The Low-Level Radioactive Waste Policy Act: Twenty-Six Years and Counting. How Can Access to Safe Disposal Facilities Be Assured?

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Abstract

The federal Low-Level Radioactive Waste Policy Act, signed into law in 1980, has yielded ten interstate compact commissions, three lawsuits (one still ongoing), and no new disposal facilities. On July 1, 2008, unless the nation's present course is altered soon, organizations that use radioactive materials in 34-36 states will have no place to dispose of their more radioactive categories (Class B and C) of low-level radioactive waste (LLRW) and only one facility at which they can dispose of most of their Class A waste — not including biological tissue waste and sealed sources. Only one state, Texas, is pursuing development of a new disposal facility pursuant to the Act. Some compact commissions do not even have a designated "Host State."

Cal Rad Forum has testified to the Senate Energy and Natural Resources Committee urging amendment of the Policy Act to provide a role for the federal government in meeting the LLRW disposal needs of utilities, other industries, universities, medical centers, and state and federal government agencies. (The U.S. Department of Energy operates its own disposal facilities for its own LLRW.) Other organizations, including the American Nuclear Society, The Health Physics Society, and The Council on Radionuclides and Pharmaceuticals (CORAR) have also urged Congress to revisit the Policy Act. The U.S. Nuclear Regulatory Commission has also called for exploration of alternatives "…that would potentially provide a better legal and policy framework for new disposal options for commercial generators of LLRW."

Suggestions for alternative LLRW disposal frameworks will be presented.

The Existing Statutory Framework for Low-Level Radioactive Waste Disposal Has Failed And Disposal Options Are Dwindling

On July 1, 2008, on the nation's present course, organizations that use radioactive materials in 34-36 states, the District of Columbia, and Puerto Rico will have no place to dispose of their Class B and C low-level radioactive waste (LLRW). In addition, one facility — Envirocare of Utah, now called Energy*Solutions* — will have a monopoly on the disposal of most of the Class A waste generated by these organizations. Private corpo-

rations, including utilities, pharmaceutical and biotech companies, and manufacturers; public and private universities and research organizations; medical centers; and state and federal government agencies except for the U.S Department of Energy (DOE) will be affected. How did this state of affairs come about?

In 1980, at the urging of the National Governors Association, Congress enacted the Low-Level Radioactive Waste Policy Act. Congress amended the Act in 1985. The purpose of the Act was to foster development of regional disposal facilities for LLRW by encouraging the states to form regional interstate compacts. The Act included a carrot and a stick. The carrot: A compact can restrict access to its regional disposal facility to member states of the compact and any other states with which it might want to contract. The stick: States that did not provide access to a disposal facility would be required to take title to and possession of the wastes generated within their borders. However, the "stick" has been lost. In 1992, the U.S. Supreme Court struck down the "take title" provision in a lawsuit brought against the federal government by New York State. After 26 years, no new facilities, licensed to dispose of waste Classes A, B, and C, have been developed. Where there were three such facilities operating in the U.S. in 1980, today there are only two.[1] Access to one, the Northwest Compact's regional disposal facility at Richland, Washington has been restricted to eleven states of the Northwest and Rocky Mountain Compacts since 1993. Access to the second, the Atlantic Compact's regional disposal facility at Barnwell, South Carolina will be restricted to the three states of that compact on July 1, 2008. Please consider the following:

- In 26 years, no new disposal facilities responsive to the requirements of the 1980 Act as amended, i.e., licensed to dispose of waste classes A, B, and C, have been developed. (The Act makes disposal of Greater-Than-Class C LLRW the responsibility of the U.S. Department of Energy.)
- Congress has granted consent to ten interstate compacts, but today, only one state, Texas, is pursuing development of a new LLRW disposal facility. (The compact includes only two states, Texas and Vermont.) With this exception, states have not demonstrated the political will to develop and operate new disposal facilities. The "carrot" without the "stick" has not provided sufficient incentive.
- The nation does not need ten disposal facilities. Volumes of LLRW generated have decreased since 1980 except for waste volumes generated by the DOE, which has its own disposal facilities. The DOE also disposes of large volumes of Class A waste at the Utah facility.
- A report issued by the State of Illinois Emergency Management Agency estimates that remaining capacity at the Utah disposal facility for Class A waste will last only fifteen years longer.[2]
- The Policy Act has a legacy of litigation. Neither of the two lawsuits that have been completed has led to development of a new disposal facility nor is the remaining case, now before the U.S. Supreme Court — Southeast Compact Commission and States of Alabama, Florida, Tennessee, and Virginia v. State of North Carolina — likely to do so. Illustrative of the states' lack of political will to develop new disposal facilities was Nebraska's willingness to settle a lawsuit, brought by the Central Inter-

state Compact Commission, for $140 million rather than approve a license application for a LLRW disposal facility.

- Time is short. Access to the Barnwell disposal facility, and the ability to dispose of waste Classes B and C, will end for 34-36 states in two years. Development of a new LLRW disposal facility can take many years. It took California, the only state to even issue a license pursuant to the Act, ten years after passage of enabling legislation to issue the license and another three years to resolve legal challenges. California's project eventually fell victim to political opposition.

It is clear that a change in the statutory framework is needed and that only action by the Congress can solve the nation's LLRW disposal problem. As noted by the U.S. Nuclear Regulatory Commission in its comments on the General Accounting Office Report of 2004, "…the nearly 20 years of experience under the Low-Level Radioactive Waste Policy Amendments Act of 1985 (LLRWPAA) has demonstrated the difficulties in siting and licensing a LLRW facility. Not one new facility has been developed in this time under the LLRWPAA. Therefore, we believe it is in the national interest to begin exploring the alternatives identified in Appendix II that would potentially provide a better legal and policy framework for new disposal facilities for commercial generators of LLRW." (Emphasis added.)[3]

Proposed Solutions

Cal Rad has proposed amending the federal Low-Level Radioactive Waste Policy Act to provide a role for the federal government. We presented our proposals to the Senate Energy and Natural Resources Committee in testimony at a Committee hearing on September 30, 2004.[4,5]

Proposed solutions must recognize that time is short, states — with the exception of Texas — are doing nothing, and the volumes of waste now being generated justify the development of only one, or possibly two, new disposal facilities. These considerations indicate the federal government must play a vital role and develop a national disposal option or options for those states and jurisdictions without assured access, i.e., all states except the "fortunate fourteen" in the Atlantic, Northwest, and Rocky Mountain compacts.

We believe the Low-Level Waste Policy Act can be amended without threatening the existence and continued operations of those Compacts which have successfully provided their member states with long-term, assured access to the disposal facilities in existence prior to 1980: The Northwest, Rocky Mountain, and Atlantic Compacts. Also, the Texas Compact, should it be successful in opening a new disposal facility, should be able to operate under the provisions of the LLRWPAA as should any other compact and Host State that is serious about developing a regional disposal facility.

Long-Term Solution

The federal government can provide a long-term solution by Congressional authorization of the development of one, at the most two, LLRW disposal facilities on federal land to be regulated by the U.S. Nuclear Regulatory Commission pursuant to its regulations at Title 10 Part 61 of the Code of Federal Regulations. Whether actual siting, construction, and operation of such a facility should be made the responsibility of the DOE, the U.S. Army Corps of Engineers, or a private firm under supervision of a federal agency is a matter to be decided. We propose that the federal government fund the siting and construction of such a facility with reimbursement through disposal fees collected during operation.

The federal government (DOE) is already responsible, under provisions of the LLRWPAA, for developing a disposal option for Greater-Than-Class C (GTCC) low-level waste. The Department of Energy has issued an Advance Notice of Intent to prepare an EIS for this project. The Health Physics Society has suggested that Congress modify this assignment to include waste Classes B and C LLRW along with GTCC. This is an idea worth considering as it addresses the problem of lack of a long-term disposal option for B and C wastes. However, this proposal does not solve the problems of monopoly control of Class A waste disposal or the limited life of the disposal facility at Clive, Utah nor does it address the near-term problem of disposal of B and C wastes after July 1, 2008.

Near-Term Solution

Near-term solutions must rely on existing, operating LLRW disposal facilities. We recognize the importance of not interfering with the plans and ability of the Northwest and Atlantic Compact Commissions and the States of Washington and South Carolina to continue operating their regional disposal facilities under the provisions of the Policy Act. Therefore, we propose that access to existing DOE disposal facilities be granted to radioactive materials users who lack other disposal options until a permanent solution is available.

Conclusions

Twenty-six years is long enough to test the viability of the LLRW disposal framework enacted in 1980 and to conclude that it has failed and that Congress should provide an alternate framework. Considerations include weakening of the Policy Act by the Courts in 1992, decreased volumes of LLRW produced by non-DOE entities, the short time

(two years) until users of radioactive materials in 34-36 states lose their only option for disposal of their Class B and C low-level wastes and face monopoly control of the disposal of most of their Class A waste.

We have proposed both near-term and long-term solutions that call upon the federal government to provide and regulate the needed LLRW disposal options — options that the states, by-and-large, have failed to provide despite the requirements of law.

References

1. The Utah disposal facility was created outside the compact framework, and, as noted, does not accept Class B and C waste or biological tissue or sealed source waste even if Class A. Utah has enacted legislation prohibiting acceptance of Class B and C waste for disposal.

2. “An evaluation of the Potential Effects from the Closure of Available Disposal Capacity on the Central Midwest Compact Region’s Low-Level Radioactive Waste Generators.” Prepared at the request of the Central Midwest Interstate Low-Level Radioactive Waste Commission by the Illinois Emergency Management Agency, Bureau of Environmental Safety, Low-Level Radioactive Waste and Site Decommissioning Section. September 2005.

3. “LOW-LEVEL RADIOACTIVE WASTE. Disposal Availability Adequate in the Short Term, But Oversight Needed to Identify Any Future Shortfalls,” GAO-04-604, June 2004. Appendix V: Comments from the Nuclear Regulatory Commission, May 25, 2004. Page 49.

4. S. HRG. 108-756, September 30, 2004. <http://www.access.gpo.gov/congress/senate/senate08ch108.html>

5. “Assuring Safe Disposal of Low-Level Radioactive Waste: Status, Problems and Proposed Solutions.” Testimony of Cal Rad Forum before the Senate Energy and Natural Resources Committee, September 30, 2004. <http://www.calradforum.org/llrw.html>