

**POLICY ISSUE**  
(Information)

January 31, 2005

SECY-05-0024

FOR: The Commissioners

FROM: Luis A. Reyes  
Executive Director for Operations /RA/

SUBJECT: ANNUAL REVIEW OF NEED FOR RULEMAKING ON  
LOW-LEVEL WASTE STORAGE

PURPOSE:

This responds to the Commission Staff Requirements Memorandum (SRM) dated January 29, 2004, for SECY-03-0223. The SRM approved the staff's Option 3 to defer further rulemaking on assured isolation facilities (AIFs) and annually review the need for further action in this area. The SRM directed the staff to participate, within already-budgeted resources, and as appropriate, in the development by the Conference of Radiation Control Program Directors (CRCPD) of a Suggested State Regulation for Control of Radiation (SSRCR) for AIFs. It also added to the annual review an examination of the need for rulemaking or guidance for long-term storage of low-level waste (LLW) in general.

BACKGROUND:

In a letter dated September 12, 2002, the staff, with Commission approval, commented on the State of Ohio's proposed rule for licensing of an AIF. Ohio has since enacted the rule. In the SRM for SECY-02-0217, dated September 5, 2002, the Commission directed the staff to develop a rulemaking plan to explore interest in the assured isolation concept and provide a basis for a Commission decision on whether to develop a rule. In SECY-03-0223, the staff provided a rulemaking plan and reviewed the general status of LLW management in the U.S.

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Although the future availability of disposal for many generators, particularly for Classes B and C waste, is uncertain, the staff concluded that there was not enough interest in AIFs to justify developing a rule at that time, and that there was not a present health and safety, common defense and security, or environmental concern requiring U.S. Nuclear Regulatory Commission (NRC) action. In the SRM for the Commission directed the staff to review the need for changes in LLW regulations and guidance annually, to provide the Commission a basis for considering future action.

Several related developments have occurred since SECY-03-0223 and the SRM. These include issuance of a Government Accountability Office (GAO) report of recommendations on LLW disposal [GAO-04-604, "Low-Level Radioactive Waste: Disposal Availability Adequate in the Short Term, but Oversight Needed to Identify Any Future Shortfalls"] in June 2004; revised projections by the State of South Carolina for waste acceptance and capacity at the Barnwell site; and an application to the State of Texas to operate an LLW disposal facility.

The June 2004 GAO report concluded that, "Although no shortfall in disposal availability appears imminent, uncertainties remain about future access to disposal facilities." The GAO further concluded that new disposal options offer no guarantee that national needs for Classes B and C waste disposal will be met. The report noted that alternatives to disposal are available to low-level radioactive waste (LLRW) generators, but also recognized that the storage alternative is costly and could lead to increased safety and security risks. The GAO report stated that "...continued federal oversight of disposal availability and the conditions of stored waste is warranted," and that NRC, in its role as the federal agency responsible for overseeing the use, storage, and disposal of radioactive materials, is now the "...most appropriate agency to report to the Congress on LLRW conditions." The GAO report also acknowledged the AIF rulemaking plan and the SRM. Finally, GAO recommended that Congress "...consider directing NRC to report to it if LLRW disposal and storage conditions should change enough to warrant congressional evaluation of alternatives to ensure safe, reliable and cost effectiveness of disposal availability."

The staff commented on a draft of the GAO report (letter from Luis Reyes, Executive Director for Operations, NRC to Ms. Robin M. Nazzaro, Director, Natural Resources and Environment, GAO dated May 25, 2004). In its comments, the staff noted that the recommendation concerning NRC was not effective or efficient because most of the data to be collected is not related to NRC's mission, and the monitoring and reporting required would fall within the responsibility of the U.S. Department of Energy (DOE), as was previously recognized by Congress in the Low-Level Radioactive Waste Policy Amendments Act. In the same letter, the staff offered its view that while the U.S. disposal system is safe, it is not generally considered to be reliable (i.e., generators do not have good assurance that disposal will be available to them over the next 5-10 years) or cost effective. NRC staff recommended that GAO further explore alternatives to the current system that it had identified in a 1999 report on the U.S. LLW disposal situation.

GAO is currently conducting an inquiry into the safety and security of stored low-level waste. The staff recently met with GAO staff members to discuss their interest in (1) security measures taken for materials licensees; (2) categorization and tracking of sources; and (3) DOE's program to recover greater than Class C sources. The staff has also provided relevant documents and references to GAO.

In a September 30, 2004, hearing of the Senate Energy Committee, Senator Pete Domenici stated his intent to introduce legislation in the next Congressional session to deal with the lack of LLW disposal options and that he intends to have the Energy Committee address this issue in 2005. He also indicated support for the suggestion of Dr. Alan Pasternak, Technical Director, California Radioactive Materials Management Forum, that, "A long-term national solution might include congressional authorization for the development and operation of one or two disposal facilities, possibly by the DOE or commercial entities, on federal land, under direct regulation by the U.S. Nuclear Regulatory Commission."

In SECY-03-0223, the staff noted that the State of South Carolina announced, on September 25, 2003, that its effort since 2001 to encourage large waste generators to enter into multiyear commitments for access to the Barnwell LLW disposal facility, had been so successful that there was a very limited amount of disposal capacity available for generators outside the Atlantic Compact through June 2008, when Barnwell is scheduled to close to out-of-compact waste. South Carolina has since received additional projections of waste generators' needs for disposal through June 2008, and in a September 13, 2004, notice, announced that it has decided to accept waste meeting its acceptance criteria from generators with State permits and contracts with the operator, Chem-Nuclear, until further notice, prior to the scheduled closure of Barnwell to out-of-compact waste.

Envirocare has been accepting Class A waste for disposal for a number of years. Although Envirocare also has a license to dispose of Class B/C waste, it must obtain the approval of both the Utah governor and legislature before it can dispose of such waste. A Task Force formed by the Utah legislature recommended last year that lawmakers not approve disposal of B/C waste in the State. Envirocare has no plans at this time to pursue such approval.

Finally, as discussed in SECY-03-0223, Texas enacted legislation to permit the siting and operation of a commercial LLW disposal facility for the Texas Compact in June 2003 (after the withdrawal of the State of Maine, effective April, 2004, the Compact now includes only Texas and Vermont). In accordance with the new law, the State took bids for development of the facility in June 2004, and will issue or deny a license by December 2007. The Texas Compact facility may accept additional amounts of waste from outside the Compact by entering into contracts with entities approved by the Texas Compact Commission. There is little indication at this time of what Compacts or unaffiliated States the Texas Compact Commission will contract with or how much waste from outside the Compact the Commission will accept. Waste Control Specialists, LLC filed an application on August 4, 2004, to operate an LLW disposal site in Andrews County, Texas. In a letter dated July 2, 2004, the State of Nebraska and the Central Compact proposed to enter into an agreement with Texas that waste generated in the Central Compact and Nebraska be disposed of at the Texas facility.

#### DISCUSSION:

On receipt of the SRM for SECY-03-0223, the staff of the Division of Waste Management and Environmental Protection initiated a review to determine whether current NRC LLW storage guidance should be updated. A previous staff effort directed toward consolidation of LLW guidance for onsite storage was undertaken in 1994, after the closure of the Barnwell disposal site to out-of-compact waste (SECY-94-198). At that time, the staff concluded that the guidance was adequate but recommended that some additions and clarifications be made to the guidance, such as consolidating previous guidance into a single document, and instituting 5-year reviews of the LLW storage program for materials licensees. Barnwell reopened to out-of-compact waste before the staff or Commission acted on SECY-94-198 and the staff effort was subsequently terminated since Barnwell's availability reduced the need to revise guidance for onsite storage.

Currently, Barnwell remains open to out-of-compact waste, but is scheduled to close to such waste in 2008. As discussed above, a recent GAO report has determined that uncertainties remain about future access to disposal facilities. In its review of LLW storage guidance, staff has not currently identified any safety concerns that would necessitate immediate revision of the storage guidance but has determined that, in light of the uncertainty of disposal capacity and the consequent likelihood of extended storage of waste, it should consider the need to revise the guidance. The staff review will be conducted so that, if the staff concludes that guidance need to be developed or revised, the work will be completed in sufficient time to ensure that the closure of Barnwell will not result in any safety concerns for storage. Extended storage, larger volumes of stored waste, and storage by licensees unaccustomed to storing may have safety, security, environmental, regulatory, and financial implications. To date, staff has identified nine guidance documents, specifically related to LLW storage, to consider for updating and consolidation. Also, given the increased interest in LLW disposal (e.g, a license application for a disposal site in Texas), the staff will consider the need to update and consolidate all guidance for disposal of LLW. Currently no resources are budgeted in fiscal year (FY) 2005 for this specific activity. If development or revision of guidance is needed, the Planning, Budgeting, and Performance Management process will be used to identify the relative priority of this work with other emerging needs.

Since the issuance of SECY-03-0223, no organizations have expressed an interest to NRC in development or regulation of an AIF. The State of Ohio, which has a rule in place for licensing of AIFs, has received no indications of interest, and the staff is not aware of any expressions of interest elsewhere. The CRCPD has decided to deactivate its committee assigned to work on a SSRCR on AIFs at this time since no State has expressed a need for a regulation and NRC is not developing a rule. The staff has not discussed with States or waste brokers their interest in AIFs since SECY-03-0223.

As a part of NRC's routine exchange of information with the CRCPD, we will continue to interact with the CRCPD on this issue, as appropriate. The staff's annual reviews of the need for action in this area will include consideration of the need for AIFs.

COORDINATION:

The Office of the General Counsel has reviewed this paper and has no legal objection.

***/RA Martin J. Virgilio Acting For/***

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\* See Previous Concurrence

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