NORTHEAST UTILITIES

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

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September 30, 1988

Docket No. 50-423
A07395

Re: SALP

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

Gentlemen:

Millstone Nuclear Power Station, Unit No. 3
Systematic Assessment of Licensee Performance (SALP)

The NRC Staff recently forwarded the SALP Board Report(1) for the 15-month period ending May 31, 1988 for Millstone Unit No. 3. Subsequent to receipt of the SALP Board Report, a meeting was held on September 1, 1988 between members of the Staff and members of Northeast Nuclear Energy Company (NNECO).

We believe that our meeting on September 1, 1988 was helpful and productive. Consistent with our discussion during the meeting, we are responding to the findings of the SALP Board with particular emphasis on the Board recommendations for the individual evaluation categories. The responses to the Board's recommendations for Millstone Unit No. 3 are contained in Attachment A to this letter.

NNECO takes very seriously the ratings and recommendations given by the Board as an input into the continuing process of evaluating and improving our overall performance. As reflected by our comments and observations during the September 1, 1988 meeting, we generally concur with the Boards observations and previously have taken and are taking steps to address the concerns identified. It remains our objective to achieve Category 1 ratings in all functional areas for subsequent SALP evaluations, and the attachment to this letter describes some of the steps we will be taking to fulfill that objective.

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(1) W. T. Russell letter to E. J. Mroczka, "Millstone Unit 3 Systematic Assessment of Licensee Performance (SALP) Report 50-423/87-99 (3/1/87-5/31/88)," dated July 25, 1988.

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We trust that the actions presented in the attachment addressing the concerns of the board and our general comments will be considered in subsequent SALP evaluations. We will be updating you regarding the status of implementing the corrective actions discussed herein prior to the next SALP evaluation. With respect to the surveillance functional area, NNECO believes that a meeting with the Staff in March of 1989 to discuss our efforts and progress in the area of surveillance monitoring would be timely. This time period will allow completion of the corrective actions identified during the procedure review and is sufficiently in advance of the start of the Cycle 2 refueling to allow NNECO and the Staff to assess the adequacy of our corrective action in this area. We will be contacting you regarding a specific date and proposed agenda for this meeting early in 1989.

Please feel free to contact us if any questions arise on these matters or if additional clarification is needed.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

E. J. Mroczka

E. J. Mroczka
Senior Vice President

C. F. Sears

By: C. F. Sears
Vice President

cc: W. T. Russell, Region I Administrator
D. H. Jaffe, NRC Project Manager, Millstone Unit Nos. 2 and 3
W. J. Raymond, Senior Resident Inspector, Millstone Unit Nos. 1, 2 and 3

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Attachment A

Northeast Nuclear Energy Company
Millstone Unit No. 3
Response to SALP Report

September 1988

Functional Area: PLANT OPERATIONS

Board Recommendation:

-- Accelerate correction of radiation monitor spiking problem.

-- Identify and correct procedure problems based on safety significance. Evaluate operations support staffing levels established to cope with frequent procedure changes and with surveillance-related administrative problems.

Response:

NNECO acknowledges that improvements could be made to reduce annunciator alarms due to radiation monitor spiking. A program has been underway during the past year to deal with the number of radiation monitor spiking alarms. A procedure has been developed to permit the operators to directly input alarm setpoint changes on radiation monitors to stop the continuous change of alarm state that resulted in missing an incoming alarm as mentioned in the evaluation. In addition, setpoint studies are ongoing and special test equipment has been installed to identify the cause of the spurious control room radiation monitor alarms. Ongoing efforts will result in a significant improvement in the numbers of alarms received due to radiation monitor spiking.

The SALP report also cited the number of annunciator windows in an alarm state during power operation. About 35 annunciators (of 900 total) are still lit at power. Several of these annunciators are illuminated as a normal consequence of system alignment and require design modifications to achieve a black board configuration. Of the remaining annunciators, 18 require engineering resolution,[1] 10 need special plant conditions to repair equipment, and the remaining 7 alarms are short term. Significant progress has been made on this issue[1] and NNECO remains committed to eliminating unnecessary annunciators by the end of the Cycle 3 refueling outage.

The large number of procedure changes, mostly minor in safety significance, were noted as a reflection of a diligent effort to incorporate lessons learned during the first operating cycle. Processing these procedure changes placed a burden on operations administrative staff. Additional resources of two dedicated SRO level staff members have been assigned to the operations department since last July to cope with that burden. With the completion of the first operating cycle, all procedures have now been exercised. The number of changes being implemented this cycle are expected to be significantly reduced. There are 1400 procedures on Millstone Unit No. 3. As a result of the experience gained to date, changes have slowed to approximately 50 per

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(1) E. J. Mroczka letter to U.S. NRC, "Elimination of Unnecessary Annunciator Windows," dated April 5, 1988.

month from a previous range of 80 to 100 changes per month. Additionally, procedure changes on Millstone Unit No. 3 are entered directly into the procedure affected. Extensive changes often result in page substitution to avoid problems encountered with just filing the change at the beginning of the procedure. This action goes beyond the station administrative requirement and eliminates the confusion that can be generated by multiple changes. The current program for procedure updates is effective in our view and the number of procedures with greater than 3 changes since the last revision has been reduced from 47 in July 1988 to 35 in August 1988. It should be noted that procedures with potential safety impacts are given high priority. Programmatic root causes of procedural problems are promptly pursued. An example of this commitment to addressing root cause concerns was the review of all general operating procedures for instances where systems were placed in service without a specific system procedure (a contributing cause to a recent cold over pressure event). A formal review program of all surveillance procedures is underway to review the contents and frequency against the technical specification requirement.

The report cited 11 automatic trips during the last SALP period. This rate was about average for a new plant. Significant progress continues on reducing the number of trips. This progress has been brought about by identifying and correcting the root causes of the plant trips. Equipment improvements include changes to the turning gear oil pump, change out of the steam generator condensate pots, and total replacement of the energized feedwater isolation valve solenoids. Trip analysis for both Millstone Unit No. 3 and industry experience is used to correct problems. Training on lessons learned, procedure refinements and constant attention to detail are expected to continue to reduce the number of plant trips as the plant matures. The trip rate per thousand hours of operation demonstrates the effectiveness of the actions taken to date. The trip rate per thousand hours of operation for the SALP period covered in Cycle 1 was 2.28 compared with a trip rate per thousand hours of operation of .86 for Cycle 2. No trips have occurred since the completion of the SALP period in 2700 hours of operation.

Functional Area: RADIOLOGICAL CONTROLS

Board Recommendation: None.

Response:

NNECO agrees with the Staff's assessment of our performance in this functional area. We acknowledge the need to address the issues identified as having room for improvement, and will continue to strive for better performance.

NNECO continues to aggressively pursue exposure reduction. While previous goals did not appear to be challenging in light of the excellent exposure records of 357 man-rem, performance shows that extensive efforts were made to keep exposure low. In 1987, the exposure goal was 447 man-rem and exposure was kept to 357 man-rem (including unplanned RCP repairs). The goal for 1988 is 90 man-rem (the cumulative man-rem is 84.5 as of September 26, 1988). The goal for 1989 has been reduced to 381 man-rem based on using actual exposure history for repetitive tasks and estimate for additional planned refueling activities. The 1989 goal uses 2.5 man-rem per month for non-outage periods. Again, we are committed to holding exposure below these goals when possible.

Functional Area: MAINTENANCE

Board Recommendation: None.

Response:

NNECO agrees with the Staff's assessment of our performance in this functional area. We acknowledge the need to address the issues identified as having room for improvement, and will continue to strive for better performance. We also plan to continue our active involvement in the Staff's contemplated rulemaking activities in the maintenance area.

Functional Area: SURVEILLANCE

Board Recommendation:

- Reduce the number of inaccurate, late and missed surveillances.

- Schedule a meeting with the NRC early in 1989 to discuss effectiveness of surveillance program corrective actions.

Response:

NNECO is in the process of conducting a complete review of all surveillance procedure contents and frequency against technical specification requirements. Every effort is being made to raise the level of awareness on the need for accurate tracking and completion of all required surveillances. Millstone Unit No. 3 Technical Specifications have approximately 1050 line items requiring surveillances and specifies 138,700 required scheduled surveillance items during a refueling cycle in addition to situational required surveillances. One hundred thirty one thousand (131,000) of the surveillance activities are daily or shiftly activities with 7700 activities being activities scheduled weekly or less frequently. About one half of the 16 problems with surveillances dealt with procedural defects or first time performance which are being addressed by our surveillance procedure review as noted above. The largest single group of remaining problems contributing to missed or late surveillances (5) come from situational requirements and in most cases consisted of exceeding the time interval for performance by less than a day. Increased directions have been given to plant operations on control of situational surveillances. These directions include preparing all required surveillance forms prior to shift turnover.

As previously stated, NNECO plans to schedule a meeting with the NRC Staff to discuss the progress made in implementing the corrective actions underway in the area of surveillance monitoring.

Functional Area: EMERGENCY PREPAREDNESS

Board Recommendation: None.

Response:

NNECO agrees with the Staff's assessment of our performance in this functional area. We acknowledge the need to address the issues identified as having room for improvement, and will continue to strive for better performance.

At the SALP meeting on September 1, 1988, the NRC Staff (Mr. Kane) raised a question regarding Emergency Action Levels (EALs) and their guidance for a loss of annunciator event. The following information is provided in response to that question.

The Incident Classification Scheme has built-in prescribed protective actions for the public that state and local officials can initiate. The control room Shift Supervisor (and eventually the on-call Director of the Station Emergency Operations) has the responsibility of classifying the event based on EALS. The EALs are symptoms or conditions of plant status that have been precategorized into appropriate incident classification. The EALs have been written so that even potential equipment damage is classified. For a loss of all alarm annunciators for greater than 15 minutes, an ALERT is classified. If the duration of the loss is less than 15 minutes, then no EAL is invoked. This approach is identical for all four NU nuclear units.

Functional Area: SECURITY AND SAFEGUARDS

Board Recommendation: None.

Response:

NNECO agrees with the Staff's assessment of our performance in this functional area. We acknowledge the need to address the issues identified as having room for improvement, and will continue to strive for better performance.

Functional Area: OUTAGE MANAGEMENT

Board Recommendation: None.

Response:

NNECO agrees with the Staff's assessment of our performance in this functional area. We acknowledge the need to address the issues identified as having room for improvement, and will continue to strive for better performance.

Functional Area: ENGINEERING SUPPORT

Board Recommendation:

- Improve knowledge level of personnel implementing the EQ program. Ensure high level management attention is given to resolving EQ issues.

Response:

The SALP report addresses the one EQ inspection during the assessment period and characterized the inspection as having identified "multiple apparent violations". Four potential violations that were identified as a result of the inspection have been reduced to two as a result of further discussion(2).

In the exit meeting for the EQ inspection, responses to audit questions were said to be slow. The inspector attributed this to manpower. General support was never identified to be only marginally acceptable during the course of the inspection or at the exit meeting, and there were no comments critical of the experience levels of the EQ staff supporting the inspection. Management involvement is integrated into the resolution of EQ issues at an early stage, and this involvement was noted by the inspection team. NNECO believes that we have a knowledgeable and highly experienced EQ staff implementing the EQ Program. This is evidenced by our prompt and extensive corrective actions taken to resolve the Litton-Veam connector issue.

Another area which we believe warrants clarification is the knowledge level of personnel implementing the EQ Program. Although NNECO use of contract personnel was decreasing, the core EQ staff was supplemented during the inspection period with NNECO electrical, control and instrumentation engineers normally assigned to plant support activities not specifically related to EQ. These engineers were quite experienced in their disciplines and were selected to support the inspection well in advance of the arrival of the inspection team.

NNECO intends to ensure that a high level of management attention to strengthening EQ staffing levels and to other EQ issues continues.

The SALP report cited that Corporate Engineering's late reporting of the Rosemount flow transmitter repetitive failure problem unnecessarily delayed report dissemination to other Rosemount users. In response to this concern, the Corporate NEO Procedure dealing with implementation of 10CFR21, "Reporting of Defects and Noncompliance" is being revised to clarify substantial safety hazards determinations related to repetitive component failures.

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(2) W. V. Johnston letter to E. J. Mroczka, "EQ Inspection Report No. 50-423/88-04," dated August 24, 1988.

Functional Area: LICENSING ACTIVITIES

Board Recommendation:

- Continue the effort to assure accurate submittals.

Response:

During the past year, NNECO has strived to be very responsive to NRC Staff requests for information. We have endeavored to provide comprehensive, accurate and technically sound submittals. We believe a prime example of this has been our pursuit of NRC approval of three-loop operation. In addition, NNECO has provided information required to satisfy five (5) license conditions and seven (7) Safety Evaluation Report commitment items requiring submittal for additional information.

As of October 1987, office space has been designated at the Millstone Site for use by Licensing personnel to facilitate increased focus on plant activities and improve the interface between the plant and Generation Facilities Licensing on licensing related issues. It is intended that this action will further improve the quality and timeliness of licensee responses and increase the frequency of prompt, personal communications with station personnel.

Regarding day-to-day licensing activities, our licensing staff works closely with the NRC Project Manager. Our belief is that our licensing and management personnel enjoy a very productive working relationship with the NRC. There is very good daily communication between the NRC and NU Licensing Staff with frequent "face to face" meetings to maintain clear communications and reach agreement on outstanding information requests and other licensing issues.

In summary, we have continually strived to provide comprehensive, thorough and technically sound submittals. In cases where the NRC Staff has required additional information, we have been quick to respond to the request with follow up telephone conference calls, meetings or additional written submittals. Lastly, we will continue to place emphasis on the multidiscipline sign-off process associated with all correspondence with the NRC to ensure accuracy of submittals.

Functional Area: TRAINING AND QUALIFICATION EFFECTIVENESS

Board Recommendation: None.

Response:

NNECO agrees with the Staff's assessment of our performance in this functional area. We acknowledge the need to address the issues identified as having room for improvement, and will continue to strive for better performance.

NNECO proposes to clarify a statement in the second paragraph on page 30 of the SALP report regarding the experienced training staff as follows:

> "The licensee developed an experienced training staff with sixteen instructors, three quarters of whom maintained operating licenses. To support the accreditation efforts, the training staff was augmented using contractors to over 20 instructors."

Functional Area: ASSURANCE OF QUALITY

Board Recommendation:

- Resolve the procedure change backlog problem.

Response:

Specific actions concerning the large number of procedure changes were previously discussed under the functional area of plant operations.