

Maine Yankee

321 OLD FERRY RD. • WISCASSET, ME 04578-4922

June 1, 2001
MN-01-023

RA-01-088

Proposed Change No. 210
Supplement No. 1

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

Reference: (a) License No. DPR-36 (Docket No. 50-309)
(b) MYAPC Letter to USNRC Updated Draft Copy of Maine Yankee's License Termination Plan (MYLTP), dated November 15, 1999 (MN-99-32)
(c) MYAPC Letter MN-00-004 dated January 13, 2000, Maine Yankee License Termination Plan
(d) NRC Regulatory Issue Summary 2001-05, Guidance on Submitting Documents to the NRC by Electronic Information Exchange or on CD-ROM

Subject: Revision 1, Maine Yankee's License Termination Plan

In accordance with 10 CFR 50.82(a)(9), Maine Yankee hereby submits its revised License Termination Plan (LTP). Reference (c) transmitted Maine Yankee's initial LTP for NRC review and approval. In July 2000, Maine Yankee informed the Atomic Safety and Licensing Board that it intended to revise the LTP to address issues associated with disposition of materials generated during decommissioning and the State of Maine's public law enacted in April 2000 establishing enhanced clean-up standards for nuclear facilities. This revision to the LTP updates Maine Yankee's initial submittal to reflect changes in approach for decommissioning and revised criteria for completion of decommissioning activities. The revised LTP continues to demonstrate that the remainder of decommissioning activities will be performed in accordance with Title 10 Code of Federal Regulations, will not be inimical to the common defense and security or to the health and safety of the public, and will not have a significant effect on the quality of the environment.

Maine Yankee hereby submits, pursuant to 10 CFR 50.90, Supplement 1 to the application to amend the License to add a license condition, which requires Maine Yankee to implement and maintain in effect all provisions of the License Termination Plan. This amendment application supplements the application previously submitted in Reference (c). Attachment 1 provides the background and reason for the proposed change, a description of the proposed change, a no significant hazard consideration determination, and an environmental impact consideration

M003 Rec'd w/ CD-ROM

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DPR-36 page with proposed changes annotated. Attachment 3 provides the revised Maine Yankee License Termination Plan for NRC review and approval in accordance with 10 CFR 50.82. In accordance with Reference (d), Maine Yankee is hereby submitting a CD-ROM containing the revised LTP (Attachment 3). The attached CD provides the LTP in the form of twelve files in Adobe Acrobat® "pdf" format. In general, one file is provided for each LTP section. The exception is Section 2 which was subdivided into two files due to the number of figures within the text. Per the guidance of Reference (d), no paper copies of the LTP are being submitted.

Maine Yankee has included in the LTP a preface section entitled "License Termination Plan Requirements A Non-Technical Summary." This section is being transmitted for NRC information only. It is intended to describe technical aspects of license termination in "layman's" terms. This section of the LTP is not intended to support NRC's review of the LTP pursuant to 10 CFR 50.82 and 10 CFR 20 Subpart E.

This change does not involve a significant increase in the probability or consequences of an accident previously evaluated, create the possibility of a new or different kind of accident from any accident previously evaluated, or involve a significant reduction in the margin of safety.

This proposed change has undergone an Independent Safety Review. The Independent Review and Audit Committee has also reviewed this proposed change. A representative of the State of Maine is being informed of this request by a copy of this letter.

If you have any questions, please contact us.

Sincerely,



Thomas L. Williamson, Director
Nuclear Safety and Regulatory Affairs

Attachments

1. Proposed Change Description and Evaluations
2. Proposed License Change - Markup
3. License Termination Plan, Revision 1 (CD-ROM)

cc: Mr. R. Bellamy, NRC Region I
Mr. E. L. Blake, Jr., Shaw-Pittman
Ms. P. Craighead, Esq., State of Maine, Nuclear Safety Advisor
Mr. P. J. Dostie, State of Maine, Division of Health Engineering
Mr. J. T. Greeves, NRC Director, Division of Waste Management

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Mr. P. J. Dostie, State of Maine, Division of Health Engineering
Mr. J. T. Greeves, NRC Director, Division of Waste Management
Mr. P. W. Haines, Maine Dept. of Environmental Protection
Ms. E. Maron, Esq., USEPA New England, Office of Regional Counsel
Mr. M.T. Masnik, NRC Section Chief, Project Directorate IV & Decommissioning
Mr. H. J. Miller, NRC Regional Administrator, Region I
Mr. C.L. Pittiglio, NRC NMSS Project Manager, Decommissioning
Mr. R. Ragland, NRC Region I
Mr. R. Shadis, Friends of the Coast
Mr. M. K. Webb, NRR Project Manager

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STATE OF MAINE

Then personally appeared before me, Thomas L. Williamson, who being duly sworn did state that he is the Director, Nuclear Safety and Regulatory Affairs of Maine Yankee Atomic Power Company, that he is duly authorized to execute and file the foregoing request in the name and on the behalf of Maine Yankee Atomic Power Company, and that the statements therein are true to the best of his knowledge and belief.


Notary Public

Attachment I
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BACKGROUND

On August 6, 1997, the Maine Yankee Atomic Power Co. Board of Directors voted to permanently cease operations of Maine Yankee and begin the decommissioning process. On August 7, 1997, Maine Yankee submitted certifications of permanent cessation of power operations and permanent removal of fuel from the reactor in accordance with 10 CFR 50.82(a)(1). On August 27, 1997, Maine Yankee submitted its Post Shutdown Decommissioning Activities Report (PSDAR) in accordance with 10 CFR 50.82(a)(4). In this report, Maine Yankee signaled its intention to decontaminate and dismantle the plant in a manner that results in the prompt removal of the existing nuclear plant. This approach is known as the DECON alternative. In its PSDAR, Maine Yankee provided a description and schedule of planned decommissioning activities, an estimate of expected costs and a discussion providing the reasons for concluding that the environmental impacts associated with the site-specific decommissioning activities are bounded by appropriate previously issued environmental impact statements. A public meeting was held on November 6, 1997 to solicit public comments on the PSDAR. On November 3, 1998, Maine Yankee submitted its Site Specific Cost Estimate and updated the PSDAR.

Pursuant to 10 CFR 50.82(a)(9), nuclear power reactor licensees are required to submit a license termination plan prior to or along with their application for termination of license. Pursuant to 10 CFR 50.82(a)(10), the Commission shall approve the plan if the LTP demonstrates that the remainder of decommissioning activities will be performed in accordance with the regulations in 10 CFR Chapter I, will not be inimical to the common defense and security or to the health and safety of the public, will not have a significant effect on the quality of the environment, and after notice has been provided to interested persons. Accordingly, Maine Yankee submitted its initial version of the License Termination Plan for NRC review and approval on January 13, 2000.

On May 17, 2000, the NRC published a notice in the Federal Register regarding Maine Yankee's submittal of the License Termination Plan and the request for license amendment mandating implementation of the LTP. On June 15 and 16 respectively, Friends of the Coast – Opposing Nuclear Pollution Inc. and the State of Maine filed requests for a hearing and petitions to intervene. The NRC established a Licensing Board to preside over the proceeding. On July 20, Maine Yankee notified the Licensing Board that it intended to submit a revised LTP addressing changes in plans for decommissioning and changes in criteria included in Maine Public Law LD 2688-SP1084.

This revised plan is being submitted in accordance with Maine Yankee's commitment to the NRC's Atomic Safety and Licensing Board to submit by June 1, 2001. The revised LTP is submitted as a supplement to the FSAR or equivalent (i.e., the Defueled Safety Analysis Report, in this case) in accordance with 10 CFR 50.82(a)(9)(i). Maine Yankee is not submitting at this time its application for termination of license. Pursuant to 10 CFR 50.82(a)(10), the Commission's approval of the plan shall be executed by license amendment, subject to such conditions and limitations, as it deems appropriate and necessary. This approval will authorize the implementation of the LTP. Attached is a proposed change to the license authorizing the implementation of the LTP and providing appropriate and necessary conditions regarding the

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licensee's authority to make changes to it without prior NRC review and approval.

DESCRIPTION OF CHANGES

Maine Yankee proposes to amend the license to incorporate a new License Condition: 2.B.(9). Attachment II provides a copy of the affected Facility Operating License No. DPR-36 page with the proposed changes annotated.

2.B.(9) License Termination

The licensee shall implement and maintain in effect all provisions of the approved License Termination Plan submitted on June 1, 2001 as supplemented and as approved in the SER dated _____, subject to and as amended under the following stipulations:

The licensee may make changes to the License Termination Plan without prior approval provided the proposed changes do not:

- (a) Require Commission approval pursuant to 10 CFR 50.59;
- (b) Violate the requirements of 10 CFR 50.82(a)(6);
- (c) Reduce the coverage requirements for scan measurements;
- (d) Increase the radioactivity level, relative to the applicable derived concentration guideline level, at which an investigation occurs; or
- (e) Increase the probability (α) of making a Type I decision error.

The licensee shall submit an updated License Termination Plan in accordance with 10 CFR 50.71(e).

A method is proposed to allow Maine Yankee to make changes to the License Termination Plan without prior NRC approval similar to the flexibility afforded operating nuclear power plant licensees to make changes to the facility or procedures as described in the updated safety analysis report. This method includes five change criteria elements. The first two elements regarding an unreviewed safety question and 50.82(a)(6) are established in current regulation. The third element regarding the coverage requirements for scan measurements is established in LTP Section 5.4.1, Table 5-3. The fourth element regarding investigation levels sets a limit on the action thresholds that would trigger an investigation. These thresholds are specified in LTP Section 5.6, Table 5-7. The fifth element limits the probability of releasing a survey unit, which contains residual radioactivity above the release criterion. This value is discussed in LTP Section 5.4.2 and 5.8.1.

SIGNIFICANT HAZARDS EVALUATION

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The proposed change to the Technical Specifications, has been evaluated against the standards of 10 CFR 50.92 and has been determined not to involve a significant hazards consideration. An evaluation against these standards is provided below:

The proposed change does not:

1. Involve a significant increase in the probability or consequence of an accident previously evaluated.

The requested license amendment does not authorize any plant activities beyond those allowed by 10 CFR Chapter I or beyond those considered in the DSAR. The bounding accident described in the Defueled Safety Analysis Report (DSAR) for potential airborne activity is the postulated resin cask drop accident in the Low Level Radioactive Waste Storage Building. This accident is expected to contain more potential airborne activity than can be released from other decommissioning events. The radionuclide distribution assumed for the spent resin cask has more transuranics (the major dose contributor) than the distribution in the components involved in other decommissioning accidents. The other accidents considered in the DSAR include: 1) Explosion of Liquid Petroleum Gas (LPG) Leaked from a Front End Loader or Forklift; 2) Explosion of Oxyacetylene During Segmenting of the Reactor Vessel Shell; 3) Release of Radioactivity from the RCS Decontamination Ion Exchange Resins; 4) Gross Leak During In-Situ Decontamination; 5) Segmenting of RCS Piping with Unremoved Contamination; 6) Fire Involving Contaminated Clothing or Combustible Waste; 7) Loss of Local Airborne Contamination Control During Blasting or Jackhammer Operations; 8) Temporary Loss of Services, 9) Dropping of Contaminated Concrete Rubble; 10) Natural Phenomena; and 11) Transportation Accidents. The probabilities and consequences for these accidents are estimated in the basis documentation for DSAR Section 7. No systems, structures, or components that could initiate or be required to mitigate the consequences of an accident are affected by the proposed change in any way not previously evaluated in the DSAR. Since Maine Yankee does not exceed the salient parameters associated with the plant referenced in the basis documentation in any material respects, it is concluded that these probabilities and consequences are not increased. Therefore, the proposed change to the Maine Yankee License does not involve any increase in the probability or consequences of any accident previously evaluated.

2. Create the possibility of a new or different kind of accident from any accident previously evaluated.

The requested license amendment does not authorize any plant activities that could precipitate or result in any accidents beyond those considered in the DSAR. The accidents previously evaluated in the DSAR are described above. These accidents are described in the basis documentation for DSAR Section 7. The

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proposed change does not affect plant systems, structures, or components in any way not previously evaluated in the DSAR. Since Maine Yankee does not exceed the salient parameters associated with the plant referenced in the basis documentation in any material respects, it is concluded that these accidents appropriately bound the kinds of accidents possible during decommissioning. Therefore, the proposed change to the Maine Yankee License would not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Involve a significant reduction in a margin of safety.

The margin of safety defined in Maine Yankee's license basis for the consequences of decommissioning accidents has been established as the margin between the bounding decommissioning accident and the dose limits associated with the need for emergency plan offsite protection, namely the Environmental Protection Agency Protective Action Guidelines EPA-PAGs. As described above, the bounding decommissioning accident is the postulated resin cask drop accident in the Low Level Radioactive Waste Storage Building. Since the bounding decommissioning accident is expected to contain more potential airborne activity than can be released from other decommissioning events and since the radionuclide distribution assumed for the spent resin cask has more transuranics (the major dose contributor) than the distribution in the components involved in other decommissioning accidents, the margin of safety associated with the consequences of decommissioning accidents cannot be reduced. The margin of safety defined in the statements of consideration for the final rule on the Radiological Criteria for License Termination is described as the margin between the 100 mrem/yr public dose limit established in 10 CFR 20.1301 for licensed operation and the 25 mrem/yr dose limit to the average member of the critical group at a site considered acceptable for unrestricted use. This margin of safety accounts for the potential effect of multiple sources of radiation exposure to the critical group. Since the license termination plan was designed to comply with the radiological criteria for license termination for unrestricted use, the margin of safety cannot be reduced. Therefore, the proposed changes to the Maine Yankee License would not involve a significant reduction in any margin of safety.

Conclusion

Maine Yankee has concluded that the proposed change to the Technical Specifications does not involve a significant hazards consideration as defined by 10 CFR 50.92.

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ENVIRONMENTAL IMPACT DETERMINATION

This amendment request meets the criteria specified in 10 CFR 51.22(c)(9) for a categorical exclusion from the requirements to perform an environmental assessment or to prepare an environmental impact statement. The specific criteria of 10 CFR 51.22(c)(9) are discussed below:

1. The amendment involves no significant hazards consideration. As demonstrated above, this requested amendment does not involve any significant hazards considerations.
2. There is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite. The environmental impacts associated with doses to members of the public as a result of decommissioning activities and site release for unrestricted use were considered in the Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities (NUREG-0586) and the Generic Environmental Impact Statement in Support of the Rulemaking on Radiological Criteria for License Termination (“GEIS,” NUREG-1496). In Maine Yankee’s PSDAR, Maine Yankee concluded that the environmental impacts associated with the site-specific decommissioning activities will be bounded by appropriate previously issued environmental impact statements. In particular, the decommissioning activities covered by the LTP will result in radiation doses to the public below a comparable level when the plant was operating. Radiation dose to the public will be minimal. The release of effluents will continue to be controlled by plant procedures throughout decommissioning. Maine Yankee will continue to operate in accordance with the Offsite Dose Calculation Manual (ODCM) during the decommissioning activities. In addition, because of the decay of short-lived radionuclides, the types of nuclides that could potentially be released in effluents have decreased.
3. There is no significant increase in individual or cumulative occupational radiation worker exposure. The environmental impacts associated with individual or cumulative occupational radiation exposure were also considered in the Generic Environmental Impact Statements referred to above. It was similarly concluded that the GEIS appropriately bounded the environmental impacts associated with the Maine Yankee site-specific decommissioning activities. Radiation dose to decommissioning workers will be a small fraction of the operating experience. The total decommissioning dose including exposure from decontamination and dismantlement activities and the exposure during transportation of the low-level wastes is estimated to be less than the total dose that was found acceptable for decommissioning the reference PWR in the GEIS on decommissioning of nuclear facilities. Radiation protection principles used during plant operation remain in effect during decommissioning to ensure that protective techniques, clothing, and breathing apparatus are used as appropriate.

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On the basis of the preceding discussion, it has been concluded that the proposed amendment is acceptable and meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22 (c)(9), and thus no environmental impact statement or environmental assessment need to be prepared in connection with issuance of this amendment.

Attachment II
Proposed License Change - Markup

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2.B.(7) This amended license is subject to the following conditions for protection of the environment:

(a) Deleted

(b) Deleted

2.B.(8) This amended license is effective as of the date of issuance and shall expire at midnight October 21, 2008.

2.B.(9) License Termination

The licensee shall implement and maintain in effect all provisions of the approved License Termination Plan submitted on June 1, 2001 as supplemented and as approved in the SER dated _____, subject to and as amended under the following stipulations:

The licensee may make changes to the License Termination Plan without prior approval provided the proposed changes do not:

- (a) Require Commission approval pursuant to 10 CFR 50.59;
- (b) Violate the requirements of 10 CFR 50.82.(a)(6);
- (c) Reduce the coverage requirements for scan measurements;
- (d) Increase the radioactivity level, relative to the applicable derived concentration guideline level, at which an investigation occurs; or
- (e) Increase the probability (α) of making a Type I decision error.

The licensee shall submit an updated License Termination Plan in accordance with 10 CFR 50.71(e).

FOR THE NUCLEAR REGULATORY COMMISSION

Original Signed by A. Giambusso

A. Giambusso, Deputy Director
For Reactor Projects
Directorate of Licensing

Attachments:

Appendices A & B - Technical Specifications

Date of Issuance: June 29, 1973

Amendment No. 131, 164

Attachment III
License Termination Plan, Revision 1

**MAINE YANKEE LICENSE TERMINATION PLAN
REVISION 1**