

NORTHEAST UTILITIES



THE CONNECTICUT LIGHT AND POWER COMPANY
WESTERN MASSACHUSETTS ELECTRIC COMPANY
HOLYOKE WATER POWER COMPANY
NORTHEAST UTILITIES SERVICE COMPANY
NORTHEAST WYOMING ENERGY COMPANY

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June 3, 1988

Docket No. 50-336

B12916

Re: 10CFR 50.90

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555

Gentlemen:

Millstone Nuclear Power Station, Unit No. 2
Cycle 10 Reload License Amendment Schedule

Northeast Nuclear Energy Company (NNECO) hereby submits information regarding the schedule for Millstone Unit No. 2 Cycle 10 reload and related safety analysis submittals. During conversations with the NRC Project Manager for Millstone Unit No. 2, it was suggested that NNECO docket as much preliminary information as possible, thus providing the NRC Staff an opportunity to plan, budget and schedule support for the reload scheduled for early 1989.

Millstone Unit No. 2 will be using a different fuel supplier beginning with the upcoming cycle (Cycle 10). The new fuel supplier is Advanced Nuclear Fuels Corporation (ANF). ANF will also be providing licensing analyses beginning with Cycle 10. This letter provides our current schedule for submittal to the NRC of the information requiring Staff review.

The Cycle 10 start-up is currently March 1989. This date has been substantially advanced in recent months because of the following:

- o The excellent performance of Millstone Unit No. 2 during the past cycle of operation.
- o Shorter outage times than those of previous cycles due to the effective management of outage activities, particularly those associated with steam generator operations and repairs.
- o The incentive to avoid concurrent nuclear plant shutdowns in the company's service area. High electrical demand is anticipated for next summer; a situation exacerbated by the developments associated with the Shoreham and Seabrook nuclear units.

In response to this advanced projected start-up date, ANF's scheduled completion dates for the analyses needed to support Cycle 10 operation have been advanced six weeks. In addition, internal review times for these reports and processing of the resulting license amendment have been reduced by approximately six weeks. These steps are being taken to maximize the review time available for the Staff to the extent practical.

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The current schedule for submittals is given as Attachment 1. The dates shown reflect the six-week advance of the completion date for the analysis and the six-week decrease in the internal review schedule for these submittals. It allows approximately four months, as a minimum, for NRC review and approval of the plant specific documentation. The generic documentation is already submitted or is planned for submittal more than six months prior to scheduled plant start-up.

A brief description of the information included in each of the reports to be submitted is given as Attachment 2. In addition, the Millstone Unit No. 2 specific reports will reference four ANF reports which have not yet been approved by the NRC. A listing of these reports is given as Attachment 3. Note that these reports have been or will be submitted directly by ANF and thus will not appear on the Millstone Unit No. 2 docket.

A small break LOCA analysis has been performed for Millstone Unit No. 2 using the methodology described in XN-NF-82-49(P), Revision 1. This topical has been reviewed by the NRC and the SER is being prepared. The SBLOCA analysis for Millstone Unit No. 2 has been performed in accordance with the methods described in the topical.

As noted above, ANF will formally submit the description of the methods used to perform the non-LOCA and non-steamline break analyses for CE reactors for the events, applicable to Millstone Unit No. 2, listed in Chapter 15 of NUREG-0800. The NRC is currently reviewing these methods for the Westinghouse reactors for which ANF supplies reload fuel (XN-NF-84-73, Appendix A). The NRC has also reviewed and approved these methods for Westinghouse plant specific application. The analysis of the design basis events for Millstone Unit No. 2 are being performed using these same methods adapted for the CE configurations. For the CE plant configuration, the NRC has reviewed similar ANF analyses for other U.S. applications. This submittal represents an evolution of the ANF analysis methodology for CE designs to be consistent with the methodology for Westinghouse designs.

A revision of the ANF steamline break methodology topical (XN-NF-84-93) has been submitted for review. This topical is currently being reviewed by the NRC. The change in the methodology is to allow the use of the RELAP5/MOD2 code rather than the RELAP5/MOD1 code. The rest of the methodology is unchanged. RELAP5/MOD2 is a more advanced version of the RELAP5 code than MOD1.

The last change in methods proposed for Millstone Unit No. 2 is the use of a 3-dimensional model to generate the axial power profiles for the setpoint analysis. Currently, a 1-dimensional method is employed in the analysis to generate the axial power profiles. The current 1-dimensional analysis approximates a 3-dimensional analysis. Therefore, basing the setpoint analysis on a 3-dimensional analysis will provide a better assessment of the core limiting axial power profile as a function of axial offset.

NNECO believes that there are potential mutual benefits associated with the submittal of this preliminary information. One objective we have is to afford the NRC Staff the opportunity to plan, budget and schedule resources in support of the scheduled reload in early 1989. We also wish to advise you that current scheduler projections result in our request for the issuance of

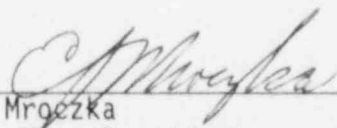
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the reload license amendment by March 15, 1989. We understand from conversations with the Project Manager that receipt of all information approximately six (6) months prior to issuance of the license amendment is preferred by the NRC Staff. Within practical constraints, we have scheduled submittal of all relevant information as early as possible.

Recognizing that our schedule is not fully consistent with the Staff's preference, we request NRC Staff notification by June 30, 1988 of any significant obstacles in obtaining issuance of a license amendment by March 15, 1989. We are prepared to meet with you at your convenience to facilitate the review process. We have proposed several meetings (Attachment 1) at what we consider appropriate times during the review process for your consideration.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY



E. J. Mroczka
Senior Vice President

Attachments

cc: W. T. Russell, Region I Administrator
D. H. Jaffe, NRC Project Manager, Millstone Unit No. 2
W. J. Raymond, Senior Resident Inspector, Millstone Unit Nos. 1, 2, and 3
P. Habighorst, Resident Inspector, Millstone Unit No. 2
S. Lee, NRR

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Attachment 1

Scheduled Submittal of ANF Reports and
Current Schedule of Submittals for Millstone Unit No. 2
Cycle 10 Reload

June 1988

Attachment 1

<u>Scheduled Submittal Date of ANF Reports*</u>	<u>Report</u>
June 15, 1988	3-D CE Setpoint Methodology
July 1, 1988	Steam Line Break Methodology

*Small Break LOCA Model and Plant Transient methodology have been submitted and are currently awaiting NRC approval.

<u>Scheduled Submittal Date of Millstone Unit No. 2 Reports</u>	<u>Report</u>
September 1, 1988	Description of preliminary results to date and instances where we differ from generic topicals.
September 1, 1988	Fuel Design Report
September 26, 1988	Proposed Meeting with NRC
October 21, 1988	Small Break LOCA Report
November 15, 1988	Steam Line Break Report
November 15, 1988	Large Break LOCA Report
November 15, 1988	Safety Analysis Report
November 15, 1988	Formal License Amendment Request
December 15, 1988	Proposed Meeting with NRC

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Attachment 2

Description of Reports to Be Submitted
for Millstone Unit No. 2, Cycle 10 Reload

June 1988

Attachment 2

Description of Reports To Be Submitted For
Millstone Unit No. 2, Cycle 10 Reload

o Fuel Design Report

This report describes the fuel assembly design for Millstone Unit No. 2, Cycle 10. Information in this report includes a description of the fuel design, analytical basis, design criteria, drawings, and results of the fuel design analyses. Operating experiences with fuel having similar design characteristics are also included. This report will reference the CE topical on leak-before-break, CEN-367, "Leak-Before-Break Evaluation of Primary Coolant Loop Piping in Combustion Engineering Designed Nuclear Steam Supply Systems," dated November 1987.

o Small Break LOCA Report

This report describes the analysis performed to verify that the Emergency Core Cooling System (ECCS) will meet the acceptance criteria of 10CFR50.46(b) for small break LOCAs. It will include a break spectrum study.

o Steam Line Break Report

This report describes the analysis performed to verify the acceptability of the plant design in the event a postulated steam line break accident were to occur.

o Large Break LOCA Report

This report describes the analysis performed to verify that the ECCS will meet the acceptance criteria of 10CFR50.46(b) for large break LOCAs. It will include a break spectrum study, including guillotine and split break sizes.

o Safety Analysis Report

This report contains disposition of events, set point analysis, and proposed changes to the Technical Specification. It also includes event analysis for non-LOCA, non-steam line break transients which are identified in the disposition of events as requiring analysis.

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Attachment 3
Descriptions of ANF Reports

June 1988

Attachment 3

Descriptions of ANF Reports

- o 3-D CE Set Point Methodology, XN-NF-507, Supplement 3
This report incorporates three-dimensional axial power shapes into the determination of set points.
- o Steam Line Break Methodology, XN-NF-84-93, Supplement 1
This report updates the current ANF steam line break methodology by using RELAP5/MOD2.
- o Plant Transient Methodology of CE PWRs, XN-NF-84-73, Appendix B
This report describes ANF methodology for reviewing and analyzing plant transients for CE PWRs.
- o Small Break LOCA Model, XN-NF-82-49, Supplement 1
This report describes the ANF methodology used for small break LOCA analysis. It is currently under NRC review, awaiting the NRC's safety evaluation report.