ISSUES TO BE RESOLVED FOR THE SUCCESSFUL IMPLEMENTATION OF THE NUCLEAR WASTE POLICY ACT OF 1982: UTILITIES' VIEWPOINT

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ABSTRACT

Electric utility companies with nuclear energy programs are fulfilling their commitments under the NWPA by paying over $400 million a year into the Nuclear Waste Fund as well as preparing for on-site storage of spent fuel until 1998. These monies are collected from the electricity consumer and payments to date total $2.7 billion. No contributions have been made by the Administration for defense waste disposal. The current impasse in Congress over DOE's recommended second repository reprogramming is giving the industry pause to consider whether or not DOE will be allowed by Congress to live up to its 1998 obligation to the utilities. The industry is asking Congress to allow DOE to proceed with characterization of the three potential first sites, to authorize and fund the MRS, and to provide equitable payments for defense waste disposal. Also, Congress and DOE must work cooperatively to find a solution to the current impasse over the second repository program.

INTRODUCTION

The Utility Nuclear Waste Management Group (UNWMG) is a special activity of the electric utility industry devoted to the disposal of radioactive waste. It is funded by over 40 electric utilities with nuclear energy programs and is administered by the Edison Electric Institute (EEI). Its main activities in high-level waste disposal consist of overseeing DOE's implementation of the NWPA, assisting where necessary and providing constructive criticism where appropriate, especially in those areas where DOE can learn from the utility experience. EEI is the association of investor-owned electric utilities. UNWMG and EEI represent the companies and people who are ultimately responsible to the electricity consumer. We have been following the development of the high-level radioactive waste program for over a decade.

The Nation requires the development of a technically sound and publicly acceptable high-level radioactive waste disposal program for the commercial use of nuclear energy. In this regard, it is the industry's overriding goal to achieve efficient, effective and fair implementation of the NWPA leading to the successful operation of a national high-level radioactive waste disposal system as close to the NWPA schedule as possible. For DOE to take the necessary steps during FY 1988, the industry is asking Congress:

- to appropriate for FY 1988, from the electric utility/ customer-funded Nuclear Waste Fund, sufficient funds and give sufficient authority to DOE to proceed with site characterization at the three potential first repository sites with no restrictions on drilling exploratory shafts,
- to authorize and fund the construction of the Monitored Retrievable Storage Facility (MRS), and
- to provide equitable payments for defense waste disposal payments into the Nuclear Waste Fund.

The industry is extremely concerned over the current state of affairs surrounding the NWPA implementation. After electric utilities with nuclear energy programs have collected from electricity consumers and paid $ 2.7 billion into the Nuclear Waste Fund, DOE is facing unprecedented opposition to the continuation of NWPA implementation. DOE is attempting to pursue the NWPA under a cloud of a crisis in confidence in its ability to continue. Some of DOE's difficulties are of its own making, but many have been manufactured by those who would seek to halt the NWPA implementation.

On January 28, 1987, DOE published a Draft Mission Plan Amendment (DMPA) that lays out a new program

strategy, which we currently have under review for comment to DOE. Unfortunately, one aspect, the second repository reprogramming, has lead to an impasse in Congress over DOE moving forward. The DMPA should be revised, prior to formal submission, to be acceptable to Congress and to provide direction for the high-level radioactive waste program so it can move forward for the benefit of the Nation. The industry stands ready to aid in this process.

Nuclear Waste Policy Act of 1982

On January 7, 1983, President Reagan signed the NWPA into law. This action culminated a multiple Congress effort assisted by many parties (utilities, the nuclear industry "environmental groups," States, Indian Tribes and the Federal Government) that sought enactment of a statute to create a national high-level radioactive waste disposal system. Years of good faith efforts by all concerned produced a delicately balanced Act. While no one party was pleased with all aspects of the NWPA, all appeared to accept the final compromise. When implemented, the NWPA would assure the long term safe handling, transportation and disposal of spent fuel and defense high-level nuclear waste.

In essence, the NWPA sets out a process for the development and operation of a high-level radioactive waste disposal system. The Secretary of Energy is authorized to site, construct and operate one repository and the related transportation system, select a site for a second repository and provide Congress a proposal for a Monitored, Retrievable Storage facility (MRS). Congress, in the NWPA, reserved for itself the decisions of whether there would be a second repository or an MRS. Through the DMPA, DOE is recommending schedule changes for activities required by the NWPA that would make the schedules more realistic and the program more manageable. It is appropriate that DOE bring these recommendations to Congress, and that they be considered dispassionately on their merits.

Obligations Under the NWPA

Electric utility companies with nuclear energy programs are fulfilling their commitments under the NWPA. As stated above, electric utilities, on behalf of the electricity consumers, have paid about $ 2.7 billion into the Nuclear Waste Fund and continue to pay at a rate of over $ 400 million per year; the Fund's current balance is about $ 1.7 billion. Although these monies are available only for expenditures pursuant to the NWPA and must be appropriated annually by Congress, the Administration uses the positive balance in the fund, each year, to reduce the overall federal deficit calculation under Gramm-Rudman-Hollings. On the other hand, the Administration has not paid any of its fair share into the Nuclear Waste Fund for disposal of defense high-level radioactive waste.

In the NWPA, Congress struck a bargain with the electric utilities. This bargain was codified in contracts signed by DOE and electric utilities that require the utilities to pay into the Nuclear Waste Fund well in advance of receiving services and DOE is required to begin receiving spent fuel in 1998. The current impasse in Congress over the second repository reprogramming is giving the industry pause to consider whether or not DOE will be allowed by Congress to live up to its obligation and what recourse might be available to utilities in the event that it is not.

In the interim period, which is beginning to look longer than understood when the NWPA was enacted, utilities will provide spent fuel storage at reactor sites. A number of utilities have developed, or are developing, on-site storage alternatives against the day that the spent fuel storage capacity originally built into the reactor plants proves to be insufficient. For example, Virginia Power has completed, licensed and is demonstrating the use of a dry cask storage installation at its Surry Station and Carolina Power and Light has a licensed dry storage concept using air cooled vaults. Others continue to expand pool storage capacity by installing higher capacity storage racks and a few are involved in developing rod consolidation technology. Electric utilities recognize that they are responsible for on-site storage of spent fuel until DOE takes responsibility in 1998. However, if any utility's spent fuel is not taken from the reactor site by DOE under the original NWPA schedule, it will have to expend additional sums to continue on-site storage. Those utilities could very well seek recovery of those expenditures from DOE due to its failure, for whatever reason, to live up to its contractual obligation.

The NWPA also requires that, once the President determines that a separate defense waste repository is not necessary, the Federal Government contribute its fair share to the Nuclear Waste Fund. Such a decision was made by the President in 1985. Since the Administration has not paid any of its share into the Nuclear Waste Fund, there is absolutely no question that commercial electricity consumers have, and are continuing, to subsidize the defense program. This is not just an irritant to the electric utilities and electricity consumers, it is plainly unjust. If the generators of commercial nuclear waste are required to fund in advance the development of the high-level radioactive waste disposal system, so does the generator of the defense waste. DOE has finally made public its proposed methodology for developing a defense waste cost share. Unfortunately, DOE is using an inadequate administrative process to propose an inadequate cost sharing formula that will lead to an inadequate contribution to the Nuclear Waste Fund at some indeterminate time. We are asking Congress to provide an adequate and equitable cost share for the disposal of defense waste.

Progress to date

Even though the only statutory schedule date that DOE has met was the execution of the contracts with electric utilities (thereby ensuring the unimpeded flow of funds), a number of very important milestones have been reached. Most importantly, the sites for characterization as the first repository were named. It is unfortunate that the impasse in Congress over the recommended second repository reprogramming is threatening the progress achieved to this point.

On May 27, 1986, DOE published five massive Environmental Assessments for the nomination of the first repository sites for characterization and recommended three to the President. On May 28, the President approved the first repository site recommendations for characterization of three sites. Approval of the three sites by the President was a major accomplishment.

Throughout the arguments over, and court reviews of, the adequacy of the Environmental Assessments and nomination decision for naming the three potential sites for characterization as the first repository, it is important to keep in mind the purpose of the Environmental Assessments. These documents were not intended to make the dispositive case for the location of the first repository. The Environmental Assessments were only intended to provide an understanding sufficient to indicate that it is worth the substantial in-

vestment to carryout the very expensive site characterization. It is only during site characterization that the needed data will be gathered to make the case for a specific site. This will lead to the Environmental Impact Statement, the Presidential recommendation of the first repository site to Congress and the subsequent licensing proceeding, where the dispositive case will have to be made that the selected site can, with reasonable assurance, meet all the regulatory requirements.

Although the designation of the three sites for characterization missed the NWPA deadline by eighteen months, the decision, nonetheless, was finally made. The presidential approval of the three sites for characterization was based on a careful process that took place over a number of years. The National Academy of Sciences reviewed and endorsed the decision-aiding methodology for recommending the final sites for characterization and agreed that additional factors would be considered, and judgements made, by policymakers in determining the final recommendation. It is not in the best interests of the Nation to revisit the first repository site designation for site characterization. DOE should be permitted to get on with characterization so more informed debate over data collected at depth can ensue.

DOE's progress has been made through the efforts of its own staff and its contractors. A new contracting proposal by DOE for a centralized system engineering contractor will aid in progressing with reasonable schedules and milestones. The industry has urged DOE to move to a more centralized management system and we are pleased to see that DOE is moving forward with this change.

First repository schedule change and the Monitored Retrievable Storage facility (MRS)

DOE proposes to slip the first repository operations date by five years to 2003 and meet the 1998 obligation to the electric utilities by use of the MRS. Although the first repository schedule slippage is disappointing, UNWMG reviews of DOE repository projects suggest that a schedule slippage was inevitable; no one predicted the extent of the effort required by the NWPA. For example, the Environmental Assessments are more detailed than a typical Environmental Impact Statement.

As indicated above, electric utilities must plan for providing sufficient on-site spent fuel storage capacity. In doing so, they must take into account the DOE schedule for operation of the high-level radioactive waste disposal system. Utilities recognize that the DOE schedule, even with the five year slip, is "success-oriented" and does not incorporate some of the uncertainties inherent in a program of this type. To minimize the potential for these uncertainties to cause further slippages in the start-up of the first repository, appropriations for FY 1988 and subsequent years from the Nuclear Waste Fund must be sufficient to permit expeditious drilling of the exploratory shafts at the three potential first repository sites.

The MRS has been a misunderstood element of the NWPA program. As an integral part of the high-level radioactive waste disposal system as described in the DMPA, the MRS will perform functions essential to the disposal of spent fuel. It will provide vitally needed flexibility in the planning, design, construction and operation of the disposal system, thereby lessening the effects of uncertainties. Furthermore, the NWPA implementation experience thus far has demonstrated that progress is, indeed, a precious commodity. The MRS is an important item that will, by its use, make progress towards the operation of the disposal system at a date earlier than would be the case with a repository-only system. Having the MRS in the disposal system would help meet the first repository start-up date by allowing a more flexible and efficient repository design and licensing process.

In the DMPA, DOE indicates that the MRS would be the vehicle to meet the 1998 obligation to the electric utilities. This would be acceptable only if the MRS is authorized, built and usable. If Congress accepts an NWPA implementation change that includes using the MRS as the means to live up to the 1998 obligation, then Congress should authorize the MRS and not restrict its use. Even though the NWPA requires DOE to submit a proposal for the MRS, one is not required for Congress to authorize the facility.

Second repository

On May 28, 1986, Secretary of Energy John Herrington announced that he concluded that a second repository would not be needed on the schedule contained in the NWPA and that substantial savings could be achieved if Congress permits the site-specific work for the second repository to be put off until the mid-1990s. The industry supports, above all else, the NWPA and recognizes that Congress called for a second repository siting effort.

In the DMPA, DOE is recommending that the second repository reprogramming announced this past May be approved by Congress. It is troubling that this one recommendation is the focal point for challenging the credibility of the overall high-level radioactive waste disposal system development. The industry is appealing to Congress and DOE to find an acceptable compromise on the second repository program between the two extremes proposed by DOE: the DMPA recommendation or a return to the pre-May 28, 1986 program. Such a compromise should lead to a real commitment for a site selection of a second repository, as required by the NWPA, but on a realistic schedule. The Administration and Congress must work cooperatively to resolve this difficult problem, because it is impeding the ability of Congress to fund the program so it can move forward.

Consultation and Cooperation

DOE and the affected States and Indian Tribes must make best efforts to reach Consultation and Cooperation (C&C) agreements in a timely manner. However, all parties must recognize that the goals of DOE and the States and Indian Tribes may simply be different and comprehensive agreements may not be possible. As long as good faith efforts are made, the lack of C&C agreements should not prevent DOE from receiving unrestricted appropriations from the Nuclear Waste Fund so that the NWPA implementation program can go forward.

Beyond the outcome of the formal C&C process, DOE must demonstrate in a realistic manner that the States and Indian Tribes have real impact on the NWPA implementation. The lessons learned during the last four years in selecting the sites for characterization for the first repository and from the MRS experience should be applied, to the extent practical, to the overall repository process.

Lastly, Congress should provide economic incentives to the States and Indian Tribes that will host high-level radioactive waste disposal system facilities. In the NWPA Congress authorized only fairly limited incentive mechanisms. Therefore, it is proper

for Congress to develop the broader incentives needed to compensate the States, Indian Tribes and communities for hosting these facilities. Furthermore, only in Congress can the potential host States directly negotiate with the other States over acceptance of nuclear waste facilities.

Conclusion

In general, while the electric utilities would prefer to see DOE on a schedule that more closely resembles the one in the NWPA, with fewer challenges in Congress and the courts, and a better approach to handling the project requirements, they support the DOE program. Electric utilities that have nuclear energy programs must have a method for permanently disposing of spent fuel. This is not only an obligation to society, it is a necessary condition to keep plants operating. While the electric utilities and the electricity consumer would bear the brunt if a National high-level radioactive waste disposal system is not developed in an effective, efficient and fair manner, the entire nation will lose out. All parties must work together to help the high-level radioactive waste disposal system become a reality. It is imperative that the concerns with NWPA implementation be addressed and resolved for the national need of high-level radioactive waste disposal to be satisfied. The lack of reasonable progress on waste disposal should not be allowed. Such progress is needed to permit nuclear energy to be a viable source of electricity for the Nation now and in the future.