Doris Mendiola - ARDT Comments Relating to the NRC's Low-Level Radioactive Wa ste Program

From: "Edward Selig" <eselig@ardt.org>
To: <arw2@nrc.gov>
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Mr. Ryan Whited
Chief, Low Level Waste Section
Environmental and Performance Assessment Directorate
Division of Waste Management and Environmental Protection
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Rockville, MD 20852

Dear Mr. Whited,

NRC is conducting a strategic assessment of the program "to identify and prioritize activities that the staff can undertake to ensure a stable, reliable and adaptable regulatory framework for effective LLW management, while also considering future needs and changes that may occur in the nation's commercial LLW management system."

Attached please find a copy of comments submitted by Advocates for Responsible Disposal in Texas (ARDT) relating to the NRC's low-level radioactive waste program.

If you have any questions, please feel free to call.

Sincerely,

Edward Selig, General Manager
Advocates for Responsible Disposal in Texas
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Comments on the

Nuclear Regulatory Commission

Low Level Radioactive Waste Program

Submitted by Advocates for Responsible Disposal in Texas

Introduction

The Advocates for Responsible Disposal in Texas (ARDT) is an association of LLW generators in the Texas-Vermont Compact. Its mission is to support the State of Texas' efforts to identify, evaluate, and after thorough public input, establish a system that will ultimately manage and provide permanent disposal of low-level radioactive waste. These ideals have evolved into the following goals of the group:

1. To provide the public, decision-makers, educators, scientists, and physicians with information about the need for and merits of a system for managing the waste safely and developing a facility for permanent disposal.
2. To provide a forum through which the advocates of such a system and facility can demonstrate their support.

It is critical that the Nuclear Regulatory Commission (NRC) recognize the efforts currently underway in Texas to site a low level radioactive waste disposal facility. A facility is being licensed under the Compact system. The process is not broken; it is critical to allow it to progress on its own merits. H.B 1567 enacted by the Texas Legislature in 2003 sets out an aggressive timeline to allow for the successful licensing of a low level radioactive waste disposal facility for the members of the Texas-Vermont Compact.

ARDT supports the State of Texas in its efforts to develop a LLW disposal facility in Texas. Our position remains supportive of the Texas Commission on Environmental Quality (TCEQ) and of the regulations which provide for responsible, safe disposal in Texas.

ARDT supports the Texas-Vermont Compact and the continued pursuit of responsible, safe disposal of LLW under the terms of the Compact system. This remains in the best interests of all Compact members. ARDT believes that existing regulations serve as the safety net which provides for responsible, safe disposal and is supportive of the TCEQ's continuing efforts toward licensing a disposal facility under the guidelines set out in HB 1567 for LLW from Compact generators.

In addition to our responses (below) to the specific questions posed by NRC, ARDT supports and endorses the suggestions proposed to NRC in comments by the Nuclear Energy Institute aimed at reducing unnecessary costs and regulatory burden on waste generators and waste disposal facilities.

Regarding the Current LLW Disposal Regulatory System

Question 2

What vulnerabilities or impediments, if any, are there in the current regulatory approach toward LLW disposal in the U.S., in terms of their effect on:

a. Regulatory system reliability, predictability, and adaptability;

b. Regulatory burden (including cost); and

c. Safety, security and protection of the environment?

Response to Question 2

(a) Regulatory requirements and delays built into the system have caused 20 years to pass without a successful site licensed in Texas.

(b) Costs associated with licensing are large and have caused potential fees to be predicted to be excessively high.

(c) Legal and technical requirements are too stringent, in particular requiring lengthy hearings.

Potential Alternative Futures

Question 3

Assuming the existing legislative and regulatory framework remains unchanged, what would you expect the future to look like with regard to the types and volumes of LLW streams and the availability of disposal options for Class A, B, C, and greater-than-class-C (GTCC) LLW five years from now? Twenty years from now? What would more optimistic and pessimistic disposal scenarios look like compared to your "expected future"?

Response to Question 3

(1) Other than major maintenance projects (steam generator replacement), the five year waste streams should remain stable.

(2) In the next 20 years, waste streams could come from decommissioning and from additional units. Disposal options should increase as the need increases.

Can the Future Be Altered?

Question 5

What actions could be taken by NRC and other federal and state authorities, as well as by private industry and national scientific and technical organizations, to optimize management of LLW and improve the future outlook? Which of the following investments are most likely to yield benefits:

a. Changes in regulations;

b. Changes in regulatory guidance;

c. Changes in industry practices;

d. Other (name).

Response to Question 5

(1) Shorten the time required for licensing.

(2) Allow for only realistic meaningful intervention by outside groups.

(3) Changes in regulatory guidance that are open to more effective, efficient technical solutions.

Question 6

Are there actions (regulatory and/or industry initiated) that can/should be taken in regard to specific issues such as:

e. Storage, disposal, tracking and security of GTCC waste (particularly sealed sources);

f. Availability and cost of disposal of Class B and C LLW;

g. Disposal options for depleted uranium;

h. Extended storage of LLW;

i. Disposal options for low-activity waste (LAW)/very low level waste (VLLW);

j. On-site disposal of LLW;

k. Other (name).

Response to Question 6

(1) The disposal cost for Class B and C LLW is not substantially different from the cost of Class A disposal, provided all three waste classes are disposed at the same licensed repository (in different trenches, vaults, etc.). Based on DOE studies, more than 90% of the cost of waste disposal lies in pre-operation activities (siting, licensing, construction) and post operation activities (decommissioning, closure, institutional control). Therefore, at least 90% of the unit disposal cost is linked to pre- and post-operation costs, which are amortized over the total volume of waste disposed at the repository.

(2) The long term safety and stabilization considerations associated with Class BC waste disposal discourages States from pursuing Class BC licensing. Class A is an easier sell and a lower risk, and it also addresses nearly all of the waste generated by institutional waste generators. This is compounded by the design complexity of a Class BC repository.

Disposal site licensing needs to be simplified by segregating "siting" from "facility design." If the industry could select one or two "standardized, technically stable, USNRC-approved; 100% safe" engineered near-surface disposal facility designs (probably above ground) which are independent of the most complex siting issues, then half of the disposal equation would be solved for each facility-approved waste Class. The Design Control Document (DCD) and Safety Analysis Report (SAR) for such a Common Operating License (COL) facility would include appropriate minimum waste acceptance criteria, (including characterization, packaging, stabilization, and related disposal criteria), radiological controls, monitoring and closure criteria. Essentially, this is the same approach currently being pursued for the new fleet of advanced nuclear plants, which separates the design from the siting process.

Thereafter, any disposal site license applicant which references a certified repository DCD would need to respond to relatively few COL issues. The primary thrust of the application review would be the focus on siting. Good facility designs would reduce some of the challenges of the siting analyses, thereby reducing the cost of licensing and encouraging more States, Compacts and commercial enterprises to pursue Class A+BC disposal licenses.

(3) VLLW should be approved for disposal in certain classes of RCRA facilities, recognizing that the radiological hazard is much shorter-lived than the chemical hazard of the RCRA facility. This would resolve perhaps as much as 50% of all Class A unstable wastes and introduce competition to existing disposal facilities.

Interagency Communication and Cooperation

Question 8

Based on your observations of what works well and not-so-well, domestically and/or internationally, with regard to the management of radioactive and/or hazardous waste, what actions can the NRC and other Federal regulatory agencies take to improve their communication with affected and interested stakeholders?

Response to Question 8

(1) The NRC pursues an excellent approach to communication among stakeholders. Public forums and workshops, and efforts to work with industry in developing new guidelines and regulations are very productive and highly beneficial to all stakeholders. Indirectly, such public forums and workshops are instrumental in educating stakeholders on key issues and mitigating the impact of misleading "technical truths."

(2) Weaknesses in the communication system are most evident among government agencies (e.g., NRC/DOE, NRC/TSA, NRC/DOT). Memorandums of Understanding have fallen behind the implementation of new security initiatives by years, generating confusion and, sometimes, noncompliance. Radiation and nuclear safety should never take a back seat to territorial issues, but this is clearly evident among government agencies, particularly with regard to advancing security issues since 9/11.

Question 9

What specific actions can NRC take to improve coordination with other Federal agencies so as to obtain a more consistent treatment of radioactive wastes that possess similar or equivalent levels of biological hazard?

Response to Question 9

(1) Hold public forums and workshops, and work with industry, to identify which multi-agency issues are causing confusion and potential noncompliance. Then prioritize resolution and implement Memorandums of Understanding for resolution. Multi-agency guidance (e.g., Regulatory Guides which are endorsed by multiple agencies) could offer a long term solution to cross-cutting (cross-territorial) issues. Such actions should carry the same priority for implementation as the new regulations.