November 17, 1999

Mr. R. P. Necci - Vice President
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c/o Mr. David A. Smith
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SUBJECT: MILLSTONE NUCLEAR POWER STATION, UNIT NOS. 2 AND 3 - REQUEST FOR ADDITIONAL INFORMATION REGARDING ALTERNATIVE REQUIREMENTS FOR ASME CODE SECTION XI, 1998 EDITION (TAC NOS. MA5332 & MA5338)

Dear Mr. Necci:

By letter dated April 22, 1999, Northeast Nuclear Energy Company (NNECO) requested approval of an alternative to the requirements of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, Edition and Addenda, specified in 10 CFR 50.55a(b)(2) regarding the Code reference for the performance of Inservice Inspection on Class MC and Class CC components.

The U.S. Nuclear Regulatory Commission (NRC) staff has reviewed the request and supporting documentation and determined the need for additional information. The enclosed request for additional information has been provided to Messrs. Joshi and Dodson of your staff and it was agreed that the requested information would be provided by November 30, 1999, to facilitate our review.

If you have questions regarding this letter, please contact me on (301) 415-3041.

Sincerely,
ORIGINAL SIGNED BY:
Ronald B. Eaton, Senior Project Manager, Section 2
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-336
and 50-423

Enclosure: As stated

cc w/encl: See next page

Document Name: G:\PDI-2\Millstone2\raima5332.wpd

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NAME	REaton/vw	TClark	JClifford for
DATE	11/17/99	11/17/99	11/17/99
COPY	YES/NO	YES/NO	YES/NO

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

November 17, 1999

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Nuclear Oversight and Regulatory Affairs
c/o Mr. David A. Smith
Northeast Nuclear Energy Company
P. O. Box 128
Waterford, CT 06385

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Millstone Nuclear Power Station
Units 2 and 3

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Millstone Nuclear Power Station
Units 2 and 3

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REQUEST FOR ADDITIONAL INFORMATION
10 CFR 50.55a RELIEF REQUEST FOR CONTAINMENT INSPECTION
MILLSTONE UNITS 2 & 3

REF.: Letter from R. P. Necci (NNECO) to NRC Document Control Desk, "Proposed Alternative to the Requirements of Subsections IWE and IWL of the ASME Code," April 22, 1999.

1. The 1998 Edition of the ASME Code Section XI generally refers to IWA-2000, Examination and Inspection, when defining the general requirements for examinations to be performed, and for the qualification of examination personnel. The licensee's proposed alternative removes the IWA-2300 requirement to certify NDE personnel to CP-189. In addition, new Code examinations (General Visual and Detailed Visual) have been introduced. The definition of the new Code examinations has been left up to individual licensees, and a licensee would be allowed to define how personnel performing these examinations are to be qualified. It is presently unclear how owner-defined visual examination programs, including items such as illumination and resolution requirements, acceptance criteria, and minimum personnel qualifications, may be individually developed and the necessary level of consistency maintained industry-wide.

   To establish that the proposed alternative provides an acceptable level of quality and safety, details of the Millstone General and Detailed Visual examination program, addressing both IWE and IWL components, must be evaluated. Please submit the visual examination program, including attributes such as:

   - Detail the owner-defined General Visual acceptance criteria that will be used to examine general containment surfaces (concrete and steel), containment welds, bolting, moisture barriers, dissimilar metal welds, etc.

   - You stated that the detailed and general visual examinations are equivalent to existing VT-1 and VT-3 examinations, respectively. However, you have not specifically committed to the VT-1 and VT-3 requirements or acceptance criteria. Will the detailed visual examination incorporate existing VT-1 and VT-3 examination requirements? If so, will the personnel performing these examinations be VT-1 or VT-3 qualified? If existing VT-1 or VT-3 requirements will not be used, describe the detailed criteria used to address augmented examinations.

   - Discuss how the detailed and general examinations will provide the same level of quality and safety that is provided by the VT-1 and VT-3 examinations required by the 1992 Edition and Addenda.

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- Describe the qualification requirements for personnel performing containment visual and ultrasonic examinations. Other licensee's are meeting the requirements of CP-189 or an equivalent level of qualification.

- Describe the requirements for qualifying the IWE visual examination procedures to be performed and how illumination and resolution requirements will be established and implemented consistently.

2. The IWE-2500(b) requirement to examine paint or coatings prior to removal has been eliminated from the 1998 Edition. Alternatives to this requirement have been found to be acceptable when adequate provisions exist, in either the licensee's Containment Inspection, Repair/Replacement, Nuclear Coatings, or ISI Programs, to examine the base metal for surface anomalies that may indicate underlying conditions which could challenge the structural integrity of containment. The examinations should be performed prior to re-application of the coating, and should invoke detailed visual examinations (e.g., VT-1 or VT-3) and/or augmented ultrasonic examination, as necessary. In addition, the base metal examination should be performed by qualified inspection personnel. Provide specific information addressing how the integrity of the base metal is confirmed prior to paint or coating application.

3. In IWE-3511.3 (1998), acceptance criteria for material loss has not been defined for metallic liners of Class CC pressure retaining components. Therefore, the 1998 Code does not provide an acceptable level of quality and safety in this area. Other plants have continued to implement the requirements of the 1992 Code. Discuss the ultrasonic examination requirement and associated acceptance criteria that will be used for Class CC metallic liners at Millstone Units 2 and 3.

4. Examination Category E-G, Pressure Retaining Bolting, has been removed from Table IWE-2500-1. The 1992 Edition required VT-1 visual examination of bolting when a connection was disassembled. The 1998 Edition requires a general visual examination, performed in place, with no requirement for visual examination when the joint is disassembled. It is not clear what, if any, examinations will be performed on disassembled bolted connections. If VT-1 examinations are not intended, you should provide an argument for why not performing a VT-1 visual examination of the bolting, when disassembled, provides an acceptable (equivalent) level of quality and safety.

5. In Paragraph IWE-2600, part (b), the 1998 Code has removed the sentence that states that reapplied paint and coating systems shall be compatible with the existing system and shall be examined in accordance with IWE-2200(g). This change has been considered acceptable when compatibility and preservice examination are addressed in the Nuclear Coatings program. You should provide specific information describing how these requirements will be met and confirm that the existing coating program provides an acceptable level of quality and safety.

6. IWL-2410, allows for deferral of concrete visual exams to the next scheduled plant outage for portions of the concrete surface which cannot be examined within the stated time interval. This can be considered acceptable provided credit for the examination is not taken for two intervals simultaneously. The licensee needs to confirm this.

7. IWA-2210 specifies illumination and resolution requirements for Subsection IWL visual examinations; while 10 CFR 50.55a(b)(x)(B) mandates a qualification of the remote visual examination procedure for Subsection IWE. The staff believes it to be technically prudent to perform this same type of procedure qualification for Subsection IWL remote visual examinations. One method may be to use the guidelines established in ACI 349.3R-96, "Evaluation of Existing Nuclear Safety-Related Concrete Structures." This document provides acceptance criteria for concrete structures and, by default, establishes the minimum detectable flaw size for direct and remote visual examination procedure qualification. The second-tier acceptance criteria has been found to be acceptable for use at other plants. You may establish acceptance criteria for evaluating concrete containments and qualify the remote visual examination procedure accordingly. Provide plant-specific information that is used to qualify the remote visual examination procedure for the concrete containment.

8. Table IWL-2500-1 of the 1998 Code Edition requires "General Visual Examination" for item L1.12 (suspect area). The 1992 Addenda of the Code requires VT-1 examination. The Code committee has recognized the error in the 1998 Code Edition. Please confirm what you plan to use.