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Texas Department of Health

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Radiation Control
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December 2, 1999

ENVIROCARE OF TEXAS INC
 ATTN LAWRENCE R JACOBI JR P E
 11782 JOLLYVILLE RD STE 211B
 AUSTIN TX 78759

Re: Radioactive Material License
 Application No. L05306 and
 Log No. 1999-11-0854

Dear Mr. Jacobi:

In reviewing the Executive Summary of the application dated November 23, 1999 submitted by Envirocare of Texas, Inc. (Envirocare) for a radioactive material license to receive from other persons and store radioactive waste, it is noted that Envirocare is requesting authorization for a facility that purportedly will be in existence for 500 years and store waste for that length of time. The Bureau of Radiation Control does not think that it has the authority to issue a license based on an application with such proposed time span. The Bureau's position has both a regulatory and a technical basis.

Title 25 of the Texas Administrative Code, Section 289.254(b)(12) defines a radioactive waste storage facility as a facility where radioactive waste is "stored while awaiting shipment to a licensed radioactive waste processing or disposal facility." The intent of a radioactive waste storage facility is not for extended or protracted storage, but for storage only so long as necessary to either (1) make up a shipment to a disposal facility, or (2) await the availability of a disposal facility. The intent was not to accumulate and store for extended periods of time, but only until disposal options could be exercised.

The nature and intent of the application is further confounded by statements made in a press release dated November 23, 1999 from Envirocare. Specific items of concern in the press release are found in paragraphs nine (9) and twelve (12).

In paragraph nine (9) the statement is made that "Envirocare of Texas applied to build the facility to allow Texas to meet its interstate requirements to manage low-level radioactive waste generated in the States of Texas, Maine and Vermont." That statement is misleading, at best, and raises the question of the true intent of the facility described in the application submitted to the Bureau. The obligation for Texas as the host state of the compact is to provide for the disposal of the low-level radioactive waste, not storage. Thus, the implication would be that the facility being applied for is in fact a disposal facility. If that is the case, our agency is not the appropriate agency to submit an application to for that purpose.

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In paragraph twelve (12), the statement is made "This storage method, sometimes referred to as assured isolation, ..." This statement either implies or reveals a purpose of the facility other than as presented in the application. As we have discussed on previous occasions, the agency does not have the authority or the rules in place to license an assured isolation facility. Furthermore, it seems clear from the last legislative session that the state is not ready to embrace the concept of assured isolation at this time.

Given the questions as to the true nature of the facility presented in the November 23, 1999 application, we request that you submit replacement pages, if you wish to pursue a Class III radioactive waste storage license, which conform to the intent of a Class III Waste Storage Operation (i.e., one in which a radioactive waste storage facility is a place where radioactive waste is stored while awaiting shipment to a licensed radioactive waste processing or disposal facility).

If you wish to discuss this matter with us before formally providing a written response to this letter, please advise and we will schedule a meeting. I can be contacted by telephone at (512) 834-6689. I encourage your prompt attention to this matter.

Sincerely,



Ruth E. McBurney, CHP, Director
Division of Licensing, Registration
and Standards
Bureau of Radiation Control

bcc: File L05306, REM, T. Godard (OGC), PHM, PS
PS

White Paper on Low-Level Radioactive Waste (LLRW) Storage

Issue submitted for TRAB review and recommendation:

Under the BRC's existing regulations, how long should a waste processing and/or storage licensee be allowed to store LLRW received from others when there is a commercial site available to dispose of the waste?

The following information is provided to assist the Texas Radiation Advisory Board (TRAB) Waste and Industrial Committee in conducting their review and developing their recommendation(s).

Reason for Requesting TRAB Assistance:

1. On November 23, 1999, an application was submitted to TDH-BRC for a Radioactive Material License, requesting to be authorized for the long-term storage of LLRW (i.e., receiving waste for 40 years; and storing waste for an additional 500 years).
2. Also on November 23, 1999, the applicant distributed to the media a News Release in which they described their plans as being sometimes referred to as assured isolation; and further described assured isolation as being a long-term storage technology.
3. The application is the first application ever submitted to TDH-BRC requesting the long-term storage of LLRW. Other licenses which authorize storage of non-self-generated waste are principally waste processing licenses, authorizing storage only incidental to processing and eventual shipment for disposal; storage incidental to processing and eventual shipment for disposal is typically referred to as interim or temporary storage.
4. On December 2, 1999, TDH-BRC wrote a letter to the applicant which requested that "... [the applicant] submit replacement pages, if you wish to pursue a Class III radioactive waste storage license, which conform to the intent of a Class III Waste Storage Operation (i.e., one in which a radioactive waste storage facility is a place where radioactive waste is stored while awaiting shipment to a licensed radioactive waste processing or disposal facility)."

Definitions:

1. Radioactive Waste Storage Facility: A facility where radioactive waste received from other persons and packaged according to DOT regulations is stored while awaiting shipment to a licensed radioactive waste processing or disposal facility. [25 TAC §289.254(b)(12)]
2. Radioactive Waste Processing Facility: A facility where radioactive waste received from other persons is processed and repackaged according to United States Department of Transportation (DOT) regulations. [25 TAC §289.254(b)(11)]
3. Disposal: Isolation or removal of radioactive wastes from mankind and his environment. The term does not include emissions and discharges under rules of the agency. [25 TAC §289.254(b)(3)]

White Paper on Low-Level Radioactive Waste (LLRW) Storage (continued)

Pertinent History:

1. Pre-1981, licenses which authorized the processing and/or storage of LLRW were conditioned to limit the number of drums of waste which could be stored at any given time and how long any given drum could be stored. These limits were developed based, in part, upon (1) the area available for safe storage at each licensee's facility and (2) the manner in which the drums would be stored and maintained at the facility (e.g., outdoors with no covering; or in an indoor, temperature and humidity-controlled environment). For example:
 - a. amendment number 26 to L01937 (Attachment 1) issued to Iso-Tex, Friendswood, was conditioned to allow storage of no more than 3000 drums; and no single drum could be stored for any longer than 1 year.
 - b. amendment number 36 to L01811 (Attachment 2) issued to Nuclear Sources and Services, Inc., was conditioned to allow storage of no more than 4000 drums; and no single drum could be stored for any longer than 2 years.
2. On April 1, 1981, Senate Bill 480 of the 67th legislative session amended Article 4590f, V.T.C.S. (now the Texas Health Code), to delineate the state's power to regulate radioactive waste processing, storage and disposal. Part 44 (Licensing of Low-Level Waste Processing Facilities) of the Texas Regulations for Control of Radiation was developed in response to this legislative mandate.
 - a. Those regulations indicated that licenses issued under Part 44 may include, among other things, restrictions on the maximum number of package units stored at any one time; and the maximum retention time for LLRW received at the licensed facility.
 - b. There were additional requirements in Part 44:
 - (1) All processed waste must be packaged and the waste form, packaging and labeling must meet all applicable transportation requirements of the Agency and of the U.S. Department of Transportation; and
 - (2) The applicant must provide acceptable financial information and a security arrangement to assure financial capability to conducted the proposed activity including all costs associated with decommissioning, decontamination and disposal.
3. On February 5, 1990, the U.S. Nuclear Regulatory Commission (NRC) issued NRC Information Notice 90-09 (Extended Interim Storage of Low-Level Radioactive Waste by Fuel Cycle and Materials Licensees) (Attachment 3). The notice provided guidance to materials licensees on how long they could store LLRW in instances when no commercial disposal sites were available.
4. Two letters written by Dr. Shirley Ann Jackson, Chairperson, NRC (January 10, 1997 and March 19, 1999; Attachments 4 & 5), appear to indicate that NRC would consider alternatives to permanent, shallow land burial, but strongly supports permanent disposal over alternatives which could be considered prolonged storage.

White Paper on Low-Level Radioactive Waste (LLRW) Storage
(continued)

5. During the 76th session of the Texas Legislature (January-June, 1999), the Texas State Office of The Attorney General responded to questions from The Honorable Gary L. Walker, Texas State Representative, District 80, concluding that the development of an assured-isolation facility would comply with the state's current obligations under the Compact to manage and to provide for the disposal of Compact waste; but would not currently satisfy the state's obligation under the Compact to permanently dispose of the waste (Attachment 6). The Legislature, however, did not pass a bill which would have established clear public policy on long-term storage of LLRW. Although both houses agreed on language which would have authorized assured isolation, the legislation did not pass because of a rider which would have allowed the receipt of Department of Energy waste.
6. Two legislative committees, one on each side of the Texas Legislature, are currently charged with addressing the LLRW management issue:
 - a. The House Environmental Regulatory Committee is charged to "Determine the ramifications surrounding the handling, processing and disposal of LLRW within the borders of the state as they relate to compact waste, non-compact waste generated by the federal government, mixed waste, and licensing of a private or state entity; and Review policies of the Department of Health related to extremely low-level radioactive waste to determine consistency with other states' regulations."
 - b. The Senate Natural Resources Committee is charged to "Study the necessity for storage and disposal options of LLRW." The Committee shall examine Texas' obligations under the Texas-Maine-Vermont LLRW Compact, the status of other federally formed compacts, the practicality of assured isolation facilities, the feasibility of underground disposal operations, and the viability of public-private ventures and other licensing issues.
7. The Texas Natural Resource Conservation Commission (TNRCC) is currently soliciting proposals in response to a Request for Proposals (RFP) for the LLRW Assured Isolation Study (Attachment 7). The RFP was posted on the Texas Marketplace on Monday, December 13, 1999. Proposals are due on Tuesday, January 4, 2000. Respondents must be qualified to provide technical background and analysis of the LLRW issue and the concept of above-ground assured isolation as it pertains to the State of Texas and the Texas Compact. The final product to be provided by the Contractor will be a written report containing a comprehensive discussion of the technical considerations of the LLRW issue in Texas and the Texas Compact. Contracts issued as a result of the RFP will require the submission of preliminary work products with specific due dates and necessary content for TNRCC staff review and comment. The review of preliminary work products will allow for the TNRCC staff to begin a concurrent legal analysis of the implications of the contracted technical studies. The due date for the final report from the Contractor is August 15, 2000.

Discussion:

1. TDH-BRC has the regulatory authority to issue licenses which authorize the processing and storage of LLRW. This authority is codified in the Texas Radiation Control Act (the Act) Subchapter E and Title 25 Texas Administrative Code (TAC) Chapter (§) 289.254. Neither document, however, addresses the length of time LLRW may be stored.
2. Pointing to the absence of any specific statutory or regulatory limit on the length of time any specific lot of LLRW could be stored, the applicant believes TDH-BRC has the regulatory authority to issue long-term LLRW storage licenses.

White Paper on Low-Level Radioactive Waste (LLRW) Storage
(continued)

3. Pointing to the same absence of definition, TDH-BRC's current position is that it cannot authorize unlimited long-term LLRW storage but that it could process an application for LLRW storage without addressing any specific length of time waste might be stored. Other related, but not compelling, factors include:
 - a. The Texas Radiation Control Act, Section 401.151 (Compatibility with Federal Standards) says: "The department [TDH] and commission [Texas Natural Resource Conservation Commission] each shall assure that the management of radioactive waste under their respective jurisdictions is compatible with applicable federal commission standards."
 - b. While not a federal commission standard, in her March 19, 1999-letter to The Honorable Gary L. Walker, Texas State Representative, District 80, Dr. Shirley Ann Jackson, Chairman, Nuclear Regulatory Commission, indicated that "The [NRC] policy has been, and continues to be, that [LLRW] should be disposed of safely as soon as possible after it is generated."
4. As previously discussed, the Texas Legislature did not pass legislation which would have established clear public policy on assured isolation (long-term storage) of LLRW. In the absence of such legislation, and because neither the Act nor 25 TAC §289.254 specifically authorize or prohibit the long-term storage of LLRW, TDH-BRC's current position is that LLRW storage licenses should be issued without specific authorizations for the length of time specific lots may be stored while awaiting shipment for disposal. Until the Texas Legislature develops public policy on assured isolation (i.e., the long-term storage of LLRW), TDH-BRC hopes to solidify the basis of our current position (or modify our position) by seeking advice from the TRAB Waste and Industrial Committee. Once we receive that advice, we believe we will be better able to proceed in processing the application we have currently received for the storage of LLRW.
5. In response to questions posed by The Honorable Rob Junell, Chair, Committee on Appropriations, Texas House of Representatives, Dale Klein, Vice Chancellor, University of Texas, and Lee Peddicord, Associate Vice Chancellor, Texas A&M University, addressed many of the issues important to resolving LLRW management in Texas (Attachment 8).

Some Possible TRAB Waste Committee Options:

- a. Recommend TDH-BRC develop guidance to licensees based upon its current position which considers the total time specific lots of waste might be stored to be irrelevant. (This would result in an open-ended length of time licensees could store specific lots of waste.)
- b. Recommend TDH-BRC develop guidance to licensees based upon its current position, but add performance-based limitations (e.g., drums must continually meet DOT specifications and be continually prepared for shipment).
- c. Recommend TDH-BRC develop guidance to licensees which establish a specific length of time beyond which specific lots of LLRW may not be stored (e.g., 7 years (length of time equivalent to the expiration period of the license); or 1-2 years (previously, but not currently, used length of time beyond which LLRW could not be stored)).