MAINE YANKEE ATOMIC POWER STATION

POST SHUTDOWN DECOMMISSIONING ACTIVITIES REPORT

9709040210 970827 PDR ADOCK 05000309 W PDR

Post-Shutdown Decommissioning Activities Report

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### 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 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.<sup>1</sup>
- Disassembly and segmentation of the remaining reactor internals, and package segments in shielded casks.<sup>3</sup>
- 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.<sup>1</sup>
- 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.

<sup>&</sup>lt;sup>1</sup>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 <sup>1</sup> a h the internals and the vessel could be segmented. Mame Yankee believes that the radionuclide concentrations (Gue to neutron activation) may allow the vessel/internals assembly to be disposed of as low-specific-activity weste. 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

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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 intersis 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, de comment 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.



### 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/NFSP-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.

Is 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 Athtine Power Station

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## Maine Yankee Summary of Decommissioning Costs<sup>(1)</sup>(thousands of dollars)

Key Tasks / Milestone	1993	1997(3)
Plant Dismantlement		
Staffing LLW Burial Equipment Removal LLW Packaging and Shipping Decontamination Activities Decommissioning Planning Activities Other Costs <sup>(3)</sup> Subtotal	\$100, 205 \$70, 189 \$36, 373 \$11, 474 \$5, 058 \$2, 981 \$4, 267 <b>\$230, 547</b>	\$119, 496 \$83, 702 \$43, 375 \$13, 683 \$6, 032 \$3, 555 \$4, 988 \$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 teta' or 7.46 person-Sv (946 person-rem) will be incurred during the decommissioning for the exposure from decontamination and dismantlement 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<sup>1</sup> 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

<sup>&</sup>lt;sup>1</sup>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 nonradiological 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

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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 en ironmental impact statements. Should unforeseen circumstances arise that may challenge a bounding environmental impact, Maine Yankee will seek prior NRC review and approval b fore proceeding.

### REFERENCES

- NUREG-0586, "Final Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities," dated August, 1988
- "Final Env.ronmental Statement related to operation of Maine Yankee Atomic Power Station," dated July 1972
- MN-97-89, MY Letter to NRC, "Certifications of Pc.manent Cessation of Power Operation and Permanent Removal of Fuel From the Reactor," dated 8/7/97
- Maine Yankee Atomic Power Station Environmental Report, Supplement One, dated April 19, 1972 (MYAPC to AEC)
- NUREG/CR-5849, "Manual for Conducting Radiological Surveys in Support of License Termination."
- AIF/NESP-036, "Guidelines for Producing Commercial Nuclear Power Plant Decommissioning Cost Estimates"