

A REVISED APPROACH TO LLW FACILITY DEVELOPMENT

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ABSTRACT

"A Revised Approach to LLW Development" by Dr. John D. Randall, Executive Deputy Chairman of the New York State Siting Commission for LLRW disposal, explains recent refinements to the New York State facility siting process and conditions that led to the legislative changes. It cites the July 1990 amendment to the State's 1986 law that expands citizen participation, enlarges the scope of the Commission membership to reflect environmental and social issues, requires that a preferred method be selected prior to site identification and makes other changes to the process. The Siting Commission's new program is outlined, noting its heavy emphasis on citizen participation and responsiveness to citizen concerns.

BACKGROUND

With the arrival of the 1980s, the public worldwide was insisting on direct involvement in government decisions, stemming in part from a deepening distrust of government at all levels. Examples abound, from local disputes over proposed expansion of shopping centers to decisions involving use of private forests. Recent events in Eastern Europe and the USSR are dramatic examples of the drive toward citizen empowerment.

Proposals for waste disposal seem to amplify the distrust of government and strengthen the desire for "citizen power." In fact, both government officials and scientists in the 1990s are facing the reality that waste disposal has become a social issue as well as a technical issue. The public demands full accountability. The certainty of the experts' facts is openly questioned, the reliability and capabilities of the professionals are debated and the imposition of outside authority on a local community is denounced. Such community uprisings can and do stop important and necessary programs.

In 1989 in New York State, for example, a concerned public's outcry, including acts of public protest and civil disobedience, hindered the State's process for siting a low-level radioactive waste disposal facility.

There are various reasons why waste disposal, especially radioactive waste disposal, has become a contentious social issue:

- Fear that radiation is the worst possible threat to human health;
- Public distrust of government's reliability and honesty;
- Public distrust of the "rich" utilities;
- Lack of control over the waste disposal process;
- Concern over past disposal facility leaks and other nuclear accidents; and
- Politicians' fervent desire to side-step what are perceived to be lose-lose situations.

While many events contributed to the problem, the following certainly deserve to be noted:

- In the beginning, and until 40 years ago, much nuclear work was secret and related to weapons; post World War II movies showed us all that a little radiation produced giant insects and other loathsome monsters.
- 30 years ago, nuclear power became a real issue. At that time, utilities would rarely share details of nuclear projects with the public. The prevailing attitude was simple: if cheap, reliable power was provided, the public did not need to be concerned with the utilities' activities. That attitude is, perhaps, a carryover from fossil fuel days.
- 20 years ago, much waste was generated and put into shallow-land burial sites, not in all cases successfully. The troubles experienced at some sites feed doubts about governments' ability to safely contain radioactivity.
- 10 years ago, states having existing LLRW disposal sites told Congress they would not be a dumping ground for the nation. Congress mandated that all states handle their own waste problem.

This countdown brings us to the issue of LLRW disposal in the 1990s. On the one side, we have public distrust. On the other, the many benefits accrued from nuclear technology.

It is the waste produced by beneficial activities that society must responsibly manage or risk losing the benefits. Indeed, Congress gave society that responsibility on a state-by-state basis in 1980 by passing the Low-Level Radioactive Waste Policy Act, amending it in 1985 to give it more teeth. As spelled out in the 1986 New York State legislation, a low-level radioactive waste disposal facility is "...necessary to provide for continued operation of essential and beneficial medical, research, industrial, energy and other facilities in New York which use radioactive materials and generate low-level radioactive waste and to the people of the state of New York."

New York Experience

The New York State Low-Level Radioactive Waste Management Act of 1986 created a Siting Commission,

comprised of five citizens: a nuclear medicine specialist, a health physicist, an engineer, a geologist and a private citizen who serves as chairman. It was organized with a technical and a support staff of about 20 full-time employees.

The 1986 Act assigned responsibilities and established a process for siting, constructing and operating a permanent disposal facility for LLRW generated in New York State. The legislation gave the five-member Siting Commission responsibility for selecting a suitable site and appropriate disposal method and for developing a supporting environmental impact statement. It assigned related responsibilities to various State agencies for regulation, education, as well as construction and operation of the facility.

In September 1989, the Siting Commission had narrowed the search for a suitable disposal site to five potential sites. At the same time, the Commission was investigating disposal methods. In July 1989, this search narrowed to four engineering concepts: earthen covered vault, lined shaft, drift mine, and modular disposal unit.

The next step in the process was to continue the disposal method investigation and to conduct precharacterization studies of the five potential sites. The Commission's goal was to select at least two sites for the year-long characterization process by late Spring 1990.

But by April 1990, public protest and civil disobedience had such an impact that the Governor requested on-site work at the potential sites be deferred until a new approach could be formulated. The new approach would be tailored to respond to concerns of the public and its perception of the Commission's credibility.

The Revised Approach

The Commission suspended its field work in April 1990 in response to the Governor's request. In July 1990, the Governor responded to citizen's concerns and introduced new legislation amending New York's 1986 LLRW Management Act. The amendment was drafted with the participation of numerous citizen groups throughout the State. Through its provisions to increase public participation and strengthen the technical process, the Amendment established mechanisms for increased public involvement and the independent scientific and technical review of previous and future Siting Commission work. The amendment provides for the:

- Revision of the Advisory Committee, creating the Citizens Advisory Committee to facilitate public comment and review, which replaces members from State agencies with additional public members;
- Administrative and technical support of the Citizens Advisory Committee, including support for an Executive Director and a secretary. It also will

allow the hiring of consultants to provide independent input to the Committee;

- Expansion of the public participation process by specifying significant points in the process that require public review and requiring Siting Commission responses to citizens' concerns;
- Creation of a Scientific and Technical Review Panel, comprised of independent scientific and technical experts who will review prior and future Siting Commission work;
- Addition of two new members to the five-member Commission, one representing the social sciences and one representing environmental interests;
- Preparation of a report which reviews the rationale behind exclusionary criteria used to exclude land areas in the State;
- Revision of the process to first select a preferred method rather than concurrent site and method selection; and
- Reconsideration of an above-ground vault and a deep, vertical shaft mine.

An important shift in the Siting Commission's program is the directive to select a preferred method before continuing site selection. This revision was introduced in response to the public's suspicions about accepting a facility that would use a method "to be announced later." The changes were made expressly to provide greater public participation in activities of the State's LLRW disposal program, and to improve the program's credibility.

The legislative and programmatic changes outlined will extend the program's timetable compared to that envisioned in the original legislation. As a result of the schedule extension, New York is reevaluating its Interim Management Plan which provides for management of LLRW after 1993 and until the New York disposal facility is operating. The existing plan allows adequate time for developing modifications that would provide longer term options. Other 1990 legislation required a study of the capability of generators to store LLRW on-site for 10 years or more. This study, performed under the auspices of the NYS Energy Research and Development Authority, will provide data that will be useful in any required revisions to the Interim Management Plan.

Throughout the process, provision is made for reviews and comments by the Citizens Advisory Committee and the Scientific and Technical Review Panel and the general public. These reviews are designed to address society's concerns about government decision-making and to mitigate the public distrust of siting the disposal facility.

Having outlined this revised approach for New York's efforts, it is realized that people are not going to lose their

fear of radiation or develop an abiding trust in government or science. But the intent of the revised program is to demonstrate that the process is open to the public and that concerns are heard and addressed. Of course, technical integrity or safety will not be compromised just to make

someone happy. The principal obligation is to provide the State with safe, effective disposal so that all can continue to have the benefits of nuclear technology.