

APPENDIX A
NOTICE OF VIOLATION

Northeast Nuclear Energy Company
Millstone Nuclear Power Station, Unit 3

Docket No. 50-423
License No. CPPR-113

During the NRC Construction Appraisal Team inspection from February 19 - March 1 and March 11-22, 1985 and in accordance with 10 CFR 2, Appendix C, the following violations were identified (Section references are to Inspection Report No. 50-423/85-04):

1. 10 CFR Part 50, Appendix B, Criterion III, as implemented by Northeast Utilities Quality Assurance Program (NUQAP) Topical Report, Quality Assurance Program (QAP) 3.0 requires that measures be established to assure that applicable regulatory requirements are correctly translated into specifications, drawings, procedures and instructions.

Contrary to the above, as of March 22, 1985, the licensee's design control measures for Class 1E wiring did not assure that applicable requirements were correctly translated into appropriate documents, in that eight termination tickets were not revised to incorporate required engineering changes (Section II.B.2.b.(6)).

This is a Severity Level IV Violation (Supplement II).

2. 10 CFR 50, Appendix B, Criterion V, requires that activities affecting quality shall be accomplished in accordance with appropriate instructions.

Contrary to the above, as of March 22, 1985, activities affecting quality were not accomplished in accordance with prescribed instructions as evidenced by the following:

- a. Discrepancies involving post-turnover wiring changes for Class 1E cable terminations were discovered and were not documented at the time as required by Section 5 of the NNECo Startup Manual (Section II.B.2.b.(6)).
- b. Errors in document and specification distribution, filing and updating were identified at the controlled drawing stations. That resulted in lack of the drawing correctness specified in SWEC Construction Methods Procedure 11.1, Job Site Document Control, Revision D, and SWEC NEAM 32, Supplier Technical Document Review and Distribution - Millstone 3 - NUSCO, Revision 9 (Section VII.B.1).

This is a Severity Level IV Violation (Supplement II).

3. 10 CFR 50, Appendix B, Criterion VII and NUQAP QAP 7.0 require that measures be established to assure that purchased equipment conform to the procurement documents.

8507180387 850712
PDR ADOCK 05000423
Q PDR

OFFICIAL RECORD COPY

Contrary to the above, as of March 22, 1985, measures were not adequate to assure that purchased equipment conformed to procurement documents in that vendor supplied tanks and heat exchangers were received, accepted and installed with welds that were undersized or had an unacceptable surface condition (Section IV.B.2).

This is a Severity Level IV Violation (Supplement II).

4. 10 CFR Part 50, Appendix B, Criterion VIII and NUQAP QAP 8.0 require that measures be established for the control of materials, parts and components to prevent the use of incorrect or defective items.

Contrary to the above, as of March 22, 1985, the material traceability and control of some fasteners, including bolts for mounting large pump motors, have not been adequate to assure the use of correct materials in that:

- a. Unmarked mounting bolts were used for the motors on the Quench Spray Pumps (3QSS-P3A, B), Safety Injection Pump (3SIH-P1B), Chemical Volume Control Pumps (3CHS-P1A, B; P3A, B, C), and Component Cooling Charging Pumps (3CCE-P1A, B).
- b. Unmarked bolts were used in the battery rack assemblies in the five battery rooms in the Control Building.
- c. Unmarked bolts were used in motor control centers to connect adjacent cabinets.
- d. Unmarked bolts were used for mounting Control Board Termination Cabinet (3CES*TBMB30).

(Section VI.B.1.b(4))

This is a Severity Level IV Violation (Supplement II).

5. 10 CFR Part 50, Appendix B, Criterion X and NUQAP QAP 10.0 require that a program for inspection of activities affecting quality be established and executed to verify conformance with design documents.

Contrary to the above, as of March 22, 1985, the licensee's inspection program was not executed to verify conformance with design documents in that:

- a. FQC acceptance criteria for placement of pipe supports and restraints were different than engineering design. That resulted in support attachment locations which were not as depicted by design drawings, as noted in 5 specific support attachment locations, and as indicated by a lack of accounting for wide location changes in support/restraint design calculations and in the associated FQC acceptance criteria (Section III.B.2.b).
- b. FQC accepted equipment foundation bolting connections which were not installed as designed (Section III.B.5.b).

- c. Accepted welds in skewed pipe supports were not of the size required by design (Section IV.B.3).

This is a Severity Level IV Violation (Supplement II).

- 6. 10 CFR Part 50, Appendix B, Criterion XVI and NUQAP QAP 16.0 require measures to assure that conditions adverse to quality are promptly identified and corrected, including action to avoid repetition.

Contrary to the above, as of March 22, 1985, the licensee had not:

- a. Promptly identified and corrected numerous separation deficiencies in vendor or modified vendor wiring installations within the main control boards (Section II.B.2.b(2)).
- b. Provided measures to bring about prompt action to avoid recurrence of significant nonconformances noted in N&Ds and IRs (Section VIII.B.1.b(1)).
- c. Adequately corrected previously identified deficiencies in the area of preventive maintenance after turnover of equipment to operations (Section VIII.B.1.b(2)).
- d. Adequately corrected identified document control deficiencies (Section VIII.B.1.b(4)).

This is a Severity Level IV Violation (Supplement II).

Pursuant to 10 CFR 2.201, Northeast Nuclear Energy Company is required to submit to this office, within thirty days of the date of this letter transmitting this Notice, a written reply including: (1) corrective steps taken and results achieved; (2) corrective steps to be taken; and (3) the date when full compliance will be achieved. Where good cause is shown, consideration will be given to extending this response time.

The reply directed by this Notice is not subject to clearance by the Office of Management and Budget as otherwise required by the Paperwork Reduction Act of 1980, PL 96-511.

APPENDIX B

CONSTRUCTION PROGRAM WEAKNESSES

The NRC Construction Appraisal Team (CAT) identified the following construction program weaknesses at Northeast Nuclear Energy Company's Millstone Unit 3 during the period February 19 - March 1 and March 11-22, 1985.

1. Control of work on systems and components subsequent to turnover from Construction to the testing organization requires improvement. This is indicated by the deficiencies found in the control of wiring changes, and preventive maintenance deficiencies found in the mechanical and electrical areas subsequent to turnover to the startup organization. Additional attention is needed to ensure that missed maintenance activities are evaluated as to the potential damaging effects on the components. These findings indicate the need to re-evaluate the controls applied to activities subsequent to system turnover from Construction to Operations.
2. A number of hardware deficiencies were identified which appear to have been caused by a lack of effective communications between the design, construction, and inspection groups. Design parameters were in some cases not properly translated into inspection criteria. For example, pipe supports have been installed and accepted by QC with dimensional tolerances not in accordance with the design calculations. In addition, a lack of thoroughness on the part of the design organization was identified. Examples identified include: omission of the Residual Heat Removal System from the pipe support "lugs-in-contact" review; wiring termination changes made to drawings without the issuance of the necessary documents to control the actual construction work; inadequate technical justification for the acceptance of unmarked fasteners in certain motor control centers; and conflicting details for a structural steel end connection.
3. A significant number of document control errors were found at both the Quality Control and Construction drawings stations. This is of particular concern in that the deficiencies in document control had been identified previously, and the number of audits increased to monitor the situation. In fact, a 100% audit of all drawing stations had been performed just prior to the start of the NRC CAT inspection. The corrective actions taken had not been effective, however.
4. A number of findings indicate that the effectiveness of Quality Control inspection activities needs to be improved. These findings include the area of piping as-built drawings, mechanical equipment foundation anchorage, structural steel connections (welded and bolted), piping support welding (pipe straps and skewed fillet welds), and pipe support miscellaneous hardware (lock nut tightness, cotter pin installations, etc.). Also, vendor deficiencies were identified in the areas of tank and heat exchanger fillet welds (pressure boundary and supports), performance of load indicating washers, and marking of fasteners.

The foregoing identified weaknesses require additional management attention to assure that completed installations meet design requirements.

OFFICIAL RECORD COPY