workers. Given the proximity of the public, human health impacts to the public (such as motorist on adjacent roadways) would not be expected to be significant. Gaseous and particulate emissions during the criticality could contaminate land outside the restricted area. Cleanup of this contamination would have some short-term impact on the environment.

Proposed Action with Additional Conditions: In the SER supporting the revision to the 1999 Order, staff identified additional conditions that would be required to ensure sufficient protection of health, safety, and the environment. These include limiting the mass of SNM in liquid waste, requiring SNM concentration testing following thermal desorption treatment, reducing

the concentration limit associated with footnote "c", and reducing the allowable concentration when confirmatory sampling and testing is not conducted by Envirocare. These conditions would result in the same environmental impact as the no action alternative.

Preferred Alternative

The staff has concluded in the SER, dated January 14, 2003, for this exemption request that the proposed action (*i.e.*, revise the exemption as request by Envirocare without additional conditions) would not provide sufficient protection of health, safety, and the environment. Therefore, staff's preferred alternative is to revise the 1999 Order with additional conditions. These include limiting the mass of SNM in liquid waste, requiring SNM concentration testing following thermal desorption treatment, reducing the concentration limit associated with footnote "c", and reducing the allowable concentration when confirmatory sampling and testing is not conducted by Envirocare. The staff has concluded that with these revised conditions, the conclusion in the 1999 EA associated with the 1999 Order remain valid.

Agencies and Persons Consulted

Officials from the State of Utah, Department of Environmental Quality, Division of Radiation Control were contacted about this EA for the proposed action and had no comments. Because the proposed action is not expected to have any impact on treated or endangered species or historic resources, the Fish and Wildlife Service and State of Utah Historic Preservation Officer were not consulted.

III. Finding of No Significant Impact

The environmental impacts of the proposed action have been reviewed in accordance with the requirements set forth in 10 CFR part 51. Based upon the foregoing EA, the NRC finds that the preferred alternative of revising the exemption with additional conditions will not significantly impact the quality of the human environment.

Accordingly, the NRC has decided not to prepare an EIS for the proposed exemption.

IV. Further Information

The requests for modifying the Order are available for inspection at NRC's Public Electronic Reading Room at <http://www.nrc.gov/NRC/ADAMS/index.html> ML021900394 and ML022180270. The January 14, 2003, Safety Evaluation is available at