

NRC RESPONSIBILITIES UNDER THE LOW-LEVEL RADIOACTIVE WASTE POLICY AMENDMENTS ACT OF 1985

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ABSTRACT

The Low-Level Radioactive Waste Policy Act of 1980, and as amended in 1985, sets out requirements, and penalties for failure, for the establishment of state or region disposal sites. The USNRC is required to identify alternative disposal methods, issue technical guidance, establish procedures and develop the capability to process licenses by January, 1987. All technical information and applicable requirements must be published by USNRC by January 1988. This paper reviews the status of the USNRC in meeting these requirements and provides a number of observations regarding establishment of new disposal sites within the timeframes expressed in the Act.

INTRODUCTION

The recent Low-Level Radioactive Waste Policy Amendments Act affirms the intent of Congress that the States are to assume responsibility for low-level waste disposal. Congressional consent to seven inter-state compacts has also affirmed a national policy of encouraging regional disposal solutions. In contrast to the original 1980 Policy Act, however, the amendments lay out detailed requirements for the transition period until new disposal sites are established. The amendments describe a system of incentives and penalties to promote siting progress by the States, and set conditions for limited access to existing disposal sites during the transition period. The amendments also assign the NRC a series of regulatory responsibilities.

The Commission supports this important legislation and believes it properly focuses on the critical measure of success, namely, the timely establishment of new disposal sites. The NRC is firmly committed to its assigned national regulatory leadership role, and intends to carry out its responsibilities within the timeframes specified. It has also initiated an active regulatory outreach effort to assist States in meeting their responsibilities. A Federal Register notice identifying specific areas of NRC assistance was published this January, following direct correspondence with appropriate officials in each of the States.

Licensing guidance on alternatives to shallow land burial will continue to be an emphasis for our program. The amendments require that the NRC identify alternative disposal methods and issue technical guidance by January, 1987. NRC is further required to establish procedures and develop the technical capability to process license applications by January, 1987. By January, 1988, NRC is to publish all technical information that must be provided to the NRC in a license application, together with applicable technical requirements. These actions will be undertaken in consultation with the States and other interested parties.

These provisions are consistent with a commitment the NRC has had internally for several years--to develop guidance on alternatives and to gear up for expeditious application reviews. The NRC has evaluated five alternative disposal concepts, based on a report prepared by the U.S. Army Corps of

Engineers under NRC direction. The five volume Corps report covers the range of alternatives it believes can foreseeably be considered. NRC staff will soon release a Federal Register notice proposing guidance on general licensing questions an applicant would have to address. As interest among States, compacts, and industry becomes focused on specific disposal designs and practices, NRC will develop more specific guidance. In the meantime, it is planned to concentrate efforts on engineering materials and components that are common to several alternatives. As an example, the staff is currently examining the long-term durability and performance of concrete. It is expected that final licensing guidance will be reflected in Standard Format and Content Guides for applications. NRC internal licensing capability will be established through development of Standard Review Plans.

Technical guidance for disposal of low-level waste in concentrations exceeding the Class C limits in our 10 CFR Part 61 regulation may also be needed. This will depend on the disposal method pursued by the Department of Energy, which is assigned disposal responsibility for this waste under the Policy Amendments Act. Guidance would be provided under 10 CFR Part 60 for deep geologic disposal, or under Part 61 if near-surface disposal options are pursued.

The Policy Amendments Act requires that the NRC review and process license applications within 15 months and that technical and environmental reviews and public hearings be consolidated. It should be noted that the 15 month review period does not apply to public hearings, which may be protracted depending on the degree of controversy involved. The NRC intends to consolidate its actions under the National Environmental Policy Act and the Federal Administrative Procedures Act to the extent practicable.

To provide a remedy for potential emergencies caused by disposal site use restrictions, the amendments include emergency access provisions. Emergency access may be granted by NRC to prevent an immediate and serious threat to public health and safety, or to the common defense and security of the nation. Provisions for granting temporary access and extensions are included. The law specifies that prior to granting access, the NRC must evaluate alternative practices that could suffice in lieu of emergency access. These include storage, obtaining disposal site access by voluntary agreement, buying unused disposal

allocations or ceasing waste generation. This last alternative, added in the closing days of the legislative session, underscores the intended stringency of the emergency access test.

The NRC staff anticipates providing guidance on emergency access requests prior to January, 1987; the first date at which access could be denied for failing to meet a milestone. NRC also expects to develop internal procedures for reaching technical determinations and notifying affected parties by 1987. It is believed that the underlying policy will have to be approved at the Commission level.

NRC is assigned a minor role regarding possible State certifications to provide for the management of low-level waste after 1992. Such certifications are an alternative for States that do not submit a disposal site license application by 1990. Under the law, NRC is directed to publish these certifications in the Federal Register, and also transmit them to the Congress. The Act does not, however, require the NRC to review the adequacy of the certifications.

A final NRC responsibility under the Act concerns low-level waste that is below regulatory concern. By July, 1986, the Commission must establish standards and procedures and develop the technical capability for acting upon petitions to exempt specific wastes from NRC regulation. It is intended to meet this rapidly-approaching deadline through issuance of technical guidance. This guidance may have to be followed by formal rulemaking. This effort will take place in tandem with ongoing work on petitions that are currently in-house for review.

As mentioned earlier, the Act will also have an indirect impact on NRC programs in several areas. In light of increased disposal costs and limitations on access to the three existing sites, it is expected that an increase in licensing actions for interim storage, on-site disposal, incineration, and other forms of waste treatment or volume reduction. Licensing work for such practices may also increase should certain States fail to meet siting milestones. As a result of efforts last fall to prepare for possible closure of existing sites in 1986, NRC believes sufficient guidance is in place to allow timely licensing decisions.

Longer-term impacts will occur in the event States are not able to provide for disposal by 1993 and beyond. Under the Act, any such States would be required to take title and possession of wastes within their borders no later than 1996. Any new facilities to handle the wastes until disposal capacity became available would, of course, have to be licensed.

The following are several observations regarding establishment of new disposal sites within the timeframes expressed in the Act.

The NRC has been aware of general interest in alternative disposal methods for some time. However, the States have not yet identified the specific alternatives that they intend to pursue for licensing purposes. The NRC is sympathetic to the need for careful study in reaching decisions. However, it is critical that States and compacts press forward with host state identification and selection of potential disposal sites at the same time they are choosing a specific disposal design. The NRC staff has determined that the site suitability requirements in Part 61 will apply to any near-surface disposal method.

In effect, a good site is needed irrespective of man-made features. For this reason, States need not, and should not delay time-consuming site selection work while they continue to study alternative disposal designs.

The 1990 and 1992 milestones for submitting a "complete" disposal facility application raise another planning consideration for States and compacts. To demonstrate compliance with these milestones, NRC anticipates the States may require formal notification from the applicable regulatory agency that the application is, in fact, "complete" for license review purposes. To accomplish this, the initial application would have to be submitted some time in advance of the actual deadline. NRC hopes to add certainty to this process through publication of the Standard Format and Content Guides mentioned earlier.

There are several approaches that can expedite licensing of new disposal sites. With respect to alternative disposal methods, there are advantages to the development and use of standardized disposal approaches. Standard design features can foster safe and environmentally sound disposal by concentrating the resources of the waste management industry on particular approaches, and by stimulating standardized programs of construction practice and quality assurance. The use of standardized approaches and designs can also permit more effective and efficient licensing and inspection processes. In some instances, it may be possible to prequalify certain engineered design features or components with the NRC.

For any disposal method, including shallow land burial, the NRC staff encourages early interaction between applicants and regulatory authorities through extensive pre-licensing consultation. By fostering an early dialogue, major licensing issues can be identified and addressed in a timely manner. Potential technical problems can be discussed and means of mitigation, may be identified.

Early interaction can also help identify any "fatal flaws" at a potential site or with a particular design. This would save the applicant time and resources in the pursuit of an application which would lead to an unfavorable licensing decision. This is particularly important in light of the tight milestone schedules in the Act and the stiff penalties that will apply should milestones be missed.

It should be noted that the intent of the Policy Act is disposal; not storage. Disposal differs from storage in that there is no "intention" to retrieve the waste although retrievability may be technically possible. In the case of storage, the waste is necessarily accessible for inspection, retrieval, repackaging, and transportation to the location of ultimate disposal. The distinction between storage and disposal would have to be specified in the license application.

CONCLUSION

A final topic to be addressed is local acceptance. A great deal of time and debate has been focused on the State and federal framework for low-level waste disposal. NRC believes the States, compacts, industry, and involved federal agencies are all committed to successful implementation of the Policy Act as amended. As noted earlier, however, the critical measure of success is establishment of new disposal sites. The success of this national venture will depend in large measure on the ability of both regulators and

developers to establish credibility and trust with the communities that are to host new facilities. This task must be approached with openness and a

firm resolve to succeed, since the milestones leave little room for extended delays due to lack of community acceptance.