

RISK PERCEPTIONS AND PUBLIC INVOLVEMENT

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ABSTRACT

Too often, the technical and regulatory communities have viewed public involvement in decision-making processes as a series of delays and a loss of control over the outcome. However, in low-level waste management, attempting to proceed without public involvement is a gamble with odds against success.

In 1982, Virginia initiated a public participation program with funding assistance from the Department of Energy. The program is administered by a commission within the legislative branch of government. As currently planned, the program will end in mid-1986. Techniques used include briefings, news releases, local meetings, questionnaires, newsletters, establishment of a citizen advisory committee and public hearings.

Before a public participation program is developed, determine (1) level of commitment to public participation; (2) identity of interested publics, their roles and power to influence public opinion; and (3) legal requirements for administrative procedures. Time required for soliciting, considering and incorporating public input should be structured into the process, with the realization that the public can enhance the results.

There appears to be no magic formula of activities for public involvement in low-level waste management decisions. Instead, a program should be evolutionary yet founded on purposeful strategies that provide information and continual opportunities for citizen contribution to the decision-making process.

Since 1980, millions of dollars and hundreds of man-years have been devoted to resolving technical questions in low-level waste management, yet the nation still has no new low-level waste disposal sites. This may be because low-level waste management has been addressed primarily as a technical matter, when the impediments to progress are more political than scientific. Compared to the scientific community's growing knowledge of how to manage low-level waste, progress in facility siting remains nearly stagnant. The lack of constructive public involvement is recognizable as a deterrent to compact and state advancement in low-level waste management.

Too often decision makers have appeared reluctant to purposely involve the public in low-level waste management questions. Much of this reluctance has stemmed from fears that public perceptions about radioactive waste would delay decisions that are already on a constrained schedule and would open possibilities of public policy to develop contrary to factual evidence. Yet structuring programs for increased public opportunities and responsibility can enhance progress and may break the siting impasse.

This paper describes the Virginia low-level waste public participation program, explains the constant challenge of perceptions to public involvement, and provides general administrative principles that should structure program activities.

The Virginia Experience

In Virginia, a low-level waste public participation program was initiated with the assistance of a Department of Energy grant to conduct a "model" program with results that could be shared with other states. Although the program has had a mixture of successes and failures, experiences prove that the

public can contribute meaningfully to low-level waste management solutions.

The grant was awarded in 1982 to the Virginia Solid Waste Commission, a legislative agency created by statute in 1972 to advise the Governor and General Assembly on matters relating to solid waste. Commission members include both legislators and citizens with technical or environmental expertise. When the low-level waste public participation program was conceived, the State was beginning a facility site selection process through a regulatory agency in the executive branch of government.^a The intent was for the public participation program to parallel the siting study, aligned with the milestones of the 3-phase site selection process as it narrowed from broad areas to specific sites.

The Phase I screening identified parts of 17 counties in a region where residents believed that they had received at least their fair share of undesirable land uses (e.g., prisons). Copies of the screening report were hand delivered to officials within the identified areas. The Commission followed up with calls and visits to provide information these people needed to respond to their constituents. The timing of the announcement -- in late December and within three weeks of the beginning of the 1983 General Assembly -- was

^a Months prior to this, Virginia had been asked to leave the Southeast Compact negotiations. The Governor requested initiation of the siting study, preparing the State to meet disposal responsibilities by 1986 as assigned by the Low-Level Radioactive Waste Policy Act, even if Virginia was not a compact member. Virginia was readmitted to the compact negotiations before the first level of screening in the site selection process was completed.

unfortunate. Many local officials and state elected representatives had personal commitments that conflicted with their need to pursue an unfamiliar and potentially volatile situation.

The public participation program was first publicized with a press release on the Phase I screening study, announcing that a toll-free "hotline" had been established. Over 200 callers used the hotline in its one month of operation.

The hotline allowed the Commission to demonstrate government's responsiveness to its citizenry. It also distinguished the Commission's role from that of the agency responsible for site selection. This has proven to be important to the State's low-level waste management efforts. From the hotline, we were also able to identify interested citizens and begin formation of a mailing list. By far, the majority of calls received were from residents and property owners in the areas identified in the Phase I screening as potentially containing acceptable sites. We found we were handicapped by not having suitable materials available for mass distribution, and quickly prepared a pamphlet that defined low-level waste and Virginia's efforts to assure compliance with the Low-Level Radioactive Waste Policy Act.

The second phase of the siting study, the selection of candidate areas, was expected to be completed roughly six months after the Phase I announcement. During this period, the work plan for the public participation program called for the conduct of meetings to gather responses to a survey from groups of local leaders. The questionnaire survey was designed to be a learning experience for participants. Twelve to fifteen local "opinion leaders" for each meeting were carefully identified as survey respondents. The survey brought criticism from some participants who were hesitant to cooperate in contributing toward waste management solutions. Several participants complained that the questions were poised from a position of "when did you stop beating your spouse." In one location, we were surprised that the newspaper editor, who was invited as a local leader, reported the session as an open meeting in the local newspaper. Consequently, the meeting had to be moved from a quiet room to an auditorium to hold the 300 attendees. The questionnaire survey was set aside and an open question-answer session continued until all questions were addressed. The Commission concluded that the participation at these local meetings was generally constructive. However, it was obvious that the survey was delivered prematurely. Local officials had not taken ownership of the problem.

Before six months brought the siting study's Phase II results and its identification of candidate areas, major institutional changes altered the direction of the State's low-level waste management plans and the public participation program: the General Assembly enacted legislation providing membership in the Southeast Compact, and the siting study was discontinued. Termination of the siting study was not as immediate as might be expected, given the certainty of compact membership. The public did assist the State with realizing that the need to determine a disposal site had been delayed by participation in the Southeast Compact. At one of its regular business meetings, the Solid Waste Commission received hours of citizens' expressions of their concern that the siting study appeared to assume a shallow land burial facility without

considering other disposal methods and testimony of the dread of having a low-level waste facility in their community. The Solid Waste Commission then voted to recommend to the Governor that the siting study be discontinued, and the recommendation was accepted.

The initial work plan for the public participation program was devised by a contractor, who assisted with early implementation. However, the contract was terminated after the siting study was discontinued; the public participation program's work plan was no longer appropriate. The program required a totally new approach and schedule.

The Commission began to fashion a new program reflecting Virginia's membership in the Southeast Compact. The Solid Waste Commission believed that without the immediate potential for a site in Virginia, public dialogue on the issue would be less emotional, improving the setting for informed public involvement. But it was apparent that without the press of the siting study, public interest would quickly wane. Activities were planned to keep the issue before Virginians. Specifically, a 2-day workshop was held, the Commission conducted two series of meetings in five locations around the state, and a newsletter was prepared and sent to over 900 recipients at 6-week intervals. While these activities were useful for dissemination of information, the program lacked structured opportunities for active participation, except for receipt of testimony at Commission meetings and an occasional public hearing.

In 1985, a citizen advisory committee was formed to provide an enhanced participatory role for parties wanting to be involved in the process. The 15-member committee includes representatives of the various publics that continue to demonstrate an interest or that are potentially affected by the outcome of the Southeast Compact's activities. Committee members include representatives of local government, low-level waste generators, environmental groups, civic organizations and a transporters association. To avoid the representation at any committee meeting being imbalanced by a member's absence, the Commission asked each member to designate an alternate member. The committee is facilitated by the Institute for Environmental Negotiation at the University of Virginia. The committee is tasked to discuss questions before the Southeast Compact Commission and make suggestions for consideration in the State's position on compact issues. A record of the Committee's dialogue is distributed to Solid Waste Commission members and Virginia's Compact Commission members.

Since April 1985, the Committee has held five meetings, participated in the DOE siting simulation, and toured the Chem-Nuclear disposal facility at Barnwell, South Carolina. A notable achievement of the citizen advisory committee was its contribution to development of terms and conditions that Virginia would impose on other Southeast Compact member states if hosting the next regional low-level waste facility. (Under the requirements of the Southeast Compact, all members eligible to be a host state must submit a state proposal of terms and conditions.)

Measuring Dread

Dissolving fears and mistrust (often among both the general public and persons with decision-making

authority) can be a constant challenge in a public involvement program. The significance of fear and familiarity to perception, in turn evidenced in decision-making, is illustrated in an article by William F. Allman in the October 1985 issue of *Science* 85 ("Staying Alive in the 20th Century"). Mr. Allman has developed a "Profile of Fear" that plots various activities along an axis of comfort/fear and known/unknown. (See Fig. 1.) Adapting this measure of perceptions to low-level radioactive waste management illustrates the similarity of the public's fear of low-level waste and the scientific community's hesitance to accept the lay-public as a participant in the process. Both groups feel the risks are uncontrollable, unknown, and possibly personal. The matrix also explains the directional thrust needed in a public participation program: to increase familiarity with the issue and improve control over the consequences.

Program Features

The actual design or work plan of a public participation program should be prefaced by examination of three features that will prescribe the style and breadth of the effort. First, the state or compact must determine its level of commitment to involving the public. This will involve a definition of the purpose for such a program. The entity should realize the naivete in believing that public education or participation will avoid dis-

agreement or opposition. If reaching a quite consensus is established as the purpose of public participation, the program will not succeed. In addition to establishing a purpose, determining the level of commitment requires a review of the resources -- both people and funding -- that will be devoted to the effort. The availability of resources may indicate a relative status of the program as measured against other priorities. Resources need to be committed early in order for clear establishment of a public participation program as part of the low-level waste effort, and not an appendage or afterthought.

The second required step is the identification of the publics to be solicited, going beyond an accumulation of names and addresses. The state or compact must consider what roles these individuals and groups have in effecting public opinion, and how their powers might influence the low-level waste management program. Then the agency can determine how these powers might be tapped to build an effective constituency.

The third step before designing a program is understanding legal requirements. The Low-Level Waste Policy Act contains no procedural requirements for public consultation by a state or a compact. Most states have enacted procedural statutes prescribing administrative requirements in decision-making, and many state agencies have

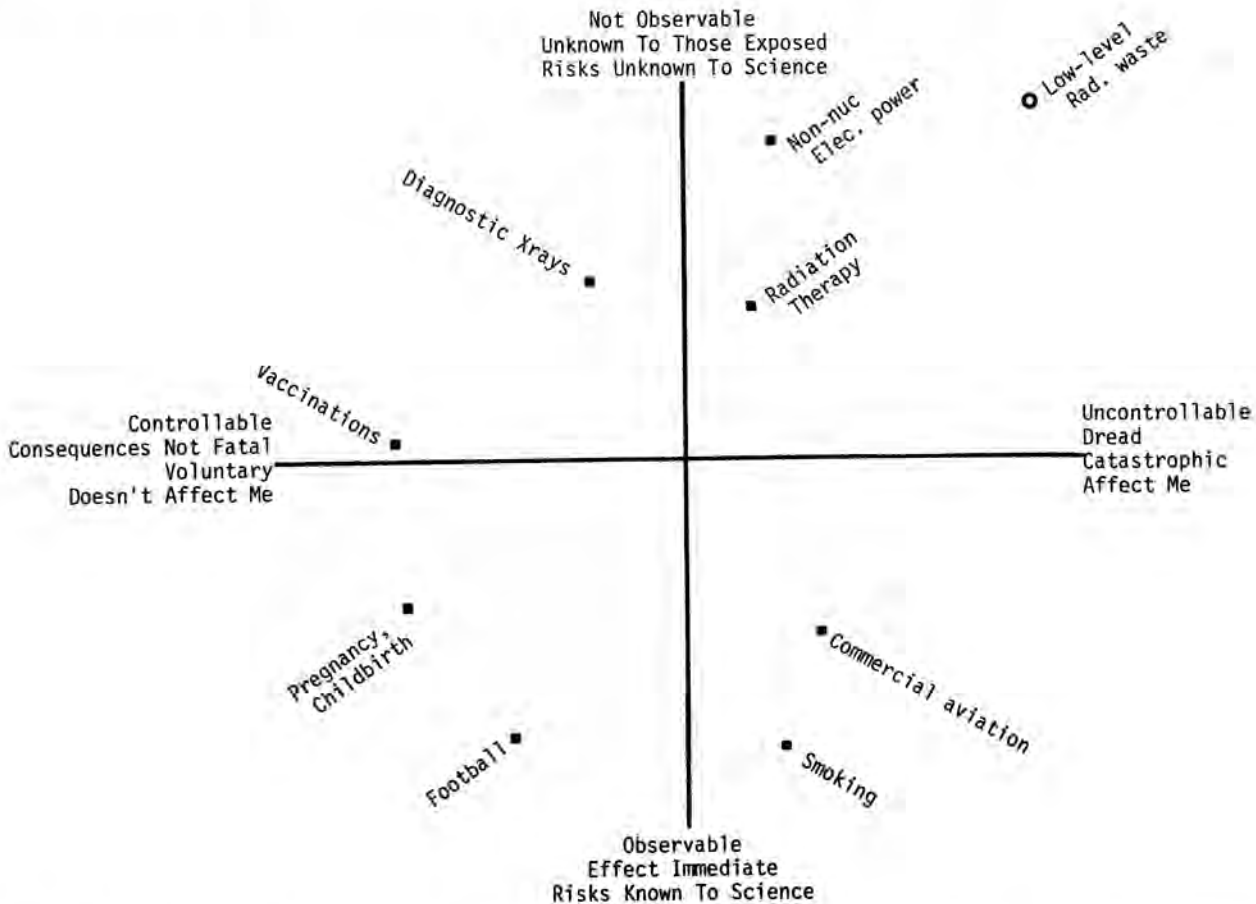


Fig. 1. Profile of Fear. Adapted from William F. Allman, "Staying Alive in the 20th Century," *Science* 85, October 1985, pp. 31-41.

adopted regulatory procedures to implement such laws. Failure to comply with such requirements establishes reasons for the public to challenge decisions as arbitrary and could cause a decision to be overturned in court.

Compact commissions are not required to adhere to state administrative procedures, and because a compact commission is not a federal entity, the Federal Administrative Procedure Act does not apply. In the absence of its own procedures, a compact commission might rely on standard principles of administrative law to avoid challenges. The principles are:

1. Adequate notice of its activities;
2. Public access to information that will be considered by the Commission in making decisions;
3. Explanation of proposed actions and the reasons therefor;
4. Opportunity for interested persons to comment prior to a final decision;
5. Consideration of comments and all relevant information known in making decisions; and
6. Explanation of decisions in light of relevant information (e.g., why it chose not to follow a particular recommendation).

A myriad of public participation techniques have been used in low-level waste programs and other matters in which institutions such as government have accommodated public involvement. Programs should develop a variety of techniques suited to the public's different levels of interest and involvement. Public hearings alone may satisfy legal requirements for public participation, but if not accompanied with an educational process and opportunities for response from the decision-makers,

public hearings will not satisfy the individuals and organizations who seek to affect the outcome. Without accompaniment, public hearings are not likely to produce significant contributions beneficial to the state or compact and consequently may be a waste of everyone's time and an abuse of persons willing to contribute to low-level waste management efforts. Public education is essential to enhance citizens' ability to participate and to allow decision-makers to rely on the input received. Newsletters, press releases and public briefings are important educational tools. Yet public participation must be more than duplicating informational materials and throwing them to the wind with hopes they will land in an interested person's hands. Educational programs need to be directed to specific audiences and augmented with activities that are avenues for involvement.

The design of a public participation program should be carefully prepared to have structure, yet be flexible enough to respond to unanticipated occurrences. Strong but agile programs can survive unpredictable reactions and disruptive tactics that may be used by individuals or groups involved. To maintain a purposeful direction, the program should combine assertiveness with demonstrated capacity to be receptive.

The Virginia public participation program is planned to terminate in mid-1986. A final report to the Department of Energy will be prepared shortly afterwards in time for other states and regions to benefit from the Virginia experiences -- both good and bad. The report will reflect on the significance of perceptions and fears, and suggest how these can be reduced as the issues become more familiar. Our report will discuss the commitment to administrative principles and how they were structured into Virginia's program. Meanwhile, the Solid Waste Commission staff would be pleased to consult with other states in an attempt to enhance progress in low-level waste management through meaningful public participation.