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FIRST REGULAR AND FIRST SPECIAL SESSIONS

Final Report
of the

JOINT SELECT COMMITTEE
TO OVERSEE
MAINE YANKEE ATOMIC POWER COMPANY

January 1998

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EXECUTIVE SUMMARY

In May of 1997 the Maine Yankee Atomic Power Company announced that unless a buyer could be found for the Maine Yankee power plant in Wiscasset, the plant would be permanently closed. At the time Maine Yankee was in the midst of discussions with a potential purchaser, PECO Energy Company of Philadelphia. In response to this situation and uncertainty as to what the ultimate status of the plant (Maine's single largest producer of electric energy) would be, the Maine Legislature established by Joint Order the Joint Select Committee to Oversee Maine Yankee Atomic Power Company.

In early August Maine Yankee announced that no agreement for a sale could be reached and the decision was made to permanently close the plant. On August 27, the Joint Select Committee held its first meeting and began its examination of the issues surrounding closure of Maine's only commercial nuclear power reactor.

The Joint Select Committee held four work meetings over the course of four months. Members considered and discussed the range of issues related to the closure of the plant and heard from a variety of entities involved with those issues (see Appendix C for summaries of the committee's meetings). On December 11 the Committee held a public hearing in Wiscasset on the decommissioning of Maine Yankee. The Committee received both oral and written comments. Oral comments are summarized in Appendix E. Written comments may be found in Appendix F. On January 22, 1998, the Committee met a final time to review and vote on this report.

This report summarizes the history and current status of the Maine Yankee Atomic Power plant, provides an overview of the principal issues raised by the closure of the plant, provides the findings and recommendation of the Joint Select Committee and includes a directory of the major agencies and groups that are involved in issues related to the closure of the plant.

The Joint Select Committee finds that the expected failure of the federal Department of Energy (DOE) to meet its obligations pursuant to federal law and DOE contract to take possession of Maine Yankee's spent fuel (high-level radioactive waste) by January 31, 1998 would constitute gross nonfeasance. Ratepayers in Maine and across the country have been obligated for decades to make payments ostensibly to fund the DOE high-level waste program. DOE's failure to meet its obligations results in ratepayers not getting what they paid for and forces them to pay additional millions to fund for an indefinite period on-site storage. Maine Yankee currently estimates the cost associated with on-site storage of this waste to be about $128,000,000.

Ultimate resolution of the high-level radioactive waste problem requires action by the federal government. Members support the efforts of agencies of this State and of Maine Yankee to force the DOE to meet its obligations and to encourage Congress to develop interim measures to address the vacuum created by DOE's nonfeasance. The committee recommends these efforts continue and that the State, through appropriate agencies, exploit legal opportunities to ensure proper accounting and use of the rate payer funds collected to fund the DOE's high-level

radioactive waste program and to encourage federal funding for all interim measures required as a result of DOE's nonfeasance.

The committee finds there are many state agencies involved in monitoring, regulating and overseeing matters related to Maine Yankee. The committee recommends that the State's activities should be appropriate for the present condition of the plant and that they should be well coordinated. The committee recommends that Legislative review of matters related to Maine Yankee should also be coordinated and that the Joint Standing Committee on Utilities and Energy serve as the committee of jurisdiction with respect to these matters.

As Maine Yankee decommissions, issues will continue to evolve and new issues will doubtless arise. As a result, the committee recommends that the Legislature's Joint Standing Committee on Utilities and Energy be directed to carry on the functions of this committee to monitor and oversee developments at the plant. The committee also recommends that the Joint Standing Committee on Utilities and Energy be directed to review all legislation related to Maine Yankee during the Second Regular Session of the 118th Legislature. Attached as Appendix C is a draft joint order that would implement this recommendation.

I. Maine Yankee: Background and Shutdown

A. The Plant

Maine Yankee Atomic Power Plant is a pressurized water nuclear reactor located in Wiscasset, Maine with a licensed thermal power rating of 2700 MWt and a net maximum capacity of 860 MW.[1] It is owned and operated by the Maine Yankee Atomic Power Company which is owned by the 8 utilities in the following shares (italics indicates Maine a utility).

Utility	Ownership share
Central Maine Power Company	38 %
New England Power Company	20 %
Northeast Utilities	20 %
Bangor Hydro-Electric Company	7 %
Maine Public Service Company	5 %
Cambridge Electric Light Company	4 %
Montaup Electric Company	4 %
Central Vermont Public Service Corporation	2 %

Forty entities have entitlements to Maine Yankee Power, including 5 Maine utilities.[2]

Maine Utility	Entitlement (% of MY total capacity)	% of Utility's Energy Mix (1996)
Central Maine Power	37.5%	20%
Bangor Hydro-Electric	6.9%	22%
Maine Public Service	4.9%	38%
Eastern ME Electric Coop.	.3%	16%
Houlton Water Co.	.4%	19.5%

Prior to shutdown, there were about 500 full-time employees at Maine Yankee Atomic Power Company. The plant has produced about 119 billion kilowatt hours of electricity since operations began in 1972 and supplied approximately 1/4 of Maine's electricity during that period.[3] In 1996 Maine Yankee accounted for about 19% of the total energy production in the state.[4]

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[1] U.S. NRC Information Digest, 1997 Edition, NUREC-1350, Vol. 9, Appendix B, p. 92. Since January 3, 1996, the plant has been subject to an NRC Confirmatory Order limiting the operational thermal power to its original licensed rating of 2440 MWt (90% of the current licensed rating).

[2] In 1972, the ten original owners of Maine Yankee resold an aggregate of 6.2847% of capacity and energy from the plant to thirty municipal entities and rural electric cooperatives (including Eastern Maine Electric Cooperative and Houlton Water Company, as shown in the table) under contracts that will expire in 2002.

[3] August 1, 1997 Press Release, Efforts to Sell Maine Yankee Fail, Board to Vote Next Week on Permanent Shutdown.

[4] Briefing to Utilities and Energy Committee by David Flanagan, February 14, 1997.

Maine Yankee Atomic Power Company was formed in 1966; construction of the Maine Yankee reactor was begun the following year. The plant was completed in 1972; on July 19, 1972 the Atomic Energy Commission issued an interim operating license.[5] Commercial operation began on December 28, 1972 and a full power license issued on July 29, 1973. The plant's license to operate expires October 21, 2008.[6]

The first referendum to close Maine Yankee was held in 1980 and was defeated. A second referendum was defeated in 1982 and a third defeated in 1987. While an occasional safety problem surfaced during the first 20 years of its life (including valve problems in 1984 that resulted in NRC fines), the plant maintained an image of safe and efficient operations, ran at an average capacity factor of about 72% and generated electricity at a cost (adjusted for inflation) ranging from 2.12¢/kwh to 4.78¢/kwh.[7] To put cost figures in some context, in 1996 the plant produced electricity at about 3.7¢/kwh; the average wholesale cost of all power purchased that year by CMP, including above-market-priced QF contracts, was roughly 5¢/kwh;[8] the total cost of non-QF power purchased by CMP and BHE (including short-term purchases) was roughly 2.7¢/kwh.[9]

B. The Road to Shutdown

In 1990 the company discovered that the steam generator tubes had developed cracks; the full extent of the cracking was established in 1995. A repair (laser-welded sleeving) costing about $27,000,000 was completed by December, 1995.

On December 4, 1995, an anonymous letter alleged the company had knowingly performed inadequate analysis of the plant's emergency core cooling system (ECCS) in support of previous license amendments (1978 and 1989) that had increased by approximately 10% the rated thermal power at which the plant was permitted to operate.[10] The plant restarted in January 1996, but the federal Nuclear Regulatory Commission (NRC) limited operations to the originally licensed (1972) power rating.[11] In May 1996 the NRC's Office of Inspector General established that Maine Yankee had experienced

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[5] The Atomic Energy Commission was abolished by the Energy Reorganization Act of 1974. The Act transferred regulatory responsibility for ensuring safe civilian use of nuclear materials to a new entity created by the Act, the Nuclear Regulatory Commission (NRC).

[6] U.S. NRC Information Digest, 1997 Edition, NUREC-1350, Vol. 9, Appendix B, p. 92.

[7] Capacity factor is the ratio of electricity generated to the amount that could have been generated at uninterrupted full-power operation during a given period. Power cost is adjusted using the Producer Price Index for New England commercial power and natural gas utilities, annual average, base December 1990.

[8] Central Maine Power calculation provided November 5, 1997.

[9] PUC calculation derived from CMP and BHE 1996 FERC Form 1.

[10] The plant was licensed in 1972 at a power level of 2440 MWt. Maine Yankee received a license amendment in 1978 that increased the licensed power level to 2630 MWt and again in 1989 that further increased the licensed power level to 2700 MWt.

[11] "Confirmatory Order Suspending Authority for and Limiting Power Operation and Containment Pressure (Effective Immediately) and Demand for Information," NRC Docket 50-309, January 3, 1996

problems with the computer program used in the ECCS analysis.[12] In September 1997, the U. S. Attorney concluded an investigation of whether criminal activity had occurred; the investigation showed "a lack of sufficient evidence to prove beyond a reasonable doubt that criminal violations of federal law by individuals or corporations had occurred."[13] On December 19, 1997, the NRC's Office of Investigations notified Maine Yankee that it had found 13 "apparent violations" of NRC regulations, including apparent violations related to the company's analysis of the ECCS (which the NRC attributed to "careless disregard" by Maine Yankee).[14] Maine Yankee has responded to the NRC's predecisional finding by requesting a predecisional enforcement conference.[15] The NRC may impose civil fines.

Concern raised by problems at the plant caused the NRC to initiate an Independent Safety Assessment (ISA) of the plant. The ISA Team (ISAT), in a report issued October, 1996, identified "a number of deficiencies" in the plant's licensing-basis, operations, testing procedures, engineering and problem analysis procedures.[16] The company initiated a response plan to address the problems and to correct what the ISAT identified as the root causes of the deficiencies: "(1) economic pressure to be a low-cost energy producer has limited available resources to address corrective actions and some plant improvement upgrades and (2) there is a lack of a questioning culture which has resulted in a failure to identify or promptly correct significant problems in areas perceived by management to be of low safety significance."[17]

On February 11, 1997, the NRC issued an Integrated Inspection Report in which 16 apparent violations, the majority of which are related to the ISAT review, were identified for "escalated enforcement action."[18] Final enforcement decisions on these matters have yet to be made.

The plant was briefly shut down in February 1996 to allow repair of a faulty valve. In August of 1996, it was discovered that a cable to a pump was severed. The plant reopened at the end of August but shut down again on December 6 (and has not reopened since) after cable separation problems were discovered. On December 20th, Maine Yankee President Charles Frizzle submitted his resignation to the company's board. In January of 1997, the company contracted with Entergy Nuclear, Inc. of New Orleans to manage the plant to improve its performance.

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[12] "Event Inquiry -- Maine Yankee Power Station (Case No. 96-04S)," NRC Office of Inspector General, May 8, 1996, pp. 9-10.

[13] U.S. Department of Justice Press Release "U.S. Attorney Decline Prosecution in Maine Yankee Case," September 24, 1997

[14] See NRC letter (w/attachments) to Mr. Michael Sellman, President, MYAPC, subject "Apparent Violations Stemming from Office of Investigations Report Nos. 1-95-050, 1-96-025, and 1-96-043," December 19, 1997.

[15] See letter from Michael J. Meisner, V.P. Nuclear Safety & Regulatory Affairs to NRC, MN-98-06, MJM-98-03, January 23, 1998

[16] USNRC Independent Safety Assessment of Maine Yankee Atomic Power Company, pp. v-vii.

[17] Id. at vii.

[18] NRC Integrated Inspection Report 50-309/96-16, February 11, 1997.

On January 29, 1997, the NRC placed Maine Yankee on its "watch list" indicating the NRC believed the plant suffered weaknesses significant enough to require increased regulatory attention. In April Maine Yankee reported that it would be replacing a majority of the plant's fire-barrier seals as they were not in compliance with NRC specifications.

In May, the board of Maine Yankee voted to reduce spending at the plant and announced that unless a buyer could be found, the plant would be decommissioned. David Flanagan, chair of the Maine Yankee Atomic Power Company board, stated that "an economic analysis of operations, rising expenses for plant upgrades and the projections for stable power costs fueled the decision by Maine Yankee's eight owners to explore permanent shutdown."[19]

PECO Energy Company of Philadelphia showed interest in the plant and negotiations for the sale occurred over the course of several months, but on August 1 it was announced that no agreement could be reached. The Maine Yankee Atomic Power Company board voted August 6, 1997 to decommission the plant. The next day Maine Yankee submitted to the NRC a certification of permanently ceasing power generation operations and a certification of permanent removal of fuel from the reactor.

[19] May 27, 1997 Press Release, "Owners Cut Spending, Weigh Closure of Maine Yankee."

II. Principal Issues

A. Decommissioning

The decommissioning of Maine Yankee involves dismantling and removing the plant and removing radioactive contamination from the area, including soils and groundwater, to those levels at which the site can be released for unrestricted use.[20] Pursuant to NRC rules, Maine Yankee submitted to the NRC in August of 1997 a Post-Shutdown Decommissioning Activities Report (PSDAR) in which a process and timetable for decommissioning is laid out in broad terms.[21] A site characterization study designed to identify radiological and hazardous materials contamination in the plant and the grounds is expected to be completed in March of 1998. Maine Yankee has contracted with GTS Duratek to undertake the site characterization study. Major decommissioning is expected to begin late-summer or early-fall 1998. A detailed decommissioning cost estimate is scheduled to be produced by August of 1999, a license termination plan in April of 2003 and a final site survey in October of 2004. License termination, which marks the end of NRC regulation of Maine Yankee as a power reactor, is expected in 2005; the NRC will continue to regulate spent fuel storage at the plant until all the fuel is removed from the site.

The cost of decommissioning is not yet known with precision. The most recent estimate approved for recovery by the Federal Energy Regulatory Commission, which regulates Maine Yankee's power rates, is about $377,000,000 in 1997 dollars, assuming a 2008 closure date. Maine Yankee has so-far set aside $195,000,000; the expectation was that the nearly $200,000,000 difference would be collected between now and 2008. Maine Yankee has revised its own estimates of decommissioning and now projects the cost to be about $380,000,000. In addition, Maine Yankee projects a cost of approximately $128,000,000 to handle and store spent nuclear fuel. As mentioned below, this is a cost created by the fact that DOE will almost certainly fail to comply with federal law and contracts entered pursuant to federal law which require the DOE to take possession of this waste by January 31, 1998.

On November 5, Maine Yankee filed with the Federal Energy Regulatory Commission(FERC) a request for an increase in its collections in order to cover the increase in its decommissioning cost estimate and the cost of storing the spent fuel. Maine Yankee has proposed that this increase take effect on January 15, 1998; the increase will be subject to possible disallowance by the FERC and retroactive refund. It is expected the FERC will rule on the substance of the request in 1998 or 1999.

In electric industry restructuring legislation passed in 1997 appears the following language: As required by federal law, rule or order, the commission shall include in the rates of a transmission and distribution utility decommissioning expenses associated with a nuclear unit. (35-A MRSA §3209(4), effective September 19, 1997.) Under this

[20] USNRC "Strategic Assessment Issue; 24. Decommissioning - Power Reactors" (released September 16, 1996).
[21] 10 CFR §50.

provision, Maine retail utilities will be entitled to pass on to ratepayers the portions of decommissioning costs for which they are responsible pursuant to their entitlements, to the extent federal law requires such a pass-through.[22]

Maine Yankee has filed a rate case at the Federal Energy Regulatory Commission (FERC); the FERC will determine the amount of costs, including decommissioning costs, that may be passed on to those utilities with entitlements to power from the plant. Collected decommissioning funds must be placed in a decommissioning trust fund; no more than 23% of decommissioning funds may be spent by Maine Yankee until the company submits to the NRC a detailed decommissioning cost estimate; Maine Yankee must submit its estimate by August 1999.

The following state agencies are or will be examining issues related to decommissioning.

State Agency	Authority	Jurisdiction
Public Utilities Commission	Regulatory	Rates
Public Advocate	Advocacy	Rates/Compact
Radiation Control Agency	Monitoring/ Regulatory	Radiation
Nuclear Safety Advisor	Advisory	Safety
Office of Nuclear Safety	Oversight/ Monitoring	Radiation/Safety/ Radioactive waste
Adv. Comm. on Rad. Waste	Advisory	Radioactive waste

B. Low-level radioactive waste

There are two types of nuclear waste that will be handled and will need to be sealed from the environment: high-level radioactive waste (HLRW) which is essentially the fuel rods and low-level radioactive waste (LLRW) which is essentially everything else contaminated with radiation.

LLRW is currently shipped to the Barnwell facility in South Carolina under an agreement with the facility; the ability to send waste to that facility is at the pleasure of the State of South Carolina. Maine is also signatory to a Compact with Texas and Vermont under which Texas would take Maine's LLRW for disposal in a facility proposed to be built in Hudspeth County, Texas. The compact has been approved in the three states but must be ratified by Congress before it can take full effect; it has not yet been ratified.

Recently the operator of the Barnwell facility, Chem-Nuclear, has suggested that the facility will close unless a new approach to collecting disposal fees is adopted. It has proposed to sell access to space in time increments of 20 years. This would require an

[22] It appears that the Federal Power Act does require such as pass through; see *Maine Yankee Atomic Power Co. v. Maine Public Utilities Commission*, 581 A.2d 799 (Me. 1990), cert. den'd 501 U.S. 1230.

up-front payment by the waste generator (e.g. Maine Yankee) but would ostensibly guarantee 20 years of access to an allotted space in the facility. Whether this proposal will be approved by the South Carolina Legislature is uncertain and how much of a real guarantee it will provide is unclear. It may provide more certainty than is presently provided. Given that the Texas facility will not be built and accepting waste for several years at least, access to Barnwell remains an important factor in achieving timely decommissioning of Maine Yankee.

To the extent that Maine Yankee disposes of its LLRW at Barnwell it will not need capacity it purchases under the Texas Compact. If the compact is approved, Maine Yankee has indicated an interest in exploring options which would mitigate any duplicative costs.[23]

The following state agencies are or will be examining issues related to LLRW.

State Agency	Authority	Jurisdiction
Public Utilities Commission	Regulatory	Rates
Public Advocate	Advisory	Compact
Radiation Control Agency	Monitoring/ Regulatory	Radiation
Nuclear Safety Advisor	Advisory	Safety
Office of Nuclear Safety	Oversight/ Monitoring	Radiation /Safety Radioactive waste
Adv. Comm. on Rad. Waste	Advisory	Radioactive waste

C. High-level Radioactive Waste

Disposal of high-level radioactive waste is the legal responsibility of the federal Department of Energy (DOE). Pursuant to federal law and contracts entered into with generators of spent nuclear fuel in accordance with that federal law, the DOE is required to begin taking possession of (and permanently disposing) spent nuclear fuel by January 31, 1998.[24] It does not appear the DOE will be able to meet this requirement.[25] The DOE is presently evaluating the feasibility of construction of a mined geologic repository at Yucca Mountain, Nevada. It is uncertain when or if a facility at this site will be built. Until the DOE or Maine Yankee makes other arrangements, it is expected spent nuclear

[23] The Governors of the Compact states (Maine, Texas and Vermont) have signed a letter of agreement clarifying their intent for implementing the Compact. The letter discusses issues related to mitigation of potential duplicative costs. The letter is attached as Appendix I.

[24] 42 USC §10222(a)(5)(B). See Standard Contract, 10 CFR §961.11, Art. II (1996).

[25] Several states, including Maine, a number of electric utilities and the NARUC filed suit in federal court seeking mandamus to order DOE to meet its responsibilities and to authorize signatories to the DOE's Standard Contract to set aside Nuclear Waste Fund fees in escrow until DOE does take possession of the waste. A decision was rendered in November 1997; the court did not issue the requested mandamus but did rule that the DOE may not excuse its failure to take the waste as "unavoidable" and thus that the states and utilities may seek remedy under the Standard Contract.

fuel will need to be stored on the Maine Yankee site, probably in dry cask storage, for an indefinite period.[26] Presently spent fuel is stored in an on-site water pool.

Under federal law, funding for the siting, construction, and long-term operation of a federal HLRW repository comes from a levy, in place since 1983, of .1 cent/kwh on energy generated at each nuclear plant in the U. S.[27] Pursuant to Maine law, Maine Yankee has a separate trust fund to make payments to the DOE for disposal of HLRW generated prior to 1983.[28]

HLRW disposal funds	Maine Yankee total liability (rounded)	Remaining liability
State trust (pre 4/7/1983)	$124,00,000	$8,000,000
DOE (post 4/7/1983)	$67,000,000	Paid

The following state agencies are or will be examining issues related to HLRW.

State Agency	Authority	Jurisdiction
Public Utilities Commission	Regulatory	Rates
Public Advocate	Advocacy	Rates
Radiation Control Agency	Monitoring	Radiation
Nuclear Safety Advisor	Advisory	Safety
Office of Nuclear Safety	Oversight/ Monitoring	Radiation/Safety/ Radioactive Waste
Attorney General	Enforcement	Legal issues
Adv. Comm. on Rad. Waste	Advisory	Radioactive waste

D. Other Costs, Liabilities and Responsibilities

Other than decommissioning liabilities, Maine Yankee has incurred costs which have not yet been recovered, including costs associated with borrowing, equity and fuel. The Federal Energy Regulatory Commission (FERC) will determine how much of these costs will be recoverable from utilities with entitlements to Maine Yankee's power. Costs that are not approved become the responsibility of Maine Yankee, a single asset company with no other source of funds. Before costs approved by the FERC are passed on by retail electric utilities (with entitlements to Maine Yankee power) to Maine ratepayers (beyond the limited amount that may be permitted under existing alternative rate plans), the Maine PUC must review and approve any rate adjustment by those retail utilities. There are legal limitations on the PUC's ability directly to re-examine what the FERC has

[26] Efforts have been made by utilities to develop a temporary storage site in Utah and there are bills in Congress (HR 1270 and S 104) that would establish a temporary storage site in Nevada. It is not clear when or if any temporary storage facility will become available.
[27] 42 USC §10222(a)(1)(2).
[28] 35-A MRSA Ch. 43, sub-ch. V.

approved.[29] The PUC does have authority to intervene in the FERC proceedings; the PUC and the Public Advocate have both intervened in the rate case Maine Yankee has filed with FERC. The PUC may also have authority to review rate elements not directly reviewed by FERC but which nevertheless relate to the Maine Yankee situation.[30] Bangor-Hydro Electric and Maine Public Service have already filed with the PUC requests for rate increases involving costs associated with Maine Yankee. Central Maine Power Company may file with the commission in the future.

The PUC contracted with an independent auditor to conduct a general audit of Maine Yankee's management and operations since 1994. The auditor's report was issued on August 29 and found $95.9 million of what it describes as "unreasonable costs."[31] The PUC opened an investigation of Maine Yankee to determine the prudence of the shutdown; the investigation has been stayed during the pendency of the FERC proceeding, though the PUC has continued a further management audit of Maine Yankee.[32] How the results of its investigation may be used and to what extent the PUC has authority to disallow recovery of some of the costs to Maine utilities of purchasing replacement power (if the PUC identifies any imprudence by Maine Yankee) is not clear and may be litigated. Maine Yankee, Central Maine Power, Bangor-Hydro Electric and Maine Public Service have appealed the PUC decision to investigate the issues; in consequence of the PUC stay of its investigation, the appeal has been stayed until December 31, 1998 or 30 days after the conclusion of the FERC case, whichever comes first.

Maine Yankee may continue to be at risk for potential unexpected liabilities associated with decommissioning and on-site storage of HLRW.

The following state agencies are or will be examining these cost and liability issues.

State Agency	Authority	Jurisdiction
Public Utilities Commission	Regulatory	Rates
Public Advocate	Advocacy	Rates

E. Emergency Planning

In November 1997 Maine Yankee submitted to the NRC a Defueled Emergency Plan in which it presented its analysis of the risks associated with the defueled condition and requested approval to discontinue certain aspects of its emergency plan. According to Maine Yankee's assessment, the closure of the plant significantly reduces the radiological

[29] The so-called "filed rate doctrine" or "Narragansett doctrine" establishes an ascendancy for FERC-approved wholesale rate determinations in the context of state PUC retail rate-setting.
[30] The extent of any PUC residual authority under federal law is not entirely clear.
[31] This audit was initiated in the context of a Bangor-Hydro's rate increase request; how the PUC may use the results is not yet determined.
[32] MPUC docket # 97-781. See December 2, 1997 order staying the investigation.

risks associated with potential accidents at the plant. The risks now relate mainly to the handling of HLRW and LLRW (e.g., dropping fuel rods) and transportation of these wastes (e.g., a road accident). These sorts of accidents, were they to occur, could pose localized radiological risks to workers and others. According to Maine Yankee's assessment, the sort of regional risks associated with an accident in an active plant (e.g., a melt down) are no longer present since the fuel has been permanently removed from the reactor.

If NRC grants Maine Yankee's request for a modification of its emergency plan, the Department of Defense, Veterans and Emergency Management expects to commence "collapsing" its off-site emergency response capabilities (probably in the Spring of 1998).[33] The department is also working to strengthen its emergency response capacity with respect to potential accidents in the transportation of nuclear materials.

The Department of Human Services expects to reposition its monitoring equipment around the plant in light of the changed nature of the activities and risks.

The following state agencies are or will be examining issues related to emergency planning.

State Agency	Authority	Jurisdiction
Dept. of Defense (MEMA)	Planning	Emergency plan
Radiation Control Agency	Advisory	Radiation
Nuclear Safety Advisor	Advisory	Safety
Office of Nuclear Safety	Oversight/ Monitoring	Radiation/Safety/ Radioactive waste
Adv. Comm. on Rad. Waste	Advisory	Radioactive waste

F. Employees

Prior to shutdown, Maine Yankee employed 476 persons in full-time positions and about 200 others as permanent contractors. The majority of employees live in Maine in towns scattered over the south and mid-coast region from Saco to Thomaston, Norridgewock to Auburn with the greatest concentration in the local mid-coast region from Wiscasset to Brunswick. Salaries ranged from $17,000 to $143,000 with an average of $54,000. The total payroll was approximately $30,000,000. The total work force is presently reduced to 317. By February 1999, the work force is expected to be reduced to about 200 employees; as decommissioning proceeds, further reductions will occur. There will be a temporary influx of contract employees during the early stages of decommissioning.

[33] See letter from John W. Libby, Chairman, Radiological Emergency Preparedness Chairman to Committee on Utilities and Energy, August 22, 1997, Ltr #77-97-1. Also see summary of October 8 meeting, comments of Wayne Mallock (Appendix D) and summary of public hearing, comments of General Earl Adams (Appendix E).

A severance and early retirement package is provided by Maine Yankee. The Department of Labor has formed a Rapid Employment Training Initiative Team (with Coastal Enterprises, Inc., Drake Milardo Inglesi, Coastal Economic Development and the Small Business Development Center) which is actively assisting employees make the transition to new employment.

The following state agencies are or will be examining employee issues.

State Agency	Authority	Jurisdiction
Department of Labor	Service	Transition
State Planning Office	Planning	Economic effects

G. Economic Effects on Region

The closure of Maine Yankee affects the economic landscape of Wiscasset, the Lincoln County/Sagadahoc County region and the State.

Maine Yankee has been Wiscasset's primary source of tax revenue for 25 years. Closure results in a significant reduction in the value of the plant; tax revenues collected by the town will necessarily drop significantly. Maine Yankee's 1996 municipal valuation was about $345,000,000.[34] Wiscasset's current mill rate is 37/1000 which resulted in property taxes paid by Maine Yankee to the town in 1996 of about $12,800,000. The total valuation, for assessment purposes, of all property other than Maine Yankee within the town was $33,000,000.[35] The total property tax collected in Wiscasset in 1996 was about $13,800,000. The current Wiscasset budget is just over $13,000,000. Wiscasset is presently without debt and has a reserve of approximately $13,000,000.

Wiscasset's loss of its major tax resource will affect its own school funding which in turn will affect area towns that tuition students to the Wiscasset schools. Alna (which has no schools of its own), Westport (which has no schools of its own), Dresden (which has no 7-12 school of its own), Edgecomb, Woolwich and Whitefield all have tuition students in the Wiscasset schools. Until recently, Wiscasset charged 50% of the state allowable tuition; it now charges 75%. Wiscasset plans, over the next three years, to increase tuition to 100% of the state allowable tuition. Wiscasset has a problem of overcrowding in its schools and has given notice to some towns that it will not be accepting tuition students after 1999.

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[34] This valuation was approximately 107% of the most recent Certified State Valuation which is about $321,000,000. The 1997 Certified State Valuation is the most recent; it provides a valuation as of April 1995.

[35] This is about 17% of the most recent Certified State Valuation (1997) which is about $189,000,000. State law requires that municipal assessment ratios must be at least 70% but not greater than 110% of just value. The combination of over-valuation of Maine Yankee and under-valuation of other property (relative to the State Valuation and surveyed sales) has resulted in a State certified ratio of 70%, which meets the statutory test. *NOTE: Committee members Senator Kilkelly and Representative Rines object to the suggestion that Wiscasset's valuation of Maine Yankee was an "over-valuation."*

The loss of a major mid-coast industry will have effects on businesses who provide goods or services to the plant or to its employees. Reuse of the site by a new business or industry may alleviate direct and indirect economic effects. Other sorts of economic development in the region may help mitigate impacts. Currently there is a lack of local and regional economic development and planning infrastructure in Lincoln county and the town of Wiscasset.

The following state agencies are or will be examining economic issues.

State Agency	Authority	Jurisdiction
State Tax Assessor	Valuation	Property taxes
DECD	Service	Development
Department of Education	Administration	School funding
State Planning Office	Planning	Economy

III. Findings And Recommendations

A. Findings

We find that the expected failure of the federal Department of Energy (DOE) to meet its obligations under federal law and DOE contract to take possession of Maine Yankee's spent fuel (high-level radioactive waste) by January 31, 1998 would constitute gross nonfeasance. Ratepayers in Maine and across the country have been obligated for decades to make payments ostensibly to fund the DOE high-level waste program. DOE's failure to meet its obligations results in ratepayers not getting what they paid for and paying additional millions to fund for an indefinite period on-site storage. Maine Yankee currently estimates the cost associated with on-site storage of this waste to be about $128,000,000.

We find there are a significant number of State agencies overseeing, regulating and monitoring various matters related to Maine Yankee (see Section IV. A. of this report); activities of these agencies related to Maine Yankee should be appropriate to the present condition of the plant and well coordinated.

B. Recommendations

Resolution of the high-level radioactive waste problem requires action by the federal government. Members support the efforts of agencies of this State and of Maine Yankee to force the DOE to meet its obligations and to encourage Congress to develop interim measures to address the vacuum created by DOE's nonfeasance. We recommend that these efforts continue and that the State, through appropriate agencies, exploit legal opportunities to ensure a proper accounting and use of the rate payer funds collected to fund the DOE's high-level radioactive waste program and to encourage federal funding for all interim measures required as a result of DOE's nonfeasance.

The committee recommends the State's activities in monitoring, regulating and reviewing matters related to the plant be appropriate for the present condition of the plant and that the activities be well coordinated. The committee recommends that Legislative review of matters related to Maine Yankee be coordinated and that the Joint Standing Committee on Utilities and Energy serve as the committee of jurisdiction with regard to these matters. We recommend that all bills involving Maine Yankee be referred to that committee and in particular we recommend that the following bills related to Maine Yankee that have already been submitted to the Second Regular Session of the 118th Legislature be referred to that committee:

> LD 2119 (S.P. 792), An Act to Clarify the Responsibilities of the Advisory Commission on Radioactive Waste during the Decommissioning of Maine Yankee

LD 1906 (S.P. 714), An Act to Amend and Clarify the Laws Concerning Nuclear Safety

As Maine Yankee decommissions, issues will continue to evolve and new issues will doubtless arise. As a result, we recommend that the Legislature's Joint Standing Committee on Utilities and Energy be directed to carry on the functions of this committee to monitor and oversee developments at the plant. Attached as Appendix C is a draft Joint Order that would implement this recommendation.

IV. Directory of Agencies and Entities

The following are the major State and Federal entities with authority to assist in, oversee or regulate matters related to the closure of Maine Yankee.

A. State Government Agencies (regulatory and advisory)

Advisory Commission on Low-level Radioactive Waste
Senator Richard Carey, Chair

Contact: Dale Randall, staff
10 State House Station
Augusta, ME 04333

Telephone: 287-8404
Fax: 287-4172

The Commission advises the Governor, agencies and the Legislature and provides public information on matters related to radioactive waste management. The commission is monitoring developments at Maine Yankee, but it has not formally adopted or formulated any particular approach or response.

Defense, Veterans and Emergency Management, Department of
Emergency Management Agency
72 State House Station
Augusta, ME 04333

Contact: John (Bill) Libby, Director
Telephone: 287-4080

Together with the Radiological Emergency Response Committee, MEMA has developed and continues to administer and implement the State's Emergency Radiological Response Plan to protect the public in the event of releases of radioactive materials from Maine Yankee. The Plan will be maintained at least until the NRC formally removes the requirement for off-site emergency planning.

Economic and Community Development, Department of
59 State House Station
Augusta, ME 04333

Contact: Alan Brigham, Policy Director
Telephone: 287-2660

The Department of Economic and Community Development (DECD) is working with Wiscasset and the region to assist them in responding to the looming economic vacuum created by the closure of the plant.

Education, Department of
Management Information System Team
23 State House Station
Augusta, ME 04333

Contact: Jim Watkins, Team/Policy Leader, MIS
Telephone: 287-5841

The department administers the school funding formula. The funding formula is based on the State Valuation which is two years behind current values. The department has run some rough scenarios of possible changes down the road in school funding to the town.

Finance Authority of Maine
94 State House Station
P.O. Box 949
Augusta 04332-0949

Contact: Charles Mercer, Director of External Affairs
Telephone: 623-3263

FAME offers a variety of business assistance programs to new and expanding businesses including loan guarantees, tax credits and bond financing backed by state obligation. It is not presently involved in any projects directly related to the closure of Maine Yankee.

Labor, Department of
Bureau of Employment and Training Programs
55 State House Station
Augusta, ME 04333

Contact: Paul Luce, State Rapid Response Coordinator
Telephone: 624-6390

Immediately following the decision by the Maine Yankee board of directors to cease power production at the plant, the Bureau of Employment and Training Programs developed a Rapid Employment Training Initiative team (RETI) to assist workers displaced by the closure. The RETI is an outgrowth of the federal Economic Dislocation Worker Adjustment Assistance Act of 1988, which provides federal funding for retraining and job placement. The RETI includes CEI, CED and Drake Milardo Inglesi (see descriptions below).

Nuclear Safety Advisor, State Planning Office
38 State House Station
Augusta, ME 04333

Contact: Uldis Vanags, Safety Advisor
Telephone: 287-3261

The Advisor advises the Governor and the Legislature on issues pertaining to safe operation of Maine Yankee and safe transportation and storage of nuclear waste. The Advisor continues to monitor activities at the plant and developments with regard to waste storage and disposal and is involved with the Nuclear Waste Strategy Coalition which is lobbying for development of an interim high-level waste repository in Nevada.

Office of Nuclear Safety, Bureau of Health
10 State House Station
Augusta, ME 04333-0010

Contact: Patrick Dostie, State Nuclear Safety Inspector
Telephone: 882-5349

The Office of Nuclear Safety is located at Maine Yankee. Its mission is to oversee and monitor day-to-day activities at the plant; it is overseeing and monitoring the decommissioning process. It conducts environmental monitoring, inspects radioactive waste shipments and storage, reviews and comments on technical submission to the NRC, investigates allegations and participates in and observes NRC inspections. The Office recently convened a decommissioning response team consisting of Bureau of Health staff; the Nuclear Safety Inspector is the team leader. The team will provide oversight and review of developing technical issues throughout the decommissioning process. The team is currently reviewing the site characterization survey. It expects future involvement with the Nuclear Safety Advisor.

Public Advocate
112 State House Station
Augusta, ME 04333

Contact: Steve Ward, Public Advocate
Telephone: 287-2445

The Public Advocate represents the using and consuming public on matters within the jurisdiction of the Public Utilities Commission. The Advocate is currently a party in the Bangor-Hydro rate case in which Maine Yankee costs are a central issue. The Advocate has intervened in the Maine Yankee rate case filed at the FERC. The Advocate negotiated the Texas Compact on behalf of the State, has testified in favor of its approval by Congress and continues to follow its progress and issues raised with regard to it.

Public Utilities Commission
18 State House Station
Augusta, ME 04333

Contact: Thomas Welch, Chair
Telephone: 287-3831

The PUC regulates public utilities. It is currently reviewing a rate case brought by Bangor Hydro-Electric in which issues related to management of Maine Yankee have been raised. The PUC commissioned an independent audit review of Maine Yankee and the report from the audit was released August 29th. The PUC has opened an investigation of Maine Yankee prudence associated with events leading to the shut down and the shut down itself (currently stayed, pending the rate case at FERC). The PUC has intervened in the Maine Yankee rate case filed at FERC.

Radiation Control Agency
Division of Health Engineering
Bureau of Health
Department of Human Services
10 State House Station
Augusta, ME 04333-0010

Contact: Jay Hyland, Acting Program Manager
Telephone: 287-8401

The Agency is the State's radiation regulator. With respect to Maine Yankee the agency is involved in matters related to radioactive materials, including low-level radioactive waste, environmental surveillance and emergency response planning. The agency participates in the decommissioning response team (see description under Office of Nuclear Safety). The agency continues to perform these functions and will adjust its surveillance and monitoring activities should high-level waste be stored in dry cask at the plant.

State Planning Office
Executive Department
38 State House Station
Augusta, ME 04333

Contact: Laurie Lachance, State Economist
Telephone: 287-1479

The SPO serves as the coordinator between regional councils of government and planning commissions and the state. The SPO also administers the various state community block grants including the land use planning block grant. A part of this

grant may be used to fund a study of the effects of the shutdown and how the effect may be mitigated.

The State Economist has undertaken preliminary analysis of the regional and state-wide economic impacts of the closure.

State Tax Assessor
Department of Administration and Financial Services
Bureau of Taxation
24 State House Station
Augusta, ME 04333

Contact: Larry Record, Director, Property Tax Division
Telephone: 287-2011

The Tax Assessor supervises and controls the administration of property tax laws in the State. The Assessor each year, prior to February 1, certifies to the Secretary of State the state valuation, based on 100% valuation, of all real and personal property in each municipality in the State. The valuation is as of April 1 two years prior to the certified valuation date: The next valuation is due by February 1, 1998 and will be as of April 1, 1996. Preliminary numbers have already been produced by the Assessor and provided to Wiscasset, Lincoln County and others interested in the issue. The total municipal valuation must be within 70% of the total state valuation for the town.

B. Regional entities

Lincoln County Planning Commission
No longer operating

Due to legal difficulties, this entity has closed its doors. It was the agency that would presumably have received the State land use planning block grant and have conducted with some of that money a study of the regional economic impact of the closure of Maine Yankee and how that impact might be mitigated. Coastal Enterprises Inc. has offered to provide the economic development functions that would have been provided by the Commission.

C. Informal Government Group

Governor's Ad Hoc Working Group On Maine Yankee

Contact: Peter Wiley, Office of the Governor
Telephone: 287-3531

The working group is an informal ad hoc group of representatives of relevant state agencies; it was established by the Governor to coordinate state agency responses to the Maine Yankee closure. The group meets every 2-3 weeks.

D. Private Entities

Coastal Enterprises Incorporated
P.O. Box 286
Wiscasset, ME 04578

Contact: Constance Magistrelli, Acting Director, Small Business Assistance Center
Telephone: 882-3430

Coastal Enterprises Inc. (CEI) is a private, nonprofit community development corporation located in Wiscasset. CEI strives to develop opportunities for Maine people with low incomes who need additional resources to reach an adequate and equitable standard of living, learning and working. The organization provides financial and human resources to Maine business through partnerships with banks, public and private agencies, and community organizations.

CEI's Small Business Development Center is currently involved with the training of people interested in self-employment who have been displaced by the closure of Maine Yankee; it is involved with the Maine Department of Labor' s Rapid Employment Training Initiative Team. CEI provides entrepreneurship education and training; its business counselors provide one-on-one business management assistance. Loans are available to businesses that meet loan requirements. As a result of the Maine Yankee closure, CEI was awarded a $1.85 million grant to actively pursue economic diversification, to provide technical assistance to businesses, to capitalize the loan fund, to support affordable housing and to conduct economic development research in Lincoln County.

Coastal Economic Development
39 Andrews Road
Bath, ME 04530

Contact: Christa Baade, Rapid Response Coordinator, Mid-Coast Maine
Telephone: 800-491-0089

Coastal Economic Development (CED) is a nonprofit, community development corporation located in Bath. CED administers job training programs, WIC and Headstart programs, as well as others, for the mid-coast region.

Christa Baade is the Dept. of Labor's Rapid Employment Training Initiative Team coordinator for the Maine Yankee situation.

Community Advisory Panel
Senator Marge Kilkelly, Chair

Contact: Eric Howes, Government Affairs Director
Maine Yankee Atomic Power Company
329 Bath Road
Brunswick, ME 04011
Telephone: 798-4195

CAP was established by Maine Yankee to enhance communication and public involvement and education on Maine Yankee decommissioning issues. It serves as an information link between the public and Maine Yankee on decommissioning but has no decisional authority.

Drake Inglesi Milardo, Inc.
50 Portland Pier
Portland, ME

Contact: Susan Arledge, Senior Consultant
Telephone: 882-5632

Drake Inglesi Milardo is a human resources consulting firm located in Portland. The firm has been working to assist Maine Yankee employees in a variety of ways and is working in concert with the Department of Labor, CEI, CED and the Small Business Association in serving the employee needs.

Friends of the Coast
P.O. Box 98
Edgecomb, ME 04556

Contact: Ray Shadis
Telephone: 882-7801

Friends of the Coast is a citizen group which has closely monitored activities at the plant in terms of its safety and environmental impacts. Ray Shadis, a spokesperson for the group, serves on the Community Advisory Panel.

Kennebec Valley Council of Governments
17 Main Street
Fairfield, ME 04937

Contact: Leonard Dow, Economic Development Director
Telephone: 453-4258

KVCOG is a private non-profit entity whose funding derives from member towns, state and federal grants and loans. KVCOG is a planning and information resource to towns and businesses within Kennebec, Somerset and Western Waldo counties. KVCOG is not involved in any direct fashion with displacement related to the Maine Yankee closure. It will, however, be offering educational training programs for entrepreneurs (starting new businesses) in the area; these may be of assistance to some of the displaced workers.

E. Federal agencies

Nuclear Regulatory Commission

NRC regulates civilian use of radioactive materials to ensure public safety, including regulation of the operation of nuclear power plants and the transportation, storage and disposal nuclear materials and waste. It has regulatory responsibility for the safe decommissioning the plant. (42 USC various chapters.)

Department of Energy

DOE is responsible for siting, building and operating a high-level waste disposal facility and for taking title to and safely disposing of high-level radioactive waste and spent nuclear fuel beginning January 31, 1998. (42 USC §10222.)

Federal Energy Regulatory Commission

FERC regulates the use and sale of electric energy in interstate commerce and has regulatory jurisdiction over the rates of wholesale generators such as Maine Yankee. (16 USC §824 et seq.)

APPENDIX A

Joint Order Establishing
Joint Select Committee to Oversee Maine Yankee

JOINT ORDER ESTABLISHING THE JOINT SELECT COMMITTEE TO OVERSEE MAINE YANKEE
H.P. 1345

ORDERED, the Senate concurring, that the Joint Select Committee to Oversee Maine Yankee Atomic Power Company is established as follows:

1. Establishment. The Joint Select Committee to Oversee Maine Yankee Atomic Power Company, referred to in this order as the "committee," is established.

2. Membership. The committee consists of 13 Legislators appointed jointly by the President of the Senate and the Speaker of the House. Of those Legislators, 7 must be members of the Joint Standing Committee on Utilities and Energy and of the remaining 6, 4 must represent Lincoln County.

3. Duties. The committee shall monitor the developments at the Maine Yankee Atomic Power Company and report its findings to the Legislature.

4. Meetings. In conducting its duties, the committee may meet as often as necessary with any individuals, departments, organizations or institutions it considers appropriate.

5. Appointments. All appointments must be made no later than 30 days following the effective date of this order. The appointing authorities shall notify the Executive Director of the Legislative Council upon making their appointments. When the appointment of all members is complete, the Chair of the Legislative Council shall call and convene the first meeting of the committee no later than October 15, 1997. The committee shall select a chair from among its members.

6. Staff assistance. The committee shall request staffing and clerical assistance from the Legislative Council, which must be provided from within the available resources.

7. Compensation. Members of the committee are entitled to receive the legislative per diem as defined in the Maine Revised Statutes, Title 3, section 2 and reimbursement for travel and other necessary expenses for attendance at meetings of the committee.

8. Report. The committee shall submit its finding, along with any necessary implementing legislation, to the Legislative Council and the Second Regular Session of the 118th Legislature by January 31, 1998. If the committee requires an extension of time to make its report, it may apply to the Legislative Council, which may grant the extension.

APPENDIX B

List of Joint Select Committee Members

MEMBERS OF THE MAINE YANKEE STUDY

Sen. John J. Cleveland
183 Davis Avenue
Auburn, ME 04210

Sen. Richard J. Carey, Chair
Winthrop Road
Belgrade, ME 04917

Sen. Philip E. Harriman
P.O. Box 790
Yarmouth, ME 04096

Rep. Kyle W. Jones
P.O. Box 81
Bar Harbor, ME 04609

Rep. Carol A. Kontos, Vice Chair
22 Woldbrook Drive
P.O. Box 1785
Windham, ME 04062

Rep. Charles C. LaVerdiere
1000 Orchard Drive
P.O. Box 670
Wilton, ME 04294

Rep. Joseph B. Taylor
14 Lawn Avenue
Cumberland Center, ME 04021

Sen. Marge L. Kilkelly
P.O. Box 180
Wiscasset, ME 04578

Rep. Kenneth A. Honey
P.O. Box 6
Boothbay, ME 04537

Rep. Wendy Pieh
P.O. Box 203
Bremen, ME 04551

Rep. Benjamin L. Rines, Jr.
P.O. Box 237
Wiscasset, ME 04578

Rep. Judith B. Peavey
Mountain Road
RFD 3, Box 540
Woolwich, ME 04579

Rep. Robert W. Spear
14 Eugley Hill Road
Nobleboro, ME 04555

APPENDIX C

Draft Joint Order
Directing Utilities and Energy Committee to continue to monitor
Maine Yankee developments

JOINT ORDER DIRECTING THE JOINT STANDING COMMITTEE ON UTILITIES AND ENERGY TO OVERSEE DEVELOPMENTS AT MAINE YANKEE
S.P. _____

ORDERED, that the Joint Standing Committee on Utilities and Energy, referred to in this Order as the committee, is directed to oversee Maine Yankee Atomic Power Company as follows:

1. Duties. The committee shall review all legislation introduced in the Second Regular Session of the 118th Legislature related to Maine Yankee. The committee shall also monitor developments at the Maine Yankee Atomic Power Company and report its findings to the Legislature.

2. Meetings. In conducting its duties, the committee may meet as often as necessary with any individuals, departments, organizations or institutions it considers appropriate.

3. Staff assistance. To support its work after the adjournment of the Second Regular Session of the 118th Legislature , the committee shall request staffing and clerical assistance from the Legislative Council, which must be provided from within available resources.

4. Compensation. Members of the committee are entitled to receive legislative per diem as defined in the Maine Revised Statutes, Title 3, section 2 and reimbursement for travel and other necessary expenses for attendance at meetings of the committee occurring after the adjournment of the Second Regular Session of the 118th Legislature.

5. Legislation. The committee may report out legislation related to Maine Yankee to the Second Regular Session of the 118th Legislature.

6. Report. The committee shall submit a final report of its findings, along with any necessary implementing legislation, to the First Regular Session of the 119th Legislature. If the committee requires an extension of time to make its report, it may apply to the Legislative Council, which may grant the extension.

JOINT ORDER DIRECTING THE RECALL OF LD 2119 FROM THE JOINT STANDING COMMITTEE ON NATURAL RESOURCES

S.P. _____

ORDERED, that S.P. 792 (L.D. 2119), An Act to Clarify the Responsibilities of the Advisory Commission on Radioactive Waste during the Decommissioning of Maine Yankee be recalled from the Joint Standing Committee on Natural Resources and referred to the Joint Standing Committee on Utilities and Energy.

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APPENDIX D

Summaries of Joint Select Committee Meetings

OFFICE OF POLICY AND LEGAL ANALYSIS

Jon Clark, Legislative Counsel
State House Office Room 135
e-mail jon.clark@state.me.us

State House Station 13
Augusta, ME 04333
voice 207-287-1670
fax 207-287-1275

MEMORANDUM

To: Members, Joint Select Committee to Oversee Maine Yankee

From: Jon Clark, Legislative Counsel

Date: August 28, 1997

Re: Summary of First Meeting (8/27/97)

The first meeting of the committee was convened at about 10:30 by Speaker of the House Elizabeth Mitchell, Chair of the Legislative Council. Ten members were in attendance. Senator Cleveland, Senator Harriman and Representative Jones were unable to attend.

Without objection, Senator Carey was elected chair and Representative Kontos vice-chair of the committee.

The committee discussed several of the issues raised by the closure of Maine Yankee, including economic effects on the region, radioactive waste issues, utility/rate-payer issues and employee transition issues. The committee also discussed the fact that there are a number of entities looking at and attempting to address these various issues, among them the Governor's Task Force, the Advisory Commission of Low Level Radioactive Waste and a nascent group which Senator Kilkelly is organizing to address economic issues in the Wiscasset region.

The committee considered the list of issues distributed by staff and by general consensus determined that, due to its limited budget and the fact that many entities were already working on the various issues, the committee should not attempt to study and develop policy proposals but rather to serve as a sort of coordinator:

1. Gathering information for the Legislature about the efforts of various governmental and quasi-governmental entities which are looking at and dealing with the issues;
2. Helping to coordinate those efforts; and
3. Identifying issues that seem to need further attention and which entity or entities should examine them.

It was suggested and generally agreed that utility and rate-payer issues, while very important, could and would best be overseen by the Utilities and Energy Committee; for the present at least, the select committee set them to one side.

The committee directed staff to gather information about the several groups especially charged to examine issues related to the Maine Yankee shutdown and to ensure that information was shared and lines of communication opened. Staff will also be gathering information about the various governmental and quasi-governmental entities that have significant jurisdiction over issues related to Maine Yankee.

The committee had a brief presentation from Uldis Vanags, State Nuclear Safety Advisor, regarding the status of the suit brought by a number of states and utilities against the DOE to force DOE to meet its responsibility under federal law to dispose of high-level radioactive waste (decision expected in the fairly near future) and federal legislation to create an interim storage facility in Nevada (House and Senate bills moving forward but Presidential veto expected; not clear there are sufficient votes to override).

The committee decided its next meeting will be on October 8, at 10:00 in room 124 of the State Office Building. At that time the committee will hear about the activities of key entities involved with the radioactive waste, decommissioning, economic impact, and employee impact issues.

The committee adjourned at about 12:30. Members were invited to attend a briefing at 1:00 by Michael Meisner, a Vice President of Maine Yankee, to the Advisory Commission on Low-level Radioactive Waste on Maine Yankee's nearly finalized PSDAR. Mr. Meisner gave an overview of what appears in the PSDAR and answered several questions. Most members were able to stay for at least some of the briefing. Staff of the Advisory Commission (Dale Randall, 287-8404) tape recorded the presentation.

OFFICE OF POLICY AND LEGAL ANALYSIS

Jon Clark, Legislative Counsel
State House Office Room 135
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fax 207-287-1275

MEMORANDUM

To: Members, Joint Select Committee to Oversee Maine Yankee

From: Jon Clark, Legislative Counsel

Date: October 9, 1997

Re: Summary of October 8 Meeting

The committee had its second meeting on October 8 from 10 am to 3:30 p.m. in Room 124 of the State Office Building. Senator Cleveland and Senator Harriman did not attend. Of the eleven members that did attend, a number were unable to stay for the entire meeting. State Nuclear Safety Advisor, Uldis Vanags, who was scheduled to provide a presentation to the committee, was detained in Washington and was unable to attend.

In the morning, the committee had a presentation from Michael Meisner, a Vice President of Maine Yankee, who provided an overview of matters related to decommissioning, radioactive waste, the upcoming FERC rate case and employee reductions. He provided copies of the following materials to the committee: Slides he used with his presentation; letter to Governor King inviting a cooperative approach with the State in monitoring decommissioning; press release on Texas Compact.

Representative Rines indicated that he had heard from sources that appeared well informed than materials were being prematurely taken out of the plant. Mr. Meisner indicated that only uncontaminated materials should be and were being removed for salvage. He stated that no decommissioning was occurring. Representative LaVerdiere queried whether the company was keeping a clear and detailed accounting of the salvaged materials: what material? sold to whom? for what price? Mr. Meisner indicated he believed there was an accounting, but would get back with further information.

Mr. Meisner indicated that a couple of entities have recently queried Maine Yankee about possible use of the site for gas-fired generators. These are very preliminary inquiries and no proposals have been made. Mr. Meisner also indicated that emergency planning would be modified now that the fuel is removed from the plant; he suggested that the risks associated with potential accidents are now of a much smaller scale than those associated with an active plant.

There was some discussion of the House vote approving the Texas Compact and the fact that language was added to the authorization conditioning Congressional approval on Texas not accepting waste from any state other than Maine and Vermont. Senator Carey requested that Dale Randall, staff of the Advisory Commission on Radioactive Waste, seek an Attorney General's opinion on whether the added condition, if finally adopted, would require approval by the member states, including approval by referendum. There was a brief discussion of Maine Yankee's claim that staying in the compact would add some $40 million to the cost of decommissioning. Dale Randall indicated that the Public Advocate had run figures suggesting a much lower cost differential between remaining in the compact and getting out of the compact. The assumptions underlying the different calculations were not explored, though it was mentioned that should Barnwell close during decommissioning and no alternative site be available, the cost of stoppage could amount to $20 million/year. Senator Kilkelly pointed out that if Maine Yankee in fact sends its waste to Barnwell and pays for capacity in Texas, it will in effect pay twice for disposal of the waste (unless Maine Yankee can sell its right to capacity in Texas).

Mr. Meisner indicated that the company is interested in exploring use of high-level waste escrow funds to help pay for on-site storage of spent fuel until the DOE takes possession of the waste. He also indicated that the site will be useable for other purposes after decommissioning even while a portion of the site may remain occupied by dry cask storage of the spent fuel.

State Economist Laurie Lachance gave a brief overview of the work of the Governor's ad hoc work group on Maine Yankee: The purpose of the group is to explore the issues raised by developments at Maine Yankee, to plan for agency responses to those developments, and to coordinated the activities of the various agencies. The group has held 3 or 4 meetings.

Ms. Lachance provided her analysis of the economic impacts of the closure of the plant. She provided to the committee spreadsheets showing the numbers she has run for 1998 and 1999. These suggest that while there will be statewide losses in payroll and business sales in both years, Lincoln County will see some net gains in 1998 before beginning to see losses in 1999. This, she indicated, is due to the influx of contract employees during decommissioning. Representative Pieh noted that the figures seemed not to factor into the base line the fact that whenever Maine Yankee has been shut down for refueling, etc., there has been an influx of contract employees. Ms. Lachance indicated that since the influxes were occasional and irregular, she had not included contract employees in the base line, but she would examine this issue again to see if some adjustment was appropriate.

Ms. Lachance was asked whether the Governor was going to be submitting any legislation related to Maine Yankee this session. She indicated she did not know but that she would check and report back to the committee.

Senator Carey spoke briefly about the Advisory Commission on Radioactive Waste of which he is the chair. The Commission continues to follow radioactive waste issues. Senator Carey also gave an overview of visits he recently made to the Crystal River and Surrey nuclear plants. He spoke about the dry cask storage system which Virginia Electric has developed and is using at the

Surrey facility. Senator Carey then showed a video produced by Virginia Electric about its use of dry cask storage. Copies of the tape were provided to the Citizens Advisory Panel and the Advisory Commission.

Dale Randall gave a brief overview of the activities of the Radiation Control Program at DHS whose mission is to protect the public from unnecessary radiation exposure. The DHS has established a Decommissioning Team to monitor decommissioning "without unduly impeding the process." He provided to the committee a written outline of his remarks and a copy of a Low Level Waste Forum "News Flash" on the House approval of ("consent" to) the Texas Compact which includes the language of the conditional consent mentioned above.

Senator Kilkelly briefly described the activities of the Citizen Advisory Panel of which she is the chair. The CAP has held 2 meetings. The first meeting in August was an organizational meeting and included a presentation by and discussion with Mike Meisner on decommissioning. The second meeting in September focused on site characterization and radiation issues. Each meeting of the CAP is divided into halves: half tutorial and half panel business. The next meeting will be on October 29 at 6:00 and will preview the rate case which Maine Yankee will be taking to the FERC this fall.

Senator Kilkelly mentioned she continues to work on organizing a group to fill the regional planning vacuum in Lincoln county. She envisions a group having a life of only a couple of years serving as a clearinghouse of information for new businesses that may wish to move into the region.

Wayne Malloch, a nuclear planner with the Department of Defense, Veterans and Emergency Management, mentioned that the department expects to commence "collapsing" off-site emergency response capabilities in the Spring of 1998. The department is also working to strengthen its emergency response capacity with respect to potential accidents in the transportation of nuclear materials.

Paul Luce, State Rapid Response Coordinator, gave a quick overview of the Department of Labor's RRT efforts in assisting displaced workers. While job offers for employees are not in short supply, most are from out-of-state employers. Many employees wish to remain in Maine. The RRT is working with spouses and family in order to work through the transitional decisions and adjustments that must be made. He indicated that he believes the effort will be adequately funded. He observed that it tends to take a year or two before the ripple effects of the loss of a major industry are felt by regional businesses. He provided several handouts to the committee relating to the RRT and its work, and a list of towns where Maine Yankee employees live and the number of employees that live in each town.

Christa Baade of CED and the Rapid Response Coordinator for the mid-coast, indicated there is a high degree of interest in self-employment and in training to up-grade skills, particularly computer skills. CED is offering training and other career resources. She provided a handout outlining the services of the CED.

Susan Arledge of Drake Inglesi Milardo noted that employees at Maine Yankee are among the highest paid in the state. Some have yet to appreciate that it will not be possible for them simply to shift to other local employment without a substantial salary reduction. She indicated that the employees have very marketable skills in the Maine but that some will need re-training in order to find work. Drake Inglesi Milardo is working to provide career transition services to the employees. She provided a handout describing her company's mission.

Constance Magistrelli of CEI is providing assistance to employees starting their own businesses. CEI recently received funding of $1.8 million to provide services. She provided an outline of what CEI has done, is doing and plans to do with respect to providing assistance for Maine Yankee employees.

Mike Duguay of DECD emphasized that the State can only do so much to facilitate economic development in the local area; a community needs to be prepared to react productively to support economic development. He observed that there are 2 voids in the region needing to be filled: Lincoln County's lack of a regional planning entity and Wiscasset's lack of an economic development infrastructure. He indicated that DECD can work with the town and the region to help, but that the state can't do the work for the town and region. He indicated that Wiscasset is beginning from scratch in terms of establishing an economic development infrastructure. DECD has begun dialogue with Wiscasset officials and the area Chamber of Commerce. He provided a handout outlining his comments.

Fran Rudoff of the SPO indicated that the SPO is working with the Lincoln County Commissioners to sort out how the $13,000 land use planning grant should be used. Some of that money may be used to develop a economic impact study.

Larry Record of Maine Revenue Services (formerly the Bureau of Taxation) explained the process and purpose of the State Valuation process. He pointed out the 2 year lag in the valuations (1998's valuation is as of April 1996) and noted the statutory rule that municipal assessment ratios must be at least 70% but not greater than 110% of just value. He indicated that in 1995, the residential property assessment in Wiscasset was 12% of the surveyed market values. In 1996 this improved to 15%. He also indicated that all state subsidies to local government (such as school funding) were based on the State Valuation and not local valuations.

Representative Rines noted that while Maine Yankee's assessment is going down, residential assessments are going up; he suggested that residents were not pleased about this. He questioned whether it was the "70% rule" imposed by the state that was forcing this adjustment. There was some discussion about the history of taxation in Wiscasset.

Senator Carey asked whether spent fuel in dry cask storage would have a taxable value. Mr. Record noted that if the fuel was not reusable and thus un-marketable, it might have no value or a negative value. Senator Carey requested Maine Yankee produce an estimate of the number of dry casks that might be necessary to store its spent fuel. Eric Howes agreed to provide this.

The remaining committee members discussed with staff the structure of the final report; the basic outline developed by the chairs was deemed acceptable and staff will be producing a draft report based on that outline for the next meeting. The committee agreed to meet next on November 6 at 3:00 at Maine Yankee to discuss any findings or recommendations to be made in the final report. At 7:00 that evening, members will be able to attend the NRC's public hearing on Maine Yankee's PSDAR.

OFFICE OF POLICY AND LEGAL ANALYSIS

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Augusta, ME 04333
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MEMORANDUM

To: Members, Joint Select Committee to Oversee Maine Yankee

From: Jon Clark, Legislative Counsel

Date: 13 November, 1997

Re: Summary of November 6th Meeting

The committee held its third meeting on November 6th from 3:00 p.m. to 5:30 p.m. at the Career Center at the Maine Yankee plant in Wiscasset. Senators Cleveland and Kilkelly and Representatives Kontos, LaVerdiere, Peavey and Spear did not attend.

The members present reviewed the draft report prepared by staff. Staff reviewed with the committee comments and suggestions received from Maine Yankee, Central Maine Power Company, the Public Advocate and the Public Utilities Commission and all modifications designed to clarify, update or augment information in the draft were approved by the members present.

The Public Advocate made a brief presentation regarding the status of the Texas Compact in Congress and the status and future availability of the Barnwell Facility. He indicated that it was his position and that of the King Administration that approval of the Compact continued to be in the best interests of the State.

Language in the draft report was modified to reflect Maine Yankee's desire to sell to other generators capacity it will purchase in the Texas facility, if the Compact is ratified. Since Maine Yankee hopes to be able to continue to send its LLRW waste to Barnwell through the decommissioning process, it is not expecting to need capacity it would purchase in the Texas facility. By reselling that capacity, Maine Yankee would hope to recover the cost of the purchase. At present, however, there is uncertainty as to whether Maine Yankee will in fact need capacity in Texas and whether it would be permitted to arrange to sell unneeded capacity to other generators.

The Public Advocate proposed modifying the draft report to state that the Public Utilities Commission has exclusive authority over recovery of replacement power costs incurred by retail

utilities in Maine as a result of the decision to close Maine Yankee. The draft report points out that the scope of the commission's authority is a legal issue, is not clearly settled and may be litigated. A representative of Bangor-Hydro Electric, which has filed a rate case at the commission in which this issue of commission authority is raised, opposed the Advocate's proposal. Staff noted that while the committee was free to take whatever position it wished on the matter, the proposal offered by the Advocate was a legal conclusion and not merely a statement of fact. The committee determined the draft should explicitly state the fact that a rate case involving costs associated with Maine Yankee had been filed and that other cases may follow. The committee decided not to take any position on the legal question of the PUC's authority, exclusive or otherwise.

The committee decided to add two appendices beyond those listed in the draft report: the most recent schedule for GTS Duratek's site characterization study and the decommissioning cost estimate report of TLG Services.

The committee discussed whether to include any findings and recommendations in the report. The committee decided to include only one finding and recommendation.

The committee found that the expected failure of the federal Department of Energy (DOE) to meet its obligations under federal law and under contract to take possession of Maine Yankee's spent fuel (high-level radioactive waste) by January 31, 1998 would constitute gross nonfeasance. Ratepayers here in Maine and across the country have been obligated for decades to make payments ostensibly to fund the DOE high-level waste program. DOE's failure to meet its obligations results in ratepayers not getting what they paid for and paying additional millions to fund for an indefinite period on-site storage. Maine Yankee currently estimates the cost associated with on-site storage of this waste to be about $128,000,000.

Staff will revise the report in accordance with the decisions made by the committee and distribute the final review draft before the next meeting scheduled for November 24 at 1:00 p.m.

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MEMORANDUM

To: Members, Joint Select Committee to Oversee Maine Yankee

From: Jon Clark, Legislative Counsel

Date: 26 November, 1997

Re: Summary of November 24th Meeting

The committee held its fourth and final currently authorized meeting on November 24th from 1:00 p.m. to 3:00 p.m. in room 122 of the State Office Building. Senators Cleveland and Kilkelly and Representatives Kontos and Jones did not attend.

The committee reviewed with staff the revised draft report (which had been distributed to members and interested parties prior to the meeting) and several further revisions in the nature of refinements, clarifications or updates reflecting recent developments. There were no objections to these revisions.

Public Advocate Steve Ward raised some concern about revised language in the draft related to the Texas Compact. The committee adopted a language modification suggested by Representative LaVerdiere identifying Maine Yankee's interest in mitigating the possibility of duplicative costs of LLRW disposal if the Compact is approved; the committee also decided to make reference to a letter of agreement on the subject signed by the Governors of Maine, Texas and Vermont.

Ray Shadis, spokesperson for Friends of the Coast, commented on the risks associated with spent fuel, including risks posed by loss of water from the spent fuel storage pool, accidental dropping of fuel assemblies and accidental dropping of transportation casks (including drops into the fuel pool). He also suggested (in reference to a statement in the report regarding the plant's fire barrier seals) that almost all of the fire barrier seals at the plant had been identified as defective

or missing. Eric Howes of Maine Yankee suggested that this was not his recollection.

Ray Shadis suggested that a majority of the public in the Wiscasset region felt the region "more secure" because of the shut down and that quality of life was thereby improved. He commented that he had hoped the committee would hold hearings at the plant and receive public comment on the decommissioning process. He suggested the committee had not had input from critics of Maine Yankee or independent consultants on safety issues and that there had been a lack of adequate public input at the meetings of the committee.

Representative Taylor noted that the committee's charge was limited to monitoring developments at the plant and that the committee at its first meeting determined that many other groups and agencies (including the Community Advisory Panel) were looking at the issues raised by decommissioning and the committee should use its limited time to understand, assess and, to the extent necessary, coordinate the activities of these entities and not substantively to examine the decommissioning process.

Ray Shadis suggested that he felt that meetings of the Community Advisory Panel and the Governor's Ad Hoc group on Maine Yankee were inadequate forums for airing and examining public concerns about the decommissioning.

Senator Treat, who attended in the audience, mentioned that she had introduced a bill to expand the authority of the Advisory Commission on Radioactive Waste and that the Commission might become a good forum for airing and examining concerns about decommissioning.

The committee discussed how it might accommodate Ray Shadis' concerns and agreed to seek authority to hold a further meeting in Wiscasset to take public comment on the decommissioning process. The hearing was tentatively planned for December 11 beginning at 6 p.m. at the Wiscasset Middle School.

Senator Harriman initiated a brief discussion about the increased cost to Maine Yankee associated with storage of HLRW and the fact the Maine Yankee's recent cost estimate of decommissioning was only marginally higher that the previous estimate approved by FERC. He suggested that the distinction in costs had not been adequately noted by the press.

Representative LaVerdiere suggested that the report include a provision memorializing Maine Yankee's assurance that no materials were or would be salvaged or sold without proper accounting to assure rate payer protection. After brief discussion, including comment from Steve Ward suggesting that the

law required such accounting, the committee did not approve the addition of this language.

There was a motion to finally accept the report, as revised. Representative Honey suggested that the vote should follow the public hearing since the committee might wish to make additions or modifications based on what was said at the hearing. The committee tabled the vote and agreed that the committee should attempt to meet in January, after the hearing, to finalize the report.

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APPENDIX E

Summary of December 11, 1997 Hearing

OFFICE OF POLICY AND LEGAL ANALYSIS

Jon Clark, Legislative Counsel
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MEMORANDUM

To: Members, Joint Select Committee to Oversee Maine Yankee

From: Jon Clark, Legislative Counsel

Date: December 12, 1997

Re: Hearing Summary

On December 11, 1997 from 6 to 9 p.m. the Committee held a public hearing at the Wiscasset Middle School in Wiscasset. Senator Cleveland and Representative Jones did not attend.

Chairman Carey began the meeting by showing a video produced by Virginia Electric about its use of dry cask for short-term storage of spent fuel (this is the same film shown to members at the Committee's second meeting).

Chairman Carey noted that the Committee was holding the hearing at the suggestion of Ray Shadis of Friends of the Coast and he thanked Mr. Shadis for making the suggestion. Chairman Carey noted that he had extended an invitation to the town officials of Wiscasset, Dresden, Westport, Woolwich, Edgecomb and Alna to provide written and oral comments the Committee. Written comments were received in advance from Lawrence Gordon, Jr., Chair of the Wiscasset Board of Selectmen and Charles Batchelder, Wiscasset Superintendent of Schools. No comments oral or written were received from the officials of the other towns at the time of the hearing. Chairman Carey noted that he would follow-up with those officials to encourage them to provide written comments to the Committee. The committee received written comments from Stanley Tupper of Boothbay Harbor.

The DHS Radiation Control Program was invited to provide a representative to discuss the controversy regarding the radiation cleanup standards for decommissioning. Jay Hyland made an extended presentation regarding the history of millirem/year standards and how they have changed over the years. He noted that there are different standards for hospitals, nuclear plants and CERCLA (superfund) sites. The NRC standard for decommissioning is currently 25 millirem/year or as low as reasonably achievable (ALARA). The EPA CERCLA standard is 15 millirem/year and the EPA water pathway standard is 4 millirem/year. Based on his evaluation of what has been achieved at other decommissioned sites he suggested that the 15 millirem is

probably achievable. He also suggested that the standards are somewhat arbitrary and that there was no significant risk difference between the two standards.

Ray Shadis noted that the Friends of the Coast had raised the issue with Maine Yankee before any action or reaction from DHS had occurred. He suggested that the issue is not merely academic nor the difference in standards unimportant; he noted that the EPA has determined that the NRC limit is "not protective."

An unidentified member of the audience questioned whether Montsweag Bay was contaminated and whether it was being tested. Jay Hyland indicated that the area is considered an "affected area" and is being tested for contamination.

Jim Perkins of the New England Coalition on Nuclear Pollution suggested that the State had an obligation to take a lead roll in protecting public health and that the DHS should not be an apologist for Maine Yankee. Jay Hyland responded by suggesting that the NRC had sole regulatory authority and that the State had "no control."

General Earl Adams, Commissioner of the Department of Defense, Veterans and Emergency Management, provided a brief presentation in which he noted that emergency planning around Maine Yankee will not be changed in the near future. As things change at the plant, the plan may change.

Alna resident Kris Christine questioned whether the State was exploring the possibility of seeking DOE funding for emergency planning given the fact that DOE is responsible for the HLRW which will be stored at the plant site. General Adams indicated that this had not yet been considered because it was not yet clear what sort of emergency plan would be needed.

Chairman Carey questioned whether dry cask storage would result in a smaller planning zone. General Adams thought perhaps it would, but that the analysis had not been done to make a final determination.

Senator Kilkelly noted that there appeared to be a disconnect between NRC emergency planning and State planning. She suggested that the State should take an active roll in reviewing the Defueled Emergency Plan submitted by Maine Yankee to NRC. General Adams suggested that his department did not have the expertise to evaluate the particulars of the Defueled Emergency Plan; the department relies on other agencies (federal and state) for technical expertise.

Michael Sellman, President of Maine Yankee, noted that the Defueled Emergency Plan had been submitted to the NRC, that it was open for public scrutiny and that the NRC would be taking public comments on the plan.

Donald Siviski, Assistant Superintendent of Schools, Wiscasset, read the letter from Charles Batchelder, Superintendent of Schools, to the committee. He noted that the Wiscasset Middle School and the High School currently had significantly more students than the designed capacity of the schools.

Senator Kilkelly noted that she has filed a bill request, which has been approved by the Legislative Council, to deal with the 2-year delay in the state evaluation in order to speed up state aid to the affected towns.

Senator Kilkelly briefly described the work and purpose of the Community Advisory Panel and noted that the CAP was a forum for getting questions about the decommissioning on record and answered. The next meeting is January 15 at 6:00 at Maine Yankee.

Ray Shadis of Friends of the Coast made a presentation to the committee. He will be providing written comments to the Committee at a later date. He noted that the State of Nevada had produced a video explaining why it did not want to be the nations' HLRW dump. Senator Carey requested that the committee be provided with a copy of the video; Mr. Shadis agreed to provide this. Mr. Shadis noted that the Department of Defense has in the past intentionally exposed people hazardous substances without informing the people of the risks and dangers. He noted the case of a Lewiston native who had worked on the Manhattan Project where he was employed milling U238 apparently without proper protections. Mr. Shadis indicated that the man and his children have since suffered a number of serious health problems. Mr. Shadis indicated that he had been told by the man that when the project was over the equipment he was working on was taken away and buried in the desert. Mr. Shadis suggested that such governmental behavior in this and other cases was corrupt and criminal. Based on this history, he suggested that when dealing with hazardous materials such as nuclear waste one should view all information critically, regardless of source. He suggested that the State's agencies with oversight authority over safety have been passive; he suggested that because of the magnitude of the risk associated with radioactive waste, the state had a duty to be proactive to ensure safety. He suggested that the Maine Legislature "has to be the best defender of the people." He noted that a third of the people of Wiscasset have voted consistently to close Maine Yankee.

Chairman Carey noted that Maine Yankee had suggested at the NRC hearing on the PSDAR that the cost/benefit analysis indicated that dry cask storage was economical if the storage would last longer than 11 years. Chairman Carey indicated he believed the evidence suggested that dry cask storage was safer than pool storage and that the spent fuel should be placed in dry cask as soon as possible, regardless of the economical analysis. Mike Sellman noted that the cost/benefit analysis was preliminary but that the issue was not really economics. He indicated that he was looking to the CAP to provide input on the proper treatment of the spent fuel.

Ray Shadis indicated that the environmental community believed dry cask to be the preferred method of storage. He noted, however, that dry cask is not risk free. He suggested that because dry cask is relatively easy to maintain and easy to monitor, it's use may encourage the DOE to procrastinate in finding a permanent repository for the waste. He also expressed concern that a Maine Yankee HLRW dry cask storage site could become federalized (taken over by the DOE) and become the spent fuel dump for the region.

Alna resident Kris Christine made a presentation to the committee. She provided a handout to the committee regarding soil removed to a landfill from the Millstone 3 facility that was

subsequently found to include radioactive materials. She indicated she was glad Maine Yankee was closed and she believed poor prior management of the plant led to its being out of compliance with NRC regulations and this had created unnecessary risks. She suggested that, in order to ensure safety, the State should hire an independent consultant to examine the site and any landfills that Maine Yankee may have used in the past.

State Nuclear Safety Inspector Pat Dostie indicated that three consultants have been retained: a person from the university and two "international experts" whom he identified as Glenn Knoll and Floyd Ward Wicker.

West Bath resident David Hall, who serves on the Emergency Planning Committee but who explained that he was speaking for himself and not in any official capacity, made a presentation to the committee. He indicated that he supported an independent study of emergency planning needs, but that none has been commissioned. He indicated he generally feels dry cask is safer than pool storage. He suggested that while the fuel is in the pool there may be a potential, under certain circumstances, for it to go "critical" and therefore that the emergency planning system should stay in place while that risk remains. He expressed concern that costs may drive the decommissioning process and lead to methods that compromise safety.

Jim Perkins, President of the New England Coalition on Nuclear Pollution, made a presentation to the committee. He indicated that the Coalition had intervened in a number of NRC licensing cases and had been following nuclear issues for a number of years. He suggested that the congressional directive to DOE to find a permanent repository for HLRW came about as a result of industry lobbying; he suggested that the industry wanted to be able to claim that the HLRW problem was solved. He indicated that the NRC's shift from an earlier-proposed 15 millirem standard for a decommissioned site to the current 25 millirem came about as a result of industry lobbying. He suggested that the State should establish an assistant attorney general position to represent the state and to advocate for safety at the NRC with regard to decommissioning issues. He suggested that legislators develop working relationships with legislators in states such as Oregon, Michigan and Connecticut that are dealing with decommissioning and dry cask storage.

Chairman Carey noted that the CSG has a northeast regional group which provides a forum for legislators from the region to discuss such matters.

Jim Perkins indicated a concern about language in the restructuring bill that permits Maine utilities to pass decommissioning costs on to ratepayers as required by federal law. Chairman Carey noted that federal law preempts state law so the state had little choice in the matter. Jim Perkins questioned the extent of the preemption. He indicated that the costs should be examined very closely and indicated disappointment that the Public Utilities Commission had "backed off" its investigation of Maine Yankee.[36] He also indicated concern about the dry cask storage and was critical of the video produced by Virginia Electric. He suggested that Mary Sinclair, a citizen advocate in Michigan, was someone worth consulting on dry cask issues.

[36] The PUC stayed its investigation on December 2; a management audit of Maine Yankee continues.

Alan Clemence of Friends of the Coast and the New England Coalition on Nuclear Waste, made a presentation to the committee. He indicated concern about the testing of Montsweag Bay. He suggested that because of the steam generator problems, leaks to the non-nuclear side of the system had occurred and as a result some level of radionuclide contamination of the bay had also occurred. He indicated that the State needs to employ experts to properly test the bay and to ensure it is safe.

John Arnold, a contract employee of Maine Yankee who is involved in overseeing the GTS Duratek site characterization project, indicated that the bay was being examined and that Maine Yankee and GTS Duratek were working with Pat Dostie in taking and analyzing samples from the bay. Through this testing they will determine the radionuclide levels and determine the response needed.

Senator Kilkelly noted that a number of years ago the clam flats had been extensively tested.

Wiscasset resident Carla Dickstein made a presentation to the committee. She indicated that she was pleased the plant was shut down. She indicated that she was an employee of CEI which had a $1.85 million grant from HUD to help diversify the local economy. She indicated that the major difficulty to be addressed was not so much the number of jobs lost but the quality of the jobs.

Claire Johnson read a letter (copy provided to the committee) from Mike McConnell to the committee regarding decommissioning cost estimates and liabilities.

Mike Sellman briefly reviewed the situation involving Barnwell and the Texas Compact and noted that if the compact is approved by Congress it could result in Maine Yankee paying $24 million in capital costs pursuant to the compact for a facility it may not need.

Jim Perkins indicated he had spoken with U.S. Senator Snowe about the compact and that she had suggested to him that entering the compact would preclude other states shipping waste to Maine. He questioned whether there were other justifications for the staying with the compact. Mike Sellman indicated that the primary argument was that the compact was a sort of insurance policy against the possibility that Barnwell might shut down.

Mr. Sellman indicated that Maine Yankee welcomes scrutiny of the calculations underlying its Defueled Emergency Plan and that the NRC will be taking comments on Maine Yankee's filing. He indicated that loss of water from the spent fuel pool would not make the fuel go "critical." When questioned whether criticality could be reached under some circumstances, he indicated that under the right conditions it is theoretically possible and agreed that an airplane crash into the pool could possibly create those conditions. He indicated that the chances of such conditions occurring were extremely small. He also indicated that Maine Yankee had offered to "trade liabilities" with DOE, a proposal that would address DOE's liability for spent fuel storage by allowing Maine Yankee to use the Maine spent fuel fund. He indicated that DOE declined the offer.

Ray Shadis questioned why Maine Yankee believed it could decommission at a cost lower than Yankee Rowe, given that Maine Yankee is a much larger facility. Mr. Sellman said "I don't know." He indicated that Maine Yankee is attempting to be "innovative" and this may account for its lower costs.

Newcastle resident Chris Elliot made a presentation to the committee. He indicated that he was a shellfish harvester and that he had volunteered to collect shellfish for testing for DMR. He suggested decommissioning should be done slowly and carefully to ensure safety and that the Nuclear Safety Inspector should have funding for sufficient staff to do his job properly. He asked who had done the early flat studies to which Senator Kilkelly had referred.

Senator Kilkelly indicated that her recollection was that they were done by the plant and reviewed by the university, but that she would need to check to be sure.

Damariscotta resident Peter Arnold made a presentation to the committee. He indicated that he owned a wellness center in Damariscotta and that he viewed the committee as his advocate on the "health issue" with regard to Maine Yankee. He suggested that there was a need to be very careful on this issue to ensure people are protected.

Wiscasset resident Ellen Wanser made a presentation to the committee. She indicated that her maiden name was Bailey and that it was her family that sold the property to Maine Yankee. She suggested that the property had been "purchased with deceit" and indicated she wished it had never been sold to the company.

Wiscasset resident Ken Gray made a presentation to the committee. He indicated he was a fisherman in Montsweag Bay and that he was concerned that the bay be adequately tested and decontaminated. He provided a letter from Anne Burt to the committee.

Chairman Carey thanked the audience for their attendance and interest and for the cordial and respectful manner in which all comments had been delivered. He again thanked Ray Shadis for suggesting the hearing. He indicated that he felt the final report of the committee should mention the effect of the closure on the area towns who tuition students to Wiscasset.

APPENDIX F

Written Comments on Maine Yankee Decommissioning
Received by the Joint Select Committee

Town of Wiscasset

Wiscasset Town Office
P.O. Box 328
Wiscasset, ME 04578
207-882-8200

December 2, 1997

Senator Richard "Spike" Carey
3 State House Station
Augusta, ME 04333

Dear Senator:

Thank you for asking about the effects of the decommissioning of Maine Yankee. There are immediate, intermediate, and long range effects that we see.

Maine Yankee workers and their families are disrupted by this unexpected and rather sudden shift from operations to stand down. Although Maine Yankee has established a career center and has been able to down size without direct layoffs, the Wiscasset area feels the effects of the loss of friends and family. For example, the Chairman of the Wiscasset School Committee will be moving out of state.

The intermediate effects can be described by efforts to cut town costs and to attract new businesses to the area.

Wiscasset is taking steps to cut town spending by ten or fifteen percent in 1998. The schools will be cut one million dollars. However, this is just the beginning. By year 2000 we will be down about half of our 1997 levels. Unless something replenishes our income stream by then, we fall off a cliff at the start of the next decade.

These intermediate effects touch not only Wiscasset but also all surrounding towns. The biggest effect is being felt by Alna, Dresden, Edgecomb, and Westport. All these towns struggle with school plans. All are caught with few and unattractive alternatives.

The State of Maine itself is affected. With the school funding formulas, the area will be drawing more and more from the state in funding. County taxes will go up as well.

We are keenly aware of difficulties replacing the economic benefits of Maine Yankee. It would take a business of 4000 employees to replace the tax revenue; Wiscasset only has a population of 3600 people.

We have attempted to attract a fishing operation to homeport here, but this has been thwarted by a moratorium banning operations by the American Pelagic Fishing Company. We tried to expand our airport operations only to find that the Canadian firm involved has shaky financial underpinnings. We continue to look for the highest and best uses for the 800 acre Maine Yankee site; but the short term obstacles are formidable.

Finally, we see the long range effects as a mixed bag. If we work together with public and private sectors, we can hope to maintain much of our infrastructure. We can keep our school facilities at full operation - but at a cost. We need jobs to support that cost. We need the kind of jobs that take advantage of the high level of skills available here.

If we do not offset these effects of Maine Yankee closing eleven years earlier than planned, we will lose the high skills, we will lose the high quality school programs, and we will have staggering taxes which would drive out the local businesses and home occupations. Alna could be a ward of the state and the other towns could experience high economic stress.

Very truly yours,

Lawrence R. Gordon, Jr.
Chairman
Board of Selectmen
Town of Wiscasset

LRG/sms

OFFICE OF SUPERINTENDENT OF SCHOOLS

School Union No. 48
Wiscasset, Maine 04578

CHARLES E. BATCHELDER
Superintendent of Schools

"SUCCESS FOR ALL STUDENTS"

Telephone
(207) 882-6303

MEMO

To: *Legislative Committee Hearing For Impacts of Maine Yankee Decommissioning*

From: *Charles Batchelder, Superintendent*

Date: *December 3, 1997*

As Superintendent of School Union # 48, I represent four distinctly different communities: Alna, Westport, Dresden, and Wiscasset. Alna and Westport do not have schools and must tuition all their K-12 students. Dresden has a K-6 school and must tuition its' 7-12 students. Westport contracts to tuition all its' K-12 students to Wiscasset. Dresden contracts to send its' grades 7 & 8 students to Wiscasset, and 95% of their 9-12 grade students are tuitioned to Wiscasset by choice. Alna contracts to tuition its' K-8 students to Wiscasset, and 95% of its' 9-12 students are tuitioned to Wiscasset by choice. Aside from the union, Wiscasset has traditionally received 9-12 tuitioning students from Woolwich, Whitefield, and Edgecomb. They have also accepted a tuitioning contract for Edgecomb grades 7 & 8 students.

As you can see, any impact in Wiscasset has a far reaching impact on several midcoast communities surrounding Wiscasset. Wiscasset has a high per pupil cost, due in large to above average salaries for all support staff and professional positions relative to the area. With a tax base supported in large part by Maine Yankee, Wiscasset was in a position to share its' good fortune with it's neighbors. Wiscasset used to charge 50% of state allowable tuition, and has moved to 75% of state allowable tuition over the last several years. Several referendums for building projects have failed in Wiscasset over the years. Some say that Wiscasset has not wanted a larger school system in the event that Maine Yankee closed, so that they would not be asking the Wiscasset taxpayer to support that amount above the state allowable tuition for surrounding community students. The number of students attending Wiscasset schools has been increasing over the past several years to a point of overcrowding at the high school and middle school that has become a concern.Without a building project, the Wiscasset School Committee has tried to reduce student numbers for the future by capping tuition numbers and giving notice to at least three communities that they will no longer be accepting tuition students after 1999. These communities will have great difficulty finding a school to take the tuition students that can supply the same programs they have been used to in Wiscasset. Wiscasset will have a financial impact of greatly reduced tuition revenues over the next five years.

The immediate impact of the Maine Yankee closing upon the schools is a one million dollar reduction in overall expenditures from 1997/98 to 1998/99. Wiscasset has taken the position that they will increase tuition to surrounding communities to 100% of state allowable over three years. The first year, tuition will increase from 75% of state allowable to 85% of state allowable. The impact of this tuition increase plus an increased number of students will impact the surrounding communities in different ways, depending upon any balance carried forward and any increase in state foundation allocation. At this time, it is apparent that at least one community will suffer the equivalent of nearly a 4 mil increase for the cost of education. Because several of the communities have healthy balances that can be carried forward until 1998/99, the succeeding budget years will be even more difficult. This is no more apparent than in Wiscasset. Because of a very healthy budget, it is easy to "put the brakes on" in 1997/98's budget to generate a healthy budget balance forward at the end of the year. Wiscasset will also benefit by the increased tuition revenue. However, in succeeding years, with no substantial balance forward and a gradually reducing revenue stream, it will be much more difficult for Wiscasset to find major reductions in it's expenditure budget.

Even though it is difficult to find sympathy for Wiscasset or the Wiscasset School Department from others who have gone years with less, the impact of the closing of Maine Yankee will be greatly felt by several midcoast communities who have benefited from the Maine Yankee tax base in indirect ways for the past 20 years. These communities do not have reserve accounts or a fast enough growing tax base to accommodate the increase I am predicting without great burden to zthe property tax payer.

SCHOOL UNION #47

RR 1, Box 847B
Bath, Maine 04530

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M. Robbins Young, III
Superintendent
E-mail: byoung@clinic.net

Jill V. Adams
Special Services Director
E-mail: jadams@clinic.net

December 23, 1997

Mr. Jon Clark
Legislative Counsel
Office of Policy and Legal Analysis
13 State House Station
Augusta, ME 04333-0013

Dear Mr. Clark,

Thank you for your letter regarding concern for the impact of Maine Yankee's closure on School Union #47. My thoughts are strictly my own and do not necessarily reflect the beliefs of my entire district. The decommissioning of Maine Yankee will:

- Cause a mild loss of student population in my district as workers relocate to other areas beyond Mid-Coast Maine for new job opportunities which puts a greater strain on property taxes to support existing educational services.

- Cause a loss of "high school" choice options for Woolwich students who desire to attend Wiscasset High School. The Wiscasset school committee has decided to down size their educational operation and is eliminating 40 high school tuition slots for our 8th graders after this school year, 1997-98.

- Cause future increases in electrical energy costs for all Mainers. States need to collaborate with the federal government in conducting in-depth research in nuclear plant design on order to ensure the safe operation of plants and safe disposal of uranium by-products

- Cause another piece of our high tech infrastructure to disappear and with it needed jobs for Maine workers. The continuing drain on the talent pool in our State pushes us closer to a full service-oriented economy.

Thank you for allowing me to make comments at this late date.

Sincerely,

M. Robbins Young, III
Superintendent of Schools

MRY:aj

cc: School Committee Chairs, Arrowsic, Georgetown, Phippsburg, West Bath, Woolwich
First Selectmen, Arrowsic, Georgetown, Phippsburg, West Bath, Woolwich

TOWN OF ALNA
BOARD OF SELECTMEN
PO Box 265 Alna, Maine 04535

January 14, 1998

RECEIVED
JAN 2 0 1998
OPLA

Office of Policy and Legal Analysis
13 State House Station
Augusta, ME 04333-0013
Attn: Legislation Council Jon Clark

Dear Mr. Clark,

This letter is in response to your letter to us of December 17, 1997 asking for written comments on the effect of the closing of Maine Yankee on the Town of Alna. We realize that you requested our comments earlier than this but due to the holidays and inclement weather this is the first formal meeting we've had in three weeks.

First, we wish to speak of the impact of the Maine Yankee closing on the residents of Alna who worked at the plant. Several Alna families had a member who worked at the plant and disproportionately to the general population of Alna, these families were actively involved in various town, county, and state offices and organizations. Unfortunately, most of these families have had to relocate out of state and we will miss them as good citizens of the Town of Alna.

Second, regarding the financial impact on the Town of Alna, the two areas where we have ties to Wiscasset and hence where we will see an impact as they downsize their municipal budget to make up for the loss of tax revenue from Maine Yankee is our use of their transfer station and the tuitioning of Alna school children to Wiscasset schools.

We don't expect to see a big impact from the transfer station since we pay a percentage of the actual operational costs of the facility based on the amount of trash generated by Alna residents. Our cost last year was $23,000. Should Wiscasset propose some other method of payment to use the facility, we will investigate other alternatives of trash removal with an eye on the least expensive alternative that is most convenient to Alna residents.

Our school relationship with Wiscasset is that we have a contract with them to send all K thru 8 Alna school children to Wiscasset schools on a tuition basis. Alna children in grades 9 thru 12 have the option of going to any school but in reality about 75% of these children have gone to Wiscasset, again on a tuition basis. Over the years Wiscasset has charged us less than the full tuition rate (currently 75%) but in our minds the lower rate hasn't compensated for their high education costs financed primarily (at least in the past) from Maine Yankee tax revenues. Like most towns in the state our largest municipal cost is education This year it was $451,800 which

represents 71% of our budget and tax commitment. With a mil rate of 19.8, based on full valuation, this works out to a $1,980 real estate tax on a typical $100,000 property.

In the future we expect Wiscasset to up the tuition rate to 100% hopefully incrementally over a three year period rather than in a single year. Projecting for a 100% rate our education costs would be $663,000 which would represent 78% of our tax commitment. The projected mil rate would be 25.4 mils, an increase of 28% from the present rate which translates to a $2,540 real estate tax on a $100,000 property. Because Alna is a residential community with only one commercial establishment (a small store) and no industrial tax base and also a minimal amount of vacation or second homes owned by non residents, this tax increase would be born almost exclusively by Alna residential property owners.

Sincerely,

David Abbott
First Selectman

John Green
Second Selectman

Linwood Bailey
Third Selectman

Copy to: File

TUPPER & TUPPER
LAW OFFICES
102 TOWNSEND AVENUE, P.O. BOX 430
BOOTHBAY HARBOR, MAINE 04538

JILL KAPLAN TUPPER
STANLEY R. TUPPER, *of counsel*

TEL/FAX: 207/633-4300
FAX 207 633-1100

Dec. 3, 1997

Hon. Richard J. "Spike" Carey
Maine State Senate
P.O. Box 474
Belgrade, ME 04917

Dear Mr. Chairman:

Since it will not be possible for me to attend the meeting of the Joint Select Committee on Maine Yankee at Wiscasset on Dec. 11th, I wanted to convey a few thoughts on the decommissioning process.

Now that MYA has closed, instead of a power producing nuclear plant in Wiscasset, there is now a de facto nuclear dump. All Maine people, whether formerly pro MYA, or opposed, should be able to agree that the decommissioning process should be the safest possible; the goal must be the lowest possible radiation levels both on site and in the surrounding towns. A price tag cannot be placed on the health and lives of the citizenry. Central Maine Power and other owners of MYA should concur, for to do otherwise their corporate images will be severely damaged.

The people of mid-coast Maine look to their State legislators to assure the strictest adherence to safety as this plant is dismantled. As a former State and National legislator I still believe most elected officials want to do what is right.

Thank you for allowing me to share my views with you.

Sincerely,

Stan Tupper

c.c. Hon. Keny Honey

Submitted by Kris Christine on Dec 11, 1997

Headquarters Daily Report
DECEMBER 05, 1997
****

Contact: ROBERT C. CARROLL (404) 562-4511
REGION I MORNING REPORT PAGE 3 DECEMBER 5, 1997

Licensee/Facility: Notification:
Northeast Utilities MR Number: 1-97-0061
Millstone 3 Date: 12/05/97
Waterford,Connecticut SRI PC
Dockets: 50-423 PWR/W-4-LP

Subject: CONTAMINATED SILT AND DEBRIS FOUND IN INTAKE STRUCTURE

Discussion:
The licensee was removing silt and debris from the Millstone Unit 3 circulating water intake structure. They separated the loose debris from the silt, which was then placed in holding ponds and the liquid decanted. ***The resulting sludge was transported to the local Waterford, Connecticut, landfill. After several truck loads of material were sent to the landfill, the licensee decided to sample the material***. The results of two sample counts found 0.1 pico Curies/gm and 0.05 pico Curies/gm of cobalt 60 and cesium 137. [Lower limit of detection (LLD) used for the samples was 0.035 pico Curies/gm. The licensee's ODCM LLD is 0.15 pico Curies/gm].

Approximately 120 cubic yards of material have been placed in the Waterford landfill. Of this material, 60 cubic yards is silt and 60 cubic yards is other material such as mussels and seaweed. The licensee took three samples of the landfill using the 0.035 LLD and found no contamination. They were unable to dump the material back into the bay because of EPA and State of Connecticut silting problems (see 10CFR 50.72 Report No. 33344 dated 12/03/97). The State has been informed of this issue.
Regional Action:

The NRC is planning to take independent samples of the landfill to confirm the licensee's findings. Any further action will depend on the results of the NRC sample. Region I is coordinating its activities with both the State and NRC Headquarters.
Contact: John White (610)337-5114
Jacque Durr (610)337-5224

Return-Path: PMBLANCHSubject: Fwd: Hanford Leaks to Groundwater Confirmed
Date: Fri, 5 Dec 97 19:50:05 -0500
From: "Paul M. Blanch" <
Subject: ***Hanford Leaks to Groundwater Confirmed***
Sent: 12/4/97 9:00 PM
Received: 12/5/97 6:49 PM

Dear Paul et al,

The Oregonian today confirmed that DOE studies show that about 60 + tanks of 177 tanks have leaked and some of the 50 + million gallons of high level waste has reached the groundwater, through relativly dry impervious soils, over 200 feet down. Although this doesn't surprise me, it does surprise me that it took so ling to confirm, and that they confirmed it at all. Additional info from DOE soon.

It is also bad news for other waste sites present and proposed such as Ward Valley, CA, which is under serious attack and may not be used for a number of reasons, this one now included. ***Leaks into ground have occured at at least Savannah, Brookhaven, Rocketdyne etc. and other regular plants such as SONGS, but amounts are also unknown. Hell, they all may be leaking***! God only knows what has happened to all that bad water at Three Mile Island.
They just don't test and drill enough.

God Have Mercy,
XXXXXX
ps: for distribution

From: dlochbaum
Date: Fri, 14 Nov 97 15:26:11
Encoding: 9088 Text
To: LedgeSpring@lincoln.midcoast.com
Subject: newsday article

At Lab, Bucket Of Trouble / Search for fuel leaks faulty, report finds

Charlie Zehren. STAFF WRITER

Scientists at Brookhaven National Laboratory repeatedly relied on unsophisticated measuring devices - from buckets to rulers - to gauge whether radioactive water was escaping from the 68,000-gallon spent-fuel-pool of the lab's main nuclear reactor, interviews with lab officials and a congressional investigation show.

Lab officials then used results from the flawed tests "as a basis for their confidence that the spent-fuel pool did not leak," according to the General Accounting Office probe for the House Science Committee.

Consequently, reactor operators did not realize until early this year that a small yet steady drop in the water level each day since at least 1985 was not due to evaporation, but to water laced with radioactive tritium leaching through the pool's concrete liner into the aquifer.

``This is a facility that provided power through 30 years and now has to be cleaned up. Any plant that operated for 30 years has some contamination," Feigenbaum said.

Rowland disagreed. ``The high projected cost of decommissioning the plant was caused by chronic mismanagement. There is no reason the ratepayers of Connecticut should be asked to foot that bill," Rowland said. Nor would taxpayers pick up the tab, he said.

Joosten said he found evidence of ``serious management breakdowns in design controls and radiological controls" that allowed unknown quantities of radioactive particles to be discharged to the surrounding air, soil and water during the plant's operating life, causing imprudent and excessive decommissioning costs at Haddam Neck.

As The Courant reported after Joosten filed his original report in June, NU does not know the extent of the contamination on the site. But Feigenbaum said Tuesday that the Connecticut Yankee Atomic Power Co., which owns the plant, remains fully committted to cleaning up any contamination already identified as well as any new contamination located during decommissioning activities. Soil tests conducted to date by the utility and the federal Nuclear Regulatory Commission show radiation levels on the plant grounds to be within allowable limits and are not a public health threat.

Also, soil tests by the state Department of Environmental Protection on surrounding property show no evidence of radioactive contamination from the nuclear plant.

``With the testing done so far, we have found no immediate public health threat. The hard part is measuring what exposures are" or were at the time of the radiation release, Rowland said.

There is scientific and political debate over how to measure and dispose of contaminated materials at retired reactors. Because even low doses of radiation are assumed to pose a long-term cancer risk, regulators require that the smallest amounts of radioactive waste left by nuclear reactors be cleaned up before a site is returned to public use.

Joosten's latest findings - based on his review of hundreds of pages of documents provided by the utility - were filed Monday with the Federal Energy Regulatory Commission. The commission has sole jurisdiction over decommissioning issues and is expected to decide as early as next year who pays and how much.

``Connecticut Yankee had many opportunities to correct design and operational problems over the plant's life, but failed to do so effectively," he said.

As a result, radioactive contamination has spread throughout the plant and outdoors to the soil and asphalt and has been identified in the plant parking lot, the septic system, in the silt of the discharge canal, on roofs, in water wells and even at a shooting range three- quarters of a mile away, Joosten said.

The investigation's findings proved particularly surprising given the stellar reputation of scientists at the lab, said GAO Project Director Gary Boss. "They are, after all, scientists capable of doing sophisticated measurements," Boss said yesterday. "You could say, fairly, that they could have done more careful tests if they had been more interested in doing them."

The 46-page GAO report mirrors previous findings but offers the most detailed and comprehensive account to date of how it took until January this year for the lab and its parent, the federal Energy Department, to discover that radioactive water had been leaking from the research reactor's pool at a rate of six to nine gallons per day since at least 1985, and maybe as early as 1982.

The GAO report also casts a harsh light on severe management problems within the Energy Department that congressional investigators said contributed to the lab's environmental problems, according Sen. Alfonse D'Amato (R-N.Y.). "All of this shows that the DOE never ascribed any importance to the health and safety concerns of the community," D'Amato said yesterday.

Martha Krebs, director of the Energy Department's Office of Energy Research, yesterday said the report is "generally accurate" and asserted that the agency and the lab are making progress in fixing management problems that contributed to an erosion of public trust.

In January, lab officials discovered tritium - which causes cancer in high doses - at 32 times drinking water standards in samples near the reactor pool. Former Transportation Secretary Federico Pena took over as Energy secretary in March and in May terminated Associated Universities, Inc. as the laboratory's operator, citing its failure to discover the leaks and its disregard of community concerns.

Local, state and federal environmental officials strongly assert that the public faces no health risks from the reactor pool leak or from six other "plumes" of hazardous chemicals seeping into groundwater in and around the lab's 5,300-acre property north of the Long Island Expressway at Exit 68 in Upton.

Officials at all levels of government have also joined with the lab in launching a massive program to clean up five decades' worth of hazardous waste dumped at the site, a former U.S. Army training facility. The High Flux Beam Reactor is shut down as the lab prepares to safely dispose of the radioactive water in the pool - which once stored spent nuclear fuel rods - and re-line it with steel in compliance with Suffolk County Health Department regulations adopted in 1987.

In an interview yesterday, Peter Bond, the lab's interim director, acknowledged the problems cited in the GAO report but said officials from the lab and the Energy Department are working hard to clean up the mess, reform the management system, instill public confidence and bolster morale within the facility's beleaguered scientific community. "Everything is beginning to go in the right direction," Bond said.

According to the GAO report and interviews: Lab officials incorrectly blamed sewer lines instead of pool leaks when they first discovered elevated levels of tritium in a drinking water well about 500 feet from the reactor in 1986. Responding to concerns of Suffolk officials in 1989, scientists in the lab's reactor division began trying to test for leaks. The task proved difficult because the tank - which ranges between 20 and 30 feet deep - loses about 50 to 100 gallons of water a day to evaporation. The water level also fluctuates because of temperature changes. Technicians routinely pump new water into the tank to keep it level, cool the spent-nuclear fuel rods and control the radiation.

At first, the technicians lowered a bucket from scaffolding into the pool, reasoning that if the water level in the pool fell lower than in the bucket after a few days, the pool must be leaking. But after several days, they abandoned that method because they didn't think it was accurate, sealed the pool with plastic to factor out evaporation, and measured the height of the water in the tank with a simple ruler. A leak was ruled out when the water level remained constant.

Lab technicians then failed to detect the leak after using a stainless steel bucket hung from steel cables in conducting similar tests in 1994, 1995, 1996, and early 1997. Reactor technicians "believed the tests were accurate because repeated tests produced the same result," the GAO concluded. "Staff from the laboratory's safety and environmental protection division told us they did not question the reactor division's tests because of a high regard for its work."

After the lab delayed well testing for two years, tritium was discovered in groundwater last January. Then technicians switched to measuring the water level with surveyors' instruments and discovered a leak of six to nine gallons a day. When spread across the surface of the pool, each gallon lost represented a reduction equal to the thickness of a piece of paper.

"Sounds like they were using a calendar to time a 100-yard dash," said David Lochbaum, a nuclear safety engineer with the Union of Concerned Scientists in Washington, D.C.

In interviews this week, reactor division officials at the lab expressed embarrassment at their testing procedures but asserted that they had made honest mistakes and never tried to cover up the leak. Yet Rep. Michael Forbes (R-Quogue) said the failed leak tests fuel his suspicions that lab officials tried to cover up the potential danger. "They kept saying, `Everything is fine. Everything is working.' Now we know that everything was not fine and everything was not working," Forbes said.

In its report, the GAO portrays the Energy Department as plagued by buck-passing, skewed lines of authority, blame-shifting, miscommunicaton, budgetary wrangling, bureaucratic bungling, systematic mismanagment and arrogance.

D'Amato said Energy Department administrators offered contradictory explanations when asked why they delayed installing test wells. At one point, the officials said they delayed the wells because they didn't have the funding. At another point, they said their underlings did not tell them they had agreed to install the wells. "These explanations represent nothing but a total attempt at a cover-up," D'Amato said. "The Department of Energy lied."

At Lab, Bucket Of Trouble / Search for fuel leaks faulty, report finds.,
11-14-1997, pp A03.

To: "Peter & Kris Christine" <LedgeSpring@lincoln.midcoast.com>,
Subject: FW: Tritium In Wells Raises More Questions
Sent: Thursday, October 30, 1997 7:41 AM

Thursday October 30 Tritium In Wells Raises More Questions

By MIKE McINTIRE

[Image] This story ran in the Courant October 30, 1997

Northeast Utilities insists that contamination at its Connecticut Yankee nuclear plant has never posed a health risk, but for 25 years it has not allowed its employees to drink tap water from plant wells that have been tainted with low levels of radioactive waste.

NU has provided Connecticut Yankee staff with bottled drinking water since 1972, around the same time that tritium began appearing in the two wells that serviced the Haddam Neck plant. Tritium is a byproduct of nuclear fission and is a health threat at high doses when ingested or inhaled.

Federal regulators, citing annual averages provided by Connecticut Yankee over the years, say the tritium levels reported do not exceed allowable limits. Connecticut Yankee, which has been criticized by regulators for poor radiation monitoring and record keeping, was unable on Wednesday to provide specific data for tritium found in either well in the early 1970s.

Tritium continued to appear in the wells into the early 1990s, but the utility said the decision to stop drinking the well water was unrelated to concerns about radioactivity. An unusual event occurred in one well that caused NU to switch to bottled water, said NU spokesman Anthony Nerriccio.

``A skunk fell down the well and died," Nerriccio said. ``Someone left the concrete cover off while doing maintenance on the pump, and the skunk got in there and decayed."

Asked why that would cause NU to stop using both wells Nerriccio speculated that ``perhaps some cross-contamination'' from the skunked well reached the second well. Another reason for not drinking from the wells, he said, is the water had high copper content that caused upset stomachs.

A state Department of Environmental Protection official had a different explanation. Kevin McCarthy, director of the DEP's Division of Monitoring and Radiation, said NU has told him that it was concerns about both tritium and metal content that led the plant to bring in clean water.

``They evidently made the determination that tritium was in it, and it was a combination of the brackishness and the tritium that caused them to switch over to bottled water,'' said McCarthy. ``Certainly, as far as the tritium is concerned, that was the prudent thing to do.''

Asked about that, Nerriccio said ``different people have different recollections'' about events that occurred more than two decades ago. He said he was basing the skunk story on an account from a longtime employee, as well as his own recollection ``of something involving an animal in the well.''

Because of the concerns about tritium entering aquifers that supply well water to homes near the plant, the DEP is set to begin a large-scale groundwater sampling program in the area in about two weeks, McCarthy said. That is in addition to samples already taken from about 10 private wells near the plant, for which test results are pending.

Tritium decays relatively quickly - it loses about 5 percent of its potency each year - so high amounts that entered a water supply years ago would be difficult to detect today. One would also have to know when the material entered the water to determine its initial potency, radiation specialists say.

Connecticut Yankee has a poor track record of monitoring radiation releases into the environment, and recording them when they occur. NRC officials have complained that, because of a lack of readily available records, NU has had to resort to contacting retired workers to piece together an oral history of contamination at the 29-year-old plant.

There have been other problems. Earlier this year, the NRC declared much of the plant's monitoring system inoperable after it found that some measuring devices had not worked properly for years. NU says the problems have been fixed.

The NRC discovered in July that contaminated dirt had been allowed to leave the site over the years for use as construction fill by local residents. A day-care center in East Hampton operated by the wife of a plant security guard received fill with trace amounts of cobalt 60, a radioactive byproduct of nuclear power operations.

Plant officials later fenced off an old landfill area at the edge of the plant property, effectively declaring it a radiation zone.

Connecticut Yankee, one of the country's oldest plants, began operation in 1968. It was shut down permanently last year, and awaits decommissioning.

Connecticut Yankee has a long history of problems controlling tritium and some other radioactive isotopes, according to the NRC, partly because of antiquated steel casings on the reactor fuel rods that allowed radiation to seep through. Tritium has also escaped into the environment through occasional spills of waste water and other mishaps, plant and NRC records show.

A memorandum written by an NRC radiation safety specialist in 1996 said the plant ``releases more tritium than other plants" in the United States.

``Occasionally another plant releases more tritium in a particular year, but generally Haddam Neck has released more tritium than any other plant," the report said.

The memo went on to say that, even at those levels, the tritium releases from Connecticut Yankee have been within regulatory limits. The U.S. Environmental Protection Agency sets a drinking-water limit of 20,000 picocuries of tritium per liter. A picocurie is a fraction of a curie, a standard unit for measuring radioactivity.

Annual reports prepared by NU for federal regulators show that Connecticut Yankee reported levels of tritium in plant wells of several thousand picocuries per liter in the 1980s and early 1990s, peaking at 6,000 picocuries in 1989. Reports from the 1970s were not immediately available.

The wells are on a peninsula extending into the Connecticut River, about a half a mile from the plant. After the two wells were no longer used for drinking water, two additional wells were dug, which were later abandoned altogether ``because of high iron content," Nerriccio said.

Two Haddam Neck residents, whose wells were among those tested by the DEP, said they hadn't known about the tainted Connecticut Yankee water. Mary Nilsen, who lives a mile from the plant at 119 Injun Hollow Road, is hopeful her water tests free of contaminants.

``The one [tester] from the state said we shouldn't be alarmed," she said. ``I don't know who to believe. You hear so many different stories."

Wayne Denman, who lives at 325 Quarry Hill Road, said that when he did maintenance work at Connecticut Yankee for several months in 1994, bottled water was plentiful. He feels confident his home drinking water supply is OK.

``I feel comfortable with it," said Denman.

Courant Staff Writer Gary Libow contributed to this story.

Return-Path: PMBLANCH@Subject: Fwd: Hot Blocks Left CY
Date: Thu, 27 Nov 97 22:07:43 -0500

Wednesday Blocks From Nuclear Plant Sought

November 26

By SUSAN E. KINSMAN

[Image] This story ran in the Courant November 26, 1997

[Image]

Northeast Utilities said Tuesday it has identified about 30 sites that need to be checked for radioactive contamination after trace amounts of radiation were found on concrete blocks taken from the Connecticut Yankee nuclear plant.

[Image]

An estimated 5,000 surplus blocks were offered to employees in the late 1970s. They once formed a temporary shield wall around a cask of radioactive waste awaiting shipping.

Now NU, the principal owner and operator of the Haddam The Hartford nuclear plant, is trying to track down all of the blocks, and other construction debris, to check them for contamination.

The investigation is part of NU's continuing effort to map contamination of the site, the first step toward cleaning up and dismantling the now closed nuclear plant.

Five concrete blocks were returned last week by an employee who had used them at home. Three showed low levels of radiation, spokesman Anthony Nericcio said. He refused to identify the hometown of the employee, saying the company did not want to discourage others from coming forward. Nericcio said there was no danger to public health and safety. A person standing within 3 feet of a contaminated block for one year would receive a radiation dose of less than 1 millirem, compared with an annual exposure of 360 millirems from natural background sources in Connecticut, he said.

Since Friday, about 30 employees have come forward, Nericcio said. He could not estimate how many blocks had been located and how many remain unaccounted for. But Nericcio said that, to date, no more contaminated blocks had been found.

Plant officials are turning to employees and former employees because there are no radiological control records for the surplus construction material taken from the Haddam plant.

At the time, employees were asked to check the blocks for radiation before removing them from the site, but there is no written evidence that those inspections were ever made.

NU notified the federal Nuclear Regulatory Commission and the state Department of Environmental Protection about the findings Monday. The state and federal regulators are also testing on and off site for contamination.

"We're monitoring what the licensee is doing," said Diane Screnci, an NRC spokeswoman. "We're satisfied right now that they are doing what they are supposed to do."

Return-Path: PMBLANCHSubject: Conn Yankee
Date: Wed, 17 Sep 97 20:14:31 -0400

Wednesday Officials toughen stance on paying for Connecticut Yankee
September 17 shutdown

[Image] By SUSAN E. KINSMAN
[Image] This story ran in the Courant September 17, 1997
[Image]
[Image] Customers of Northeast Utilities deserve a refund of their share of $210 million collected to decommission the Connecticut Yankee nuclear power plant, state officials said Tuesday.
[Image]
[Image] Pointing to mismanagement of the contaminated Haddam site, Gov. John G. Rowland joined Attorney General Richard Blumenthal and state regulators Tuesday in the new hard-line position. ***They based their stance on the latest findings of James K. Joosten, a nuclear plant consultant the state hired at utility expense.***

Customers have been paying into a decommissioning fund for the 28 years the plant has been in operation. Before Tuesday, state officials had objected to collecting any additional money from ratepayers to clean up the Connecticut River site. Now they say the consortium of utilities that owns Connecticut Yankee should bear the entire expense and refund the money collected already from customers.

It was unclear what a refund could mean to customers.

NU, the principal owner and operator of Connecticut Yankee, estimates it will cost $426.7 million to decontaminate and dismantle the reactor and surrounding buildings and to rid the site of any radioactive contamination.

Ted C. Feigenbaum, NU's executive vice president and chief nuclear officer responsible for Connecticut Yankee, denied allegations by state officials that the estimate is inflated.

He said the utility will not ask customers to pay for any decommissioning costs caused by mismanagement. But he said customers could fairly be asked to cover some of the expense of shutting down the plant that supplied them with electricity for years.

The consultant said much of the contamination stemmed from two incidents in 1979 and 1989 in which the nuclear fuel was damaged by operating errors. The damage contaminated surrounding cooling water which then spread through the plant and, in some cases, onto the grounds.

Joosten said fuel damage incidents are rare and he was unaware of any plant that had more than one serious incident. ***Diane Screnci, a spokeswoman for the federal Nuclear Regulatory Commission's regional office, said it is ``fairly common'' for nuclear plants to have fuel failures and there are other commercial plants in the United States where it has happened more than once.***

Screnci said the Nuclear Regulatory Commission has been reviewing Joosten's findings since his original report was filed. ``Something we are looking into is whether there was a design problem that caused more contaminations - or whether there was more contamination" beyond what you would find in a nuclear plant at the end of its useful life, she said.

Joosten said, ``my evaluation and quantification of prudence or reasonableness is based on what reasonable nuclear utility management would have done in good faith under the same circumstances and at the relevant point in time." He said Connecticut Yankee's management of design control, radiological control and radioactive waste handling was clearly imprudent.

The reactor began commercial operation Jan. 1, 1968, and was licensed to operate until 2007. But the owners retired the plant in December 1996, after an economic analysis showed it to be too expensive to operate.

In January, NU asked the federal Energy Regulatory Commission for permission to continue collecting decommissioning funds from customers.

In June, Blumenthal and state regulators filed testimony and Joosten's original report opposing the request. Hearings before federal Energy Regulatory Commission begin next month.

Connecticut Yankee filed its decommissioning plan with the Nuclear Regulatory Commission in August, saying it planned to remove or decontaminate the equipment, structures and grounds, allowing the property to be released for unrestricted use.

The nuclear commission is now accepting public comments on the plan. But NU said critical decisions on how to remove the most radioactive components won't be made until the last quarter of the year.

Gpc

December 11, 1997

TO: The Special Joint Legislative Committee on Maine Yankee
FROM: Anne D. (Andy) Burt, Edgecomb resident and Secretary of Friends of the Coast, 231 Mill Road, Edgecomb, ME 04556

Friends:

I am sorry to be unable to attend the special public forum on Maine Yankee Atomic Power Station this evening in Wiscasset. Work commitments planned weeks ago have kept me from this important opportunity to share with you my concerns as a resident living about two miles from the nuclear power generating facility. I appreciate that you have come here to begin a dialogue with the people who live in close proximity to the plant.

I was indeed gratified to read that Senator Spike Carey has stated that the state will insist that the nuclear power plant site be cleaned up to meet the more stringent Environmental Protection Agency standards. As we read today's *Portland Press Herald* revealing radioactive spots discovered at Bailey Point, on the ball field, and mud flats near the plant, it reminds us how critical it will be for the state to oversee the decommissioning and the clean-up in a **pro-active** way. AND to be sure that the site is indeed cleaned up to first class standards! This means on-site monitoring and surveying in a hands-on manner, not just paper pushing.

The community depends on its beautiful environs to support a growing tourist industry. Many of our friends and neighbors rely on the natural resources in the waters and flats near to the nuclear plant for their livelihoods. Anything short of a thorough clean up jeapordizes the future welfare of the midcoast area and the state as a whole.

I hope in the weeks and months to come that the Maine State legislature will stay in close contact with the people in this area who stand to lose everything if there were to be an accident during the decommissioning. This is not a time for feeling relief, but a time for all of us to be vigilant of the processes that determine the quality of the future for all Maine residents. We must not compromise our standards, for the sake of all generations to come.

Thank you.

Anne D Burt

December 10, 1997

Sen. Richard Carey
State House Station
Augusta, Me 04333

Dear Sen.Carey,

I attended the last legislative committee meeting on the decommissioning of Maine Yankee in Augusta and I heard you say several times that you wanted to spare the taxpayers every cent possible from the decommissioning costs of Maine Yankee. I think I've found a way to help you with that goal in mind.

In 1993, Maine Yankee estimated the decommissioning cost to be a little over 300 million and M.Y. set aside money annually to cover those costs. The latest decommissioning figures are roughly 380 million dollars for decommissioning with the added cost of 127 million for on site dry cast storage.

Approximately 169 million has been set aside for the decommissioning phase of Maine Yankee and nothing set aside for on site storage because the spent fuel was expected to be shipped to a federal depository.

Now comes the sticky part, the decommissioning cost estimate is just that an **estimate.** *If a corporation wanted to take more profit annually,* one would just need to give a low decommissioning estimate and less money would be set aside annually. *If a corporation wanted to expand their stranded costs situation* , one would just need to give a low decommissioning cost estimate. Sen. Carey, don't you think we need to make Maine Yankee responsible for the **real costs** of decommissioning Maine Yankee.

I personally called the Nuclear Energy Institute in June of 1995. The Nuclear Energy Institute represents the Nuclear Industry in Washington D.C., they are the information and lobbying arm of the Nuclear Industry. Their engineers told me that they figure decommissioning costs on a KWH basis. They figure it's one million dollars per kwh of output. If you have an output of 400 million kwh it costs 400million to decommission that plant. Maine Yankee has an output of 880 million kwh so the NEI estimates the cost at 880 million dollars to decommission Maine Yankee Atomic.

So who's correct Maine Yankee or the Nuclear Energy Institute? ANSWER: It doesn't matter. Whatever the decommissioning cost turns out to be .....make Make Maine Yankee responsible for the share that they would have set aside if they had been setting money aside annually for the past 24 years based on the final figure, whatever is the **real cost** of decommissioning.

Please let me know how you feel about this,

Sincerely,

Michael A. McConnell P.O. Box 277 Boothbay, ME. 04537

JANUARY 7, 1998

THE MAINE YANKEE NUCLEAR WASTE SITE

Background, Overview, & Recommendations

A REPORT
TO THE

JOINT SELECT COMMITTEE TO OVERSEE MAINE YANKEE

118TH LEGISLATURE OF THE STATE OF MAINE

SECOND REGULAR SESSION

FROM

Friends of the Coast - Opposing Nuclear Pollution
Anne D. Burt, Secretary
Post Office Box 98, Edgecomb, Maine 04556

A REPORT to the JOINT SELECT COMMITTEE to OVERSEE MAINE YANKEE
STATE of MAINE -118TH LEGISLATURE - SECOND REGULAR SESSION

JANUARY 7, 1998

This report is submitted by **Friends of the Coast- Opposing Nuclear Pollution** in response to an invitation from the Honorable Senator Richard Carey, Chairman of the Joint Select Committee to Oversee Maine Yankee.

It is intended to outline in general issues of concern regarding state oversight of the decommissioning of the Maine Yankee Atomic Power Station, remediation of the Maine Yankee Nuclear Waste Site, and long-term stewardship of a projected Maine Yankee High Level Nuclear Waste Fuel Storage Facility.

More specifically, this report is intended to suggest some steps which the Maine Legislature could undertake to enhance protection of the Maine coastal environment and the well-being of its citizens.

All of the assertions of fact in this report are supported by documentation which is available from Friends of the Coast upon request of any legislator.

The purpose of Friends of the Coast is simple, clear, and positive. We commit ourselves to protect the Maine coast and all of its present and future inhabitants from nuclear pollution.

If Friends of the Coast had sufficient evidence to reasonably conclude that public safety and the natural environment were adequately protected from nuclear pollution by state and federal regulators, Friends of the Coast would cease to exist as an organization. Its members would happily restore volunteer time and financial resources now exhausted on nuclear issues to personal pursuits, to family, to other community service, to earning their livelihoods.

It is, however, not the case.

BACKGROUND:

A CITIZEN INDICTMENT of STATE NUCLEAR OVERSIGHT in MAINE

Revelations surfacing during the period from 1995 through 1997 confirm that Maine Yankee Atomic Power Station (MYAPS) was improperly designed and built and then operated without adequate regulation from its very beginning in late 1972. Electrical systems and cable separation deficiencies dogged the plant throughout its operating life. This started with an incident involving shared electrical grounding of reactor control rod drives in the spring of 1973 (just five months after start-up) and continued in one form or another until the plant was forced off-line because of cable separation issues in late 1996.

The 1973 MYAPS incident, in which reactor control rods other than those intended moved, prompted one of the Atomic Energy Commission's top nuclear safety experts, Dr. Stephen Hanuer, to warn in an internal memo: " Some day we will all wake up."

Maine's state nuclear safety inspector, Patrick Dostie stated in a recent Lincoln County Weekly interview that events surrounding the Nuclear Regulatory Commission 1996 Independent Safety Assessment (ISA) of Maine Yankee Atomic had given him a real " wake-up call."

Indeed it is evident that both the state and the NRC were asleep at the switch while MYAPS was operated at enhanced thermal power levels with inadequate, improperly analyzed, misrepresented or unproved safety equipment, such as, an unproved emergency core cooling system, undersized atmospheric steam dump valves , lack of adequate reactor containment volume, missing safety-related electrical cable, improperly routed electrical cables, defective penetration fire seals, critical valves susceptible to jamming, and numerous components vulnerable to accident conditions. And much, much more. **All of this led independent nuclear safety experts to conclude that if MYAPS had suffered an accident at any time during its operating history, one or more safety systems designed to prevent a meltdown would have failed.**

Maine Yankee Atomic 's multiple safety-related deficiencies are now a matter of record.

It is also a matter of record that, during the last ten years, state agencies charged with oversight of Maine Yankee Atomic have failed to publicly raise a single significant safety issue. What is more, a diligent search of newspaper archives and video-recordings from 1994 to the present has failed to yield a single instance of state oversight officials charged with health or safety, engaging in public statements of opposition, contradiction, criticism, or disagreement with anything said or done by MYAPC.

The state's record of conformance to the public posturing of MYAPC is almost perfect even though the evidence now clearly demonstrates that MYAPC was worthy of little or no credence or confidence at least in matters relating to nuclear safety.

In contrast to the state's performance, we have recently been informed by NRC that a number of safety and regulatory issues raised by Friends of the Coast are still under process of review by that agency.

We are proud, for example, to have uncovered the long-suppressed 1978 Maine Yankee Fire Protection Report of NRC Safety Engineer Peter Atherton. Although the report called for the shutdown of MYAPS, it also raised generic fire and explosion issues now under review by NRC. The issues in the Atherton report should have been raised by the state.

They were not.

Indeed, there was no follow-up by the state.

This is now all the more scandalous as NRC informs us that nuclear plants which are shutdown are much more vulnerable to fire than those which are operating. Safety continues to be compromised as MYAPS features fire seals which are made of flammable RTV silicone foam, have numerous installation defects and decommissioning activities will introduce the hazard of additional fuel and ignition sources.

In the summer of 1996 , Clough Toppan, a state official, told members of the public at an Emergency Management Agency (MEMA)meeting in Wiscasset that a reactor accident would involve no more than a mile or two around the plant. Friends of the Coast then looked into the issue of two NRC Notices of Violation which cited plants engaged in emergency drills for failure to recommend protective actions beyond ten miles! In one case, lethal doses were projected at that distance. How were we to take the assurances of state officials charged with protecting our families? Just what was going on? Shouldn't they have been aware of official public documents which flatly contradicted what they were telling us?

Col. John W. Libby of MEMA, may have inadvertently given us part of the answer when at a Maine Yankee Community Advisory Panel in December of 1997, he extolled the outstanding state and private sector (Maine Yankee) partnership which built the nuclear emergency response structure to be the fine example it is. [A example, by the way, which was cited in a 1996 review of emergency exercises by the regional director of the Federal Emergency Management Agency as failing to be protective of public health.]

Col. Libby , we believe, put his finger squarely on a principal defect in state nuclear oversight: **State agencies simply should not be forming partnerships, open or tacit, with the corporate entities whose unavoidable interest lies in publicly minimizing the risk they generate. Instead state agencies should be forging partnerships with ordinary citizens, the people who have all too few institutions around which to coalesce and build strong momentum for public policy.**

The allegiance of state officials and their agencies, we believe should be not be tempered by any considerations of balancing risk and perceived benefit of a nuclear enterprise.

The first duty of an official charged with health or safety should be to **search out the risk** and then, through their agency, do their best to negate its potential impact. The assessment must therefore be thoroughly **professional, biased toward public safety, and independent of input from the risk producer.**

Lionel Cote, was Maine's emergency director at a time when the agency was called Civil Emergency Preparedness and the accident at Three mile Island was fresh in everyone's minds. He said that he had come to believe that,' **the only proper attitude for an official charged with public safety is an anti-nuclear attitude.'**

Friends of the Coast agrees at least to the point that if there is a bias, it should be a bias toward protective wariness and not complacency.

How is a protective stance or a questioning attitude reflected, for example, in the following statement by Jay Hyland, acting director of Maine's Radiation Control Program? " You'll find nothing at the Maine Yankee site! " Hyland was speaking to the Joint Select Committee at its December 11th public hearing and he was referring to current radiological survey of the MYAPS site to determine if levels of contaminants will require removal of soil to guard against long term health consequences. Hyland is in charge of the state's oversight effort!

The Hartford Courant reports that at the Connecticut Yankee Nuclear Station, preliminary results of a similar survey showed some 200,000 cubic feet of soil would have to be containerized and shipped for disposal as low-level waste. The cost: $ 100 million.

If the state's mind set is that nothing is to be found, then it is clearly the wrong mind set and begs the question: why bother looking?

LESSONS LEARNED

" The world that we have made as a result of the level of thinking that we have done so far, has created problems we cannot solve at the level of thinking at which we created them."
- Albert Einstein

- We know now that over the years, while we were receiving reassuring reports from state oversight people, **things were not okay at Maine Yankee Atomic Power Station.** The company gave false information to the NRC and they misled the Maine people. Maine Yankee was neglecting maintenance of safety-related components and cheating on safety analysis in order to protect the company's fiscal bottom line. They thereby invalidated everyone's trust.

There is now no basis for trust .

Even if there were, trust is not called for because the stewardship of the health and environment of this coast is too great a responsibility to trust any entity which may have mixed motives.

- **What was once called an atomic power station is now revealed as a nuclear waste dump.** A large radioactively contaminated industrial site surrounds a high level nuclear waste storage site.

Maine is not exempted from the laws of physics or health science! The extremely toxic radioactive wastes that have escaped control to cause contamination scandals at federal nuclear sites such as Hanford and Brookhaven; the same wastes that have frustrated over 5500 federal studies aimed at finding a safe, practical solution for permanent disposal, are the wastes which now contaminate the shores and marine sediments of the Sheepscot Estuary and are stored at the Maine Yankee Nuclear Waste Site.

The questions abound:

- How badly contaminated is surrounding soil and water?
- What is the long term ecological impact?
- Who will be held liable should future damages or health effects occur ?

Can the plant be power decommissioned safely and thoroughly ?

- How much will it all ultimately cost ?
- Who will pay if decommissioning costs exceed estimates ?
- Is the high level nuclear waste fuel secure from accident or sabotage ?
- When, if ever, will the high level nuclear waste be removed from the Wiscasset site ?
- What are the sentiments of mid-coast residents regarding the closing of Maine Yankee Atomic and ultimate disposition of the site?
- What do we as stewards owe the earth, and future generations of Maine people, with regard to oversight of the Maine Yankee Nuclear Waste site ?

Maine Yankee Atomic Power Company is, of course, striving to answer some of these stirring questions to the satisfaction of regulators, the news media, and the general public. Shouldn't we as stewards of this coast be generating our own questions; independently finding and testing answers ?

The TASK AT HAND

How best to proceed?

Friends of the Coast offers that we need first, a fundamental change of attitude toward Maine Yankee Atomic. **The debate about nuclear power in Maine is over.** Any remnant of protectiveness toward MYAPS is pathetically irrelevant and out of place.

What we have to deal with now is a rather large nuclear waste site complete with a high level waste dump, a Nuclear Regulatory Commission eager to wash its hands of the matter, and a corporate owner which will evaporate at the earliest discrete opportunity. This calls for advocacy and action; not passivity.

Friends of the Coast calls on Maine legislators to build a firebreak between the influence of Maine Yankee Atomic Power Company as it was, and the problem of the Maine Yankee Nuclear Waste is now. Certainly any representations the company makes to members or committee of this legislature or to any state agency, should be clearly cast in the light of what it is now and not what we may have thought it to be in the past.

New marching orders are appropriate for all state agencies with oversight of MYAPS.

- **We either need a new team spirit or a new team.**

- **If present personnel are complacent, they should be replaced with individuals who are both competent and eager to find fault.**
  We might do well to consider what qualities and attitudes we would most like to see in an individual inspecting an aircraft on which we and our loved ones are about to fly.

- **To protect its common interests the State of Maine needs aggressive watch dogs; not timid lap dogs.**

State agencies should be directed to seek out and develop proactive programs to ensure that this state government's most sacred trust, our environment and the health of this and future generations of its people, is not compromised by the decommissioning and remediation of the Wiscasset nuclear waste site.

The new management team at Maine Yankee Atomic has invited one and all, overseers, regulators, and critics to review their engineering studies and calculations for license amendments as a non-power facility.

This is a laudable first step.

The next step, an interim step, is not for the company, but for the state to take. **It is for the state** to hold the company to its word, accept MYAPC 's invitation and **thoroughly examine every possibility of flaw in any health or safety-related assumption, operating premise, measurement or calculation.** At present this task is largely in the hands of the state Nuclear Safety Inspector and two consultants. This has qualified merit recalling that the state and state-hired consultants signed off without demur on the 1995 MYAPS steam tube sleeving which was something of a flop, and the 1996 NRC Independent Safety Assessment (ISA) which was seriously flawed. The ISA also caused our Governor great embarrassment by prompting him to crow : " Maine Yankee is safe", just two months before safety defects forced the plant to go off-line forever.

It would behoove us to be certain that any consultants hired for decommissioning be of a different kind and caliber than those hired for the sleeving and the ISA.

This state government needs qualified consultants on the decommissioning of Maine Yankee Atomic with a credible track record of challenging the Nuclear Regulatory Commission and the nuclear industry.

- Maine should be demanding that the NRC require an **Environmental Impact Statement (EIS)** and attendant **formal hearing process** as required in the **National Environmental Policy Act (NEPA) .** Through administrative sleight-of-hand, and under nuclear industry prompting, the NRC has circumvented the requirements of NEPA to foreclose accountability to the states and to the public in the decommissioning process. Instead of a detailed EIS, the NRC requires only a short essay [in MYA 's case, about 21 pages] outlining the general procedures, rough schedule, and approximate costs the company anticipates.

NRC offers only informal public informational meetings of where the public is allowed up to five minutes per individual to contribute their insights on an eight year, half-billion dollar process, with potential environmental impacts stretching over centuries. In no way is NRC or the licensee (MYAPC) promptly accountable or held to oath as they would be in a formal hearing. No testimony is given under oath, no evidence is presented, no sworn expert witness are heard, and no opportunity for the state or other interested parties to cross-examine witnesses is provided.

Participants in NRC public "meetings" with substantive or lengthy comment are advised to put it in writing. NRC then handles the submittal in house, without judicial review; in a leisurely manner that sometimes takes years to provide a response that avoids the issue. The response is often accompanied by an ironic invitation to, "write again" .

The NRC rule is currently being challenged in Federal Court by the **Citizen's Awareness Network** of Connecticut and Massachusetts. **Friends of the Coast** intends signing on to this suit with an amicus brief.

This is work in which the State of Maine should be engaged.

The Attorney General has the duty to defend the rights of the state and its citizens, in Federal Court if need be, when those rights are removed or abridged. However, to our best knowledge, the Attorney General, unlike his peers in other states, engages in no active monitoring of, nor legal intervention in, NRC's Rulemaking or other administrative procedures which profoundly effect Maine rights and safety.

The decommissioning of Maine Yankee Atomic is an operation of such scale (a contaminated 800 acre industrial site) , duration, and potential consequence that the Attorney General should be directed to have a dedicated legal team , knowledgeable and experienced in nuclear and federal regulatory matters; working on this issue alone.

- **Many residents of the mid-coast area are convinced that they have witnessed health effects attributable to the operation of Maine Yankee Atomic.** Maine health statistics and some independent studies show elevated numbers of cancers and leukemia cases in areas near the plant.

Given the concern of area people and the potential for future health impacts and injury claims, it would prudent to contract a **broad independent health survey and epidemiological study.**

Area residents and health care professionals should be interviewed for their anecdotal accounts of what they perceive to be attributable health effects. In addition a careful review of statistical sources, such as the Cancer Registry, and the records of doctors, clinics, and hospitals should be undertaken.

- The US Environmental Protection Agency claims that its radiological site release criteria, which are almost twice as strict as those of NRC, are protective of human health while NRC 's more lenient standards are not. Massachusetts has gone on record to support the EPA 's more stringent standard . Of course **Maine should be vigorously supporting EPA in its struggle to provide stricter standards to protect human health,** unless it is our choice to offer our citizens less protection than Massachusetts wants to offer to its citizens. Our state government cannot set radiation standards, but we can and should advocate in federal forums for the best possible radiation protection for our citizenry.

- **The US Environmental Protection Agency** wisely includes a disclaimer in its most recent memoranda on **radiological site release criteria**. The agency says that while it believes its standards to be generally protective of human health, it can make no claim with regard to **protection of the ecology** in general.

The Maine coast boasts a very diverse, complex, and extremely fragile ecosystem.

The presence of **radioactive contaminants from the outflow of Maine Yankee Atomic** was first studied by Professors Hess and Smith of the University of Maine in the early 1970's. Within just a few years of the plant's startup it was possible to detect and sample a plume of heavy radioisotopes from the reactor along the Sheepscot River bottom extending more than two miles along the shores of Westport Island.

When the outflow was altered with the removal of a causeway and the addition of a diffuser a few years later, Hess designed a computer model to predict the new deposition pattern of radionuclides. He was able to partially confirm the model through sampling before running out of funds. Funds were not renewed for this vital work. But **a new survey of radioactive contaminants in the marine sediments of the Sheepscot estuary should be fully funded and started now**.

In addition, a regular sampling program of biota should include mammals which would most closely reflect the metabolism and concentration radioactive contaminants in human beings. At the instigation of Friends of the Coast, four local deer meat samples have been tested in the last few years. Deer, although individual samples are difficult to compare because of diet variations, do, unlike domestic animals, get all of their food and radio-contaminants from local sources. This sampling could easily be expanded into a regular program, as an abundance of samples could be obtained from the many deer slain by hunters and automobiles in the mid-coast area.

- At present, the most environmentally benign decommissioning final scenario that Maine Yankee Atomic can describe to us is an 800 acre site returned to "greenfield" condition. The telling exception will be a large reinforced concrete parking lot surrounded by razor-wire, lights, and security systems. The lot will be dotted with squat concrete silos (dry casks) filled with high level nuclear waste fuel.

The US Department of Energy will be required to take title to the nuclear waste as soon as NRC washes its hands of the radiological portion of decommissioning just 5 or 6 years from now. From that point MYAPC tells us the **DOE could take up to 20 years to move the casks with their deadly cargo.**

If ever.

At this point the DOE 's permanent nuclear waste depository program is running about 50 years behind schedule. So, we shouldn't be holding our collective breath. Since the Second World War, the DOE and it's predecessor, the AEC, spent several billion dollars in over 5500 hundred studies and experimental projects on disposal of high level waste. Friends of the Coast has the not unreasoned fear that if the casks hold up well, DOE may conclude there is no rush, and short term will become long term. Should DOE or one of its nuclear defense contractors buy the site and federalize it, there is the real possibility that it could be developed as a nuclear waste handling facility with waste being drawn from other areas such as the Portsmouth Naval Yard. This, of course, would pile one nuclear mess on top of another. This scenario is not so very far fetched. A 1977 study commissioned at **Oak Ridge National Laboratory identified the Maine Yankee site as one with excellent potential for a nuclear reprocessing complex and a reception port for foreign nuclear waste !**

- **We urge the legislature to consider buying the Maine Yankee Nuclear Waste Site**, exclusive only of the relatively small area designated to store waste fuel casks. In this way, the State of Maine could retain some interest and control over any potential future development and, hopefully, preclude the site's use for any further nuclear purposes. Strong sentiment exists among several families with generational ties to the site's surroundings that it now be allowed, "to grow wild forever."

At the least, ownership by the State of Maine would introduce any notions of future use of the site into the democratic process.

This is no small matter, considering that **Maine people had no say and little advocacy in the citing, or construction, and operation of a large atomic reactor which put the entire coast at risk,** and cast an unwelcome shadow over the lives of the majority of mid-coast residents for more than two decades. **Friends of the Coast believes that state purchase of the site would provide one small measure of compensation for that great wrong.**

- **Ongoing legislative oversight and involvement remains the best hope** for governmental intervention that Maine citizens have for the health and safety of this and future generations in the matter of the Maine Yankee Nuclear Waste Site. **Friends of the Coast respectfully urges the concentration of legislative resources in the formation of a single ongoing committee dedicated to the singular, simple, uncompromised goal of ensuring that the Maine Yankee Nuclear Waste Site will be decontaminated and restored as safely and thoroughly as possible.**

Questions regarding any of the material in this report, requests for additional information, suggestions, and comments are welcome. Please address all written correspondence to: Anne D. Burt, Secretary, Friends of the Coast - Opposing Nuclear Pollution, Post Office Box 98, Edgecomb, Maine 04556 Telephone - 207 - 882 - 6000.

Friends of the Coast is an all volunteer organization of Maine people entirely dependent upon donations and the proceeds of benefit events to support its research, educational, outreach, and advocacy efforts.

ATTACHMENTS

1. Nuclear Facts and Fallacies - Friends of the Coast - 1/7/98 - 10 pp.

2. Decommissioning [costs] - extracted from A REPORT TO GOVERNOR ANGUS KING - STATE OVERSIGHT OF MAINE YANKEE ATOMIC POWER STATION SELECTED ISSUES OF CONCERN - Friends of the Coast 7/21/97 - 3 pp.

3. " Here's More Information About Maine Yankee", a Maine Yankee Atomic print ad appearing in summer of 1995 - 1 p.

4. Letter, Friends of the Coast to Carol Browner, Administrator, US Environmental Protection Agency - 10/10/97 - 2 pp.

5. Letter, John P.DeVillars, Regional Administrator, US EPA - Responding to Friends of the Coast - 11/14/97 - 1 p.

NUCLEAR FACTS and FALLACIES

What many of us have been led to believe. And, why we may want to reconsider our thinking about Maine Yankee Atomic Power Station

1. Fallacy: Maine Yankee Atomic was shutdown for purely " **economic"** reasons.

Fact: In the Nuclear Regulatory Commission's Independent Safety Assessment of 1996 and in consequent examinations, **numerous significant safety defects** were found at Maine Yankee Atomic Power Station. Some safety defects were built in during plant construction. Many safety defects were added during operational years.

The evidence demonstrates that systems designed to prevent or offset a major reactor accident would not have worked had they been called on. Maine was fortunate that the safety defects at Maine Yankee Atomic were uncovered during inspection and analysis and not during a nuclear emergency.

MYA was taken off-line in November of 1996 as required by safety regulations when serious defects were found in the manner in which safety-related cables were installed. The NRC would not certify the plant safe for restart until numerous safety significant repairs, modifications, and analyses brought the plant into substantial compliance with NRC safety regulations.

In the end, the list of repairs and modifications required to meet NRC safety standards proved simply overwhelming and unaffordable.

2. Fallacy: The sudden, early shutdown of Maine Yankee Atomic Power Station and resultant economic and political shock waves were unusual anomalies that could not have been reliably predicted..

Fact: Premature aging of nuclear power station components and materials is a generic industry issue dating back to at least 1980 when the NRC expressed concerns over stream tube cracking and loss of reactor vessel ductility (embrittlement) at Maine Yankee Atomic. The sudden and early closure of nuclear power stations is increasingly common to the extent that it must be regarded as more likely than not. This is a feature of nuclear generation and investment not typically shared with other forms of electrical generation where ample warning of gradual material and economic decline is the rule.

In **June of 1995**, prior to the replacement of MYA 's ten thousand steam generator tubes, **Friends of the Coast** presented Governor King with **a petition** bearing the signatures of over one thousand mid-coast residents **calling for an independent safety and economic analysis of the plant.**

FRIENDS of the COAST - OPPOSING NUCLEAR POLLUTION
Post Office Box 98, Edgecomb, Maine 04556 207 - 882 - 6000

The petition was ignored .

Repairs, which MYA touted as a lifetime fix, went ahead.

Friends of the Coast contacted the management of the Doel-4 plant in Belgium to get their assessment of similar repairs which had been completed there. They were unequivocal: the process was intended and expected to be a temporary stopgap until new steam generators could be installed. Westinghouse, which supplied and installed the steam tubes at MYA had been previously sued by a more than a dozen utilities for, the utilities claimed, deliberately misrepresenting the durability of their tube materials. Shortly after Entergy executives took over operation of MYA in 1997, they let it be known that steam generator tube repairs at MYA would not last the licensed life of the plant, but only five or six years.

Had the state undertaken an independent economic and safety analysis when asked, **Friends of the Coast is confident that $ 150 to 200 million in what have proved to be useless expenditures could have been avoided.**

At the time, June, 1995, Charles Frizzle, CEO of MYAPC, repeatedly assured state officials and the public that such an analysis was unnecessary because a thorough exam had been done by Bechtel Corporation and Yankee Atomic Electric Company which found the plant to be in excellent physical condition, and " good for safe operation" until 2008 and beyond. Maine officialdom chose to believe Mr. Frizzle. If it is true that Bechtel and YAEC issued such a report, the resultant costs of now useless repairs should be recovered, at least in part, from them; not Maine ratepayers.

It should be noted here that on December 17, 1997, the NRC formally accused Yankee Atomic Electric of falsifying Emergency Core Cooling system analysis at Maine Yankee Atomic.

It is the considered position of **Friends of the Coast** that the only uncertainty which attached to MYA 's early demise was the uncertainty of when, if ever, state and federal officials, charged with public health and safety, would do their duty in subjecting this risk - filled enterprise to thorough scrutiny and effective regulation.

We believe it would be wise to recall, that had it not been for actions of private citizens and the anonymous whistleblower, most safety issues at MYA would have been missed or simply bypassed. No significant safety defects and few safety violations have ever been discovered by NRC resident inspectors. No safety issues have ever been publicly raised by the state. It was not until the whistle blower and citizen action embarrassed NRC that an avalanche of revelations poured out and MYA went from "world - class leader " to NRC 's Watch List of the nation's worst run plants.

To our knowledge the state has yet to root out and report to the public a single material safety issue at MYA. To any critical thinker, this should speak volumes about state oversight.

We remain convinced that timely, competent, proactive, safety advocacy on the part of Maine officials would have uncovered many of MYA 's safety and material defects and:

1. Saved the needless increased risk to which area residents have been subjected.

2. Avoided much of the economic and political shock of sudden shutdown.

3. Fallacy: Maine Yankee Atomic safely and reliably produced one fourth of the state's electricity for twenty four years.

Fact: MYA 's contribution to Maine's electricity mix has been reported at levels from 15 to 25 percent at various times in its history when the plant was operating. From what we can gather, these percentages do not reflect the enormous amount of electricity co-generated by Maine industry; in particular, the paper industry.

Another perspective on MYA 's contribution is reflected in the introductory pages of the 1997 MYA Site Characterization Report by **GTS Duratek.** According to this MYA contractor, over its twenty-four (24) year lifetime, MYA accumulated the equivalent of fourteen (14) years of full-power operation. At MYA 's up-graded or highest licensed output levels, this translates to an overall 58.3 percent capacity factor. This is inefficient and unreliable when compared to a well-designed modern fossil fuel plant.

MYA 's claim that safety has always been its first priority is clearly refuted by the evidence. In late June of 1995, MYA executives were bragging in public forums that MYA was run with half the number of employees average in the industry. In the spring of 1996 it was revealed through an internal report that the plant had a large maintenance backlog and that numerous repairs had been put off from year to year. In October of 1996 an NRC report revealed that over a thousand items were backlogged, some as long as ten years. The NRC deemed over 300 defects, overdue for repair, to be directly related to safety and cited the company's attitude and lack of dedicated resources [read, too few personnel] as root causes.

There seems to be no reasonable explanation as to why NRC will permit a nuclear power plant to continue running with eroded safety margins but will not permit the same plant to restart once, for whatever reason, it is shutdown. Yet, this was precisely the case with MYA. In spite of the dire contents of the NRC 's Independent Safety Assessment, Governor King, at NRC 's advice, called a press conference to pronounce MYA to be

safe. This took place just two months before MYA was shutdown, as it turned out, forever, due to safety defects too numerous to remedy. This judgment was confirmed by a professional audit team from MYA 's prospective buyer, PECO.

4. Fallacy: Only a " **tiny, vocal minority** " has opposed the continued operation of Maine Yankee Atomic Power Station.

On February 4, 1997, Dana Connor representing the Maine Chamber of Commerce appeared before a full commission meeting of the NRC to plead, " ...Please, don't let a tiny, vocal minority take our plant away from us. We need Maine Yankee..." The meeting was to discuss technical aspects and insights on the NRC 's Independent Safety Assessment Report. By repeating this mindless slogan generated in the public relations office of MYAPC, he not only did a disservice to the purpose of the meeting, but he also gave clear example of how unquestioningly obedient Maine's leadership had become.

Anyone who has taken the time to examine this issue knows that there has been broad public concern about safety at MYA since the accident at Three Mile Island in 1979 and the citizen initiative to close MYA in 1980. In a special election, the first in the nation referendum on the subject of closing an operating plant, 41.9 percent of those voting opted to close Maine Yankee Atomic Power Station. Within MYA 's Radiological Emergency Planning zone, the majority of voters favored closing the plant.

In the 1986 primary elections, five of the leading contenders for the Democratic nomination for Governor favored the prompt shutdown of MYA. They were joined in that sentiment by independent candidate, John Menario, former head of the Save Maine Yankee Committee.

In numerous Maine public opinion polls conducted from 1995 through 1997 over half the respondents statewide believed the plant to be unsafe. In the plant area, a clear majority continued to believe the plant unsafe and favored shutdown, " as soon as possible." The Town of Wiscasset was one of a few local exceptions. However, even in Wiscasset, approximately one third of the voters consistently favored shutdown. And this choice was made in spite of the threat of doubling and tripling property taxes.

In August of 1997 on the day that Maine Yankee Atomic announced that formal notice had been sent to NRC that the reactor would not be restarted, reporters fanned out from the Lincoln County Weekly to get local reaction. They were somewhat taken aback when they could not find a single person on the streets of Damariscotta or Wiscasset that would say they were sorry to see the plant close.

The evidence makes it plain that concern over safety at MYA and support for a shutdown has been widespread, broad-based, enduring, and deeply held. As in so many

public controversies, it is the few who take a stand and invest their time and substance to advocate for what they believe. Friends of the Coast is proud to have been numbered among them.

5. Fallacy: Maine Yankee Atomic Power Company has proven itself to be a, **" good corporate neighbor"** and a, **"good corporate citizen".**

Fact: Good neighbors and citizens do not lie. They especially do not lie about matters of property and health and safety. Good neighbors do not take risks with safety equipment to save a few dollars while putting the entire community at increased risk.

MYAPC is credited with generous donations to civic, benevolent, and educational organizations. In 1995 a Lincoln County newspaper reported the content of a talk given by Catherine Ferdinand of MYAPC to local Rotarians. Ms. Ferdinand allowed that MYAPC outreach was largely a response to the citizen initiatives of the early 1980 's. The company is not to be faulted for donating to good causes, but its motivation should be recognized for what it is: an effort to buy goodwill driven primarily by self-interest. A 1997 grant to the Edgecomb Elementary School was followed within 48 hours by a call from the company asking that the school make Governor King aware of its gratitude to Maine Yankee Atomic.

According to NRC Integrated Inspection Report 50-309/97-08, on May 28, 1997 it was found that MYAPS employees had been falsifying records of fire watch rounds. These rounds had been initiated to compensate for inadequate fire (stop) seals throughout the plant. The fire watch rounds were not being kept, but log entries were made falsely indicating that they were. It was about this time that the school was contacted and our congressional team was being lobbied to save the jobs of MYA workers. Thus some employees were soliciting sympathy and testimonials while another of their number was subjecting the community to unnecessary risks under the cover of falsehoods.

It should be noted that MYA is currently charged by NRC with deliberately providing false information (lying) with regard to the capacity of its atmospheric steam dump valves (components necessary to remove reactor heat under accident conditions).

On December 17, 1997, NRC charged MYA with providing false information regarding the capabilities of its emergency core cooling system. Yankee Atomic Electric, a ten percent owner of MYA which provided engineering services in the matter, was charged with deliberately providing false information and ordered to come up with good reason why they should ever be allowed to do safety analysis for any nuclear plant.

In 1996 MYA advertising carried on Maine Public Television and the three network affiliates was pulled from the air when **Friends of the Coast** filed a consumer fraud complaint with the Attorney General pointing out its falsehoods.

6. Fallacy: Replacement power for Maine Yankee Atomic will prove expensive and difficult to find.

Fact: At an October MYA Community Advisory panel meeting, MYA chief-counsel and vice-president Mary Ann Lynch pointed out that even with $508 million in decommissioning costs added to the cost of replacement power for MYA, over the next ten years consumers will still be saving upwards of $150 million by not having the plant on line. According to Ms. Lynch's figures, without decommissioning costs factored in, it would have cost consumers an additional $65.8 million per year to keep Maine Yankee Atomic running.

Dual cycle natural gas plants are proving effective competitors for even the most efficient nuclear stations in several areas of the nation. Proposals for several plants are going forward in Maine including inquiries for the former MYA site at Wiscasset. At present, no New England nuclear station is able to compete with Canadian Hydro Power. It is our understanding that Canadian Hydro is currently providing the bulk of the replacement power for MYA. This clean, renewable resource is available in abundance with more capacity ready for development.

7. Fallacy: Operations at the Wiscasset site have been, and continue to be, the subject of intense, multi-layered oversight.

Fact: State and federal oversight of MYA have permitted more than two decades of operation with flawed or non-functional safety-related components. This has unnecessarily decreased safety margins; put the health and safety of the public at unnecessary increased risk and has forever marred the credibility of these agencies. The state now knows that it cannot rely fully on the NRC to protect its people, yet the Governor's office is waiting only for the NRC 's advice to drop offsite radiological emergency planning.

8. Fallacy: Maine Yankee Atomic Power Company's Community Advisory Panel (CAP) provides an effective, additional layer of citizen oversight.

Fact: The Community Advisory Panel is chartered to facilitate communication between MYAPC and the public regarding decommissioning. The CAP is also invited to give advice on decommissioning matters. The cap has no oversight function nor do the majority of its members have any interest in providing any oversight. **Several of the CAP members were also members of a MYA booster group called, Friends of Maine**

Yankee, the Environment, and the Economy. This group put its name to professionally designed and posted bulk mailings sent out by a firm hired by MYA. To our best knowledge the group never raised any money and all of its functions were paid for by MYA. The CAP is chaired by Senator Marge Killkelly, a staunch and loyal pro-nuclear, pro-Maine Yankee advocate.

When it was made available at the request of **Friends of the Coast,** only three of the fourteen CAP members showed any interest in receiving a copy of NRC 's Radiological Site Release Criteria, the premier manual on residual radiation considerations in decommissioning. Only three CAP members took advantage of an opportunity to tour the radioactive side of the plant and discuss decommissioning issues in situ.

Although one important function of the CAP is to hear and address public questions and sentiments, only one CAP member, in addition to the Friends of the Coast representative, attended a well publicized Hearing of the Joint-Select Committee on Maine Yankee, held in Wiscasset for the very purpose of gathering public reaction and concerns about decommissioning. On January 5, 1998, Mr. G. Skip Brack of Mount Desert asked MYA and then Chairman Killkelly for the mailing addresses of CAP members so that he could write to them individually and directly with his concerns. According to Brack, he was rebuffed and advised he could communicate with committee members only through MYA or the Chair.

Friends of the Coast will say at this juncture that the new management team at MYA has been in general, open, accommodating, and forthcoming with information and access to knowledgeable personnel. To date, this has been the most gratifying and edifying aspect of our CAP related experience.

9. Fallacy: The state, in general, and the legislature, in particular, has no power or control over activities at the Maine Yankee Atomic Waste Site due to federal preemption.

Fact: Maine has twice legally and effectively intervened in nuclear regulatory matters. It can and should do so again. Attorney General Patterson, under Governor Kenneth Curtiss, intervened in Maine Yankee Atomic licensing to prevent thermal pollution of the Sheepscot estuary. Attorney General Tierney, under Governor Joseph Brennan, followed the lead of a citizen's group and intervened to prevent a proposed scheme of nuclear fuel consolidation.

It is true that in most nuclear energy matters, state law may not supersede federal law, however there is nothing to prevent a state from participating in federal legal processes to advocate for its citizens.

There is at present a battle over maximum permissible radioactive pollution levels being waged between the Environmental Protection Agency and the US Nuclear Regulatory Commission. The EPA wants stricter standards and declares that NRC 's standards are not protective of human health. In early November of 1997, Friends of the Coast presented Governor King's office with a petition bearing thirteen hundred signatures asking that the state support EPA's stricter and more protective standards for the Maine Yankee Nuclear Waste site. His office has not bothered to respond. The State of Maine should not be silent on the issue, but it has been.

10. Fallacy: There have been **no** health effects from operations at Maine Yankee Atomic nor can any health effects be reasonably expected in the future.

Fact: Statistics gathered and published by the Maine Cancer Registry indicate a trend of elevated cancer incidence in areas downwind of MYA. While federal review of these figures opinioned no significance, one would be hard pressed to convince area residents whose anecdotal accounts of rare, multiple, and seemingly clustered cancer cases are many.

No blanket statement that there have been no health effects nor will there be any is acceptable until a careful, methodical, independent health study is done and followed up.

It is not only possible, but probable, that pockets of radioactive pollution (hotspots) exist in Sheepscot marine sediments and downwind of the plant. Broad-ranging, careful, truly independent environmental studies must be done before it can be said there will be no future effects.

11. Fallacy: Now that the reactor is shutdown and defueled, no off-site nuclear emergency response plan is necessary.

Fact: MYA has applied to NRC for permission to reduce its emergency plans in keeping with lesser risks posed by its shutdown and defueled status. MYA 's filing contains analysis and argumentation in support of the idea that the radiological consequences of any credible accident are so small that there is virtually no significant risk offsite that would require community emergency response planning.

MYA proposes that the bounding (worst-case) accident would be the dropping and consequent rupture of a single high level waste fuel assembly. Resulting radiation dose rates at the site boundary are calculated to be below federal trigger-limits for public protective action.

The fact is that the single assembly drop may not be the bounding accident. At the Trojan Nuclear Station, analysts determined that a fire in the low-level nuclear waste storage building would release more radiation than a fuel drop. MYA admits that fires are more likely in shutdown plants than operating ones, but they have not submitted an analysis of the potential radiological consequences of a fire on the primary (radioactive) side of the plant. It is **Friends of the Coast's** position that MYA has not adequately addressed previously identified accident scenarios in which heavy pieces of equipment (such as the spent fuel pool crane) fall into the spent fuel pool and crush many assemblies. We will be submitting argumentation regarding fires and heavy load accidents to NRC to be included in considering MYA 's application.

Only when all reasonable questions of public risk are answered can responsible parties reduce accident response capabilities. We believe it is the responsibility of the state to be publicly questioning and raising similar issue with MYA and the NRC. We stress 'publicly' questioning and raising issues because we believe the public has a right to know if there are questions and should be alerted to encourage scrutiny, rather than lulled into permitting the kind of travesties that have taken place in the past.

12. Fallacy: A **final** decommissioning cost of $ 508 million has been established.

Fact: To date MYA has submitted only a rough plan for decommissioning to the NRC. The 24 page Post Shutdown Decommissioning Activities Report, or PSDAR, contains almost no specifics.

- MYA doesn't know if they will opt for dry cask storage of their spent nuclear fuel or if they will maintain an active spent fuel pool.
- They don't know if the huge, highly radioactive reactor vessel will be segmented or shipped in one piece.
- They don't know if they will be able to ship the super radioactive reactor internal components in the reactor vessel for burial with it or if those components must go to a high level waste depository.
- They don't know if the reactor vessel and steam generators will leave by barge or rail. They are still uncertain as to the extent components and materials can be salvaged and recycled.
- Radiological site characterization is far from complete so they have no idea how much radioactively contaminated soil they will have to package and ship for disposal.

Maine Yankee Atomic admits that they cannot account for the huge difference between their estimate and estimates and experienced costs elsewhere. Yankee Rowe, approximately one fifth the size of MYA has already cost in excess of $400 million. How, with no plan and an unexplored site, can MYA straight-faced say, they will need $ 508 million? And, given all the unknowns, how can they say what the risks and health consequences will be?
[please see the Friends of the Coast Report to the Joint Select Committee to Oversee Maine Yankee for our attachment on decommissioning costs]

13. Fallacy: High level waste fuel from Maine Yankee Atomic will eventually be shipped to a receptive locale which is suitable as a permanent repository.

Fact: The radioactive pollution containment criteria which were established at the dawn of the nuclear power era in order to complete the picture of a benign technology are, after more than 5500 federal studies, proving almost impossible to meet. The Department of Energy and the Department of Defense are therefore casting about for a way to loosen their own criteria and ease development of a national dump. Nevada is the locale of choice, but Nevada doesn't want to host a national nuclear dump and the state is fighting it but doesn't have the political clout of eastern states. Among Nevada's arguments is the fact that 90 percent of the nation's nuclear power plants are east of the Mississippi.

But who wants a dump? On the promises of jobs and income by callous promoters, a few impoverished Indian tribes have volunteered their reservation land. However, given our history of maltreating indigenous peoples, the nation finds it hard to choke down the idea of handing off our worst waste to the earth - keepers.

Last year near the Germany border several thousand people tried to stop a train carrying French high level nuclear waste into the heart of Germany. They were beaten back by a force of 30,000 police, the largest German massed security operation since World War II.

High level or low level. Fifty generations will be indentured with the waste of one generation's electricity

It is uncomfortable, but morally necessary to remember that **people** live in the politically weak and economically disadvantaged areas where we are sending our radioactive waste. We may be certain that they will remember Maine.

DECOMMISSONING

In the early 1980's, Miss Katherine Kearny of Lewiston, Maine wrote to Carolina Power and Light(CP&L) to inquire about their cost estimates for decommissioning two fairly new reactors of the approximate size and type of Maine Yankee Atomic Power Station (MYAPS). CP&L had estimated it would cost approximately 2.3 billion (1980) dollars to dismantle and clean-up their two 1000 megawatt electric (MWe) units. The company's response was unwelcome when Miss Kearny, a member of the Maine Nuclear Referendum Committee (MNRC) relayed it to the Maine Advisory Committee on Decommissioning. At the time the committee had generally accepted the cost estimates of Maine Yankee Atomic Power Company and its consultants which ranged from a $ 100 to 160 million dollars..

The notion that MYAPS might cost in the range of a billion dollars to decommission was no surprise to active MNRC members. They had extrapolated figures from the estimated costs of decommissioning the Shippingport 72 MWe pressure water reactor which was shutdown in 1982. ($ 91.3 million actual cost - on schedule and under budget). Costs were kept low on the Shippingport decommissioning by the of Navy and Army Corps of Engineer Personnel. The reactor itself was not dismantled but filled with 800 tons of concrete for radiation shielding and slid down ways to a to barge deck. It was then shipped down the Mississippi waterway, to the west coast, and up the Columbia River to be buried in Hanford. Additional savings came from the fact that the reactor vessel had been twice previously replaced reducing its irradiation and cost of handling. Also Shippingport waste was delivered to federal disposal facilities. A 1993 Office of Technology Assessment Report estimates that if Shippingport were to be decommissioned today and the low-level wastes buried at a commercial site costs would increase by $56 million or over 60 percent. The extrapolated cost per megawatt capacity is $ 1.27 million. With 1992 commercial LLW disposal costs added, decommissioning would cost approximately $2.46 million per MWe.

Allowing the cost savings outlined above as a conservation factor and taking a straight extrapolation based on MWe capacity, MYAPS at 870 MWe would cost about $ 1.1 billion to decommission and using commercial disposal at 1993 rates well in excess of $2.billion.

Since 1980, MYAPCo. estimates have approximately doubled to $ 367 million, still far short of the billion dollar figure activists predicted. It must be said that straight line per MWe capacity extrapolation leaves out many mitigating factors including generating efficiency and possible economies of scale, however as utilities undertake to decommission an unprecedented number of commercial reactors, it is both interesting and instructive to look around us.

DECOMMISSIONING

Yankee Rowe Atomic Station which closed in 1992 had cost it owners $ 375 million in decommissioning expenses by 1994 and the job is far from complete. At 185 MWe Yankee Rowe has so far cost about $2 million per MWe. If total costs reach $ 420, Yankee Rowe Atomic's per MWe cost will be $ 2.27 per Mwe. For Maine Yankee Atomic these rates translate to $ 1.74 billion and $ 1.9 billion respectively.

Other than the Shoreham Nuclear Plant which had only the equivalent of two full power days of operation, the only reactor of scale to be fully decommissioned to date is the Fort St. Vrain 330 MWe High Temperature Gas Reactor. Its decommissioning was completed under a fixed price contract for $195 million. This reactor ran for only ten years and that at a 15 percent capacity factor which limited its radiocontamination and attendant costs. Fort St. Vrain's per MWe cost was $ 0.590 million which applied to MYAPS would yield a total cost of $ 514 million, still far in excess of today's company estimates of $370 million.

Vermont Yankee Atomic Power Co. has released a 1997 Economic Viability Analysis which estimates the cost of a 1998 closing and decommissioning at $583 million in 1997 dollars; the cost to be reduced to $ 564 million if closing and decommissioning is delayed until 2012. Vermont Yankee Atomic is a 504 MWe boiling water reactor (BWR). $ 131 of these costs are assigned to LLW disposal at commercial rates which could be reduced by a factor of ten or more in a states compact dump. Even so, at $ 564 million the cost per MWe is $1.1 million which translates to a total cost of $ 957 million for MYAPS.

The figure for Vermont Yankee, we should note, is based on estimates only and estimates vary widely as demonstrated by the following examples.

TheTrojan Nuclear Power Plant operated for sixteen years prior to permanent shutdown 1993 due to leaking steam tubes. Owners estimate this 1,155 MWe plant will cost $ 425 million to decommission falling in line with the MYAPS estimate. However at Trojan steam generator and pressurizer removal completed at a cost $ 17 million plus is not deemed part of decommissioning. Both plants have employed TLG Associates to provide decommissioning analysis. TLG has provided decommissioning estimates to the majority of nuclear utilities in the United States. Consistently low estimates have prompted critics to interpret TLG as " The Lowest Guestimate".

By contrast the Consumers Power Company of Michigan has estimated decommissioning costs for its 67 MWe Big Rock Point plant(a PWR) to be $ 290.1 million dollars. Pro-rating would put MYAPS at 870 MWe in the $3 billion range

DECOMMISSIONING

On December 4, 1996, the owners of Haddam Neck (Connecticut Yankee) Atomic Power Station announced permanent cessation of operations. They estimated decommissioning costs for the 590 MWe reactor to be $ 427 million or $.72 million per Mwe. MYAPS pro-rated cost would be $ 629 million.

An interesting cost consideration has recently surfaced at Hadam Neck which could apply to MYAPS. Plant owners ,Northeast Utilities, claim they expect to pay $ 12.6 million to clean up ground contaminated by leaks and spills. But memos and maps prepared by NU radiation specialists say over 200,000 cubic feet of soil, and pavement will need to be removed to restore the site as an unrestricted area.
The anticipated extra cost for site clean-up will exceed $ 100 million.

Disputes now swirl around NU's two sets of estimates, but the question is raised, have the grounds around MYAPS been properly cost analyzed for decontamination to federal standards. Marine sediment samples taken as early as 1976 show levels of radiocontaminants offsite which may not meet federal standards for unlimited access as described in decommissioning rules. Will funds be needed to clean up shoreline, tidal flats, and river bottom around MYAPS? Friends of the Coast is undertaking a sediment radiation survey in tidal flats adjacent to the plant to find the answer to this question.

Friends of the Coast is concerned that a mindset or orthodoxy toward decommissioning MYAPS was adopted during the early 1980's which maintains its inertial momentum in part because the state has for so long defered to the "expertise" of Maine Yankee Atomic Power Company. Most evidence from the estimates and experience of others says that cuurent estimates for the decommissioning of MYAPS could be very, very wrong and no available data indicates that current estimates are liberal. A shortfall may mean surprise rate increase and court fights which can be avoided if the estimates are reassessed now by taking the experience of plants actually decommissioned as the leading indicator of future costs. A large shortfall would indicate to many Maine people that their political acceptance of nuclear power generation was based, at least in part, on a falsehood.

Friends of the Coast cautions that unless decommission costs are fairly determined and fixed, decommissioning MYAPS may become an industry in itself. If owner-operators are given to understand that ratepayers will pay for decommissioning even if costs continue to slide upward there will be little incentive to guard the bottom line.

Friends urges that an independent study of decommissioning costs be undertaken now.

"Here's more information about Maine Yankee."

"Maine Yankee recently announced its decision to proceed with sleeving all the tubes in our steam generators. Following are answers to some of the most commonly asked questions about this project. If you have any questions about Maine Yankee, please contact us at the address or phone number below."

-Charlie Frizzle
President, Maine Yankee

Q: How will this repair affect the cost of Maine Yankee's electricity?

A: While repairing the steam generator tubes requires an investment of approximately $40 million, because Maine Yankee generates such a large amount of electricity, the extra expense of el[illegible] will cause only a small temporary increase in the Company's total cost per [illegible] Maine Yankee will recover the sleeving repair costs this year [illegible] the company. Following this repair, Maine Y[illegible] of Maine's electricity at a l[illegible]

Q: What is the condition of the rest of the plant?

A: Ongoing preventive maintenance has been key to Maine Yankee's success and has contributed significantly to the excellent condition of the plant today. To date, Maine Yankee has invested over $200 million in capital improvements.

In addition to the extensive technical analysis of the steam generators, two independent studies were undertaken on the overall condition of the plant. Those studies, conducted by the Bechtel Corporation and Yankee Nuclear Services Division, examined all components in the primary and secondary sides of the plant. Both studies concluded that the overall mechanical condition of the plant is very good.

[illegible] have been used widely throughout the industry for more [illegible] success. A dozen plants in the United States have installed welded sleeves [illegible] Maine Yankee, will do so in the near future. Given this excellent track record, we are confident we can continue to provide low-cost electricity through the end of our licensed life in 2008.

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Maine Yankee

Reliable Electricity for Maine Since 1972

For information please call (207) 708-4197; or write to
Maine Yankee, Public & Government Affairs, 329 Bath Road, Brunswick, ME 04011

FRIENDS of the COAST
[illegible] UCLEAR POLLUTION
[illegible] MAINE 04556
[illegible] FAX [illegible] - 563 - 6302

October 10, 1997

Administrator Carol Browner
US Environmental Protection Agency
401 M Street Southwest \ 1101
Washington, DC 20460

Dear Administrator Browner,

Friends of the Coast is a non-profit citizen's organization registered in the State of Maine.

We are the only activist environmental organization represented on Maine Yankee Atomic Power Company's Community Advisory Panel for the Decommissioning of Maine Yankee Nuclear Power Station (MYAPS) in Wiscasset, Maine.

The MYAPS Post Shutdown Decommissioning Activities Report (PSDAR) required by the Nuclear Regulatory Commission was filed with NRC on August 27, just three weeks after notice of termination of power operations and permanent defueling. NRC's decommissioning rule excludes meaningful public participation in the evaluation and acceptance of the PSDAR, which itself is a mockery of a decommissioning plan or environmental impact assessment.

In a manner and tone strikingly similar to that of Chairman Shirley Jackson's recent draft memorandum of understanding to you regarding radiological site release criteria , NRC has advised Maine citizens that thoughtful consideration will be given our comments on the MYAPS clean-up.

Within a few years of the beginning of operations at MYAPS, researchers from the University of Maine and other entities charted significant off-site radiological pollution of marine sediments in the Sheepscot River estuary. This estuary bounds the plant site and receives the plant's coolant discharge. We are deeply concerned over the accumulated radiological pollution of twenty four years of operation and potential for additional avoidable pollution during and after decommissioning.

Friends of the Coast therefore urges that you involve the Environmental Protection Agency in oversight of MYAPS decommissioning from site characterization to release for unlimited access. We would appreciate to opportunity to meet with you or representatives of EPA to discuss possible common objectives and related action on the Maine Yankee Nuclear Waste Site.

Friends of the Coast / EPA 10/10/97

We support EPA's sensible and conservative residual radiation site release criteria in preference to the lenient standards of NRC. We applaud your agency's tenacity in the matter of protecting the environment from nuclear pollution. We sincerely hope you will persist and prevail in according our citizens the maximum achievable levels of protection.

Yours Truly,

Anne D. Burt
Secretary

Raymond Shadis
Information Coordinator

Copies

EPA Region I
Maine Congressional Delegation
Senators Biden, Kerry, Dodd
Select Media List

Enclosures

Newsclips/ Maine/ Local

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
JOHN F. KENNEDY FEDERAL BUILDING
BOSTON, MASSACHUSETTS 02203-0001

November 14, 1997

OFFICE OF THE
REGIONAL ADMINISTRATOR

Ms. Anne D. Burt
Friends of the Coast
Opposing Nuclear Pollution
P.O. Box 98
Edgecomb, ME 04556

Dear Ms. Burt:

Your letter of October 10, 1997, to Administrator Carol Browner has been forwarded to the EPA-New England office. Your letter urged EPA oversight during the decommissioning of the Maine Yankee Nuclear Power Station and suggested that a meeting be convened between EPA and the Friends of the Coast to discuss EPA's possible actions regarding Maine Yankee.

First, I am pleased to inform you that the Radiation Control Program in the State of Maine has recently informed the utility that the State will require that the cleanup of the reactor site will be to EPA's proposed level of 15 millirem per year. For your information, this is the level which the Commonwealth of Massachusetts required during the decommissioning of Yankee Rowe. We will, of course, provide any assistance which the Radiation Control Program might require in the oversight of the decommissioning work. Your request/invitation for a meeting is under consideration and you will be contacted separately regarding that request.

Thank you for your concern. Let me assure you that we at EPA will do all that we can to ensure that the decommissioning and decontamination work at Maine Yankee is done safely and results in a clean and safe environment.

If you need further assistance, please do not hesitate to contact me or James Cherniack, Office of Ecosystem Protection at (617) 565-3234.

Sincerely,

John P. DeVillars
Regional Administrator

January 22, 1998

Senator Richard Carey, Chair
Joint Select Committee to Oversee Maine Yankee
3 State House Station
Augusta, Maine 04333

Dear Committee Members:

The Community Advisory Panel (CAP) recently received a copy of the Friends of the Coast (FOC) submittal to your committee. I am writing, not only as the CAP Chair, but at the request of other members who, after having read the FOC report, were very concerned that a majority view regarding the criticisms of the CAP efforts be expressed.

The CAP charter defines the purpose of the CAP as follows:

A. The Community Advisory Panel (CAP) is established to enhance open communication, public involvement and education on Maine Yankee decommissioning issues. The CAP will serve as a formal channel of community involvement with Maine Yankee.

B. The CAP will evaluate and comment upon data and other information provided by Maine Yankee and other reliable sources.

C. The CAP will function as an advisory panel. Maine Yankee is not obligated to accept or conform to the advice or recommendations made by the CAP, although will, in cases of disagreement, provide the CAP with an appropriate rationale for the disagreement.

We wish to emphasize that the CAP was not established to oversee the decommissioning process, but to provide a public forum for information and involvement. We believe the Community Advisory Panel (CAP) is a success in a number of regards:

- Public questions are being conveyed through the CAP;
- Maine Yankee has and is responding to the community input;
- Press coverage of meetings seems to be providing satisfactory information to the public. This may be resulting in lower turnouts than expected at some public meetings;
- Friends of the Coast, while denying the benefit of the CAP have continued to actively participate, and their report included several references to information gathered at CAP meetings.

We are doing our job.

The CAP consists of 14 members who represent the private sector, local government, state government, and the general public. Our backgrounds range from town planner to retired marine protection officer to radiologist to science teacher.

The CAP, established in August 1997, has met monthly with a greater than 90% attendance rate. Additional events have included two NRC meetings with several members present at each, the Joint Select Committee hearing with four members present, a site tour with four members attending, a tour of the low level waste storage building with four members attending, regular attendance at Thursday briefings at the plant by at least one member, and finally two members have shadowed the site characterization teams.

Attached please find a copy of the Community Advisory Panel Charter, meeting agendas, and Committee list to be included in the final report of the Joint Select Committee to Oversee Maine Yankee.

"Fallacy 8" in the Friends of the Coast report states that, "The cap (CAP) has no oversight function nor do the majority of its members have any interest in providing any oversight."

While technically correct that the CAP has no oversight function, the tone of this criticism is inappropriate. The members of the committee have proven a strong commitment to understanding the myriad of issues regarding the decommissioning process and fulfilling their charge to act as community liaisons and advisors. The Nuclear Regulatory Commission, Division of Health Engineering, the Federal Energy Regulatory Commission, the State Nuclear Advisor, and the Federal and Maine Emergency Management Agencies provide oversight. We provide community input into the discussions and advise.

Fallacy 8 continued - "Several of the CAP members were also members of a MYA booster group called Friends of Maine Yankee, the environment, and the Economy. This group put its name to professionally designed and posted bulk mailings sent out by a firm hired by MYA. To the best of our knowledge the group never raised any money and all of its functions were paid for by MYA. The CAP is chaired by Senator Marge Kilkelly, a staunch and loyal pro-nuclear, pro-Maine Yankee advocate."

Members are diverse in their opinions about the efficiency, and economics of nuclear power. We note with surprise that the comment does not include that there is a member functioning as a representative of Friends of the Coast on the committee. Balance requires that all views be represented. We have endeavored to accomplish that balance.

Fallacy 8 continued - "When it was made available at the request of Friends of the Coast, only three of the fourteen CAP members showed any interest in receiving a copy of the NRC's Radiological Site Release Criteria, the premier manual on residual radiation considerations in decommissioning. Only three CAP members took advantage of an opportunity to tour the radioactive side of the plant and discuss decommissioning issues in situ."

Again we would point out that members have attended meetings and tours as their schedules permit, with a very high rate of participation. Many members had toured the plant previously. Some of the CAP members have an intimate knowledge of the technical aspects of the facility

and have significant knowledge beyond introductory tours and radiation release criteria publications. Additionally, Maine Yankee has been willing to accommodate the needs and schedules of individual members so that the opportunity to view areas of the plant is not lost to members unable to attend a specific tour.

Fallacy 8 continued - "Although one important function of the CAP is to hear and address public questions and sentiments, only one CAP member, in addition to the Friends of the Coast representative, attended a well publicized Hearing of the Joint-select Committee on Maine Yankee, held in Wiscasset for the very purpose of gathering public reaction and concerns about decommissioning."

This criticism is inaccurate and unnecessarily offensive. Actually four members attended the meeting. It is also important to note that this was the 3rd meeting by outside entities (NRC) on this issue and the committee meets monthly. To assume that lack of full CAP attendance at this meeting indicates lack of interest is rather extreme.

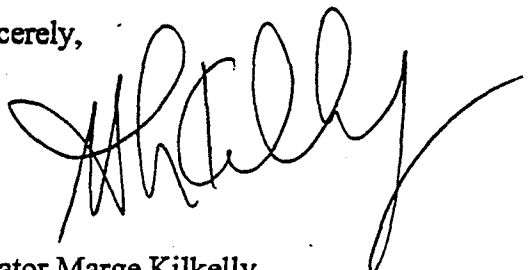
Fallacy 8 continued - "On January 5, 1998, Mr. G. Skip Brack of Mount Desert asked MYA and then Chairman Kilkelly for the mailing addresses of CAP members so that he could write to them individually and directly with his concerns. According to Brack, he was rebuffed and advised he could communicate with committee members only through MYA or the Chair."

The CAP did not have a policy regarding the publishing of home addresses and telephone numbers. Mr. Brack's call was a timely reminder that we did not have a policy. As Chair of the CAP I offered my home address, telephone, and e-mail. However, I did not feel comfortable giving out those other addresses. Mr. Brack was advised that for the one member he was particularly trying to contact that I would personally deliver the message. And for others mail could come to Maine Yankee and be distributed to members. Since that time the CAP has adopted a policy of each member deciding on which address they wish to have publicly distributed. That policy is now in place and information will be made available on Maine Yankee's website in the near future.

Friends of the Coast do acknowledge the positive accommodation of the new management at Maine Yankee. We agree. The efforts of the CAP to carry out its charter have been fully supported by the staff and management at Maine Yankee.

Thank you for your consideration of our comments.

Sincerely,



Senator Marge Kilkelly
Community Advisory Panel, Chair

att
cc w/o att: CAP members

Maine Yankee
COMMUNITY ADVISORY PANEL

CHARTER

I. PURPOSE

A. The Community Advisory Panel (CAP) is established to enhance open communication, public involvement and education on Maine Yankee decommissioning issues. The CAP will serve as a formal channel of community involvement with Maine Yankee.

B. The CAP will evaluate and comment upon data and other information provided by Maine Yankee and other reliable sources.

C. The CAP will function as an advisory panel. Maine Yankee is not obligated to accept or conform to the advice or recommendations made by the CAP, although will, in cases of disagreement, provide the CAP with an appropriate rationale for the disagreement.

II. ORGANIZATION AND MEMBERSHIP

A. Membership

1. The CAP will reflect the diverse viewpoints of residents within the primary Maine Yankee Emergency Planning Zone. The majority of the CAP members will reside in the 16 community area comprising the primary EPZ.

2. The CAP will consist of (14) members as follows:

- The State Senator from Lincoln County;
- The Wiscasset Town Planner;
- A Maine Yankee representative;

Appointed members:

- A Wiscasset resident selected by the Wiscasset Selectmen;
- A resident of the EPZ outside Wiscasset, selected by Maine

Yankee;

- A resident of the EPZ with emergency planning expertise selected by the chair of the Maine Radiological Emergency Preparedness Committee;
- A representative from Friends of the Coast;
- Liaison to the Governor;
- A radiological professional with either an academic or medical background from the EPZ. Inaugural member suggested by the Governor;
- A professional from the marine resources community who lives in the EPZ. Inaugural member suggested by the Governor;
- A resident of Lincoln County selected by Lincoln County Commissioners;
- A science teacher from the EPZ. Inaugural member suggested by the Governor;
- An environmentalist who lives in the EPZ. Inaugural member suggested by the Governor;
- An EPZ business owner chosen by the executive directors of WRBA, Bath/Brunswick Chamber, Damariscotta Region Chamber, and Boothbay Harbor Region Chamber.

3. Each appointed member of the CAP shall serve for a two (2) year term (following the initial staggering of terms), unless such term is otherwise extended in accordance with this Charter. Expiration dates of the terms of inaugural members will be staggered. The first six appointed members (as listed in the charter) will have their initial terms expire September 31,1998. The remaining five appointed members will have their initial terms expire September 31, 1999. The Governor's liaison will serve at the discretion of the Governor.

4. Termination of membership will automatically occur in the event that three (3) consecutive CAP meetings have been missed.

5. Membership may be resigned by writing to the Chairperson of the CAP. The Chairperson shall immediately forward a copy of such resignation letter to the Maine Yankee Law and Government Affairs Department and the selecting body.

6. When a member of the CAP who was appointed by the Governor resigns, that vacancy will be nominated and filled by majority vote of the CAP after it has reviewed and approved applications for that position. All other member vacancies will be filled by the original appointing authority. All vacancies must be filled consistent with the criteria for membership stated in 2, above. The term of a member filling a vacancy will end at the same time as it would have for the member being replaced. Vacancies created by the expiration of a member's term will be filled as stated in this section; however, the new member will have a full term of two (2) years, subject to the term of the CAP as set forth in Article IV, TERM.

7. A member's term may be renewed for an additional two (2) years. Such renewal is subject to the term of the CAP as set forth in Article IV, TERM.

B. OFFICERS

1. The CAP shall have a Chairperson, Vice-Chairperson and Secretary. The inaugural Chairperson and Vice-Chairperson will be appointed by Maine Yankee. Subsequent Chairpersons and Vice-Chairpersons will be elected by a majority vote of the CAP. The Secretary of the CAP will be appointed by the Chairperson.

2. The term for the Chairperson and Vice-Chairperson will be two (2) years. The Secretary will serve at the discretion of the Chairperson.

C. COMMITTEES - Committees, sub-committees or similar working groups will be designated by the Chairperson as needed to carry out the work of the CAP. Such committees, sub-committees or working groups will serve at the discretion of the Chairperson.

D. DUTIES

1. Chairperson shall perform the following duties:

   a. Call meetings of the CAP.
   b. Prepare and/or approve agenda for meetings.

c. Preside at CAP meetings.
d. Appoint Secretary of CAP and provide for the keeping of meeting minutes in the Secretary's absence.
e. Certify the accuracy of meeting minutes after approval by CAP membership.
f. Submit to the Maine Yankee Law and Government Affairs Department all recommendations adopted by the CAP.
g. Forward member resignation letters to the Maine Yankee Law and Government Affairs Department and the selecting body.
h. Work with Maine Yankee administrative support to ensure the smooth flow of information to the CAP and public.

2. Vice-Chairperson shall perform all the duties of the Chairperson in his/her absence.

3. Secretary shall perform the following duties:

a. Keep minutes of all CAP meetings including a record of members present and a complete and accurate description of matters discussed and conclusions reached.
b. Provide the originals of all CAP records to the Maine Yankee Law and Government Affairs Department for retention and public inspection as described in Section III.G.
c. Work with Maine Yankee administrative support to ensure the smooth flow of information to the CAP and public.

4. Maine Yankee Administrative Support

a. Maine Yankee will provide administrative support to the CAP and will work with the Chairperson and Secretary to ensure the smooth flow of CAP information to Panel members and the public.

b. Administrative support will include but not be limited to typing, copying, compiling, and mailing CAP documents, assisting with meeting arrangements, maintaining CAP records, and ensuring their availability to the public in the Public Document Room of the Wiscasset Public Library, and the Maine State Library. As appropriate, documents will also be available on the Maine Yankee web site. (www.maineyankee.com).

III. MEETINGS

A. Frequency - The CAP will meet on an as-needed basis, but no fewer than two (2) times a year. The need for such meetings will be determined by the CAP. Additional meetings may be called by the Chairperson.

B. Open Meetings - All CAP meetings will be open to the public.

1. All meetings will have a public comment period.

2. Issues brought before the CAP that are not on the meeting agenda will only be added to that meeting's agenda following an affirmative vote of two-thirds of the CAP members present. If the vote falls short of the two-thirds majority, the issue will be placed on the agenda of the next CAP meeting.

3. Meetings will be announced a minimum of one week in advance. Meeting agendas and other materials sent to CAP members prior to meetings will be available one week in advance at the Public Document Room of the Wiscasset Public Library and the Maine State Library.

C. Reimbursement - Members of the CAP will not be reimbursed for travel or other expenses incurred by them in the performance of their duties as members. However, Maine Yankee will provide a meal for CAP members at every meeting.

D. Quorum - Seven (7) members will constitute a quorum for a meeting of the CAP at which a vote or other official action is to be taken. In the absence of a quorum, the CAP may convene the meeting and adjourn until such time as a quorum is present. No official action may be undertaken by the CAP at a meeting which lacks a quorum.

E. Majority Vote - Wherever this Charter refers to a "majority vote", it means a simple majority of those members present and voting; provided a quorum is present at the meeting. If no quorum is present, the CAP cannot vote on any matter, except adjournment, or take any official action of any kind. Minority reports will be part of the CAP record.

F. Rules - Roberts Rules of Order will govern all CAP meetings.

G. Minutes - Minutes shall be kept of all CAP meetings and will include a record of members present, a complete and accurate description of matters discussed and conclusions reached, and copies of all reports received, issued or approved by the CAP.

H. Records - The records of the CAP consist of this Charter, meeting agendas, meeting minutes, reports submitted to or drafted by the CAP, studies made available to or prepared by the CAP, correspondence to or from the CAP. All such records shall be made available to the public at the Public Document Room of the Wiscasset Library and the Maine State Library. As appropriate, records will also be available on the Maine Yankee web site.

I. Membership Renewal - The CAP shall vote to renew the terms of its existing members at the last regularly scheduled meeting of its term, unless a concurring vote of at least seven (7) members selects an earlier meeting for such renewal. Any member not receiving a concurring vote of at least seven (7) members of the CAP for renewal will cease being a member at the expiration of his/her term. Any vacancies created by the expiration of a member's term will be filled in accordance with the procedures set forth in Section II.A.6.

IV. TERM

A. The CAP shall exist and operate for an initial term of two (2) years, ending September 31, 1999. The continuation of the CAP beyond its initial term shall be determined by Maine Yankee.

AUGUST 21, 1997
COMMUNITY ADVISORY PANEL
SCHEDULE & AGENDA

5:30 - 6:00 p.m. Buffet dinner (Room 206 - Staff Bldg)

6:00 p.m. Meeting begins (Energy Information Center)

- Introductions
- General Committee Business
- Maine Yankee presentation on general decommissioning issues
- Public comment period

9:00 p.m. Adjourn

SEPTEMBER 18, 1997
COMMUNITY ADVISORY PANEL
SCHEDULE & AGENDA

3:00-5:15 p.m.	Plant tour for interested CAP members. (Meet in Room 206 of the staff building)
5:30 - 6:00 p.m.	Buffet dinner (Room 206 - Staff Building)
6:00 p.m.	Meeting begins (Career Center)

- General Committee Business
- Radiation basics presentation by George Bernhardt IV, Ph.D.
- Maine Yankee presentation on site characterization
- Public comment period

9:00 p.m. Adjourn

AGENDA
Community Advisory Panel
Wednesday, October 29, 1997

5:15 - 6:00 p.m.	Buffet Dinner (Room 206, Maine Yankee Staff Building)
6:00 p.m.	Meeting begins (Career Center) ▸ Committee Business ▸ Regulatory Update • Texas compact • Other ▸ Site Characterization Update ▸ FERC Rate Case - Decommissioning Funding ▸ Other Business
8:30 p.m.	Public Comment
9:00 p.m.	Adjourn

AGENDA
Community Advisory Panel
Tuesday, December 2, 1997

5:15 - 6:00 p.m.	Buffet Dinner (Room 206, Maine Yankee Staff Building)
6:00 p.m.	Meeting begins (Career Center) I. Committee Business II. Regulatory Update III. Site Characterization Update IV. Defueled Emergency Plan V. Other Business VI. Panel Discussion VII. Public Comment
9:00 p.m.	Adjourn

AGENDA
Community Advisory Panel
Thursday, January 15, 1998

3:45 - 5:00 p.m. Tour of the Low Level Waste Storage Building

5:15 - 6:00 p.m. Buffet Dinner (Room 206, Maine Yankee Staff Building)

6:00 p.m. Meeting begins (Career Center)

I. Committee Business
   - A. Adopt minutes
   - B. Announcements
   - C. Other

II. Site Characterization Update

III. Regulatory Update

IV. Defueled Emergency Plan (continued from12/2)
   - A. Spent Fuel Pool - Systems and monitors
   - B. Fire Protection
   - C. Community Update

-Break-

V. Other Business

VI. Panel Discussion

VII. Public Comment

9:00 p.m. Adjourn

COMMUNITY ADVISORY PANEL MEMBERSHIP

1. Senator Marge Kilkelly
   Wiscasset

2. Dan Thompson (Wiscasset town planner)
   Wiscasset

3. Mike Sellman or designee (Maine Yankee representative)
   Wiscasset

4. John Chester (Wiscasset resident selected by Wiscasset selectmen)
   Wiscasset

5. Tom Cashman (resident of EPZ, outside Wiscasset, selected by Maine Yankee)
   Phippsburg

6. Lewis Curtis (resident of EPZ with emergency planning experience)
   Wiscasset

7. Raymond Shadis (Friends of the Coast representative)
   Edgecomb

8. Uldis Vanags (Governor's liaison)
   Augusta

9. Terry Zipper (radiological professional, suggested by Governor)
   Auburn

10. Alan Houston (marine resources professional, suggested by Governor)
    Topsham

11. Paul Crary, MD (Lincoln county resident selected by Lincoln County Commissioners)
    Boothbay Harbor

12. Margot Murphy (science teacher, suggested by Governor)
    Warren

13. Don Hudson (environmentalist, suggested by Governor)
    Wiscasset

14. Sandy Labaree (EPZ business owner chosen by directors of local business organizations)
    Wiscasset

RAYMOND SHADIS
Post Office box 76
Edgecomb, Maine 04556

January 21, 1998

Honorable Senator Richard Carey
and Committee members,
Joint Select Committee to Oversee Maine Yankee
c/o Jon Clark
Office of Policy and Legal Analysis
State House Station 13, Augusta, Maine 04333
Also by Fax -207 - 287 - 1275

Dear Senator Carey,
Dear Committee Members,

Thank for your openness and attention to my concerns and the concerns of Friends of the Coast in the matter of decommissioning the Maine Yankee Atomic Power Station.

I have been asked to convey to you the deep appreciation of Friends of the Coast for your generosity in convening a public hearing at Wiscasset. One can only guess why the hearing was so lightly attended or why the selectmen of towns surrounding the facility chose not to comment on the effects of its closing.

I must offer a correction to a statement included in our report to your committee. In the attachment titled, Nuclear facts and Fallacies, Item 8, it is stated that only one Maine Yankee Community Advisory Panel (CAP) Member in addition to the Friends of the Coast representative attended the Select Committee's Wiscasset public hearing. At a January 15 CAP meeting, Senator Marjorie Killkelly pointed out that Dan Thompson, Wiscasset Town Planner and CAP member was also present. The senator's observation is correct. As principal author of the report, I apologize for the omission of Mr. Thompson in the count. That would make it a total of four out of fourteen CAP members attending, counting in Senator Killkelly, who, of course, is also a Select Committee member.

Senator Killkelly also appeared to take umbrage at the general content of our comments regarding the CAP and advised me that she would be responding, I presume, before the Select Committee. I regret that I am called to be out of state on the day scheduled for your final meeting and so cannot be present to defend my representations or support the contents of the Friends of the Coast Report.

By way of confirming statements in our report, attached to this letter is an extract from the Maine Yankee CAP charter which defines its purpose, and Lincoln County Weekly article regarding the formation of Friends of Maine Yankee which spells out that group's financial base.

I trust that many of the Select Committee's members will keep a hand in on issues surrounding the Maine Yankee Nuclear Waste Site through the Energy and Utilities Committee and I look forward to a productive dialogue in that setting.

Please do not hesitate to contact me regarding nuclear safety and waste issues. My home number is 882 - 7801.

Again, Thank You, for your extraordinary service as a Select Oversight Committee.

Sincerely,

Raymond Shadis

Maine Yankee
COMMUNITY ADVISORY PANEL

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LINCOLN COUNTY WEEKLY / SEPT.14, 1995

Maine Yankee Friends emerge

BY KRIS FERRAZZA

EDGECOMB — Some new voices were heard in the local debate over nuclear power as the "Friends of Maine Yankee," a group of supporters of the nuclear power plant, emerged Tuesday.

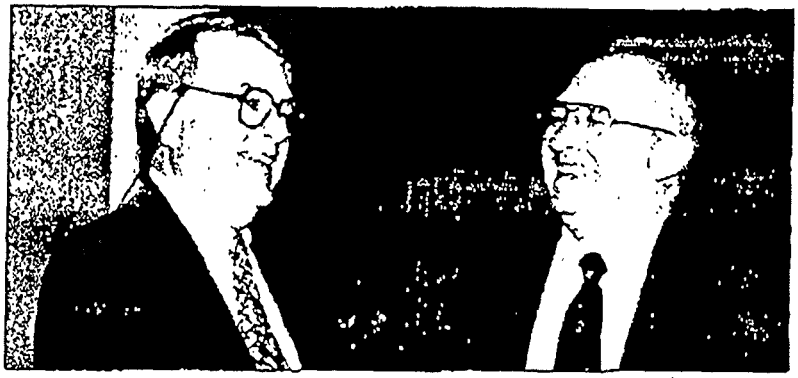
Representatives of the group of 30 or more community leaders met Tuesday morning in Edgecomb to make their presence known, and to spread the word that not everyone along the Midcoast thinks Maine Yankee is bad.

Spokesmen Ralph "Woody" Hodgkins, a retired banker from Westport, and Tom Cashman, emergency management director in Phippsburg, addressed a group of reporters and other members of the new organization and explained where they stand on the issues involving Maine Yankee.

Hodgkins admitted early in his speech that Maine Yankee is paying the costs of sending out news releases and other communications for the group to the media and the public. However, he noted the funds are coming directly from plant owners, at no expense to ratepayers.

The Westport man acknowledged that such a financial tie to the plant might open the group up to criticism that they are an extension of Maine Yankee. However, he and Cashman gave assurances that the group is independent.

"We are a group of volunteers who feel strongly, just as the opponents feel strongly, about Maine Yankee and we want to try to get the word out," Cashman said.



Tom Cashman, left, and Ralph "Woody" Hodgkins have teamed up as spokesmen for a new group called "Friends of Maine Yankee, The Economy and The Environment." The group's intent is to focus positive attention on Maine Yankee as a provider of cheap, clean energy, jobs and other financial benefits. KRIS FERRAZZA

The two said they were not approached by Maine Yankee officials and asked to start the group. Instead, Hodgkins said he felt the attention of the public and the media was weighted against the plant so an organization of like-minded thinkers "evolved."

Hodgkins is a shareholder with Central Maine Power Co., which owns 37 percent of Maine Yankee, but Cashman said he is not. The two were unsure about how many members of their group were CMP shareholders.

Cashman said the group wants to stress that Maine Yankee has an excellent record in Maine and that it helps keep the air clean because the plant does not use fossil fuels. He added he has monitored the environment weekly for radiation during the last seven or eight years in Phippsburg, as part of his emergency management work, and that has reinforced his beliefs that there is no harm to the environment.

Among other members are: M. Robert Barter, Boothbay Harbor; Paul Crary, M.D., Boothbay; Arthur Dexter, Newcastle; Steve and Eva Frey, Damariscotta; Christopher Hall, Wiscasset; Harland Hatch, Damariscotta; Muriel Holloway, Edgecomb; Ken and Laura Honey, Boothbay; Sandy Labaree, Wiscasset; Bob Mullen, Damariscotta; Howard Ryder, Newcastle; Pete Van Note, Wiscasset; Wallace Riley, Damariscotta; Col. Allen Weeks, Jr., Wiscasset; Christiana Tirrell, Damariscotta.

For more information about Friends of Maine Yankee, contact Hodgkins at 882-7573 or Cashman at 443-1404.

APPENDIX G

Maine Yankee Certification of Permanent
Cessation of Power Operation and Permanent Removal of Fuel

Maine Yankee

RELIABLE ELECTRICITY SINCE 1972

Michael B. Sellman
President

329 Bath Road
Brunswick, Maine 04011
(207) 798-4100

August 7, 1997
MN-97-89 MBS-97-54

UNITED STATES NUCLEAR REGULATORY COMMISSION
Attention: Document Control Desk
Washington, DC 20555

References: (a) License No. DPR-36 (Docket No. 50-309)

Subject: Certifications of Permanent Cessation of Power Operation And Permanent Removal of Fuel From the Reactor.

Gentlemen:

As of June 20, 1997 all fuel assemblies had been removed from the Maine Yankee reactor and placed in the spent fuel pool for temporary storage. Subsequently, on August 6, 1997 the Maine Yankee Board of Directors voted to permanently cease operations of Maine Yankee and begin the decommissioning process.

Therefore, pursuant to 10CFR50.82 (a)(1)(i) and 10CFR50.82(a)(1)(ii), Maine Yankee Atomic Power Company hereby certifies that it has permanently ceased operations at the Maine Yankee plant and that the fuel has been permanently removed from the reactor. Maine Yankee understands that, with these certifications, the Maine Yankee 10CFR50 license no longer authorizes operation of the reactor or emplacement or retention of fuel in the reactor vessel. As a result, we also understand that past and future regulations and generic communications directed solely to licensees authorized to operate a nuclear power reactor are no longer applicable to Maine Yankee.

Very truly yours,

/Michael B. Sellman

Michael B. Sellman
President

STATE OF MAINE
Then personally appeared before me, Michael B. Sellman, who being duly sworn did state that he is President of Maine Yankee Atomic Power Company, that he is duly authorized to execute and file the forgoing cetification in the name and on behalf of Maine Yankee Atomic Power Company, and that the statements therein are true to the best of his knowledge and belief.

Barbara J. Padavana
Notary Public

c: Mr. H.J. Miller
Mr. D. H. Dorman
Mr. J. T. Yerokun
Mr. Clough Toppan
Mr. P. J. Dostie
Mr. Uldis Vanags

BARBARA J. PADAVANA
Notary Public, State of Maine
My Commission Expires June 20, 2003

APPENDIX H

Maine Yankee PSDAR

Maine Yankee
RELIABLE ELECTRICITY SINCE 1972

329 BATH ROAD • BRUNSWICK, MAINE 04011 • (207) 798-4100

August 27, 1997
MN-97-99 MJM-97-14

UNITED STATES NUCLEAR REGULATORY COMMISSION
Attention: Document Control Desk
Washington, DC 20555

References: (a) License No. DPR-36 (Docket No. 50-309)
(b) Letter: M. Sellman to USNRC; "Certifications of Permanent Cessation of Power Operation and Permanent Removal of Fuel From the Reactor"; MN-97-89; dated August 7, 1997

Subject: Post Shutdown Decommissioning Activities Report

Gentlemen:

By Reference (b), Maine Yankee informed the USNRC that all fuel assemblies had been removed from the Maine Yankee reactor and that the Board of Directors had voted to permanently cease operations of Maine Yankee and begin the decommissioning process.

10CFR50.82(a)(4)(i) requires that "Prior to or within 2 years following permanent cessation of operations, the licensee shall submit a post-shutdown decommissioning activities report (PSDAR) to the NRC and a copy to the affected State(s)."

Maine Yankee is submitting the attached Maine Yankee Atomic Power Station Post Shutdown Decommissioning Activities Report in accordance with 10CFR50.82 requirements.

Please contact me if you have any questions.

Very truly yours,

Michael J. Meisner, Vice President
Nuclear Safety and Regulatory Affairs

Attachment

c:
Mr. H. J. Miller
Mr. D. H. Dorman
Mr. J. T. Yerokun
Mr. Clough Toppan
Mr. Patrick J. Dostie
Mr. Uldis Vanags
Mr. Singh Bajwa

MAINE YANKEE ATOMIC POWER STATION

POST SHUTDOWN DECOMMISSIONING ACTIVITIES REPORT

Table of Contents

I. INTRODUCTION

Under the provisions of 10CFR50.82 (a)(4)(i), this Post Shutdown Decommissioning Activities Report (PSDAR) is submitted to describe Maine Yankee's planned decommissioning activities and schedule, provide an estimate of expected costs, and discuss the reasons for concluding that the environmental impacts associated with site-specific decommissioning activities are bounded by the appropriate previously issued environmental impact statements (EIS), specifically NUREG-0586, "Final Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities" (Reference 1) and Maine Yankee's Site Specific EIS (Reference 2).

The reactor was shutdown on December 6, 1996 and has not been operated since. On June 20, 1997 transfer of all fuel assemblies from the reactor vessel into the Spent Fuel Pool for temporary storage was completed. On August 6, 1997 the Maine Yankee Board of Directors voted to permanently cease further operation of the plant. Certification to the Nuclear Regulatory Commission of the permanent cessation of operation and permanent removal of fuel from the reactor vessel, in accordance with 10CFR50.82 (a)(1)(i) & (ii), was filed on August 7, 1997 (Reference 3).

II. OVERVIEW OF THE PSDAR

The goal of Maine Yankee is to decommission the plant safely and in a cost effective manner. Prompt decommissioning satisfies both objectives. Therefore, Maine Yankee will decontaminate and dismantle the plant in a manner that results in the prompt removal of the existing nuclear plant, which is one of the approaches found acceptable to the NRC in its Final Generic EIS. The NRC refers to this approach as the DECON alternative. The DECON schedule is presented in Section IV. See Section V for a discussion of the cost estimate and Section VI for a review of environmental impacts.

Completion of the DECON schedule is contingent upon two key factors:

- Continued access to one or more federally licensed low level waste disposal sites, and
- Timely funding of the decommissioning activities.

Currently Maine Yankee has access to the Barnwell, S.C. facility. The State of Maine is also a member of the Texas Compact and proposes, together with the States of Texas and Vermont, to establish a low level waste facility in Texas. The compact has been approved by the States and is awaiting approval by the US Congress. The schedule for construction of the Texas Compact facility has not been made final.

Maine Yankee has considered the possibility that during decontamination and dismantlement,

access to the Barnwell low level waste disposal site could be denied prior to the opening of the Texas Compact facility.

Due to premature shutdown, Maine Yankee has a shortfall in its decommissioning fund collection schedule which will not support the DECON schedule absent additional provisions. Three options are available to resolve the shortfall:

- Request approval to accelerate collection of payments into the fund to support the DECON schedule,
- Finance the temporary shortfall once the FERC has resolved the upcoming rate case, or
- Extend the DECON schedule consistent with the current fund payment collection rate.

Consistent with 10CFR50.82(c) for prematurely decommissioned facilities, Maine Yankee will appropriately address the funding shortfall. Under any eventuality (unavailability of a low level waste disposal site, temporary shortfall in decommissioning funding, or other unforeseen circumstances), 10CFR50.82 requires Maine Yankee maintain the capability to suspend decontamination and dismantlement. Should such conditions arise, Maine Yankee will be prepared to suspend dismantlement and maintain the facility in a safe storage condition with appropriate funding.

III. DESCRIPTION OF PLANNED DECOMMISSIONING ACTIVITIES

Maine Yankee plans to decommission by prompt dismantlement. Our intent is to complete the decontamination and dismantlement of the majority of plant structures and facilities within approximately seven years of cessation of operations. The few facilities and structures required to support the spent fuel and greater-than-class-C waste storage will be decontaminated and dismantled after the Department of Energy (DOE) has taken possession of the stored materials. Prior to that time, it may become cost effective to transfer the spent fuel from wet storage to dry storage. If Maine Yankee determines to follow that course, the spent fuel pool may be replaced by a fuel transfer facility, several concrete pads, and a number of dry fuel/waste storage containers. Further information regarding the Maine Yankee program for funding and management of spent fuel will be submitted to the Commission in accordance with 10CFR50.54(bb).

The following discussion provides an outline of the decommissioning plans. This PSDAR description is an overview of Maine Yankee's current intentions. The detailed planning required for each decommissioning activity will be completed prior to the start of work for that activity.

Planning

Planning and preparation for decommissioning will include the following general types of activities:

- Develop decommissioning organization structure and select project staff
- Review and reclassify systems, structures, and components consistent with cessation of operations
- Review and revise plant licensing basis documents as necessary, consistent with cessation of operations
- Review and revise plant programs and procedures as necessary, consistent with cessation of operations
- Design the longer term approach to spent fuel pool cooling and isolation from the remainder of the plant
- Prepare detailed (area-by-area) decommissioning procedures and cost estimates

Site Characterization

About the first six to eight months of the decommissioning period will be devoted to a detailed site characterization. Surveys will be designed and conducted to establish the contamination and radiation levels throughout the facility. This information will be used in developing the detailed (area-by-area) procedures to ensure that contaminated materials are removed and to ensure that worker exposure is maintained as low as reasonably achievable. Surveys of the outdoor areas will be performed in order to confirm the locations of known contaminated soil and to identify any previously unknown contaminated soils.

Decontamination

Several different techniques can be employed in decontamination of surfaces. These typically include wiping, washing, vacuuming, and water jets. The interior surfaces of piping systems can be decontaminated using various chemical solutions. The objectives of the decontamination effort are two-fold: First, to reduce the radiation levels throughout the facility in order to minimize personnel exposure during dismantlement; and second, to clean as much material as possible to unrestricted use levels, thereby permitting disposal as salvage and minimizing the quantities of material that must be disposed of by burial as radioactive waste.

Present plans call for chemical decontamination of the RCS prior to dismantlement. Prior to

performing the decontamination, an engineering evaluation will be performed in order to determine if the dose reduction obtained justifies the costs associated with the decontamination. Any decontamination method used will involve standard processes with well understood chemical interactions, and the resulting waste will be disposed of in accordance with plant procedures and applicable regulations.

Major Decommissioning Activities

10 CFR 50.2 defines "major decommissioning activity" as any activity that results in permanent removal of major radioactive components, permanently modifies the structure of the containment, or results in dismantling components for shipment containing greater than Class C waste in accordance with 10 CFR 61.55. The major activities are summarized as follows:

- Removal of the steam generators and the pressurizer. The external surfaces will be decontaminated as required, and all openings will be seal-welded. These components will serve as their own disposal containers.
- Segmentation of the upper and lower core support structures, and package segments in shielded casks.[1]
- Disassembly and segmentation of the remaining reactor internals, and package segments in shielded casks.[1]
- Greater than Class C (GTCC) components will be segmented as necessary for storage with the spent fuel (either in the spent fuel pool or in dry shielded containers).
- Segment the reactor vessel, and place the segments into shielded containers, or prepare the vessel for shipment intact.[1]
- Segment the neutron shield tank structure formerly surrounding the reactor vessel, and place segments into shielded containers.
- Segment the RCS and other large-bore piping, decontaminate and scrap or dispose of as appropriate considering the residual activity level.

[1]Several technically feasible alternatives are available for removal of the reactor vessel and the reactor internals. The vessel could be removed with the internals intact and included, the internals could be segmented and the vessel removed separately, or both the internals and the vessel could be segmented. Maine Yankee believes that the radionuclide concentrations (due to neutron activation) may allow the vessel/internals assembly to be disposed of as low-specific-activity waste. Final alternative selection will be based on an evaluation of activity levels, ease of execution, personnel exposure, schedule constraints, disposal facility availability, and cost.

- Modifications to the containment structure may be necessary to permit removal of large components. Interior surfaces may be damaged during decontamination activities (which require removal of concrete to a depth of several inches). Demolition of the structure is considered to be a site restoration activity.

- Once all spent fuel is removed from the spent fuel pool, the spent fuel facility will be decontaminated and dismantled.

Segmenting operations will be developed as appropriate for the various components and/or selected portions of the facility. These operations may include the use of remote cutting equipment, contamination control envelopes or other contamination barriers, and underwater cutting techniques. Segments may be placed in liners and stored using a remote or shielded crane. The liners would be loaded into shielded transport casks for disposal at a commercial shallow-land waste disposal facility. Packaged items meeting 10 CFR 61.55 Class C or less will be shipped and buried.

Other Decommissioning Activities

Other decommissioning activities which do not meet the definition of "major activities" include the following:

- A number of documents will be prepared and submitted by Maine Yankee as required by applicable regulations. These include the following:

    - The Post-Shutdown Decommissioning Activities Report (PSDAR). This document fulfils the requirements of 10 CFR 50.82 (a)(4)(i).

    - A proposed change to the Technical Specifications will be submitted by Maine Yankee. The non-operating status of the plant will be reflected in the revised Technical Specifications by deleting the Specifications pertinent to systems no longer needed, and revising the administrative requirements.

    - A detailed, site-specific decommissioning cost estimate will be submitted pursuant to 10 CFR 50.82 (a)(8)(iii).

    - A license termination plan will be submitted pursuant to 10 CFR 50.82 (a)(9).

    - The program by which Maine Yankee intends to manage, and provide funding for the management of, the irradiated fuel until title to the fuel and possession of the fuel is transferred to the Secretary of the Department of Energy, will be submitted pursuant to 10 CFR 50.54 (bb).

- Removal of low level waste. Radioactively contaminated or activated materials will be removed from the site as necessary to allow the site to be released for unrestricted access. LLW will be processed in accordance with plant procedures and existing commercial options, and sent to licensed disposal facilities. Wastes may be incinerated, compacted, or otherwise processed by authorized and licensed contractors as appropriate.

- Removal of mixed wastes. If mixed wastes are generated, they will be managed according to all applicable federal and state regulations to the extent they are not inconsistent with NRC handling, storage, and transportation regulations. Mixed wastes from Maine Yankee will be transported only by authorized and licensed transporters and shipped only to authorized and licensed facilities. Processes to render the mixed wastes nonhazardous will be evaluated if technology, resources, and approved processes are available.

Storage of Spent Fuel

Congress passed the "Nuclear Waste Policy Act" in 1982, assigning the responsibility for disposal of spent nuclear fuel created by the commercial nuclear generating plants to the Department of Energy (DOE). This legislation also created a Nuclear Waste Fund to cover the cost of the program, which is funded, in part, by the sale of electricity from the Maine Yankee plant (and an estimated equivalent for assemblies irradiated prior to April, 1983). The target date for startup of the federal Waste Management System was originally 1998.

The backlog of spent fuel in the national inventory, delays in site characterization, and intermittent progress in the development of a waste transportation system, make it necessary to reflect spent fuel storage in the cost and schedule of commercial reactor decommissioning. After several delays, DOE estimates that the geologic repository will be operational sometime between the years 2010 and 2015. For planning purposes, Maine Yankee has assumed that the high-level waste repository or some interim storage facility will be operational by 2010. There are currently 1432 spent fuel assemblies, and 4 cages containing fuel (consolidated assemblies, or failed rod holders) residing in the spent fuel pool. Interim storage of this fuel until DOE has completed the transfer is intended to be in an independent facility to be constructed at the Maine Yankee plant site in accordance with the requirements of 10CFR72. This will allow Maine Yankee to proceed with the decommissioning of the generating facility and the termination of its operating license in the shortest time possible.

The issue of storing spent fuel onsite is specifically addressed in 10CFR51.23, which states,

> "The commission has made a generic determination that, if necessary, spent fuel generated in any reactor can be stored safely and without significant environmental impacts for at least 30 years beyond the licensed life for operation ... of that reactor at its spent fuel storage basin or at either onsite or offsite independent spent fuel storage installations. ... Accordingly ... no discussion of any environmental impact of spent fuel storage in reactor facility storage pools or independent

> spent fuel storage installations (ISFSI) for the period following the term of the reactor operating license ... is required in any environmental report, environmental impact statement, environmental assessment, or other analysis prepared in connection with the issuance or amendment of an operating license for a nuclear reactor ..."

Maine Yankee will continue to maintain and protect systems and areas critical to the storage of the spent fuel.

Final Site Survey and Termination of License

Maine Yankee will prepare a License Termination Plan, which will include the details of the final radiological survey to be performed once the decontamination activities are completed. It is anticipated that the License Termination Plan will follow the guidance provided by NUREG/CR-5849, "Manual for Conducting Radiological Surveys in Support of License Termination" [Reference 5]. This document delineates the statistical approaches to survey design and data interpretation used by the Environmental Protection Agency (EPA). It also identifies state-of-the-art, commercially available, instrumentation and procedures for conducting radiological surveys. Use of this guidance ensures that survey design and implementation are conducted in a manner that provides a high degree of confidence that applicable NRC criteria are satisfied. Once the survey is complete, the results will be provided to the NRC in a format that can be verified.

Site Restoration

Although not within the scope of NRC regulation, Maine Yankee is presently considering restoring the site to a condition comparable to a natural state. This would be done in the following manner:

- Components and materials meeting NRC release criteria may be removed from the site and disposed of as scrap, as salvage, or at regional land fills.
- Decontaminated structures will be demolished and removed to an approximate depth of three feet below grade.
- The site will be back-filled with clean material, graded, and landscaped.

IV. SCHEDULE FOR DECOMMISSIONING ACTIVITIES

Maine Yankee intends to pursue decommissioning by prompt dismantlement. The schedule outlined below reflects this intention. As discussed above, the actual schedule may differ in response to the availability of waste disposal facilities, economic resources or unforeseen circumstances.

Period 1 - Preparation / Planning

- Activities include site characterizations, engineering evaluations and planning, development of detailed procedures for dismantlement and disposal, design and procurement of special tools, and site preparation activities. Maine Yankee intends to complete these activities approximately eight months following cessation of operations.

- Decontamination of components and piping systems as required to minimize worker exposure.

Period 2 - Decommissioning Operations and License Termination

- Preliminary activities such as the construction of temporary facilities (e.g., changing rooms, laydown areas, upgrading roadways), design and fabrication of special shielding and contamination control envelopes, modification of the refueling cavity to support the segmentation activities, and procurement of shipping containers and liners.

- Removal of NSSS components as discussed above under the heading "Major Decommissioning Activities." These activities should be completed approximately three and a half years following cessation of operations.

- Removal of the remaining plant systems and components as they become nonessential to the decommissioning program or worker health and safety (e.g., waste collection and treatment systems, electrical power and ventilation systems, etc.).

- Removal of contaminated equipment and material from all contaminated areas until radiation surveys indicate that the structures can be released for unrestricted access and conventional demolition. Decontamination of remaining site buildings and facilities. Decontamination and dismantlement of the spent fuel pool and associated systems once the spent fuel is moved to an independent storage facility. These activities should be completed approximately five years following cessation of operations.

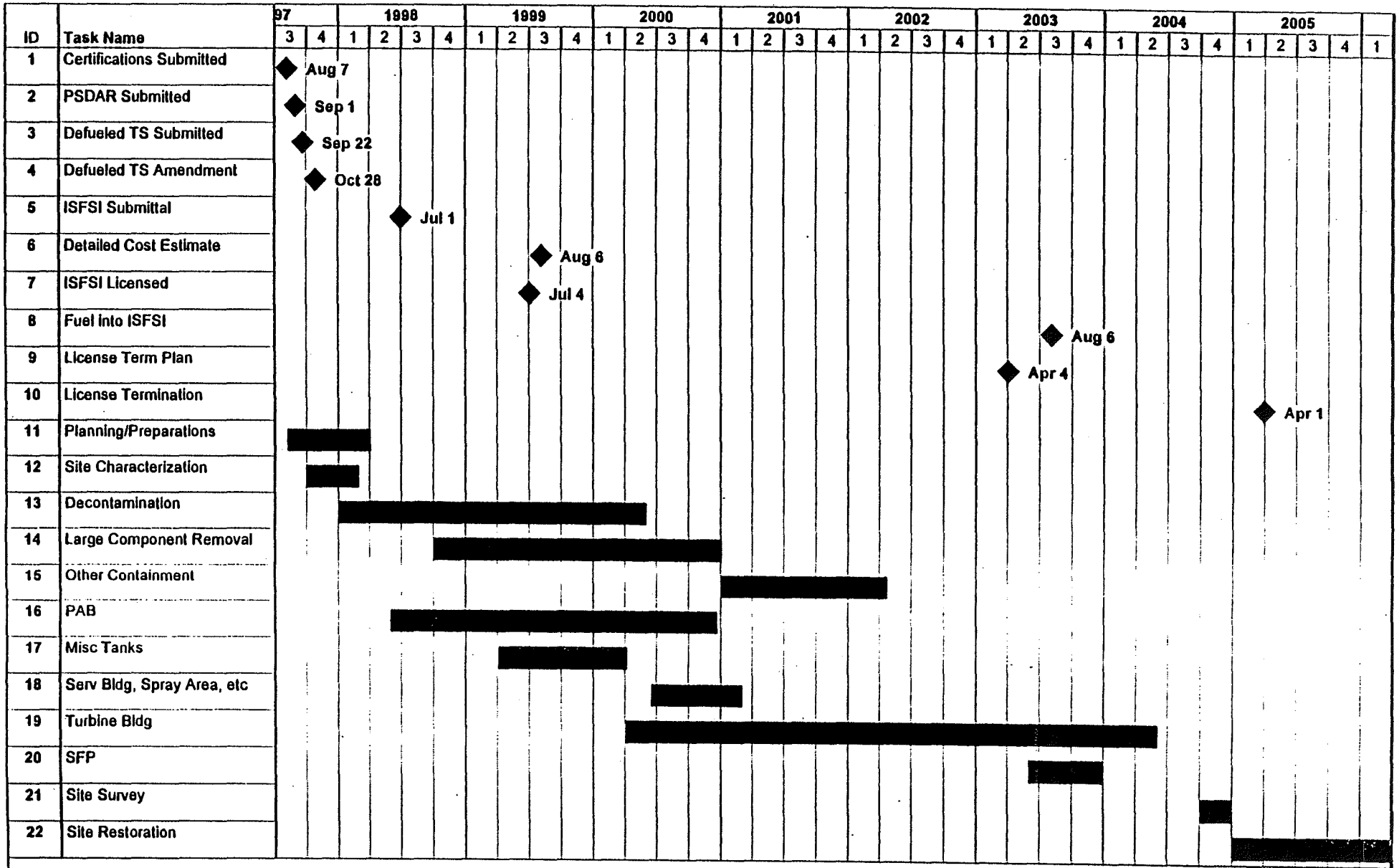
- Final site survey and license termination, as discussed above under the heading "Final Site Survey and Termination of License." These activities should be completed approximately seven years following cessation of operations.

Period 3 - Site Restoration

- Demolition of the remaining portions of the containment structure and interior portions of the reactor building using controlled blasting techniques. Removal of remaining buildings and other site structures using conventional demolition techniques. Site areas

affected by the dismantling activities will be cleaned and the plant area graded as required to prevent ponding and inhibit the refloating of subsurface materials. These activities should be completed approximately eight years following cessation of operations.

Additional detail is included in the following schedule.


ID
Task Name
97
1998
1999
2000
2001
2002
2003
2004
2005
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1 Certifications Submitted
2 PSDAR Submitted
3 Defueled TS Submitted
4 Defueled TS Amendment
5 ISFSI Submittal
6 Detailed Cost Estimate
7 ISFSI Licensed
8 Fuel into ISFSI
9 License Term Plan
10 License Termination
11 Planning/Preparations
12 Site Characterization
13 Decontamination
14 Large Component Removal
15 Other Containment
16 PAB
17 Misc Tanks
18 Serv Bldg, Spray Area, etc
19 Turbine Bldg
20 SFP
21 Site Survey
22 Site Restoration
Aug 7
Sep 1
Sep 22
Oct 28
Jul 1
Aug 6
Jul 4
Aug 6
Apr 4
Apr 1

V. DECOMMISSIONING COST ESTIMATE

Current Cost Estimate - 1993

The current Maine Yankee decommissioning cost estimate was prepared by TLG Services Inc., a specialty contractor in the field, in 1993. The methodology used by TLG to develop the decommissioning cost estimate follows the basic approach originally advanced by the Atomic Industrial Forum (now Nuclear Energy Institute) in their program to develop a standardized model for decommissioning cost estimates. The results of this program were published as AIF/NESP-036, "Guidelines for Producing Commercial Nuclear Power Plant Decommissioning Cost Estimates," [Reference 6]. This document presents a unit factor method for estimating direct activity costs, simplifying the estimating process. The unit factors used in the study reflect the latest available data at the time of the study concerning worker productivity during decommissioning, including field experience.

The current decommissioning cost estimate was part of a FERC rate case settlement finalized in 1994 and is summarized in the following table. The distinctions between decommissioning costs, fuel storage costs and greenfield costs are not part of the current estimate. They represent approximations intended to clarify the discussion below.

It should be noted that the scope of previously performed cost estimates does not coincide with the scope of the estimate presented here. The definition of "decommission" used by the NRC is provided in 10 CFR 50.2:

> "Decommission means to remove (as a facility) safely from service and reduce residual radioactivity to a level that permits release of the property for unrestricted use and termination of license."

The Commission amplified this definition when it issued the decommissioning rule, by noting that:

> "Decommissioning activities do not include the removal and disposal of spent fuel which is considered to be an operational activity or the removal and disposal of nonradioactive structures and materials beyond that necessary to terminate the license. Disposal of nonradioactive hazardous waste not necessary for NRC license termination is not covered in detail by these regulations but would be treated by other appropriate agencies having responsibility over these wastes."

[53 Fed. Reg. 24018,24019 (June 27, 1988]. Similarly, the generic EIS (Reference 1) notes that these non-radiological wastes are not covered by the EIS, but would be addressed by

other agencies.

The estimate provided in Reference 1, therefore, does not include the costs associated with storing the spent fuel while waiting for the Department of Energy (DOE) to take possession of the stored materials; and it does not include the costs associated with restoring the site to a "green field" condition.

Updated Decommissioning Cost Estimate

The detailed site-specific cost estimate required by 10CFR50.82(a)(8)(iii) will be prepared and submitted to the NRC prior to August 7, 1999. This updated decommissioning cost estimate is currently being prepared by TLG utilizing a similar methodology as discussed above. Following appropriate internal review, the updated decommissioning cost estimate is expected to be presented to the FERC as part of a ratemaking case in approximately mid-October, 1997.

Although the magnitude is not clear, it is likely that the updated decommissioning cost estimate will exceed that presented in the 1993 study. Several factors may lead to an increase. For example, certain costs were not included in the 1993 study. The 1993 study included more optimistic assumptions about DOE's ability to take possession of spent fuel - assuming approximately 10 years of spent fuel storage at Maine Yankee vice the approximately 25 years of spent fuel storage that will be considered under the new cost estimate. Because of the relatively short fuel storage period, the 1993 study did not consider the more economical use of long-term dry cask storage. Therefore, the costs of siting, constructing and licensing an independent spent fuel storage facility for the dry cask storage of fuel must also be considered.

Maine Yankee
Summary of Decommissioning Costs[1] (thousands of dollars)

Key Tasks / Milestone	1993	1997[2]
Plant Dismantlement		
Staffing	$100, 205	$119, 496
LLW Burial	$70, 189	$83, 702
Equipment Removal	$36, 373	$43, 375
LLW Packaging and Shipping	$11, 474	$13, 683
Decontamination Activities	$5, 058	$6, 032
Decommissioning Planning Activities	$2, 981	$3, 555
Other Costs[3]	$4, 267	$4, 988
Subtotal	**$230, 547**	**$274, 932**
Spent Fuel Management	**$44, 775**	**$53, 395**
Site Restoration (Greenfielding)	**$41, 300**	**$49, 251**
Total Decommissioning Estimate	**$316, 622**	**$377, 578**

Notes:

(1) Prompt decommissioning technique (DECON)
(2) 1993 dollars escalated at 4.5% per year to 1997 dollars
(3) Other costs such as insurance, property taxes, energy, NRC and State fees, etc.

VI. ENVIRONMENTAL IMPACTS

10 CFR 50.82 (a)(4)(i) describes the Post-Shutdown Decommissioning Activities Report (PSDAR), and requires that it include "a discussion that provides the reasons for concluding that the environmental impacts associated with the site-specific decommissioning activities will be bounded by appropriate previously issued environmental impact statements." The following discussion provides our reasons for drawing that conclusion, based on three previously issued documents: 1) Maine Yankee Atomic Power Station Environmental Report, Supplement One, dated April 19, 1972 [Reference 4]; 2) the Final Environmental Statement Related to Operation of Maine Yankee Atomic Power Station, dated July 1972 [Reference 2]; and 3) NUREG-0586, "Final Generic Environmental Impact Statement (GEIS) on decommissioning nuclear facilities" [Reference 1].

First, it is noted that decommissioning the Maine Yankee plant will have generally positive environmental effects, in that:

- Radiological sources that create the potential for radiation exposure to site workers and the public will be eliminated
- Decommissioning will return the site to a condition allowing unrestricted use

Further, the Maine Yankee plant decommissioning will be accomplished with no significant adverse environmental impacts, in that:

- No Maine Yankee site specific factors would alter the conclusions of the GEIS or the earlier environmental report and statement
- Radiation dose to the public will be minimal
- Radiation dose to decommissioning workers will be a small fraction of the operating experience
- The low-level radioactive waste removed from the site will occupy a small burial volume at approved waste disposal sites
- The non-radiological environmental impacts are temporary and not significant

The effects of decommissioning activities with respect to specific environmental issues are discussed briefly below.

Radiation Dose to the Public

Radiation dose to the public will be maintained below comparable levels when the plant was operating through the continued application of radiation protection and contamination controls combined with the reduced source term available in the facility.

Occupational Radiation Exposure

Maine Yankee has estimated that a total of 9.46 person-Sv (946 person-rem) will be incurred during the decommissioning of Maine Yankee. This total includes the exposure from decontamination and dismantlement activities and the exposure during transportation of the low-level wastes.

NUREG-0586 [Reference 1], Table 4.3-2, estimates a total dose of 12.15 person-Sv (1215 person-rem) for the DECON alternative for the reference plant. While the Maine Yankee decommissioning will delay the decontamination and dismantlement of selected plant areas[1] until the DOE takes possession of the spent fuel, the plan closely resembles the DECON alternative of NUREG-0586. The 9.46 person-Sv (946 person-rem) total dose for the Maine Yankee decommissioning is below the 12.15 person-Sv (1215 person-rem) total dose that was found acceptable for decommissioning the reference PWR in the "Final Generic Environmental Impact Statement on decommissioning of nuclear facilities," NUREG-0586 [Reference 3].

Low-Level Radioactive Waste Burial Volume

Maine Yankee estimates the low-level waste burial volume for immediate dismantlement as 209,000 cubic feet (or 5,920 cubic meters). The GEIS estimates the volume as 18,340 cubic meters. The Maine Yankee estimate assumes the use of present-day volume reduction techniques not credited in the GEIS. For high level waste requiring deep geological burial (greater than class C waste), Maine Yankee estimates 227 cubic feet (or 6.5 cubic meters). The GEIS estimates the volume of high level waste as 88 cubic meters. These estimates thus support the conclusion that the previously issued environmental statements are bounding, since the disposal of waste will require fewer resources (i.e., less waste disposal facility area) than considered in the GEIS.

Non-Radiological Environmental Impacts

The non-radiological environmental impacts from the Maine Yankee decommissioning are

[1]The spent fuel pool cannot be decommissioned until the spent fuel can be transferred into an independent storage facility, and the independent storage facility cannot be decommissioned until the DOE removes the spent fuel.

temporary and not significant. The largest occupational risk associated with the decommissioning is the risk of industrial accidents. This will be addressed by adherence to work controls during decommissioning, similar to the procedures followed during power operation. Procedures controlling work related to asbestos, lead, and other non-radiological hazards will also remain in place during the decommissioning. The primary environmental effects of the decommissioning are temporary, small increases in noise levels and dust in the immediate vicinity of the site, and truck traffic to and from the site for hauling equipment and waste. These effects will be similar to those experienced during normal refueling outages, and certainly less severe than those present during the original plant construction. No significant socioeconomic impacts or impacts to local culture, terrestrial or aquatic resources have been identified.

Additional Considerations

While not quantitative, the following considerations are also relevant to concluding that decommissioning activities will not result in significant environmental impacts not previously reviewed.

- The release of effluents will continue to be controlled by plant procedures throughout the decommissioning. With respect to radiological releases, Maine Yankee will continue to operate in accordance with the Offsite Dose Calculation Manual (ODCM) during the decommissioning activities. Releases of non-radiological effluents will continue to be controlled per the requirements of the NPDES and State of Maine permits. Systems used to treat or control effluents during power operation may be replaced by temporary or mobile systems as the decommissioning proceeds.

- Radiation protection principles used during plant operation will remain in effect during decommissioning to ensure that protective techniques, clothing, and breathing apparatus are used as appropriate.

- Sufficient decontamination prior to dismantlement will be performed to ensure that individual and integrated doses will not exceed those estimated in the final generic environmental impact statement.

- Detailed site radiologic surveys will be performed following cessation of operation to confirm the burial volume of low-level radioactive waste, and highly activated components which require deep geological disposal.

- Detailed site radiologic surveys will be performed following cessation of operation to identify the requirements for decontaminating the ground surrounding the plant.

- Transport of radioactive waste will be in accordance with plant procedures, applicable federal regulations, and the requirements of the receiving facility.

- Plant ventilation systems (or alternate, temporary systems) will be maintained as long as needed in the areas they service.

- Site access control will be maintained during decommissioning to ensure that residual contamination is minimized or eliminated as radiation pathways to the public during decommissioning.

Conclusion

Based on the above, Maine Yankee concludes that the environmental impacts associated with the site-specific decommissioning activities will be bounded by appropriate previously issued environmental impact statements. Should unforeseen circumstances arise that may challenge a bounding environmental impact, Maine Yankee will seek prior NRC review and approval before proceeding.

REFERENCES

1. NUREG-0586, "Final Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities," dated August, 1988

2. "Final Environmental Statement related to operation of Maine Yankee Atomic Power Station," dated July 1972

3. MN-97-89, MY Letter to NRC, "Certifications of Permanent Cessation of Power Operation and Permanent Removal of Fuel From the Reactor," dated 8/7/97

4. Maine Yankee Atomic Power Station Environmental Report, Supplement One, dated April 19, 1972 (MYAPC to AEC)

5. NUREG/CR-5849, "Manual for Conducting Radiological Surveys in Support of License Termination."

6. AIF/NESP-036, "Guidelines for Producing Commercial Nuclear Power Plant Decommissioning Cost Estimates"

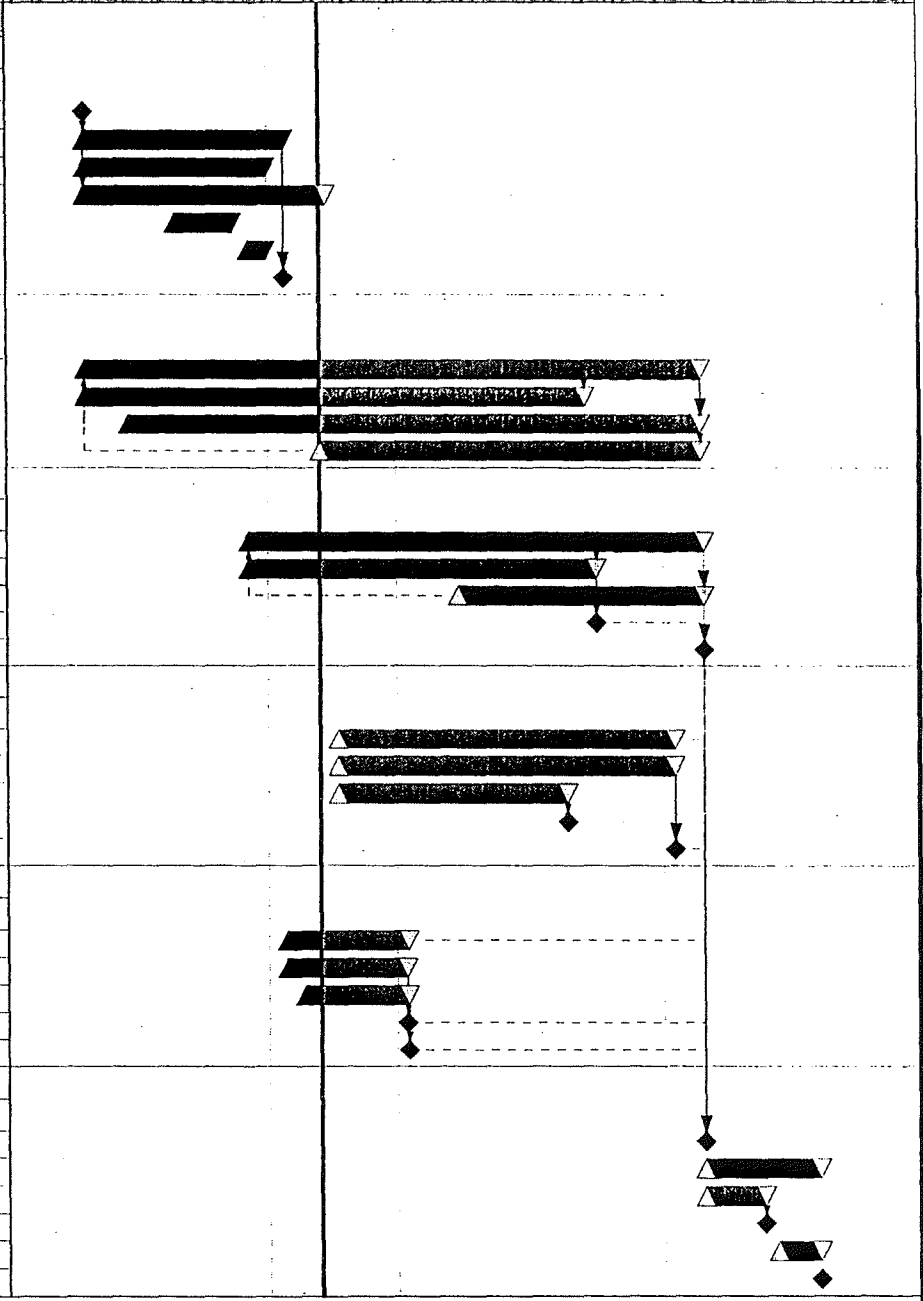
APPENDIX I

GTS Duratek Site Characterization Study Schedule
(This is a working document; the schedule changes weekly as the work develops)

Morning Update

November 13, 1997

ID	Description	Duration	Start	Finish
Maine Yankee Site Characterization				
Project Initiation				
Dave Lovett - 5698				
D-0001	Contract Award	0	19SEP97 00:00A	
D-0002	Project Initiation	0*	19SEP97 00:00A	04NOV97 16:59A
D-0003	Mobilization	0	19SEP97 00:00A	31OCT97 16:59A
D-0006	Procedures & Plans	20	19SEP97 07:00A	14NOV97 16:59
D-0016	Scope & Schedule Refinement	0	10OCT97 07:00A	23OCT97 16:59A
D-0016A	Readiness Review	0	27OCT97 07:00A	31OCT97 16:59A
D-0017	Project Initiation Complete	0		04NOV97 16:59A
Technical Support Services				
Dave Lovett - 5698				
D-0031	3.0 Technical Support Services	2,122*	19SEP97 07:00A	09FEB98 16:59
D-0043	Other Off Site Services	320*	19SEP97 07:00A	13JAN98 16:59
D-0032	On Site Support Services	2,122*	29SEP97 07:00A	09FEB98 16:59
D-0038	On Site Special services	510*	13NOV97 07:00	09FEB98 16:59
SYSTEMS CHARACTERIZATION				
Bob Hornbeck - 4903				
D-0048	Systems Characterization	515*	27OCT97 07:00A	10FEB98 11:59
D-0123	Unaffected Systems	346*	27OCT97 07:00A	16JAN98 12:59
D-0049	Affected Systems	315*	15DEC97 07:00	10FEB98 11:59
D-0224	Unaffected Systems Characterization	0		16JAN98 12:59
D-0122	Affected Systems Characterization	0		10FEB98 11:59
Structures Characterization				
Phil Mann - 4936				
D-0225	Structures & Surfaces Characterization	1,882	17NOV97 07:00	03FEB98 16:59
D-0226	Affected Structures & Surfaces	1,882	17NOV97 07:00	03FEB98 16:59
D-0291	Unaffected Structures & Surfaces	1,282	17NOV97 07:00	09JAN98 16:59
D-0331	Unaffected Structures & Surfaces Complete	0		09JAN98 16:59
D-0290	Affected Structures & Surfaces Complete	0		03FEB98 16:59
Environmental Characterization				
Phil Garrett - 4902				
D-0332	Environmental Characterization	491	05NOV97 07:00A	03DEC97 10:59
D-0358	Unaffected Environs	488	05NOV97 07:00A	03DEC97 07:59
D-0333	Affected Environs	491	09NOV97 06:00A	03DEC97 10:59
D-0425	Unaffected Environs Characterizations	0		03DEC97 07:59
D-0357	Affected Environs Characterization	0		03DEC97 10:59
Project Closure				
Dave Lovett - 5698				
D-0426	Characterization Surveys Complete	0		10FEB98 11:59
D-0427	Project Closure	648	10FEB98 12:00	09MAR98 11:59
D-0428	Site Demobilization	336	10FEB98 12:00	24FEB98 11:59
D-0433	Site Demobilization Complete	0		24FEB98 11:59
D-0443	Final Report	60	27FEB98 12:00	09MAR98 11:59
D-0444	Final Report Issued	0		09MAR98 11:59



Project Start	01SEP97 00:00
Project Finish	09MAR98 11:59
Data Date	13NOV97 00:00
Run Date	13NOV97 10:00

Early Bar
Progress Bar
Critical Activity

DCM1:CHAR

Sheet 1 of 1

GTS Duratek

Maine Yankee Site Characterization

Project Overview (Rev - 0)

GTS DURATEK

Prepared by Jim Carslick Ext. 5618

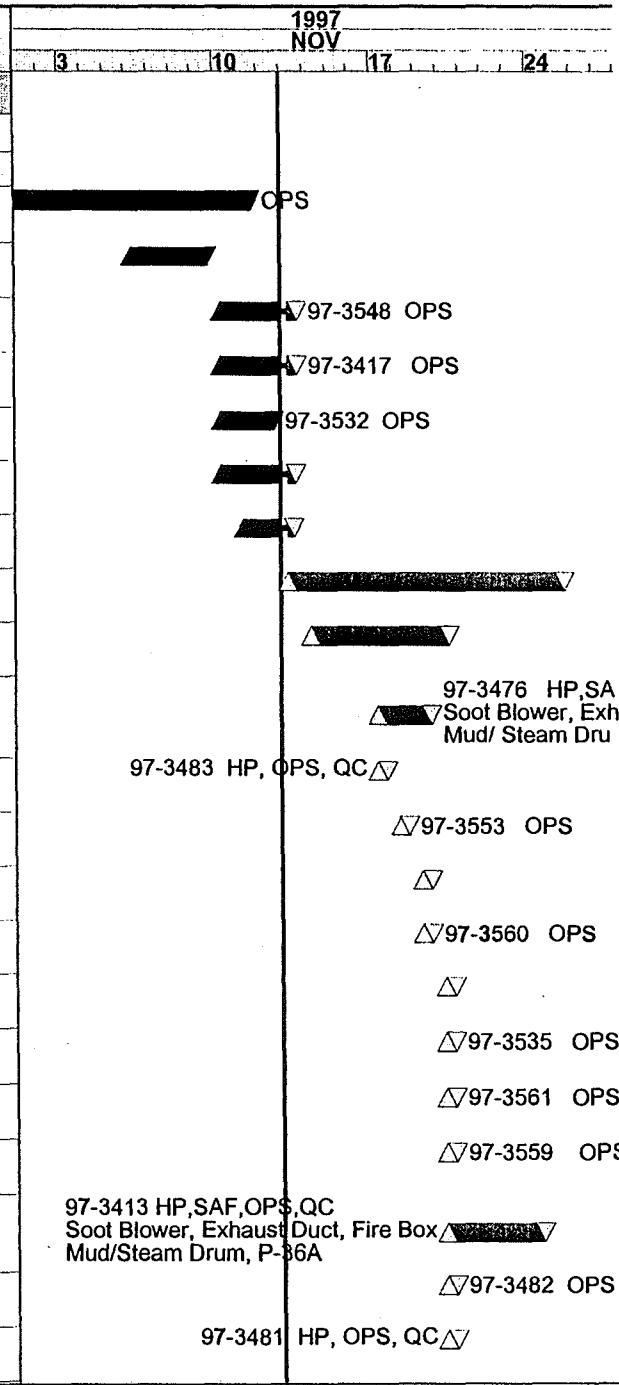
Date	Revision	Checked	Approved

Maine Yankee Site Characterization

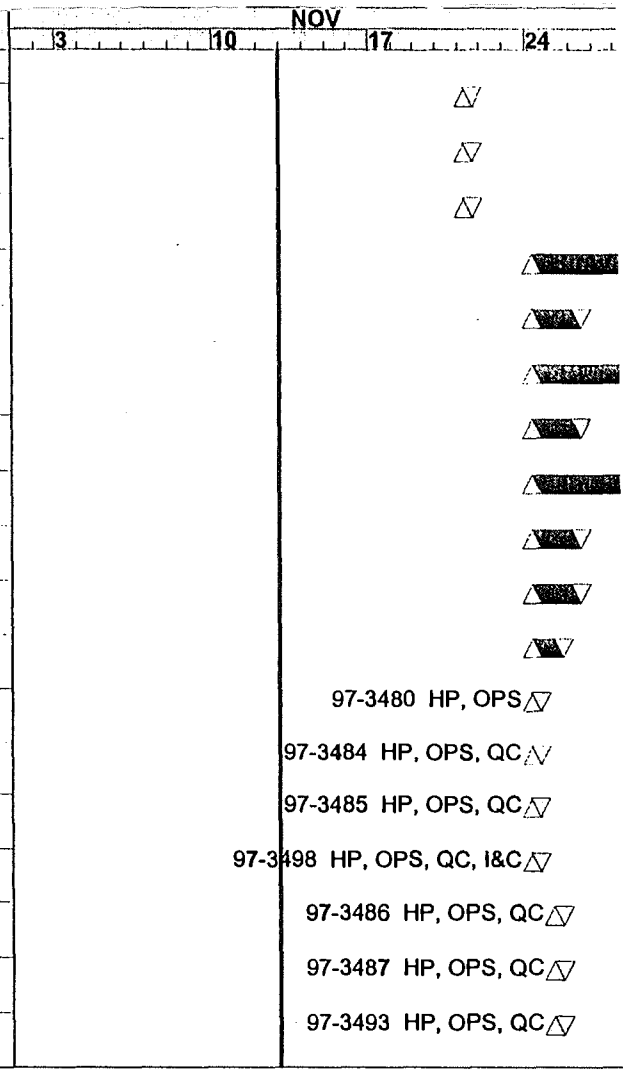
SYSTEMS CHARACTERIZATION

Bob Hornbeck - 4903

Activity ID	Survey Pkg.	Activity Description	Orig Dur	Rem Dur	Early Start	Early Finish
D-0169	D0012	System Prep. (Main Steam)	40	0	27OCT97 07:00A	11NOV97 16:59A
D-0178	D0014	Rad. Survey (Main Turbine/Turbine Cont)	90	0	06NOV97 07:00A	09NOV97 15:59A
D-0137	D0004	System Prep. (Sanitary SewageTreatment)	20	10	10NOV97 07:00A	13NOV97 16:59
D-0153	D0008	System Prep (Lube Oil)	20	10	10NOV97 07:00A	13NOV97 16:59
D-0181	D0015	System Prep.(Steam Dump)	30	0	10NOV97 07:00A	12NOV97 16:59A
D-0194	D0018	Rad. Survey (Heater Drain)	90	9	10NOV97 07:00A	13NOV97 15:59
D-0535	D0025	Rad Survey (High Pressure Drain)	10	6	11NOV97 07:00A	13NOV97 12:59
D-0170	D0012	Rad. Survey (Main Steam)	90	90	13NOV97 07:00*	25NOV97 16:59
D-0138	D0004	Rad. Survey (Sanitary Sewage Treatment)	45	45	14NOV97 07:00*	20NOV97 11:59
D-510	D0010	B-1B Open Non-Running Boiler	30	30	17NOV97 07:00*	19NOV97 16:59
D-511	D0010	ACD-8 Open and Survey (B-1B)	10	10	17NOV97 07:00	17NOV97 16:59
D-0528	D0026	System Prep (Environmental Serv. Drain)	10	10	18NOV97 07:00*	18NOV97 16:59
D-0533	D0026	Rad Survey (Environmental Serv. Drain)	10	10	19NOV97 07:00	19NOV97 16:59
D-0538	D0031	System Prep (Service Bldg HVAC)	10	10	19NOV97 07:00*	19NOV97 16:59
D-0520	D0031	Rad Survey (Service Bldg HVAC)	10	10	20NOV97 07:00	20NOV97 16:59
D-0522	D0030	System Prep (Staff Bldg HVAC)	10	10	20NOV97 07:00*	20NOV97 16:59
D-0524	D0027	System Prep (Admin Bldg. HVAC)	10	10	20NOV97 07:00*	20NOV97 16:59
D-0530	D0028	System Prep (Info Bldg. HVAC)	10	10	20NOV97 07:00*	20NOV97 16:59
D-500	D0010	B-1A Open Non-Running Boiler	30	30	20NOV97 07:00	24NOV97 16:59
D-501	D0010	FL-59A Open and Survey (B-1A)	10	10	20NOV97 07:00	20NOV97 16:59
D-502	D0010	ACD-7 Open and Survey (B-1A)	10	10	20NOV97 07:00	20NOV97 16:59



ID	Pkg.	Description	Dur	Dur	Start	Finish
Bob Hornbeck - 4903						
D-0518	D0030	Rad Survey (Staff Bldg HVAC)	10	10	21NOV97 07:00	21NOV97 16:59
D-0519	D0027	Rad Survey (Admin Bldg. HVAC)	10	10	21NOV97 07:00	21NOV97 16:59
D-0534	D0028	Rad Survey (Info Bldg HVAC)	10	10	21NOV97 07:00	21NOV97 16:59
D-0125	D0001	System Prep. (Condensate)	76	76	24NOV97 07:00*	08DEC97 12:59
D-0141	D0005	System Prep. (Circ. Water)	25	25	24NOV97 07:00*	26NOV97 11:59
D-0154	D0008	Rad. Survey (Lube Oil)	45	45	24NOV97 07:00*	02DEC97 11:59
D-0165	D0011	System Prep. (Blowdown)	25	25	24NOV97 07:00*	26NOV97 11:59
D-0185	D0016	System Prep. (Feedwater)	76	76	24NOV97 07:00*	08DEC97 12:59
D-0189	D0017	System Prep. (Aux. Feedwater)	25	25	24NOV97 07:00*	26NOV97 11:59
D-0213	D0023	System Prep. (Aux. Diesel)	25	25	24NOV97 07:00*	26NOV97 11:59
D-0526	D0032	System Prep. (Hydrogen / Nitrogen System)	20	20	24NOV97 07:00*	25NOV97 16:59
D-503	D0010	P-35 Open and Survey (B-1A)	10	10	24NOV97 07:00*	24NOV97 16:59
D-504	D0013	AS-T-74 Open and Survey	10	10	24NOV97 07:00	24NOV97 16:59
D-505	D0013	AS-T-70 Open and Survey	10	10	24NOV97 07:00	24NOV97 16:59
D-506	D0013	AS-T-109 Open and Survey	10	10	24NOV97 07:00	24NOV97 16:59
D-507	D0013	AS-478 Open and Survey	10	10	25NOV97 07:00	25NOV97 16:59
D-508	D0013	AS-63 Open and Survey	10	10	25NOV97 07:00	25NOV97 16:59
D-509	D0013	AS-788 Open and Survey	10	10	25NOV97 07:00	25NOV97 16:59

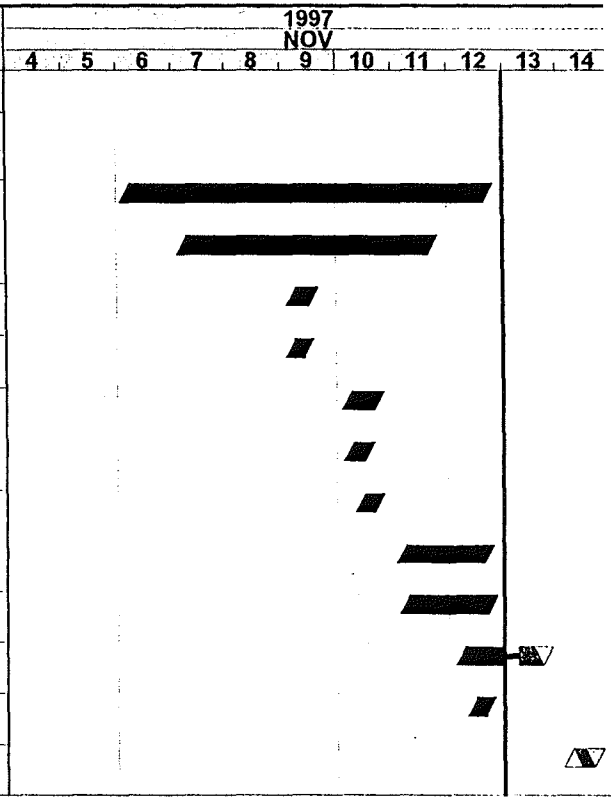


Maine Yankee Site Characterization

Environmental Characterization

Phil Garrett - 4902

Activity ID	Survey Pkg.	Activity Description	Orig Dur	Rem Dur	Early Start	Early Finish
D-0061	R0018	Vehicle Survey (Bailey House Area)	20	0	06NOV97 06:00A	12NOV97 15:59A
D-0360	R0008	Vehicle Survey (Admin & Parking Area)	6	0	07NOV97 07:00A	11NOV97 15:59A
D-0335	R0005	Vehicle Survey (Bailey Point)	5	0	09NOV97 06:00A	09NOV97 11:59A
D-0347	R0010	Vehicle Survey (Foxbird Island)	4	0	09NOV97 06:00A	09NOV97 09:59A
D-0339	R0007	Vehicle Survey (Construction Debris Landfill)	10	0	10NOV97 06:00A	10NOV97 15:59A
D-0343	R0006	Vehicle Survey (Ball Field)	5	0	10NOV97 07:00A	10NOV97 11:59A
D-0351	R0013	Vehicle Survey (Dry Cask Storage Area)	4	0	10NOV97 12:00A	10NOV97 15:59A
D-0364	R0009	Vehicle Survey (Balance of Plant Area)	20	0	11NOV97 06:00A	12NOV97 15:59A
D-0053	R0016	Vehicle Survey (Owner Cont. Area W. Bailey Cove)	10	0	11NOV97 07:00A	12NOV97 16:59A
D-0057	R0017	Vehicle Survey(Owner Cont. Area N. Old Ferry Rd)	20	10	12NOV97 07:00A	13NOV97 16:59
D-0065	R0021	Vehicle Survey (Maintenance Yard)	4	0	12NOV97 12:00A	12NOV97 15:59A
D-0069	R0022	Vehicle Survey (Background)	9	9	14NOV97 07:00*	14NOV97 15:59



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Project Finish	09MAR98 11:59
Data Date	13NOV97 00:00
Run Date	13NOV97 10:00

Early Bar
Progress Bar
Critical Activity

DCM1:CHAR

Sheet 1 of 1

GTS Duratek

Maine Yankee Site Characterization

Vehicle Survey (Environmental)

DURATEK

Prepared by Jim Carslick Ext. 5618

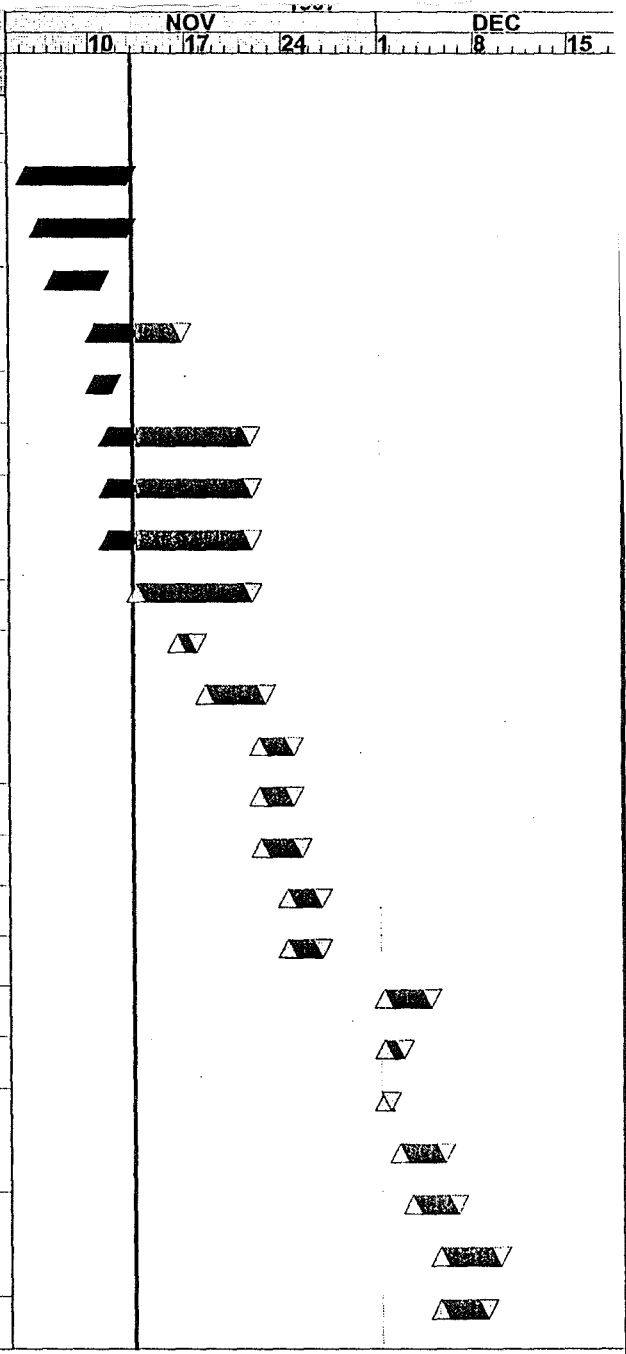
Date	Revision	Checked	Approve

Maine Yankee Site Characterization

Environmental Characterization

Phil Garrett - 4902

ID	Pkg.	Description	Dur	Dur	Start	Finish
D-0510	R0018	Rad. Survey (Bailey House)	16	0	05NOV97 07:00A	12NOV97 15:59A
D-0361	R0008	Rad. Survey (Admin & Parking Area)	20	0	06NOV97 07:00A	12NOV97 15:59A
D-0420	R0021	Rad. Survey (Maintenance Yard Area)	10	0	07NOV97 07:00A	10NOV97 15:59A
D-0516	R0016	Rad. Survey(Owner Controlled West of Bailey Cove	50	40	10NOV97 06:00A	16NOV97 15:59
D-0513A	R0023	Rad Survey (SFPI Substation Slab)	12	0	10NOV97 07:00A	11NOV97 11:59A
D-0390A	R0019	Rad. Survey (Bailey Cove) (Air Boat)	30	90	11NOV97 06:00A	21NOV97 15:59
D-0336	R0004	Rad. Survey (Forbay Shoreline) (Air Boat)	20	70	11NOV97 07:00A	21NOV97 16:59
D-0390	R0014	Rad. Survey(Westport, Montsweag) (Air Boat)	30	70	11NOV97 07:00A	21NOV97 16:59
D-0513	R0017	Rad. Survey(Owner Controlled N of Old Ferry Rd)	70	70	13NOV97 07:00*	21NOV97 16:59
D-0507	R0015	Rad. Survey (Ash Road Rubble Pile)	20	20	16NOV97 06:00*	17NOV97 15:59
D-0368	R0010	Rad. Survey (Foxbird Island)	50	50	18NOV97 06:00*	22NOV97 15:59
D-0355	R0003	Rad. Survey (Roof/Yard Drain 6,7,8	30	30	22NOV97 06:00*	24NOV97 15:59
D-0371	R0011	Rad. Survey (Roof/Yard Drain 5,9,12,N12)	30	30	22NOV97 06:00*	24NOV97 15:59
D-0378	R0012	Rad. Survey (LLRW Storage Building Yard)	30	30	22NOV97 07:00*	25NOV97 06:59
D-0344	R0006	Rad. Survey (Ball Field)	30	30	24NOV97 07:00*	26NOV97 16:59
D-0381	R0007	Rad. Survey (Construction Debris Land)	30	30	24NOV97 07:00*	26NOV97 16:59
D-0340	R0005	Rad. Survey (Bailey Point)	40	40	01DEC97 06:00*	04DEC97 15:59
D-0390B	R0020	Rad. Survey (Diffusers) (MY Boat)	20	20	01DEC97 07:00*	02DEC97 16:59
D-0504	R0022	Rad. Survey (Background)	10	10	01DEC97 07:00*	01DEC97 16:59
D-0365	R0009	Rad. Survey (Balance of Plant Area)	40	40	02DEC97 07:00*	05DEC97 16:59
D-0348	R0001	Rad. Survey (RCA Protected Area)	40	40	03DEC97 06:00*	06DEC97 15:59
D-0352	R0002	Rad. Survey (Balance of Protected Area)	30	30	05DEC97 07:00*	09DEC97 16:59
D-0384	R0013	Rad. Survey (Dry Cask Storage Areas)	20	20	05DEC97 07:00*	08DEC97 16:59



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Project Finish	09MAR98 11:59
Data Date	13NOV97 00:00
Run Date	13NOV97 11:00

Early Bar
Progress Bar
Critical Activity

DCM1:CHAR

Sheet 1 of 1

GTS Duratek

Maine Yankee Site Characterization

Rad. Survey (Environmental)

GTS DURATEK

Prepared by Jim Carslick Ext. 5618

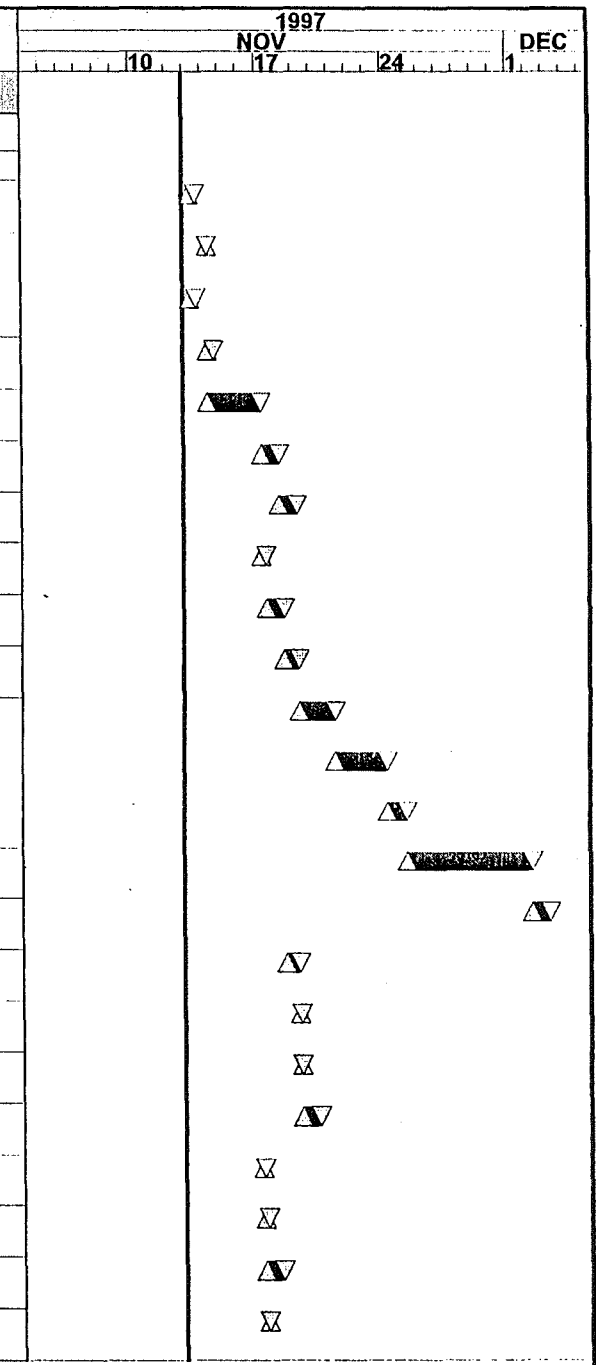
Date	Revision	Checked	Approved

Maine Yankee Site Characterization

Environmental Characterization

Phil Garrett - 4902

Activity ID	Survey Pkg.	TEAM	Activity Description	Orig Dur	Rem Dur	Early Start	Early Finish
D-0564	E0010	A	Haz. Survey (Asbestos Insulation & ACM Material)	10	10	13NOV97 07:00*	13NOV97 16:59
D-0570	E0013	A	Haz. Survey (Paint Outside Protected Area)	1	1	14NOV97 07:00	14NOV97 07:59
D-0541	E0001	B	Haz. Survey (Protected Area Paint	10	10	13NOV97 07:00*	13NOV97 16:59
D-0544	E0002	B	Haz. Survey (Plant Electrical)	10	10	14NOV97 07:00	14NOV97 16:59
D-0572	E0014	B	Haz. Survey (Chemistry Lab)	10	10	14NOV97 08:00	17NOV97 07:59
D-0553	E0005	B	Haz. Survey (Various Plant Fluids)	10	10	17NOV97 08:00	18NOV97 07:59
D-0556	E0006	B	Haz. Survey (Component Cooling Water)	10	10	18NOV97 08:00	19NOV97 07:59
D-0385	H0021	D	Haz. Survey (Dry Cask Storage Areas)	6	6	17NOV97 07:00*	17NOV97 12:59
D-0366	H0022	D	Haz. Survey (Balance of Plant Area)	10	10	17NOV97 13:00	18NOV97 12:59
D-0505	H0024	D	Haz. Survey (Background)	6	6	18NOV97 13:00	19NOV97 08:59
D-0382	H0013	D	Haz. Survey (Construction Debris Land)	21	21	19NOV97 09:00	21NOV97 09:59
D-0341	H0014	D	Haz. Survey (Bailey Cove East Shore)	8	8	21NOV97 10:00	24NOV97 07:59
D-0394	H0001	D	Haz. Survey (Oil/Haz. Material Trans)	10	10	24NOV97 08:00	25NOV97 07:59
D-0418	H0010	D	Haz. Survey (Protected Area Groundwater)	30	30	25NOV97 08:00	02DEC97 07:59
D-0550	E0004	D	Haz. Survey (Plant Pump Oils)	10	10	02DEC97 08:00	03DEC97 07:59
D-0424	H0012	L	Haz. Survey (Fire Pond and Yard Area)	3	3	18NOV97 16:00	19NOV97 08:59
D-0388	H0018	L	Haz. Survey (Roof/Yard Drain 9A-12A)	1	1	19NOV97 10:00	19NOV97 10:59
D-0415	H0009	L	Haz. Survey (Reactor Water Storage Tank Area)	1	1	19NOV97 11:00	19NOV97 11:59
D-0400	H0003	L	Haz. Survey (Main, North, Spare TX)	10	10	19NOV97 12:00	20NOV97 11:59
D-0547	E0003	P	Haz. Survey (Transformer Oils)	3	3	17NOV97 07:00	17NOV97 09:59
D-0369	H0019	P	Haz. Survey (Foxbird Island)	3	3	17NOV97 10:00	17NOV97 12:59
D-0566	E0011	P	Haz. Survey (Asbestos Containing Components)	10	10	17NOV97 10:00	18NOV97 09:59
D-0375	H0017	P	Haz. Survey (Surface Flow Drainage #5)	2	2	17NOV97 13:00*	17NOV97 14:59



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Project Finish 09MAR98 11:59
Data Date 13NOV97 00:00
Run Date 13NOV97 10:00

Early Bar
Progress Bar
Critical Activity

DCM1:CHAR

Sheet 1 of 2

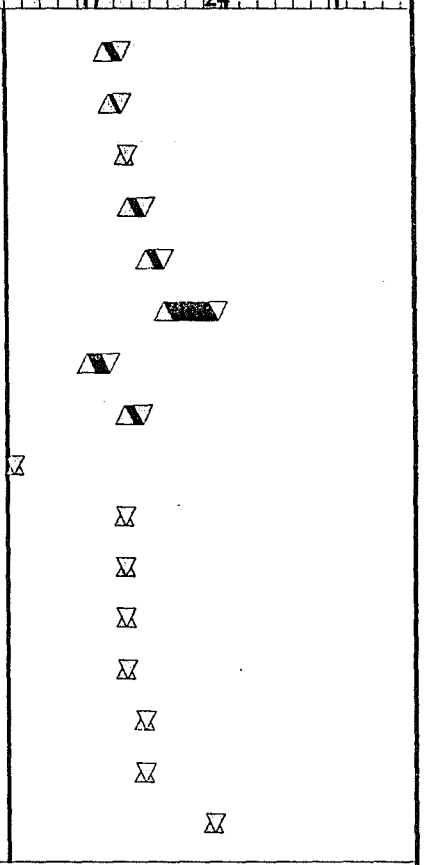
GTS Duratek
Maine Yankee Site Characterization
Haz. Survey (Environmental)

GTS DURATEK

Prepared by Jim Carslick Ext. 5618

Date	Revision	Checked	Approved

ID	Pkg.		Description	Dur	Dur	Start	Finish
Phil Garrett - 4902							
D-0568	E0012	P	Haz. Survey (Lead Shielding)	10	10	18NOV97 10:00	19NOV97 09:59
D-0502	H0023	P	Haz. Survey (Switchyards)	4	4	18NOV97 16:00	19NOV97 09:59
D-0421	H0011	P	Haz. Survey (Warehouse & Maintenance Yard)	4	4	19NOV97 11:00	19NOV97 14:59
D-0558	E0007	P	Haz. Survey (Brass,Bronze Cd Comp.)	10	10	19NOV97 15:00	20NOV97 14:59
D-0560	E0008	P	Haz. Survey (Plant Batteries)	10	10	20NOV97 15:00	21NOV97 14:59
D-0562	E0009	P	Haz. Survey (Mercury Components)	10	10	21NOV97 15:00	24NOV97 14:59
D-0372	H0016	S	Haz. Survey (Roof /Yard Drain Outfall 5,9-12,N12	16	16	17NOV97 10:00	18NOV97 15:59
D-0356	H0004	S	Haz. Survey (Roof/Yard Drain 6,7,8	10	10	19NOV97 11:00	20NOV97 10:59
D-0412	E0010		Haz. Survey (Asbestos Waste Storage Area)	1	1	13NOV97 07:00	13NOV97 07:59
D-0337	H0008		Haz. Survey (Diffuser Forbay Area)	1	1	19NOV97 10:00	19NOV97 10:59
D-0362	H0015		Haz. Survey (Admin & Parking Area)	1	1	19NOV97 11:00	19NOV97 11:59
D-0409	H0007		Haz. Survey (Drumming/Decon Waste Accumulation)	1	1	19NOV97 11:00	19NOV97 11:59
D-0397	H0002		Haz. Survey (Diesel Oil Tank Loading)	1	1	19NOV97 12:00	19NOV97 12:59
D-0403	H0005		Haz. Survey (Solid Waste Storage Area)	1	1	20NOV97 12:00	20NOV97 12:59
D-0406	H0006		Haz. Survey (Prim/Sec Waste Storage)	1	1	20NOV97 12:00	20NOV97 12:59
D-0379	H0020		Haz. Survey (Low Level Waste Storage Yard)	1	1	24NOV97 08:00	24NOV97 08:59

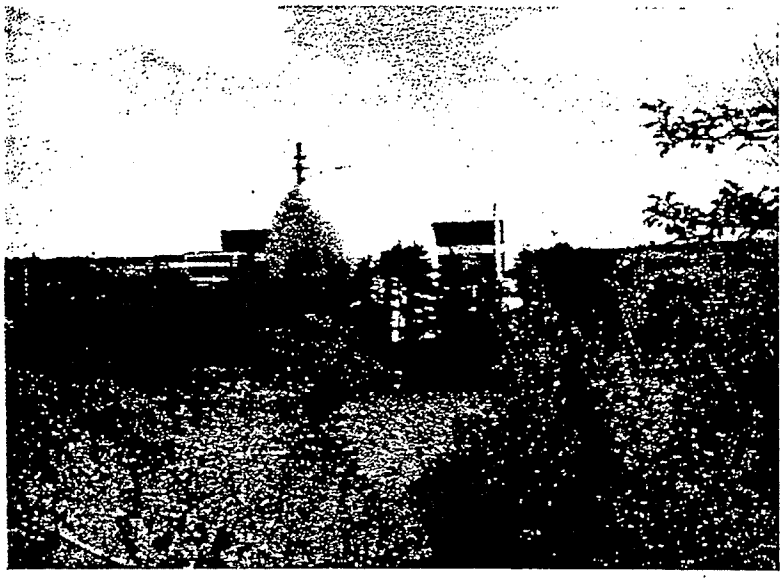


APPENDIX J

Decommissioning Cost Estimate
by TLG Services for Maine Yankee

Document No. ***M01-1258-002***

DECOMMISSIONING COST ANALYSIS
for the
MAINE YANKEE ATOMIC POWER STATION



prepared for the

MAINE YANKEE ATOMIC POWER COMPANY

prepared by

TLG Services, Inc.

Bridgewater, Connecticut

October, 1997

EXECUTIVE SUMMARY

A site-specific cost analysis was prepared for decommissioning the Maine Yankee Atomic Power Station (Maine Yankee plant) for the Maine Yankee Atomic Power Company (MYAPC) by TLG Services, Inc. This study includes a comprehensive cost and schedule estimate for completing the decommissioning based upon a detailed accounting of the plant inventory. The requirements for component disposition and the associated time to complete were combined to produce the proposed project schedule. The resulting cost to decommission (decontaminate and dismantle) the Maine Yankee plant is estimated at approximately $380.6 million, in 1997 dollars. The major cost contributors are associated with labor, site remediation and the disposition of low-level radioactive waste, as well as ancillary expenses such as property taxes, licensing fees, insurance premiums, etc. In addition, the expense associated with the construction of an on-site independent spent fuel storage installation is $52.2 million. Operation of the facility during the period following the completion of the decommissioning activities at the site until the transfer of the fuel off-site can be accomplished is estimated to add an additional $75.4 million. The latter two costs totaling $127.6 million are attributable to the governments failure to perform its obligation to take the waste. Both costs are included in this study for a total cost of $508.2 million.

The costs are based on several key assumptions in areas of regulatory requirements, financing, component characterization, high-level radioactive waste management, the availability for disposal of low-level radioactive waste, performance uncertainties (contingency) and site restoration requirements. A complete discussion of the assumptions relied upon in this analysis is provided in Section 3.

The major cost contributors to the cost to decommission the Maine Yankee plant are discussed in Section 6. A copy of the summary information provided in Table 6.1 is reproduced at the end of this summary for completeness. A schedule of annual expenditures is provided at the end of Section 3, with the associated sequence of significant project activities provided in Section 4. A detailed reporting of the information used to generate the summary tables contained within this document can be found in Appendix C.

Alternatives and Regulations

The Nuclear Regulatory Commission (NRC) provided general decommissioning guidance in a rule adopted on June 27, 1988[1], setting forth technical and financial

[1] U.S. Code of Federal Regulations, Title 10, Parts 30, 40, 50, 51, 70 and 72 "General Requirements for Decommissioning Nuclear Facilities," Nuclear Regulatory Commission, Federal Register Volume 53, Number 123 (p 24018+), June 27, 1988.

criteria for decommissioning licensed nuclear facilities. The regulations addressed planning needs, timing, funding methods, and environmental review requirements for decommissioning. The rule also defined three decommissioning alternatives as being acceptable to the NRC - DECON, SAFSTOR and ENTOMB. The NRC also recognized that some combination of the first two alternatives would also be appropriate in some instances.

> DECON was defined by the rule as "the alternative in which the equipment, structures, and portions of a facility and site containing radioactive contaminants are removed or decontaminated to a level that permits the property to be released for unrestricted use shortly after cessation of operations." [2]
>
> SAFSTOR was defined as "the alternative in which the nuclear facility is placed and maintained in a condition that allows the nuclear facility to be safely stored and subsequently decontaminated (deferred decontamination) to levels that permit release for unrestricted use." [3]
>
> ENTOMB was defined as "the alternative in which radioactive contaminants are encased in a structurally long-lived material, such as concrete; the entombed structure is appropriately maintained and continued surveillance is carried out until the radioactive material decays to a level permitting unrestricted release of the property." [4]

In 1996 the NRC published revisions to the general requirements for decommissioning nuclear power plants to clarify ambiguities and codify procedures and terminology as a means of enhancing efficiency and uniformity in the decommissioning process. The amendments allow for greater public participation and better define the transition process from operations to decommissioning. A draft regulatory guide (DG-1067), issued in June of 1997, further describes the methods and procedures that are acceptable to the NRC staff for implementing the requirements of the 1996 revised rule that relate to the initial activities and the major phases of the decommissioning process. The costs and schedules presented in this estimate follow the general guidance and recommended sequence presented in the amended regulation.

Methodology

The methodology used to develop the decommissioning cost estimate for the Maine Yankee plant follows the basic approach originally presented in a document

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2 Ibid. Page FR24022, Column 3.
3 Ibid.
4 Ibid. Page FR24023, Column 2.

developed for the Atomic Industrial Forum (now Nuclear Energy Institute), entitled "Guidelines for Producing Commercial Nuclear Power Plant Decommissioning Cost Estimates[5]." This reference describes a unit cost factor method for estimating decontamination and dismantling activity costs. The unit cost factors used in this study reflect site-specific costs, as well as the latest available information on worker productivity, waste handling and material disposition in decommissioning a nuclear facility. The data obtained from the Shippingport Station Decommissioning Project, completed in 1989, as well as from TLG's involvement in the decommissioning planning and engineering for the Shoreham, Yankee Rowe, Trojan, Rancho Seco, Pathfinder, and Cintichem reactor facilities, is reflected within this estimate.

An activity duration critical path is used to determine the total decommissioning program schedule required for calculating the carrying costs which include program management, administration, field engineering, equipment rental, quality assurance, and security. This systematic approach for assembling decommissioning estimates ensures a high degree of confidence in the reliability of the resulting costs.

Contingency

Consistent with industry practice, contingencies are applied to the decontamination and dismantling costs developed as, "specific provision for unforeseeable elements of cost within the defined project scope, particularly important where previous experience relating estimates and actual costs has shown that unforeseeable events which will increase costs are likely to occur."[6] The cost elements in this estimate are based on ideal conditions; therefore, the types of unforeseeable events that are almost certain to occur in decommissioning, based on industry experience, are addressed through a percentage contingency applied on a line-item basis. This contingency factor is a nearly universal element in all large-scale construction and demolition projects. It should be noted that contingency, as used in this estimate, does not account for price escalation and inflation in the cost of decommissioning over the period of performance.

Contingency within decommissioning estimates is not used as a safety factor. Safety factors provide additional security and address situations that may never occur. Contingency funds, by contrast, are expected to be fully expended throughout the program. Application of contingency on a line-item basis is necessary to provide assurance that sufficient funding will be available to accomplish the intended tasks.

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5 T.S. LaGuardia et al., "Guidelines for Producing Commercial Nuclear Power Plant Decommissioning Cost Estimates," AIF/NESP-036, May 1986.

6 Project and Cost Engineers' Handbook, Second Edition, American Association of Cost Engineers, Marcel Dekker, Inc., New York, New York, p. 239.

Low-Level Radioactive Waste Disposal

The contaminated and activated material generated in the decontamination and dismantling of a commercial nuclear reactor is classified as low-level radioactive waste, although not all of the material is suitable for "shallow-land" disposal. With the passage of the "Low-Level Radioactive Waste Disposal Act" in 1980, and its Amendments of 1985[7], the states became ultimately responsible for the disposition of low-level radioactive waste generated within their own borders. Maine, along with Vermont, joined with Texas to form a compact for the disposal of low-level radioactive waste generated by the three states, with Texas as the host state. Approval of the compact has been progressing through House and Senate committees; however, the schedule for the actual opening of such a facility is still uncertain. Consequently, for purposes of this analysis, low-level radioactive waste generated in the decontamination and dismantling of the Maine Yankee plant is destined for the currently operating Barnwell Low-Level Radioactive Waste Management Disposal Facility (Barnwell), located in Barnwell, South Carolina. This site is expected to be available to support near-term decommissioning operations and has the established rate structure available to estimate waste disposal costs.

With the high cost of disposal at the Barnwell facility, a large portion of the contaminated material generated during decommissioning will be first routed through commercial waste recovery vendor(s) for volume reduction. Reduction in the volume of material requiring controlled disposal was assumed to be accomplished through a variety of methods including surveying (for non-verified clean material), incineration, compaction and metal-melt. Costs for waste conditioning and associated recovery fractions were based upon representative market prices and performance data from vendors providing these types of services.

High-Level Waste

Congress passed the "Nuclear Waste Policy Act" [8] in 1982, assigning the responsibility for disposal of spent nuclear fuel created by the commercial nuclear generating plants to the Department of Energy (DOE). This legislation also created a Nuclear Waste Fund to cover the cost of the program, which is funded by the sale of electricity from the Maine Yankee plant (and an estimated equivalent for assemblies irradiated prior to April, 1983). The target date for startup of the federal Waste Management System was originally 1998.

The backlog of spent fuel in the national inventory, delays in site characterization,

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7 Low-Level Radioactive Waste Policy Amendments Act of 1985, "Public Law 99-240, 1/15/86.

8 Nuclear Waste Policy Act of 1982 and Amendments, Public Law 97-425; Stat. 2201 (January 7, 1983) as amended by Public Law 100-203 (December 22, 1987) and Public Law 102-486 (October 24, 1992).

and intermittent progress in the development of a waste transportation system, make it necessary to reflect spent fuel storage in the cost and schedule of commercial reactor decommissioning. After several delays, DOE estimates that the geologic repository will be operational sometime between the years 2010 and 2015. For the basis of this cost analysis, MYAPC has assumed that the high-level waste repository or some interim storage facility will be operational by 2010. Interim storage of the fuel, until DOE has completed the transfer, will be in an independent facility to be constructed at the Maine Yankee plant site. This will allow MYAPC to proceed decommissioning and the termination of its operating license in the shortest time possible.

Site Restoration

The efficient removal of the contaminated materials at the site and verification that residual radionuclide concentrations are below the NRC limits will result in substantial damage to many of the site structures. Blasting, coring, drilling, scarification (surface removal), and the other decontamination activities will substantially damage power block structures, potentially weakening the footings and structural supports. Prompt demolition following license termination is clearly the most appropriate and cost-effective option. It is unreasonable to anticipate that these structures would be repaired and preserved after the radiological contamination is removed. The cost to dismantle site structures with a work force already mobilized on site is more efficient and less costly than if the process is deferred. Experience at shutdown generating stations has shown that plant facilities quickly degrade without continual maintenance, adding additional expense and creating potential hazards to the public, as well as to the demolition work force.

This study assumes that site structures will be removed to a nominal depth of three feet below the local grade level. The site will then be regraded.

Recommendations

This analysis presumes that MYAPC will initiate decontamination and dismantling activities at the Maine Yankee plant site as quickly as possible, with decommissioning engineering and planning scheduled in this analysis to begin in August 1997. While this may not be possible, e.g. due to financial constraints, any delay in the program start will tend to increase the total projected cost of the program. Significant delays may be better accommodated through the incorporation of a safe-storage period where the on-site organization and level of plant activity is minimized. However, the cost to defer decommissioning will be dictated, in part, by the availability of the current organization to support such an activity in the future and the cost to maintain this expertise in the interim.

SUMMARY OF MAJOR CONTRIBUTORS to the COST OF DECOMMISSIONING

Work Activity or Cost Category	Cost (thousands, 97$)[1,2]	Percent of Total Cost[1]
Staffing	133,216	26.21
LLRW Burial	83,379	16.41
Removal	60,214	11.85
ISFSI Siting, Construction and Licensing	52,249	10.28
Property Taxes	31,031	6.11
Waste Conditioning/Recycling	22,473	4.42
Security Services	15,930	3.13
Non-radiological Demolition	15,078	2.97
Transportation	12,881	2.53
Decontamination	12,024	2.37
License Termination Survey	10,580	2.08
Soil Remediation	9,063	1.78
Plant Energy Budget	8,944	1.76
Insurance	7,420	1.46
NRC ISFSI Fees	6,936	1.36
Packaging	6,339	1.25
NRC and EP Fees	6,309	1.24
Fixed Overhead	5,904	1.16
Remaining Costs[3]	8,253	1.62
Total	**$508,221**	**100.00**

Notes:

1. Columns may not add due to rounding.
2. All costs include contingency with the exception of property taxes.
3. Remaining costs include site characterization, building modifications, temporary services and support equipment.

APPENDIX K

Memo from Eric Howes to Senator Carey
re: spent nuclear fuel and dry cask storage

MAINE YANKEE PUBLIC AND GOVERNMENT AFFAIRS

MEMORANDUM

DATE: October 17, 1997

TO: Senator Spike Carey

FROM: Eric Howes (798-4195) EH

SUBJECT: Spent nuclear fuel, dry cask storage

At last week's meeting of the Joint Select Committee to Oversee Maine Yankee you asked me how many spent fuel assemblies are contained in the spent fuel pool and how many casks Maine Yankee estimates would be needed if we move the spent fuel from wet to dry storage. You also asked for the address of Transnuclear, a supplier of dry cask systems.

Maine Yankee has 1434 spent fuel assemblies in the spent fuel pool. Depending on the type of dry storage sytem used it is estimated that Maine Yankee would need between 45 and 65 storage containers. We are currently examining the available options. The number of spent fuel assemblies mentioned here is different from the 1524 number that Catherine Ferdinand provided the Advisory Commission. The 1524 was taken from a document developed prior to the shutdown decision. It assumed a new fuel load for the reactor. I apologize for the misinformation. Also, you are correct that the spent fuel will in all likelihood be shipped for permanent disposal in reusable multipurpose containers.

In response to your question about Transnuclear, the company does have a site in York, PA, but the headquarters are in Hawthorne, NY. I spoke with Allen Hansen who would be happy to answer any questions you may have about Transnuclear's products. Mr. Hansen can be reached at 914-347-2345.

The address is: Transnuclear
4 skyline Drive
Hawthorne, NY 10523

Please contact me if you need additional information. Thank you.

CC: Jon Clark

APPENDIX L

Governor's Letter of Agreement and Clarification of Intent
Regarding Texas Compact

STATE OF MAINE
OFFICE OF THE GOVERNOR
1 STATE HOUSE STATION
AUGUSTA, MAINE
04333-0001

ANGUS S. KING, JR.
GOVERNOR

September 22, 1997

The Honorable George W. Bush
Governor, State of Texas
P.O. Box 12428
Capitol Station
Austin, Texas 78711

The Honorable Howard Dean, M.D.
Governor, State of Vermont
Office of the Governor
109 State Street
Montpelier, Vermont 05609

Dear Governors Bush and Dean:

As you know, the State of Maine has been forced to review the feasibility of the Texas Low-Level Radioactive Waste Disposal Compact with the State of Maine and Vermont ("Texas Compact") now pending in Congress. Our review has been prompted by the unexpected development of the premature closing of the Maine Yankee electric generation nuclear facility located in Wiscasset, Maine and the fact that the shipment of decommissioning waste will commence next year, ten years prior to the timeframe upon which the Compact was based.

It continues to be the strong preference of Maine to proceed with the Texas Compact as currently drafted, and to fulfill our obligations under that agreement. However, these unexpected developments place Maine at risk of duplicative expenditures for low-level nuclear waste disposal in the following three areas.

First, we have been forced to recognize the possibility that as Maine Yankee's decommissioning proceeds, the only available disposal facility licensed to accept major portions of the waste stream is the facility at Barnwell, South Carolina, to which generators in Maine, Vermont and Texas can currently send low level radioactive waste. However, upon ratification of the Compact agreement, the Texas Compact Commission will acquire the authority under Section 3.05(7) to disapprove shipments by waste generators in any of the three States to the Barnwell facility. Such an outcome could impose substantial costs, unnecessarily, on Maine Yankee and the Maine citizens who are paying for decommissioning.

Second, our obligation to make payments totaling twenty-five million dollars to the State of Texas under Section 5.01 of the Compact is unconditional, as long as Maine remains a member of the Compact, even if substantial portions of Maine Yankee's waste stream are ultimately disposed of in South Carolina. This places Maine citizens at risk of not getting the benefit of their bargain with Texas and Vermont, in the absence of any equitable adjustments in Maine's monetary obligations under the Compact.

PHONE: (207) 287-3531(Voice)
PRINTED ON RECYCLED PAPER
FAX: (207) 287-1034
(207) 287-6548 (TTY)

Third, while the Texas facility has applied for discretion in the size or form of shipments that are accepted for final disposal, the proposed facility is presently unable to guarantee acceptance of oversize decommissioning waste components, intact or in large sections, as required under Section 4.01 of the Compact pertaining to disposal of all decommissioning waste in the Compact region. A failure to provide disposal capacity for this portion of the decommissioning waste stream in a timely manner at the Texas facility could compel Maine Yankee to dispose of waste at another licensed facility, causing duplicate costs.

With these aspects of our dilemma in mind, we request the following clarifications of intent, that we believe are fully consistent with the intent and letter of the Compact, but require affirmative action by the Texas Compact Commission to implement. These include the following three items.

1. The Compact agreement currently requires that there be no discrimination in prices charged to generators in Maine and Vermont compared with Texas at Section 4.04(4). It is consistent to also assure that there will be no discrimination between host and non-host generators regarding access by Compact States to disposal facilities outside of Texas. For this reason, appointees to the Texas Compact Commission should endorse a principle of non-discriminatory access by generators in all Compact States to disposal facilities outside of Texas. It is critical to effective implementation of this principle that final appointments to the Compact Commission and timely review of any petition under Section 3.05(7) occur as expeditiously as possible.

2. There is a realistic risk that Maine citizens could be compelled to pay twice for the disposal of Maine Yankee's decommissioning waste, in the form of up-front payment of construction costs for the Texas facility as well as as the disposal fees charged by Barnwell for actual disposal. In consideration of this risk, the State of Texas agrees to undertake reasonable efforts in good faith to mitigate this problem in consultation with the States of Maine and Vermont. Efforts to mitigate, or reduce the impact on Maine citizens of up-front payments for unused disposal capacity will require the consent of the Texas Compact Commission, which consent will not be unreasonably witheld.

3. In order to accommodate the projected decommissioning waste stream at Maine Yankee that may occur as early as 1998, the Texas Low-Level Radioactive Waste Disposal Authority must pursue as expeditiously as possible the licensing of all disposal shipments, specifically including the disposal of oversize decommissioning components. Until the Texas Natural Resource Conservation Commission approves such a permit application, the Texas facility will be unable to fulfill the requirement established at Section 4.01 of the Compact for disposal of all decommissioning waste located in the party states.

We are confident that you recognize that none of these requested actions involve a change in the language of the Compact, nor of the basic expectations of the three states that negotiated

the Compact in 1993. These three points of agreement merely clarify the mutual intent of the Governors for implementing the Compact in a manner that assures an equitable outcome for all three states.

Thank you for your gracious consideration of these vital issues for our States and our joint effort in Congress and in the years to come.

Sincerely,

Angus S. King, Jr.
Governor, State of Maine

Seen and Agreed to:

Howard Dean, M.D.
Governor, State of Vermont

Date: Sept 25, 1997

George W. Bush
Governor, State of Texas

Date: 9-23-97

APPENDIX M

Interested Parties
(Service list of the Joint Select Committee)

AAA - Joint Select Committee to Oversee Maine Yankee Atomic Power Company -

Interested Parties
09/26/97 12:51 PM

Mr. John Clark
Houlton Water Company
P.O. Box 726
Houlton, ME 04730

Mr. Gilbert Brewer
Public Utilities Commission
18 State House Station
Augusta, ME 04333-0018

Mr. Stephen G. Ward
Public Advocate's Office
112 State House Station
Augusta, ME 04333-0112

Mr. Jim Fairfield
Central Maine Power Company
83 Edison drive
Augusta, ME 04336

Mr. Jim Cohen
Verrill & Dana
P.O. Box 957
Augusta, ME 04332

Mr. Eric Howes
Maine Yankee Atomic Power Company
329 Bath Road
Brunswick, ME 04011

Mr. James Dean
Eastern Maine Electric Co-op
P.O. box 425
Calais, ME 04619

Mr. Bill Linnell
15 Peabbles Cove Road
Cape Elizabeth, ME 04107

Friends of the Coast
P.O. Box 98
Edgecomb, ME 04556

Mr. Uldis Vanags
State Planning Office-Nuclear Safety
38 State House Station
Augusta, ME 04333-0038

Representative Gary O'Neal
13 Vernon Avenue
Limestone, ME 04750

Representative Ronald E. Usher
342 Saco Street
Westbrook, ME 04092

Rep. Patrick Colwell
34 Danforth Street
Gardiner, ME 04345

Representative Donald P. Berry, Sr.
115 Searsmont Road
Belmont, ME 04952

Representative John W. Vedral, III
P.O. Box 693
Bar Mills, ME 04004

Representative Henry L. Joy
3 Belvedere Road
P.O. Box 103
Island Falls, ME 04747

Mr. Gordon Weil
Three Wade Street
Augusta, ME 04330-6318

Mr. Dale Randall
DHS - Div. of Health Engineering
10 State House Station
Augusta, ME 04333-0010

Mr. James Mitchell
Public Affair Group
185 State Street
Augusta, ME 04330

Mr. David Allen
Central Maine Power Company
83 Edison Drive
Augusta, ME 04335

Mr. Patrick Dostie
Dept. of Human Services
10 State House Station
Augusta, ME 04333-0010

Ms. Debra Hart
Verrill & Dana
P.O. Box 957
Augusta, ME 04330