

APPENDIX A

NOTICE OF VIOLATION

Northeast Nuclear Energy Company
Hartford, Connecticut 06101

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

As a result of the inspection conducted on January 26-February 6, and February 18, 1981, and in accordance with the Interim Enforcement Policy, 45 FR 66754 (October 7, 1980), the following violations were identified:

- A. 10 CFR 50, Appendix B, Criterion XVIII, states in part that "...audits shall be carried out to verify compliance with all aspects of the QA program and to determine the effectiveness of the program..."

The NUSCO QA Program Topical Report, Revision 3A, in Appendix D, commits to the ANSI Standard N45.2.12 (Requirements for Auditing of QA Programs for Nuclear Power Plants (Draft 3, Revision 4)). The ANSI N45.2.12, Section 3.5.2 states that "The applicable elements of the QA Program shall be audited at least annually or at least once within the life of the activity, whichever is shorter." The Topical Report, Revision 3A, states in Section 18.2.1, that audits are scheduled on the basis of the status and safety importance of the activities being performed. Schedules are originated and maintained by the NUSCO QA Department.

NUSCO QA Procedure NQA-1.14 in Paragraph 6.1.2 states that the scheduled audits in the approved audit schedules shall be implemented within a period of plus or minus 3 months. Audits scheduled for the 12 month period must be completed no later than 3 months beyond that period or rescheduling must be approved by the QA Manager.

Contrary to the above, on January 28, 1981, the inspector noted the following examples of the licensee's failure to audit applicable program elements:

- No audits were performed during 1979 and 1980 of the containment fabricator's welding process of the ASME piping erection;
- No audits were performed during 1979 of Stone and Webster field procurements;
- No audits were performed during 1979 of the qualifications, training and certifications of S&W Field QC personnel; and,

The following audits have not been conducted per the procedural schedule requirements:

<u>Audit Number</u>	<u>NUSCO Scheduled Date</u>
A40545	6/30/80 (Not performed to-date)
A40552	8/31/80 (Not performed to-date)
A40528	3/31/80 (Performed on 8/14/80)
A40533	4/30/80 (Performed on 8/14/80)
A40511	10/31/79 (Performed on 5/15/80)

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

- B. 10 CFR 50, Appendix B, Criterion VII, states, in part: "...The effectiveness of the control of quality by contractors and subcontractors shall be assessed by the applicant or designee at intervals consistent with the importance, complexity and quantity of the product or services...."

The NUSCO QA Program Topical Report, Revision 3A, states in Section 7.1, "Control of quality by contractors and subcontractors is assessed for effectiveness at intervals consistent with the importance, complexity and quantity of the product or service...."

Stone and Webster Millstone Unit 3 QA Program QAP Manual, Section 2, Revision C, states in Paragraph 1.6, "Sellers (subcontractor) employed at the site shall be required to comply with applicable parts of this program and use applicable Stone and Webster manuals and procedures or their own Stone and Webster approved manuals and procedures."

Contrary to the above on February 5, 1981, the inspector noted that the heating, ventilation and air conditioning subcontractor was performing safety related work using its unapproved QA manual and procedures and no objective evidence of complying with applicable S&W procedures was available.

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

- C. 10 CFR 50, Appendix F, Criterion II, states in part: "The applicant shall regularly review the status and adequacy of the quality assurance program."

The NUSCO QA Topical Report, Section 2.2.6, states, "A management review of the Program is conducted on an annual basis, by an independent audit group, to assess the scope, ..., effectiveness and to assure compliance to NRC licensing commitments," and "the Review Committee's findings of deficiencies and recommendations for program improvements are forwarded to ... who will ensure appropriate corrective action is taken."

NUSCO Procedure NEO 1.06, states in part, "The purpose of this procedure is to define the method of conducting an annual management review to assess the scope, status, implementation and effectiveness of the Northeast Utilities Quality Assurance Program"

Contrary to the above, on February 4, 1981, the inspector found that the licensee had not conducted annual management reviews in 1978 and 1979.

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

- D. 10 CFR 50, Appendix R, Criterion II, states in part: "The program shall provide for indoctrination and training of personnel performing activities affecting quality as necessary to assure that suitable proficiency is achieved and maintained."

Northeast Utilities QA Program Topical Report, Section 2.2.5, states in part: "A program is established and maintained for quality assurance indoctrination and training which provides confidence that the required level of personnel competence and skill is achieved and maintained in the performance of quality related activities."

Stone and Webster Quality Assurance Directive, QAD 2.5, Revision C, "Qualification and Certification of Personnel Performing QA Activities," Section 5.2.2 states in part: "Requests for and individual's certification shall originate from his supervisor and shall include sufficient supporting documents to attest to his prerequisite qualification."

Contrary to the above, as of January 28, 1981, the certifications of inspection personnel were issued prior to the actual evaluation and determination of the inspectors qualifications without sufficient supporting documentation by the inspector's supervisors. Adequate corrective action was taken during the inspection to correct this non-compliance and prevent recurrence. Therefore no response is required.

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

- E. 10 CFR 50, Appendix B, Criterion V states in part: "Activities affecting quality shall be prescribed by documented instructions, procedures or drawings of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures or drawings."

Northeast Utilities QA Program Topical Report, Section 6.2.4 states in part: "During the design and construction phase, the engineer-constructor, NUSCO suppliers and engineering service organizations are responsible for control of quality related procedures and instructions issued by them."

Stone and Webster QA Topical Report, Section 6, Paragraph 1.4 states in part: "Document control shall be accomplished in a manner which ensures timely inclusion of changes into the parent document."

Millstone Project Manual, Procedure NEAM-38, Revision 5, Section 9.0 states in part: "A document shall be revised and reissued within six months after the sixth E&DCR has been issued against the document, unless written approval of an extension has been granted by the Project Engineer."

Contrary to the above, as of January 30, 1981, Stone and Webster Specification 279 had eight E&DCRs issued against it. The sixth E&DCR was over two years old, the document had not been revised and/or reissued, and no objective evidence was available to show that an extension had been granted.

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

- F. 10 CFR 50, Appendix B, Criterion VI states in part: "These measures shall assure that documents, including changes, ... are distributed to and used at the location where the prescribed activity is performed."

Northeast Utilities QA Program Topical Report, Section 6.2.1, states in part: "During design and construction phase, the engineer-constructor, NUSCO contractors, suppliers and engineering service organizations are responsible for implementing measures for review, approval, control and distribution of controlled documents, to ensure they are effectively complying with the requirements for document control."

Stone and Webster Engineering Assurance Procedure EAP-6.1, Section 1.1, states in part: "To establish standard methods to insure that the latest issues of documents are distributed to, and used by personnel who need them to prevent the use of voided, superceded or cancelled documents."

Contrary to the above, the E&DCR #PS-2162, dated May 7, 1979, was not distributed and was not available to personnel who needed it for execution of work; consequently, Wall-G-7 in ESF Building was not constructed according to design requirements specified in the E&DCR.

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

- G. 10 CFR 50, Appendix B, Criterion III, states in part: "Measures shall be established to assure that applicable regulatory requirements and design basis ... are correctly translated into specifications, drawings, procedures and instructions. ... The design change measures shall provide for verifying or checking the adequacy of design ... performed by individuals or groups other than those who performed the original design, ...
... Design changes, including field changes, shall be subject to design control measures commensurate with those applied to the original design..."

Northeast Utilities QA Program Topical Report, Section 3.2.2, states in part: "... Design and specification changes are subject to design control measures commensurate with those applied during the original design," and Section 3.2.4, states in part: "Original designs and design modifications are reviewed for adequacy and the sign-off performed by a person other than the originator of the design."

Stone and Webster Engineering Corporation Standard Quality Assurance Program - SWSQAP, Section 3, Paragraph 1.5, states in part: "Design control measures shall include review and use of accepted industrial standards and practices, ... design reviews and selection and suitability of materials, parts, equipment or processes that are essential to the functions of structures, systems or components," and Paragraph 1.6, states: "Engineering drawings shall be reviewed by an individual other than originator, for adequacy of design."

SWSQAP, Appendix III, Glossary, states in part: "Verify - The act of proving that a function or requirement has been met by examining objective evidence..."


Contrary to the above, as of February 4, 1981:

- a. There was no objective evidence to show that the requirements of standard ACI-318-71 were objectively used as design inputs in the analysis of the effect of rebar substitution in E&DCR PS-2337.
- b. There were no engineering calculations to confirm the adequacy of the design change nor was there any objective evidence of an independent design verification.

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

Pursuant to the provisions of 10 CFR 2.201, Northeast Nuclear Energy Company, is hereby required to submit to this office within twenty-five days of the date of this Notice, a written statement or explanation in reply including: (1) the corrective steps which have been taken and the results achieved; (2) corrective steps which will be taken to avoid further violations; and, (3) the date when full compliance will be achieved. Under the authority of Section 182 of the Atomic Energy Act of 1954, as amended, this response shall be submitted under oath or affirmation.

Dated APR 23 1981



T. T. Martin, Acting Director,
Division of Engineering and
Technical Inspection

APPENDIX B

SIGNIFICANT OBSERVATIONS

Northeast Nuclear Energy Company
Hartford, Connecticut 06106

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

As a result of the inspection conducted on January 26-30, February 2-6 and February 18, 1981, the following significant observations were identified in the implementation of your design and construction program.

A. Construction Quality Assurance Staff

The NUSCO construction quality assurance organization assigned to MS-3 construction site apparently is not adequately staffed in number and by qualification to fully implement the commitments made in the QA Topical Report.

This observation is based on the following:

1. The licensee has not implemented audit requirements and commitments made in the QA Topical Report and implementing procedures. (Reference Appendix A of this report).
2. Assignment of QA auditors to functions/audits that are not consistent with their technical expertise. (Reference Paragraph 2.c(1)(a) of Report 81-02 Details).
3. Dilution of MS-3 Construction QA staff as a result of assigning auditors to audits of operating plants. (Reference Paragraph 2.a(3)(a) of Report 81-02 Details).
4. Unrecognized need by upper management for an increase in construction QA staff as a result of accelerated activities at MS-3. (Reference Paragraph 2.a(3)(a) of Report 81-02 Details).

B. Organization

The NUSCO organization structures and functions related to MS-3 construction, project management, and quality assurance require clarification and additional definition. This observation is based on the following:

1. The implemented jurisdiction (position) descriptions for project management have not been formally approved by management. (Reference Paragraph 4.c(1)(a) of Report 81-02 Details).
2. The implemented jurisdiction descriptions for Quality Assurance have not been formally approved. (Reference Paragraph 2.a(3)(b) of Report 81-02 Details).

3. Functional organization descriptions do not reflect the actual functioning of organizations. (Reference Paragraph 4.c(1)(a) of Report 81-02 Details).
4. The responsibility for stop work authorization is not clearly defined. (Reference Paragraph 4.c(1)(a) of Report 81-02 Details).

C. Design Controls

The control of design, including design verification, updating of design documentation, and control of field design is considered to be a major weakness in the program. This is based on the three noncompliances identified in Appendix A, Items E, F and G related to design documents and the lack of adequate procedural controls for field design of conduit supports. (Reference Paragraphs 3.a(3)(a) and 3.c(5) of Report 81-02 Details).

D. Training

The training of personnel at the MS-3 site was identified as a weakness based on deficiencies found in quality assurance and construction training programs. The need for improvement in training is an immediate concern due to the projected increase in work activities and manpower staffing levels in the very near future. The following items constitute the basis for a weakness in training.

1. Interviews with S&W crafts personnel indicated that all persons assigned to MS-3 had not received orientation training as required by project procedure. (Reference Paragraph 4.c(6)(b)).
2. Interviews with S&W construction management in relation to construction training and corrective action taken in response to S&W Audit 23 indicated additional emphasis is required on construction training. (Reference Paragraph 4.c(6)(b) of Report 81-02 Details).
3. Inadequate S&W training documentation to support qualifications of S&W inspection personnel. (Reference Appendix A, Item D and Paragraph 5.c(5)(a) of Report 81-02 Details).
4. Failure of NUSCO management to take effective corrective action in response to findings in the 1977 management review of the QA program. (Reference Paragraph 4.c.(6)(a) of Report 81-02 Details).
5. Inadequate training of a NUSCO QA auditor in relation to assigned inspection functions. (Reference Paragraph 2.c(1)(a) of Report 81-02 Details).

E. Regulatory Reporting

Regulatory reporting of potential construction deficiencies in accordance with 10 CFR 50.55(e) is considered a program weakness. This is based on:

1. the apparently excessive time for the licensee and his contractor to evaluate potential 50.55(e) conditions. (Reference Paragraph 4.c.(3) of Report 81-02 Details).
2. the inability of NUSCO to identify potential 50.55(e) conditions in a timely manner due to an inadequate program for review of S&W nonconformance reports. (Reference Paragraph 4.c.(3) of Report 81-02 Details).
3. inadequate attention by NUSCO to previously identified NRC concerns documented in IE Inspection Reports 80-07 and 80-04.