UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

MAR 05 1992

[ ]

Dear[ ]

I am responding to concerns that you provided to us on June 24 and July 12, 1991, asserting that inaccurate information concerning the seismic qualification of installed instrumentation in Millstone Unit 2 was provided to the NRC by Northeast Utilities (NU) in a letter dated April 26, 1991, and that NU would not pursue issues you raise or feedback information to you if the NRC wasn't forcing them to respond.

NU responded to the NRC on July 18, 1991 (Attachment 1) regarding the clarity of their April 26, 1991 response. Based on our independent NRC inspection of that issue (Attachment 2), we have determined that their statement in question was an inadvertent error and not an attempt to mislead the NRC. Further, NU found that the tubing and transmitter support scheme were shown to be seismically acceptable by other means. The findings of our independent inspection support this conclusion.

The NRC continues to assess NU's effectiveness in handling employee concerns. We are addressing this matter in a broader, generic manner through our routine inspection and licensee assessment programs. However, our review of the Unit 2 I&C Department Manager's system for tracking employee concerns does indicate that the system is adequate for tracking issues, although the individual raising the concern must take the initiative to determine the status of their concern. Excerpts of the report documenting these findings is provided as Attachment 3.

We appreciate you informing us of your concerns and feel that we have been responsive. Should you have any additional questions regarding these matters, please call me collect at (215) 337-5225.

Sincerely;

Edward Wenzinger

Edward Wenzinger, Chief
Reactor Projects Branch 4

Attachments: (1) Updated NU Response to Allegation RI-90-A-0187 (B13883)
(2) Excerpts from NRC Inspection Report 50-336/91-27 (Detail 15.0).
(3) Excerpts from NRC Inspection Report 50-336/91-31 (Detail 11.0).

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N/46

bcc w/enclosures:

Allegation Files: RI-91-A-0161, RI-90-A-0187
E. Conner's files
W. Raymond/T. Shedlosky
Contractor's office files (Meeker)

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

General Offices • Selden Street, Berlin, Connecticut

P.O. BOX 270
HARTFORD, CONNECTICUT 06141-0270
(203) 665-5000

July 18, 1991

Docket No. 50-336
B13883

Mr. Charles W. Hehl, Director
Division of Reactor Projects
U. S. Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, Pennsylvania 19406

Dear Mr. Hehl:

Millstone Nuclear Power Station, Unit No. 2
RI-91-A-187

In reviewing our response to this allegation in our letter dated April 26, 1991, it has come to our attention that the clarity of our response to Issue 2 could be improved. In the interest of assuring that there is no ambiguity in our response to this issue, we are providing additional information regarding the seismic qualification of the RCS flow transmitters noted in the allegation.

The original installation specification of the transmitters required that the installation be done in accordance with Bechtel's MS-66 criteria as indicated in the second paragraph of our response to Issue 2. The MS-66 criteria was developed to allow field installation of instrumentation to seismic requirements without performing a specific seismic analysis for each installation. When instrumentation was installed to these guidelines, conformance to seismic stress analysis criteria was assured. The guidelines were prepared in a very conservative manner using bounding calculations to determine support requirements. Our response did not clearly indicate that our review of this allegation identified that the installation did not follow the guidance of this design document. The MS-66 guidance required that the seismic span requirements of instrument tubing meet certain limits. A review of the "as-built" configuration in April 1991, indicated that the span requirements were not met. Hence, the instrument did not meet the criteria contained in the MS-66 guidance requirement.

This does not mean that the instrument tubing will fail during a postulated seismic event. In order to resolve the issue, the instrument tubing lines were analyzed using a computer code to determine the calculated stress levels and to make a definitive determination of the adequacy of the transmitter tubing installation.

The computer analysis results showed that stress levels in the instrument tubing were acceptable and that during a postulated seismic event, the installation would remain functional. Therefore, the actual installation is acceptable. Drawing changes were processed which reflect the as-built condition of the installation. The results of the computer analysis have been documented.

We anticipate that this clarification will resolve any misunderstanding regarding our response to this item. Please contact my staff if there are any further questions on this item.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

E. J. Mroczka
Senior Vice President

cc: W. J. Raymond, Senior Resident Inspector, Millstone Unit Nos. 1, 2, and 3
[redacted] Chief, Projects Branch No. 4, Division of Reactor Projects
E. M. Kelly, Chief, Reactor Projects Section 4A

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

Docket Nos. 50-245, -336

John F. Opeka
Executive Vice President - Nuclear
Northeast Nuclear Energy Company
P.O. Box 270
Hartford, Connecticut 06141-0270

Dear Mr. Opeka:

Subject: NRC Region I Inspection Report Nos. 50-245/91-23 and 50-336/91-27

A special safety inspection was conducted by Mr. J. T. Shedlosky and others of this office on August 15 through September 30, 1991, at the Millstone Nuclear Station Units 1 and 2, Waterford, Connecticut. The inspection results are documented in the enclosed report; they were discussed with Mr. S. Scace and other members of your staff at the conclusion of the inspection.

The inspection focused on issues brought to you by the NRC. Our independent review evaluated your performance in complying with regulatory requirements important to public health and safety. This review consisted of performance observations of ongoing activities, independent verification of safety system status and design configuration, interviews with personnel, and review of records.

Our overall assessment is that your performance in resolving these issues is acceptable; however, evaluation of several of these concerns still indicates certain areas in need of improvement. Examples include drawing controls, incorporation of vendor information in procedures and drawings, and the procedure validation process. No violations of NRC requirements were identified.

No response to this report is required. Your cooperation with us is appreciated.

Sincerely,

Edward C. Wenzinger, Chief
Projects Branch No. 4
Division of Reactor Projects

Enclosure: NRC Region I Inspection Report Nos. 50-245/91-23 and 50-336/91-27

9112030038

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report/ Docket No.:	50-245/91-23 50-336/91-27
License No.:	DPR-21 & DPR-65
Licensee:	Northeast Nuclear Energy Company P. O. Box 270 Hartford, CT 06141-0270
Facility Name:	Millstone Nuclear Power Station, Units 1 & 2
Inspection At:	Waterford, CT
Dates:	August 15 through September 30, 1991
Inspectors:	T. G. Humphrey, Consultant, EG&G, INEL T. H. Hunt, Consultant, EG&G, INEL C. Kido, Consultant, EG&G, INEL D. R. Lasher, Consultant, EG&G, INEL A. D. Trusty, Consultant, EG&G, INEL L. E. Briggs, Senior Operations Engineer, PWRS, OB, DRS E. L. Conner, Reactor Licensing/Risk Engineer, TSS, DRP J. T. Shedlosky, Senior Allegation Coordinator, RPS 4A, DRP

Approved by: for Richard L. Barkley 11/18/91
Eugene M. Kelly, Chief Date
Reactor Projects Section 4A

Scope: Special inspection of concerns brought to the licensee by the NRC. These included the areas of compliance with operating license requirements, drawing control, surveillance and calibration programs, electrical workmanship on environmentally qualified equipment, and personnel safety equipment control.

Results: See Executive Summary, Report Section 1.0

15.0 ACCURACY OF INFORMATION SUPPLIED ON SEISMIC INSTALLATION OF REACTOR COOLANT FLOW MONITORING INSTRUMENTATION AND INSTRUMENT SENSING LINES

A concern was identified that the licensee provided inaccurate information in responding to Issue 2 in their letter to the NRC dated April 26, 1991. The following statement was in the licensee's response: "The instruments were installed in accordance with Bechtel's MS-66, Seismic Instrument Mounting Details. . . . " An inspection was performed of the documentation relating to this issue.

Assessment

The review of the licensee's letter showed it did contain the statement quoted above. However, this letter also stated that the concern was brought to management's attention by Memo No. 901006A dated October 6, 1990, which stated that a seismic qualification review was initiated to evaluate the "as-built" seismic integrity of the RCS flow transmitter tubing. This review, which was finalized on April 12, 1991, concluded that the tubing and transmitter support scheme "as-installed" was seismically acceptable for its intended usage.

The statement referring to Bechtel Criteria MS-66 was included because, at first, it appeared that the replacement of the "block" valve manifolds by tubing and individual valves was in accordance with the requirements of an option in MS-66. The instrument lines from the root valves to the manifold area met the guidelines of MS-66. However, the region from the manifold area to the transmitters is the area of concern. The span from the support to the vertical run in one case did not meet the criteria guidelines and in all the cases, the seismic span guideline of less than 36 inches from the support to the instrument was not met.

These cases were subsequently analyzed using a computer program which found that the lines will remain in place and will continue to perform their function. On that basis they were found acceptable.

Automated Work Order (AWO) M2-90-11398 was issued to inspect the reactor coolant system flow transmitters and tubing. This resulted in the issuance of AWOs M2-90-12325, M2-90-12326, M2-90-12327, and M2-90-12328 to replace and repair bent test connections and damaged or missing fitting caps on the RCS Flow Transmitter test legs. These AWOs were obtained and reviewed and indicated that the required work was accomplished by November 4, 1990.

The licensee's letter also stated that the transmitters were procured to meet the appropriate seismic requirements on purchase order 628590. The review of this purchase order showed that the procurement was to be made as nuclear safety-related with the transmitters and their mounting brackets to be seismically qualified with qualification reports to accompany the individual items.

The concern related to the statement in the letter that apparently conflicted with information contained in a memorandum from an I&C department engineer, dated June 21, 1991. It stated that the conclusion was that the installation did not meet the guidelines of MS-66. However, the memo further stated that computer analysis had been performed which showed that the lines would remain intact and perform following a seismic event and that based on these results, the installation was found acceptable.

The first Response paragraph of the licensee's letter describes the finding of these installation deficiencies during instrument calibration activities and also during a quality assurance audit (reference QS-274). Corrective actions were described to have been completed in performance of the above referenced work orders. The second paragraph addresses procurement and installation specifications. These include the Bechtel MS-66, "Seismic Instrument Mounting Details," as well as IEEE 323 - 1974 and IEEE 344 - 1975. The fourth paragraph of the letter provides the correct purchase order number for the transmitters. The concern, as transmitted to the licensee, provided the incorrect number. The fourth Response paragraph again addressed being informed of a concern in October 1990 and also addressed the results of seismic analysis.

Conclusion

An evaluation of the licensee's Response to this issue reveals that the information presented was appropriate and adequate. Sufficient information was made available to evaluate the licensee's actions and was not an attempt to mislead the reader. This may have been the case if that statement was isolated from the other information in the Response.

Additionally, inspection revealed that the lines were shown to be seismically acceptable and work to correct the other noted deficiencies was promptly started and completed.

16.0 USE OF NON-CONFORMING MATERIAL, STEAM GENERATOR MANWAY STUDS

A concern was identified that the Unit 2 reactor coolant system was filled without first having dispositioned the use of non-conforming steam generator manway studs and that this was prohibited by Step 5.7 of Nuclear Engineering and Operations procedure, NE&O 3.05.

Assessment

A copy of NE&O 3.05, Revision 1, Section 5.7, was compared against the information in the response to issue No. 1 in the licensee's May 6, 1991, letter to the NRC. This comparison showed the following:

UNITED STATES
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475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

FEB 24 1992

Docket No. 50-336

Mr. J. Opeka
Executive Vice President - Nuclear
Northeast Nuclear Energy Company
P.O. Box 270
Hartford, Connecticut 06141-0270

Dear Mr. Opeka:

Subject: NRC Region I Inspection Report No. 50-336/91-31

Mr. J. T. Shedlosky and others of this office conducted a special safety inspection December 17, 1991, through February 7, 1992, at the Millstone Nuclear Station Unit 2, Waterford, Connecticut. The inspection results are documented in the enclosed report. They were discussed with Mr. J. S. Keenan and other members of your staff at the conclusion of the inspection.

Areas examined during the inspection are described in the enclosed report. Within these areas, the inspection focused on issues brought to Northeast Utilities by the NRC. Our independent review evaluated your performance in complying with regulatory requirements important to public and worker health and safety. This review consisted of performance observations of ongoing activities, inspection of plant equipment, interviews with personnel, and review of records.

Our overall assessment was that performance was acceptable. The enclosed inspection report notes a number of issues on which your staff agreed to provide a response to the NRC. NNECO's response to the NRC may be made in communication with the resident inspectors.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosures will be placed in the NRC Public Document Room. The responses directed by this letter are not subjected to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, Public Law No. 96.511.

Your cooperation with us is appreciated.

Sincerely,

Edward C. Wenzinger

Edward C. Wenzinger, Chief
Projects Branch No. 4
Division of Reactor Projects

Station Batteries, 201A and 201B. However, the vendor technical manual and the Institute of Electrical and Electronics Engineers (IEEE) Standard 450-1980 requirement to perform periodic connection retorque checks and the IEEE requirement to observe the battery for inter-cell connection heating are not contained in present Station Battery or Turbine and Computer Battery procedures. Periodic terminal resistance checks are presently performed during Battery Service Tests, which are conducted every 15 to 18 months and use Individual Cell Voltage (ICV) measurements. NNECO is in the process of revising the applicable battery procedures to include the connection retorque check frequency and a periodic inter-cell electrical resistance measurement method, acceptance values, and test frequency. NNECO does not intend to institute electrical connection bar temperature measurements during battery performance discharge tests. NNECO technically justified this action and obtained the vendor's concurrence with this decision.

During the inspection, opportunities to improve the Battery Pilot Cell Surveillance procedure, SP 2736A, Computer and Turbine Battery Inspections procedure, MP 2720F1, and Battery Terminal Inspection and Cleaning procedure, MP 2720F2, were noted. These are not necessarily regulatory requirements, but constitute enhancements that would be helpful. The following are examples of such improvement opportunities:

- Incorporate the Caution statement of the vendor technical manual, VTM2-127-001A, paragraph 4.3, that requires disconnecting the battery from the load and charger equipment when performing the connection checks;

- Coordinate the battery procedure revisions so that the common notes, cautions, and actions are worded in standardized formats in all the appropriate procedures; and

- Since the Computer battery is not made by the same vendor as the Turbine battery, a thorough review of both Technical Manuals should be made to insure that procedure guidance properly reflects the requirements of both batteries. If significant differences are noted, it may be more appropriate to produce separate procedures for each battery and not retain the present common procedure. Since a Computer Battery technical manual was not available on site, the inspector was unable to perform such a review.

Conclusion

The inspector concluded that the Millstone Unit 2 storage battery procedures were adequate for routine operations, but that the applicable surveillance and maintenance procedures have not incorporated the periodic connection tightness checks contained in applicable technical documentation. NNECO is in the process of correcting these discrepancies.

11.0 NNECO RESPONSIVENESS TO EMPLOYEE CONCERNS

The NRC received approximately 26 concerns regarding the lack of responsiveness by NNECO to employee concerns, particularly from technicians. Specifically, it was asserted that

technicians provided feed back and suggested improvements, but did not receive timely responses from their managers. In response to this particular category of concerns, the system that was established by the Unit 2 I&C Manager to track such employee concerns was inspected to evaluate the validity of these assertions. NNECO's overall program for responding to and resolving employee concerns will be addressed in a broader, more generic manner.

Assessment

The records for 1990 and 1991 of the Unit 2 I&C Department Manager's employee concerns tracking system, titled "Worklist/Memo," were reviewed in an attempt to determine the effectiveness of the system and evaluate the responsiveness of the I&C Manager to employee concerns.

The system is maintained in a computer data base with the I&C Manager's secretary entering the data. There were a total of 114 items documented in 1990 and 62 items in 1991. Thirty-eight percent (38%) of the 1990 items and 24% of the 1991 items were logged as closed, which on the surface appeared to be quite low. However, when the lists were reviewed more thoroughly, many of the items that were listed as open were effectively resolved, but still carried as open items by the I&C Manager awaiting the completion of some administrative or follow-up action. The system was used by the I&C Manager as a way to track actions and not as a feedback system to the individuals submitting the concerns. A monthly printout of the open and closed items is made and interested individuals in the department can check this printout to insure that their concerns have been acted upon. A feedback response to the individual submitting a concern might have eliminated some of the assertions, but would also increase the administrative burden. For such a small department, the monthly printout would appear to be adequate.

Conclusion

The I&C Department has a system to track employee concerns (and has expended a large amount of effort to respond to them), but the individual must take some action to determine the status of their concerns.

12.0 EDG CLEAN WASTE TANK PDCR MP-2-90-035

The NRC provided a concern that a modification to install float switches in the Emergency Diesel Generator (EDG) Clean Waste Tank at Unit 2, per PDCR MP-2-90-035, failed to provide correct as-built drawings and that a blue colored wire was substituted for the yellow colored wire specified in the PDCR, due to non-availability of the yellow colored wire.

Assessment

The drawings that were alleged to be inaccurate, 25203-31165 (Sheet 22), 25203-31175 (Sheet

ALLEGATION RECEIPT REPORT

Date/Time Received: JUNE 24, 1991 1443 Allegation No. RI-91-A-0162 (leave blank)

Name: [redacted] Address: [redacted]

Phone: [redacted] City/State/Zip: [redacted]

Confidentiality:

Was it requested?	Yes ___	No X
Was it initially granted?	Yes ___	No ___
Was it finally granted by the allegation panel	Yes ___	No ___
Does a confidentiality agreement need to be sent to alleger?	Yes ___	No ___
Has a confidentiality agreement been signed?	Yes ___	No ___
Memo documenting why it was granted is attached?	Yes ___	No ___

Alleger's Employer: [redacted] Position/Title: [redacted]

Facility: MILLSTONE UNIT 2 Docket No.: 50-336

(Allegation Summary (brief description of concern(s): AN UNCALIBRATED UNLABELED MANOMETER IS ATTACHED TO UNIT 2 VENTILATION DUCT; UNIT SUPERVISION HAS BEEN AWARE FOR 2 YEARS

Number of Concerns: 1

Employee Receiving Allegation: _____ (first two initials and last name)

Type of Regulated Activity (a) X Reactor (b) ___ Vendor (c) ___ Materials (d) ___ Safeguards (e) ___ Other: _____ (Specify)

Materials License No. (if applicable): _____

Functional Area(s): X (a) Operations (b) ___ Construction (c) ___ Safeguards (d) ___ Transportation (e) ___ Emergency Preparedness (f) ___ Onsite Health and Safety (g) ___ Offsite Health and Safety (h) ___ Other: _____

(NRC Region I Form 207 Revised 10/89)

W/47

APPENDIX 3.1

Detailed Description of Allegation: [ ] STATED THAT AN UNCALIBRATED MANOMETER IS ATTACHED TO MILLSTONE UNIT 2 EXHAUST VENTILATION DUCT IN THE FAN ROOM. THE INSTRUMENT IS NOT IDENTIFIED BY LABEL AND IS SIMPLY ATTACHED TO INSTRUMENT TUBING WITH CABLE TIES. HE STATED THAT I&C DEPARTMENT HAS KNOWN OF THE INSTRUMENT FOR TWO YEARS AND HAS NOT ACTED TO CORRECT THESE DEFICIENCIES. [ ] IS NOT AWARE OF THE INSTRUMENTS USE.

6/24/91