

A SUMMARY OF NUCLEAR DECOMMISSIONING IN NEW HAMPSHIRE

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I. INTRODUCTION

The New Hampshire law on Nuclear Decommissioning was originally enacted in 1981 to assure that adequate resources would be available to decommission the Seabrook Nuclear Power Plant. In enacting the statute the NH Legislature indicated that it was doing so "to ensure the safety and well-being of the public and of future generations" and out of a recognition that decommissioning costs "should not have to be borne by the state.." New Hampshire Revised Statutes Annotated (RSA), Chapter 162-F, Section 1. The General Court established the procedures included in the law to "provide assurance of adequate funding by utilities for the decommissioning of those nuclear electric generating facilities which complete their anticipated energy-producing lives." Id.

The law creates a Committee with the responsibility of establishing a decommissioning fund for each nuclear generating facility in the state, and it requires the Committee to hold public hearings to receive information on funding requirements for each fund. Once the fund has been established and the total decommissioning cost estimated, the Committee orders the owners

of the facility to make scheduled payments into the fund over the life of the plant to assure that the amount is fully collected by the decommissioning date. The Public Utilities Commission then must permit the utility to charge its customers on a per-kilowatt-hour basis the amount the utility pays directly into the fund. There is a separate decommissioning charge on the customer's bill. Currently average residential customers pay about \$.23 a month as a decommissioning charge.

The Committee must meet at least once each year and it may increase or decrease the amount of funds or change the funding schedules. The fund must remain intact until the beginning of a facility's decommissioning. The Committee must review all expenditures from the fund during decommissioning. Failure to pay into the fund creates a debt owing to the state subject to action in a court of law. There are criminal penalties for anyone who violates an order of the Committee.

The Committee established under this law is composed of eight individuals or their designees: two legislators, the state treasurer, the chairman of the public utilities commission, the commissioner of the state department of safety, the commissioner of the state department of health and human services,

a representative of the lead Company designated by the owners of the facility, and a resident of the town where the facility is located. The Committee is not full time and only hires such administrative personnel as it needs. To date it has retained under contract special legal counsel and an administrative assistant, and on two occasions it has hired consultants to assist in proceedings. The Attorney General is required by statute to represent the public in Committee proceedings.

Though the statute was enacted in 1981, the Committee did not become active until 1986 when the time approached for commercial operation of Seabrook. One of the first issues that arose was with regard to the procedure to be used by the Committee to conduct the hearings required by law. The Committee made an initial determination that it could conduct the hearings as legislative hearings; that it was not necessary to conduct them as adjudicative hearings with parties, a discovery schedule and testimony that is subject to cross-examination. A group of concerned ratepayers went to the state superior court, however, seeking a writ of mandamus and other equitable relief to require the Committee to begin its work immediately and to require the Committee to adopt rules and comply with the Administrative Procedures Act, essentially arguing that the Committee had to conduct adjudicatory hearings; that it could not conduct its proceedings in a legislative manner. The court found that the Committee is subject to the state Administrative Procedures Act and ordered the Committee to adopt rules and to conduct full and open adjudicatory hearings. Cushing v. Sununu, 86-E-556 (October 27, 1986). As a result of this decision all subsequent proceedings of the Committee have been conducted as adjudicatory hearings.

The Committee has adopted rules which are

primarily procedural in nature.

As I noted above, the Committee is required by law to meet at least once each year, though this does not necessarily mean a full blown proceeding every year. In fact, the full blown proceedings of the Committee to date, of which there have now been three, often take longer than a year to complete. These three proceedings were completed in 1989, 1992, and 1995.

II. FIRST PROCEEDING OF THE COMMITTEE

The first full proceeding of the Committee began in August of 1986. Parties to this proceeding included the Company which owned the facility, New Hampshire Yankee Division of Public Service Company of New Hampshire on behalf of the joint owners of the facility, the State of New Hampshire through the Office of the Attorney General, the Staff of the Public Utilities Commission, the Campaign for Ratepayers Rights (CRR), the Office of Consumer Advocate, the Town of Henniker, and a pro se individual. As a result of the discovery required in the process and the Committee's decision to hire a consultant, Technical Analysis Corporation, to review the Company's filing, the actual hearings did not start until the spring of 1988.

There were two major issues for the Committee to decide: the amount of the fund to be established and the amount of the regular monthly payments into the fund to reach the amount established. The Committee specifically noted that it did not believe that it was required to address the issue of what the funding requirements are if decommissioning occurs before the plant completes its anticipated energy-producing life.

After seven days of hearings the Committee

decided that the required amount of the fund was \$242 million in 1987 dollars, an amount that would be increased each year thereafter by a 4% annual inflation factor. This figure assumed a prompt dismantling of the plant and included a 25% contingency to address operational problems. The Committee also indicated its approval of the Company's expert, Thomas LaGuardia's, site-specific methodology for determining decommissioning costs. The Committee further found that it was reasonable to assume that the anticipated energy-producing life of Seabrook Unit I would be 40 years, the same period as the operating license. The Committee also found it reasonable to assume that, prior to the completion of the anticipated energy-producing life of Seabrook Unit I, the state would have complied with the low level waste federal laws and would have made provision for the disposal of those wastes and that the federal government would have met its obligations to remove spent nuclear fuel from the plant. The Committee approved as reasonable, in part because of the tax consequences of doing so, the establishment of a master trust agreement involving the joint owners, administered by the state treasurer, with a trustee.

In arriving at its decision the Committee accepted most of the positions put forth by the Company, refusing to adopt the testimony from some intervenors that the Committee should assume the SAFSTOR method for decommissioning instead of the DECON method, that the cost should be \$553 million, not \$242 million, that the period of time for operation that the Committee ought to use should be 35 years instead of 40, and that a cost escalation rate of 5.2% should be used instead of 4%.

After the order was issued, the CRR appealed the Committee's decision to the NH Supreme Court claiming that the Committee's findings were

unsupported by the evidence and that their due process rights were violated because an employee of the Company was a member of the Committee. The court ruled that CRR had not met its burden of showing that the Committee's findings were unreasonable or unlawful. The Court also rejected CRR's due process claim because it was not properly raised on appeal since it was never raised during the course of the proceeding before the Committee. There was no evidence before the Court that the member of the Committee was lacking impartiality or that the statutory scheme is unconstitutional. Appeal of Campaign for Ratepayers Rights, 133 N.H. 480 (1990).

III. SECOND PROCEEDING

The second full proceeding began in 1990 after the Committee had asked the Company to update the decommissioning study, to confirm whether the \$242 million estimate was still valid. In its subsequent filing the Company stated that DECON was still the preferred method of decommissioning, that it was estimated to cost \$323 million in 1991 dollars, and that the cost for decommissioning components would escalate at the rate of 4.25% per year. As with the prior proceeding, the Office of Consumer Advocate and the CRR were intervenors in this proceeding. The Commission Staff and the Office of the Attorney General did not participate, but the Seacoast Anti-Pollution League did.

Three days of hearings were ultimately held in September of 1991. As a result of this proceeding, the Committee found that the updated amount of the fund ought to be \$323 million in 1991 dollars. The Committee also found that the anticipated energy-producing life of the plant should be through 2026, which is also the date for the expiration of the current operating license (40 years from the date the license was issued, but 36

years from the date the plant began commercial operation) and the date used by the Public Utilities Commission to calculate depreciation costs of the plant. The Committee rejected the date the Company argued for, 2031, which assumed a five year extension on the NRC license. The Committee also found that the escalation factor ought to be 4.25 %, that DECON ought to still be assumed to be the method of dismantling, and that a reduction from a 25 to a 21% contingency factor was appropriate based on the line item contingency analysis done by Mr. LaGuardia.

The funding schedule proposed by the Company, which included contributions being spread equitably over the operating life, was, in the Committee's view, fairer to all generations than the front-end loading of the fund suggested by some intervenors. The new amount for decommissioning included an assumption of \$139 per cubic foot in 1991 dollars for low level waste disposal costs, compared to \$40 per cubic foot in 1987 dollars, though the volume estimate was reduced from 25,700 to 9,800. Of that \$81 million increase in nominal dollars over the 1987 estimate, \$26 million was attributable to inflation, \$33 million to on-site spent fuel storage costs, and \$22 million to increases in low level waste disposal cost.

In arriving at this decision the Committee rejected arguments that it ought to assume a shorter life for Seabrook; there was testimony that the Committee ought to adopt a 30-year assumption based on a computer model that factored in the lives of other nuclear facilities. There was, however, no appeal of this order of the Committee.

IV. THIRD PROCEEDING

The most recent full proceeding began in 1993 and concluded in 1995. As in the first proceeding, the Committee hired a consultant in this case, ABZ, Inc., to review and critique the filing of the Company and to offer testimony at the hearings. There were five days of hearings in November of 1994, and in addition to the Company the participants included the Office of the Attorney General for the State of NH, the Consumer Advocate, the Staff of the Commission, and the Seacoast Anti-Pollution League. The Company owning the facility had changed since the last proceeding to North Atlantic Energy Service Corporation, the successor Company to New Hampshire Yankee Division of Public Service Company. The issues, agreed upon by the parties to the case, included the anticipated energy-producing life of Seabrook, whether there was adequate assurance of collectibility of the fund from each of the joint owners, whether the fund should be front-end loaded either in terms of nominal annual contributions or even greater than levelized nominal contributions in the early years, the likeliest decommissioning scenario (prompt dismantlement, SAFSTOR, or entombment), the appropriate escalation rate for the Company's study and whether the updated present value estimate was adequate.

As a result of the hearings the Committee decided to continue using the 36-year estimate for the life of the plant. It also found that the law does contain adequate assurance of collectibility from the joint owners. The Committee found it appropriate to continue to rely on the escalating method of funding rather than a levelized or greater than levelized method proposed by some of the parties because of tax penalties created by a greater than levelized funding and because the escalating method provides greater intergenerational equity. The Committee stuck with the prompt dismantlement as the likeliest

decommissioning scenario and stuck with the escalation factor of 4.25% used in the prior proceeding. The Committee found, however, that the Company's original estimate of \$360 million in January 1994 dollars was inadequate and instead found that the evidence supported a new estimate of \$414 million in January 1995 dollars which the Company had offered in rebuttal testimony near the end of the proceeding. The change between these two estimates was driven by increased estimates for low level waste and includes an additional \$100 per cubic foot for low level waste over the Company's original estimate in this proceeding. The Committee accepted the Company's proposed contingency factor of 17.14%. The Committee, at the urging of some of the parties, required that the parties develop a recommended schedule for a more indepth analysis and recommendations to the Committee with regard to an appropriate escalation factor and an appropriate contingency factor and that the parties try to agree on the contents of future updates to the study. This order was not appealed.

V. CURRENT STATUS AND LESSONS TO BE LEARNED

Since the last proceeding, at the request of the parties, the Committee has adopted a schedule that calls for annual updates and a comprehensive study every four years, with the next year for such a study being 1998. The Committee will consider hiring a consultant to review escalation and contingency factors after the next annual update is filed by the Company.

I have also been asked to address what lessons might be learned from this experience. I personally have been through all three proceedings of the Committee. I started in 1986 as the designee of the Commissioner of Safety and knowing little about the utility or nuclear field, and participated in

the first two full proceedings in that capacity. When I became the Chairman of the Public Utilities Commission in 1992, I became a member of the Committee in a different capacity and for the last full proceeding of the Committee I served as the Committee's Chairman. I mention this because I think it is useful to note that in states like New Hampshire that have people, other than public utility commissioners, making decisions on these kinds of issues, the task of convincing those decision makers is a different one. You have to know who your audience is, you have to tailor your message to that audience, and in NH's case the audience/decision makers are often people with little or no experience in this field. I believe all participants in these proceedings should keep this in mind when presenting their testimony.

Another lesson to be learned is that because there is still much uncertainty about waste disposal costs which many people seemed to think would have been resolved by now or would be closer to being resolved, the decision makers are not so likely to adopt or stick with the proposals put forward by companies unless there is a sufficient contingency built in to address this situation. The more uncertainty there is, the higher the contingency factor that may be necessary. Contingency factors will therefore continue to be important issues in these kinds of proceedings.

One other key issue will likely involve the dismantlement of nuclear plants for economic reasons and whether to account for this possibility in the estimates of decommissioning costs. Given efforts to restructure the electric industry that are being considered, and in some cases actively pursued, there is much greater uncertainty over the economic viability of nuclear plants in a competitive environment and this is bound to become more of a factor in the consideration of nuclear decommissioning estimates. In addition, opening

up the supply of electricity to the free market raises questions about the method for and ability to recover decommissioning expenses in a free market environment.

Finally, I would like to close on this note. Though we all develop thicker skins for having gone through this kind of process, if we take our role as decision makers or participants seriously, we want to make sure we are doing the best we can to assure the public that decommissioning can be handled safely and economically. A commenter at a recent public hearing told the Committee to be "watch dogs", not "lap dogs." I mention this because I think those of you in the industry need to know that decision makers need to maintain their independence and their objectivity on these issues in order to assure the public that they are doing a thorough job of analyzing proposals put forth by the industry. In fact, in many states the decision makers play a quasi-judicial role and are subject to ex parte provisions which limit their contact with any of the participants outside of the hearing room. See RSA 541-A:36. People are very suspicious and decision makers need to avoid giving them any reason to support that suspicion. The more conscious of this and sensitive to it the industry is, the greater the likelihood of producing a result that will withstand public scrutiny.

Although there are many diverse groups which take an interest in decommissioning, I still believe that there are opportunities to develop a consensus solution to the issues we face and I would urge those of you involved in these kinds of processes to use your best efforts to achieve consensus.

Thank you for the opportunity to present a summary of decommissioning in New Hampshire.