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February 18, 1987

Docket No. 50-423 B12186

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

References:

- T. E. Murley letter to J. F. Opeka, Systematic Assessment of Licensee Performance (SALP) Report No. 50-423/85-99, dated December 27, 1985.
- (2) J. F. Opeka letter to T. E. Murley, Response to SALP Report 50-423/85-99, dated February 11, 1986.
- (3) T. E. Murley letter to J. F. Opeka, Systematic Assessment of Licensee Performance (SALP) Report No. 50-423/85-99, dated March 21, 1986.

Gentlemen:

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

The purpose of this letter is to inform you of the status of corrective actions taken as a result of the SALP Board's recommendations that were provided to us in the last SALP review period. In addition to providing you with the status of corrective actions, we would also like to take this opportunity to provide some information concerning our performance over the past year which we believe will be useful to the SALP board in their next assessment of Millstone Unit 3. In Reference (1), the NRC issued the Millstone Unit 3 SALP report for the twelve month period ending August 31, 1985. In Reference (2), Northeast Nuclear Energy Company (NNECO) provided its responses and comments on SALP Report No. 50-423/85-99. In Reference (3), the NRC provided its comments on NNECO's Reference (2) submittal.

At the time of our last submittal (Reference 2), a number of corrective actions had been completed and they were addressed in that letter. This submittal will provide information, which is contained in Attachment 1, on the additional corrective actions taken since then.

Additionally, Attachment 2 provides a summary of some of the key accomplishments on Millstone Unit 3 over the past year as well as some examples of Northeast Utilities (NU) productive participation in industry activities and positive involvement in the regulatory process.

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We believe that you will find the actions outlined herein that address the Board's recommendations satisfactory and that you may find the additional information on our positive involvement in the regulatory process to be of value in your next SALP assessment of Millstone Unit 3. Please feel free to contact us if you require any additional information.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

E. J.

Senior Vice President

Cc: Dr. Thomas E. Murley, Regional Administrator, Region 1
 E. L. Doolittle, Licensing Project Manager, NRR
 J. T. Shedlosky, Senior Resident Inspector, Millstone Unit No. 3

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Attachment 1

Northeast Nuclear Energy Company Millstone Unit No. 3 Update to SALP Report 50-423/85-99 Recommendations

February, 1987

Functional Area: OPERATIONS SUPPORT

Board Recommendation:

Review control of and training for jumpers and lifted leads, tagging, log keeping, and shift turnover requirements to assure controls are adequate for power operation.

Status:

NNECO has implemented Millstone Station Administrative Control Procedures ACP-QA-2.06.A, B & C, which cover control of bypass jumpers, lifted leads, and tagging; ACP 6.12, shift turnover; and ACP 10.05, log keeping requirements for all plants at the Millstone Station. The controls delineated in these procedures were initially implemented at Millstone Units 1 and 2 and have proven to be very effective. In order to assure these controls were appropriate for power operation and to familiarize Millstone Unit 3 operating personnel with these procedural requirements prior to power operation, these procedures were instituted during startup testing, far in advance of power operation.

In April, 1986, the NRC conducted an operations audit on Millstone Unit 3 (Audit No. 8612). No weaknesses in the area of bypass jumper and lifted lead control were identified.

Functional Area: RADIATION CONTROL

Board Recommendation:

Assure the FSAR accurately describes the solid radwaste system.

Status:

At the present time, the FSAR reflects the as built configuration of the solid radwaste system. The FSAR will be updated in accordance with 10CFR50.71 to reflect any modifications made to the system in the future.

We would also like to provide some information concerning our performance over the past year in the area of radiological controls at Millstone Unit 3. As noted in the Millstone Unit 3 SALP report (Reference (2)), the radiological controls implemented at Millstone Unit 3 are identical to those which have been used at Millstone Units 1 and 2. As a result of SALP Board recommendations on Millstone Units 1 and 2, NNECO has strengthened radiological controls in several areas, namely radiation worker training, radiation exposure reduction, and radwaste handling and shipping.

Radiation Exposure Reduction

With regard to radiation exposure, the cumulative exposures at Millstone Unit 3 have been extremely low. The 1986 total was about 27 person rem. Corporately, NU has recently undertaken a program to lower collective exposures for all of our plants to meet INPO goals. The program is investigating methods of reducing dose rates and work scope in high radiation areas, and improving worker efficiency at all plants.

Radwaste

Several changes have occurred during the past year which are expected to yield significant improvements in the implementation of the Millstone Station radwaste management program. Examples of these are:

- o The Millstone radwaste handling group has been expanded in size and reorganized under a separate supervisor who is responsible solely for implementation of the radwaste management program.
- Increased training is being given to radwaste handling and quality control personnel to expand their knowledge of radwaste manifest preparation, shipping, and burial regulations.
- Nuclear Engineering and Operations Procedure 6.07 "Quality Assurance and Quality Control in Station Radioactive Material Processing, Classification, Packaging, and Transportation" was issued which defines the quality related aspects of the radwaste shipping process.
- A NU corporate radwaste engineering group has been approved for implementation in 1987. Staffing for this group, which will provide engineering expertise in all areas of radwaste processing, is currently underway.

Radiation Worker Training

Radiation worker training is administered as part of our General Employee Training Program and is updated annually to include lessons learned from the previous year, as well as NRC, INPO and NU significant findings from the previous year.

Additionally, supervisors have been reminded of their responsibilities in assuring worker radiation protection. This includes providing all the equipment, training and controls necessary to ensure that their workers perform their jobs both safely and efficiently.

In summary, we believe that the above actions illustrate NU's commitment to maintaining proper radiological controls at Millstone Station.

Functional Area: MAINTENANCE

Board Recommendation:

Establish a schedule for the completion and implementation of maintenance related procedures and training programs.

Status:

All maintenance procedures necessary to support operation of the unit have been approved and implemented.

Please refer to the TRAINING AND QUALIFICATION EFFECTIVENESS functional area for a discussion of the training programs related to maintenance.

Functional Area: SURVEILLANCE

Board Recommendation:

Assure surveillance procedures support future planned testing and operations. Particular emphasis should be placed on orderly development and review of procedures.

Status:

All surveillance procedures have been developed, reviewed and implemented to meet the requirements of the Technical Specifications.

Beginning in early 1985, a significant effort was expended in the development of the surveillance testing program. Many of the tests were incorporated into the startup test program which eliminated duplicate testing and permitted operational experience to be gained and factored into the surveillance test procedures.

A number of procedures for tests which are conducted during refueling outages or less frequently are still under development. These procedures are being developed on a schedule which will permit adequate review and training prior to conduct of the tests.

Functional Area: TRAINING AND QUALIFICATION EFFECTIVENESS

This functional area was not evaluated during the previous Millstone 3 SALP. However, we feel it is important to inform you of our progress in the areas of training programs.

Technical Training

On October 1, 1986, NU submitted the Millstone Unit 3 technical training program to INPO for accreditation (approximately 1 1/2 years ahead of schedule). The decision to expedite the implementation of the accreditation process was based on NU's continued commitment to excellence. In addition, the Nuclear Training Department has commenced development of training programs in the Radioactive Waste Worker and Quality Assurance/Quality Control disciplines to the same accreditation standards. This decision was predicated on the belief that even though the latter two programs are not part of the INPO accreditation effort, the critical nature of these job functions in the day-to-day operation of the unit dictate no less a quality commitment.

The Technical Training Branch is presently staffed with nine full-time technical instructors who are exclusively committed to supporting the technical training requirements of Millstone Unit 3. In addition, recognizing the invaluable benefits of practical hands-on training, NU has established a fully equipped laboratory for each journeyman discipline. During 1986, 20% of the entire training program was presented to approximately 20% of the student population. Our 1987 plans call for each mechanic, electrician, and technician to participate in approximately five weeks of technical training. The curriculum chosen for the 1987 schedule was guided by the plant supervisory staff of Millstone Unit 3 based upon their operational requirements.

In a continuing effort to establish a lead position in the industry through innovative training techniques, NU is in the process of piloting programs in the fields of team training, diagnostic training, and such practical hands-on courses as Reactor Coolant Pump Seal Overhaul. In the case of the latter, the RCP Seal course is being presented six times prior to the Millstone 3 March, 1987 mid-cycle outage. This course incorporates the use of a full scale mockup of the seal assembly mounted in a bell housing. The team training process involves Mechanics, Quality Control Engineers, Reliability Engineers, Safety Engineers, Health Physics Technicians and ALARA Engineers all simultaneously attending these courses, each offering their expertise to the training process. As a result of this multi-discipline approach, several modifications to the existing maintenance procedures have been incorporated that should reduce radiation exposure and radwaste production, while at the same time improving the overall human safety aspects of conducting the job.

Operator Training

Many significant improvements have been made in the area of Operator Training.

The organization and staffing of this branch has been strengthened to provide one supervisor for each nuclear unit with (2) assistant supervisors reporting to him. The authorized staffing level has been increased to fourteen (14) instructors per nuclear unit.

To ensure that the Operator Training Branch can attract the talented personnel necessary to perform this critical function, position grade levels have been upgraded such that many experienced plant operating personnel have been attracted to a career in the Nuclear Training Department. It is noteworthy that this action received corporate and station support, thus illustrating the recognition of the importance of the training functions.

During the past year, the Millstone Unit 3 operator training programs completed cold license training, with 42 of 45 candidates receiving NRC operator licenses. The Licensed Operator Requalification Training program was successfully completed by all licensed personnel, and the first training program for replacement operators was completed with 12 of 12 candidates receiving NRC operator licenses.

The training program for the Millstone Unit 3 Operations Shift Advisors was successfully completed in February, 1986.

The Millstone Unit 3 plant specific simulator had an availability of greater than 98% for 1986 bringing the capability for training nuclear plant operators to the highest possible level.

A job and task analysis has been completed for all operator job positions in preparation for INPO accreditation. Formal learning objectives are being developed to support operator training programs, and are being incorporated into all on-going programs as the development activity proceeds. INPO accreditation activities are firmly on track, and the Accreditation Self Evaluation Report will be submitted to INPO by November 1, 1987.

General Nuclear Training

In October, 1986 a new organization was announced for the General Nuclear Training Branch. The changes primarily affected the personnel that are supporting general training activities at the nuclear stations and should result in improved efficiency in training station engineering personnel, emergency response training, radiation worker, fire brigade, production maintenance management and medic first-aid safety training.

The Branch now consists of three sections, two of which are located at the Millstone Training Center, and one at the NU corporate office. The Millstonebased staff supports the training discussed above at both the Millstone and Haddam Neck sites and the corporate section provides corporate nuclear training for offsite engineering personnel. The corporate staff is also responsible for managing the Shift Technical Advisor college program at Thames Valley State Technical College.

The General Nuclear Training Branch's priority goal at the present time is to achieve INPO accreditation of the Haddam Neck and Millstone Technical Staff and Manager (TSM) Training program, a goal that we feel confident about meeting. The TSM Accreditation Self Evaluation Report (ASER) was submitted to INPO on October 1, 1986 and course work refinements and teaching the approximately fifty new courses to plant engineering personnel has begun. We are hopeful that the INPO Accreditation Team will visit in the latter part of 1987 and ultimately grant NU this important certification.

Functional Area: LICENSING ACTIVITIES

Board Recommendations:

Increase management involvement in the licensing review process in order to assure more timely resolution of licensing issues.

Status:

Senior NU management is routinely and actively involved in the management of licensing issues. This is acknowledged and documented by the NRC in recent SALP reports issued on our other Millstone plants as well as Millstone Unit 3.(1)(2) NU has in the past and will continue to utilize all of the experience gained from its other nuclear plants to develop consistent and technically sound resolutions to safety issues. A high level of management review and approval of all correspondence with the NRC is procedurally required at NU to ensure a consistently clear licensee understanding and responsiveness to NRC initiatives. Additionally, we have undertaken several initiatives to ensure that management remains fully cognizant and involved in unresolved licensing issues. Examples of these are discussed below.

- We have designated a Millstone Unit 3 lead licensing engineer to facilitate communications with the NRC Project Manager.
- Our lead licensing engineer has worked closely with the NRC Project Manager to establish a prioritization system containing all key outstanding licensing items. This information is updated frequently and assures appropriate priority focus and timely resolution.
- Periodic meetings have been held between NU management and NRC project management to assess the status of outstanding items and thus assure that adequate resources are committed to achieve timely resolution.
- High levels of NU management have been extensively involved in industry groups that support NRC initiatives. NUMARC, AIF, INPO and EEI are representative examples.

We believe that the above actions have contributed to maintaining clear communications between the NRC and NU on outstanding information requests and other licensing actions thereby allowing timely decisions to be made to resolve outstanding issues.

T. E. Murley letter to J. F. Opeka, "SALP Report Nos. 50-245/85-98 (Pg. 32 and 33) and 50-336/85-98 (Pg. 31)," dated August 29, 1986.

 ⁽²⁾ T. E. Murley letter to J. F. Opeka, "SALP Report No. 50-423/85-99" (Pg. 28), dated December 27, 1985.

During the past year NU has continued to be very responsive to NRC staff requests for information. NU has provided information required to satisfy the following 8 of 11 license conditions requiring submittal of additional information.

- 2.C.4 3 Loop Operation (July 1, 1986)
- 2.C.5 Inservice Inspection Program (May 22, 1986)
- 2.C.6 Instrumentation for Monitoring Post Accident Conditions R.G.
 1.97 Revision 2 Requirements (December 9, 1985)
- 2.C.9 Operating Staff Experience Requirements (July 3, 1986)
- 2.C.10 Changes to Initial Test Program (February 12, February 20, March 12, March 24, May 2, May 6, May 19, and July 18, 1986)
- 2.C.11 Revised Small Break LOCA Methods to Show Compliance with 10 CFR 50.46, TMI Step II.K.3.31 (June 9, 1986)
- 2.C.13 Detailed Control Room Design Review (May 20, 1986)
- 2.C.14 Salem ATWS Events Generic Letter 83-28 (May 13, 1986)

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.

We believe a prime example of this has been our pursuit of NRC approval for 3 loop operation. NU is unique in the nuclear industry in its request for approval to operate Millstone Unit 3 with one reactor coolant loop isolated. We have expended substantial resources to ensure that our request was founded on a firm technical base. We have consistently demonstrated diligence in our follow-up of NRC staff questions and concerns by providing additional information in meetings, telephone conference calls and written correspondence. In each case, NU was able to provide the NRC with the necessary information "on-the-spot" or was able to obtain a clear understanding of what was required to resolve the concern in a timely manner. It is our understanding that we have provided all of the information necessary for the NRC to complete its review of this issue and we are awaiting the staff's final safety evaluation and approval. We have had a very cooperative working relationship with the NRC on this unique licensing application.

Another area which we feel exemplifies our responsiveness to the NRC is updating the Millstone Unit 3 FSAR. Three FSAR updates were submitted within the first year following license issuance whereas 10CFR50.71 does not require submittal of the first update until two years. NU has committed substantial resources to enable us to exceed regulatory requirements in this regard. We continue to maintain a knowledgable and highly motivated licensing staff. Millstone Unit 3 licensing personnel have received training both in-house and outside in areas such as:

- Quality Assurance
- The Nuclear Safety Ethic
- Nuclear Engineering and Operations procedures affecting licensing (technical specification changes, license amendments, safety evaluations, FSAR updates)
- Millstone Unit 3 Systems
- NRC Unresolved Safety Issues

Additionally, Millstone Unit 3 licensing personnel are participating on various subcommittees of the Westinghouse Owners Group.

In summary, we feel that the licensing activities associated with Millstone Unit 3 continue to demonstrate that NU management is firmly committed to providing the proper resources and direction necessary to effectively resolve all issues which have the potential to affect the safety of the plant.

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Attachment 2

Northeast Nuclear Energy Company Millstone Unit No. 3 Examples of NU Performance During Current SALP Period

February, 1987

The following is a summary of various meetings, letters, or other activities that occurred during the period January 1, 1986 to January 31, 1987 which we feel are relevant to the Millstone Unit 3 SALP evaluation.

- o The following plant startup milestones were achieved:
 - January 23, 1986 Initial criticality.
 - January 31, 1986 Issuance of Millstone Unit 3 operating license NPF-49 authorizing full power operation.
 - April 21, 1986 Completion of the startup test program.
 - April 23, 1986 Start of commercial operation.
- January 8, 1986 A meeting was held between NU management and NRC/NRR to discuss the status of remaining licensing issues prior to issuance of the full power operating license.
- January 9, 1986 A meeting was held between NU management and NRC Region 1 to discuss the status of remaining licensing issues prior to issuance of the full power operating license.
- January 23, 1986 and February 19, 1986 Meetings were held between representatives of NU and the NRC to discuss the issue of station blackout with respect to Millstone Unit 3.
- March 18, 1986 NU submitted a letter providing additional information on station blackout for Millstone Unit 3.
- May 12, 1986 A meeting was held between representatives of NU and the NRC Licensing Project Manager at the Millstone Station to discuss the status of licensing activities.
- o June 18, 1986 NU provided comments on the proposed station blackout rule. NU has been an active member of the industry effort to resolve the USI-A-44, Station Blackout issue. In this regard, the industry, via the Nuclear Utility Management and Resource Committee (NUMARC) and the Nuclear Utility Group on Station Blackout, has been working with the Staff towards a mutually agreeable resolution to this issue. NU personnel have lead roles in these committee initiatives.
- o June 18, 1986 NU submitted a letter proposing to extend the use of Integrated Safety Assessment Program methodology to Millstone Units 2 and 3.
- o June 25, 1986 NU submitted Revision 1 to the Millstone Unit 3 Inservice Test Program for pumps and valves.

- Noteworthy changes which have occurred in the implementation of the NU QA/QC programs include the following:
 - The Operations QA staff has been relocated from the corporate offices to the Millstone site. This action is expected to increase the effectiveness of the quality organization by maintaining a full-time presence on site. This will allow improved communication between the plant operating staff and QA staff and will expand the QA department's knowledge and evaluation of plant problems by allowing increased observation of on-going plant activities.
 - A standardized corporate QC manual has been issued which will result in the Haddam Neck, Millstone, and Betterment Construction QC organizations working to the same set of procedures. This will assure consistent application of all QC activities and will allow better utilization of personnel because all inspectors will be trained and qualified to the same program.

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- July 3, 1986 NU submitted a letter providing information regarding actions taken by NU in response to IE Information Notice 86-47, Erratic Behavior of Static "0" Ring Differential Pressure Switches. Although a response to this Information Notice was not required, NU felt it was appropriate to inform the NRC of our followup on this issue because Millstone was specifically mentioned in the Information Notice as having received the subject switches.
- July 15, 1986 A meeting was held between representatives of NU and NRC project management to discuss the status of licensing activities.
- o July 22, 1986 NU submitted the Millstone Unit 3 startup report.
- July 28, 1986 A meeting was held between representatives of NU and the NRC to discuss NRC staff concerns related to 3-loop operation of Millstone Unit 3.
- On September 17 and 18, 1986, NU hosted a Region I Fire Protection Organization seminar. The seminar was attended by NRC representatives from NRR and Region I as well as numerous utility representatives. The seminar was well received by all in attendance with recommendations that similar seminars be held in the future.
- o In September, 1986, NU implemented an emergency preparedness surveillance tracking system at the Millstone Station to ensure that facilities and equipment are maintained operational.
- On October 1, 1986, NU provided comments on a draft report written by Brookhaven National Laboratory entitled "Evaluation of Reliability Technology Applicable to LWR Operational Safety." NU has undertaken numerous initiatives aimed at maintaining high safety system availability, such as development and use of living PRAs and implementation of a Safety System Unavailability Monitoring Program.
- On November 19, 1986, a full participation emergency exercise was successfully conducted at the Millstone Station. The exercise, which involved Connecticut, Rhode Island, and local Emergency Planning Zone communities, was evaluated by both FEMA and the NRC. No major findings of deficiencies were identified.
- On January 13, 1987, Millstone Unit 3 completed 128 days of continuous operation and established a plant record for continuous service.
- In an effort to improve the timeliness of providing site access to NRC inspectors, NU developed and implemented a "Read and Sign" training program. On October 10, 1986, NU transmitted a letter to the NRC Region I describing the program and our plans for implementing it.

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