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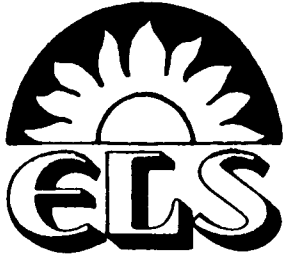
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LOW-LEVEL RADIOACTIVE WASTE: SOUTHEAST PROGRESS REPORT

By Kathleen E. Woodward

In an era of waste disposal dilemmas that include a shortage of solid waste disposal facilities, illegal hazardous waste dumpsites and a faltering Superfund, the last thing states needed was another waste problem to clog their legislatures and regulatory agencies. Enter, low-level radioactive waste. Since 1980, when Congress transferred the responsibility for low-level waste to the states, state legislatures have struggled to find workable solutions to this controversial issue.

Virginia and seven other Southeastern states have reached a critical point in their attempt to deal with the problems that low-level radioactive waste presents. To coordinate their efforts, these states joined to create a regional alliance called an interstate compact. So far the compact has been cohesive. Soon, however, this group must make some potentially divisive decisions.

This Article begins with a brief discussion of what qualifies as low-level radioactive waste and the only licensed method by which such waste may be disposed. The Article then turns to the Low-Level Radioactive Waste Policy Act, specifically addressing the response of the coalition of Southeastern states. Finally, the Article

concludes that although to date the accomplishments of this coalition are noteworthy, many questions concerning its effectiveness remain.

Low-level radioactive waste is a by-product of a myriad of activities including the generation of electric power, the diagnosis of heart disease and the production of armour-piercing projectiles for conventional weapons. Consisting mainly of items such as protective clothing, filter materials, test tubes and machine components, low-level radioactive waste remains hazardous for a period of a few weeks to 300 years. Most low-level wastes decay to safe levels within 150 years.

Low-level radioactive waste is most easily defined in terms of what it is not. Spent fuel rods from nuclear power generation and other waste that remains highly radioactive for thousands of years are not low-level waste. Such waste is classified as high-level radioactive waste and is managed by the federal government. Low-level waste is also distinct from hazardous waste. Hazardous waste includes chemical wastes that may remain permanently toxic and are generated in much greater quantities than low-level waste. In one critical aspect, however, low-level waste is similar to high-level waste and hazardous waste: it must be managed carefully so it does not pose a risk to the public or the environment.

The only low-level waste disposal technology licensed by the United States Nuclear Regulatory Commission, the agency responsible for regulating commercial use of radioactive materials, is shallow land burial, also called "near surface disposal." This disposal method involves the placement of wastes, packaged according to their characteristics and hazard, into earthen trenches which are then capped with soil covers. The disposal area and surrounding buffer zone are monitored closely for leakage from the waste containers and trenches. Shallow land burial has been only moderately successful. Of six disposal facilities employing this method, three, located in New York, Kentucky and Illinois, have closed because of operational difficulties. The only commercial low-level waste disposal facilities operating in the United States are located in South Carolina, Washington and Nevada.

In the late 1970's, those states that contained functioning low-level radioactive waste disposal facilities pressured Congress to distribute the responsibility for low-level radioactive waste disposal more evenly among the fifty states. In response, Congress passed the Low-Level Radioactive Waste Policy Act, 42 U.S.C. § 2021 (1980), amended, Pub. L. No. 99-240, 99 Stat. 931 (1985), which required the individual states to assume responsibility for providing disposal capacity for the waste generated within their borders. The Low-Level Waste Policy Act encourages states to form interstate compacts to manage wastes safely and efficiently. Interstate compacts are binding agreements that provide long term commitments and continuing cooperation among those states that are parties to the compact. Regional compacts would enable states to aggregate their wastes for disposal at one regional facility and thereby minimize the number of waste disposal sites needed. Another justification for compacting is that the large volumes managed at a regional facility

would create economies of scale resulting in lower disposal costs.

To effectuate a compact, each state party to the agreement must pass essentially identical compact legislation. The compact must then receive congressional consent. Although a significant number of states remain "uncompacted," Congress has approved seven compacts since passage of the Low-Level Waste Policy Act. One of the compacts receiving congressional consent was the Southeast Interstate Low-Level Radioactive Waste Management Compact (Southeast Compact), comprised of the states of Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, Tennessee and Virginia. These states together generate over one million cubic feet of low-level radioactive waste annually. Of this amount, Virginia generates approximately 165,000 cubic feet.

The Southeast Compact Agreement, embodied in Virginia Code § 32.1-238.6:1 (1982), creates the Southeast Compact Commission (Commission) which consists of two voting members from each party state. The Commission's duties include the development of procedures and criteria for identifying host states for regional facilities and determining the type and number of regional facilities necessary to manage the region's waste.

The Compact Commission identified three possible methods by which it will designate a host state. The first method, the "Volunteer Process," simply allows a state to volunteer to serve as a host state. The second method, the "Participation Process," involves submission of a plan by each party state setting forth the "terms and conditions" under which it would agree to host a facility. States will use these plans as bargaining tools in negotiations among themselves. Ideally, these interstate negotiations would

result in a party state volunteering to host a facility. Finally, the "Designation Process," to be employed only if the first two processes fail, provides for the selection of a host state by the Compact Commission according to a ranking of party states by their "appropriateness" as determined through application of technical criteria.

In October of 1985, the Compact Commission adopted a regional management plan calling for one disposal facility having the capacity to receive 800,000 to 1.6 million cubic feet per year for at least twenty years to begin operation in July of 1991. The Commission based the plan in part on a report prepared for the Commission by Dames and Moore, an engineering consulting firm hired to evaluate the volumes and characteristics of the waste generated in the Southeast. The Commission also considered comments from the general public. The Commission chose not to recommend any particular disposal technology, opting instead to leave this decision entirely to the host state. The plan requests that each party state provide on an annual basis certain information regarding low-level waste management within its borders.

As no state had volunteered to host a facility, adoption of the regional plan triggered the beginning of the Participation Process. Within ninety days of the Commission's adoption of the plan, each party state was to submit to the Commission a statement of the terms and conditions under which it would agree to host a facility. The state plans are not regulatory or siting statements, but instead represent each state's opening negotiating positions. Although the Commission did not limit the states in terms of the contents of their plans, it did encourage each state to include any information relevant to an interstate forum, such as disposal fee and transportation considerations.

By January 27, 1986, all of the party states had completed their plans. According to Barbara Wrenn, Executive

Director of the Virginia Solid Waste Commission and alternate to the Southeast Compact Commission, Virginia based approximately seventy percent of its plan upon recommendations of the Virginia Citizen's Advisory Committee (Advisory Committee). Appointed by the governor in April of 1985, the Advisory Committee consists of representatives of the "affected public" such as a geologist, a health care provider, and an official from the nuclear power industry. Several state agencies and the Virginia members and alternates of the compact commission also contributed to the development of the plan. The Virginia state plan sets forth in broad language the terms by which the state would accept a disposal facility. The conditions are divided into sections including Facility Considerations, Fees, Transportation, Compact Considerations and Other Considerations.

Under the section on Facility Considerations, the plan reserves for the state the authority to regulate a disposal facility and set more stringent public health and environmental protection standards than the federal government requires. The plan also allows the state to determine the location and disposal technology of any facility located in Virginia. The Virginia plan further requires that any private operator of a facility carry liability insurance sufficient to cover claims arising from facility operations. In addition, the plan provides for opportunity for public comment during facility development.

Under the Fees section, the plan stipulates that all costs associated with being a host state, including the costs of operation and post-operational maintenance of the facility, regulation, inspection, and development and implementation of an emergency plan, be funded through user fees. The plan also reserved the right of the state to collect surcharges for local government compensation and research and development.

In the Transportation section, the plan reserves for the state the right to inspect all carriers of low-level waste shipments in order to verify compliance with state and federal requirements. Moreover, the plan provides that Virginia may refuse entry into the state of any carriers not meeting these requirements. This section also addresses routing and insurance requirements.

Under the section on Compact Considerations, the plan requires each state party to the Southeast Compact to provide financial assurance sufficient to ensure that it will serve as a host state at some point in the future. Virginia would also have the power to adjust compact deadlines and time frames.

Finally, under Other Considerations, Virginia prohibited the siting of a facility in any "environmentally sensitive area" as determined by state and federal law. This section also reaffirms Virginia's right to impose stricter waste management requirements than those presently in place.

The Southeast Compact requires that the Commission identify a host state by July 1986. According to Barbara Wrenn, in the event that no state volunteers to host a facility, the Commission has weighted technical criteria according to which the Commission will choose a host state. The most heavily weighted criterion is the amount of volume a state generates, followed by transportation considerations, and finally, by environmental suitability. The weighted technical criteria are presently under review by state agencies of the compact party states. The Commission expects to finalize the criteria weighting and to rank the states accordingly by mid-April. If the "Participation Process" is successful, the states will use their state plans and ranking as bargaining tools to negotiate an agreement among

themselves as to which one will be the first host state. Success, however, is contingent upon at least one state volunteering to host a facility under terms and conditions acceptable to all the party states.

Although the creation of an interstate compact, adoption of a regional management plan and submission of state plans together provide a framework for the development of regional disposal capacity, the most difficult tasks before the Southeast Compact lie ahead. First, a host state must be found. Will there be a state that is willing to accept the low-level waste of the entire region, amounting to over 1.2 million cubic feet annually by 1986? If no state volunteers, will a state chosen by the Compact Commission comply with the Commission's decision and involuntarily host a facility, even though the Commission has no power to enforce its decision?

Second, if a host state is found, can a state develop and implement a low-level waste facility siting process acceptable to the citizens of the state? Can regional and local interests realistically be balanced in the context of radioactive waste disposal?

These and other questions need answers before a solution to the low-level waste disposal issue in the Southeast is found. Developing a disposal facility for any type of waste is becoming increasingly difficult in most states and next to impossible in some areas of the country. Will the Southeast Compact's efforts to find a home for its low-level radioactive waste defy this trend or result in a protracted game of hot potato? Only time will tell and the clock is ticking.

For more information, write Barbara Wrenn, Executive Director, Virginia Solid Waste Commission, General Assembly Building, P.O. Box 3-AG, Richmond, Virginia 23208.