



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATING TO REQUEST FOR USE OF AN ALTERNATIVE VISUAL EXAMINATION
CONNECTICUT YANKEE ATOMIC POWER COMPANY

AND

NORTHEAST NUCLEAR ENERGY COMPANY
HADDAM NECK PLANT AND MILLSTONE NUCLEAR POWER STATION, UNITS 2 AND 3
DOCKET NUMBERS: 50-213, 50-336, AND 50-423

1.0 INTRODUCTION

Technical Specification 4.0.5 for the Haddam Neck Plant, and Millstone Nuclear Power Station, Units 2 and 3, states that inservice inspection and testing of the American Society of Mechanical Engineers (ASME) Code Class 1, 2, and 3 components shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as required by 10 CFR 50.55a(g), except where specific written relief has been granted by the Commission pursuant to 10 CFR 50.55a(g)(6)(i). The Code of Federal Regulations at 10 CFR 50.55a(a)(3) states that alternatives to the requirements of paragraph (g) may be used, when authorized by the NRC, if (i) the proposed alternatives would provide an acceptable level of quality and safety, or (ii) compliance with the specified requirements would result in hardship or unusual difficulties without a compensating increase in the level of quality and safety.

Pursuant to 10 CFR 50.55a(g)(4), ASME Code Class 1, 2, and 3 components (including supports) shall meet the requirements, except the design and access provisions and the preservice examination requirements, set forth in the ASME Code, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," to the extent practical within the limitations of design, geometry, and materials of construction of the components. The regulations require that inservice examination of components and system pressure tests conducted during each 10-year interval comply with the requirements in the latest edition and addenda of Section XI of the ASME Code incorporated by reference in 10 CFR 50.55a(b) on the date 12 months prior to the start of the 120-month inspection interval, subject to the limitations and modifications listed therein. The components (including supports) may meet the requirements set forth in subsequent editions and addenda of the ASME Code incorporated by reference in 10 CFR 50.55a(b) subject to the limitations and modifications listed therein.

Pursuant to 10 CFR 50.55a(g)(5), if the licensee determines that conformance with an examination requirement of Section XI of the ASME Code is not practical for its facility, information shall be submitted to the Commission in support of that determination and a request made for relief from the ASME Code requirement. After evaluation of the determination, pursuant to 10 CFR 50.55a(g)(6)(i), the Commission may grant relief and may impose alternative requirements that are determined to be authorized by law, will not endanger life, property, or the common defense and security, and are otherwise in the public interest, giving due consideration to the burden upon the licensee that could result if the requirements were imposed.

By letter dated August 24, 1992, the licensees, Connecticut Yankee Atomic Power Company (CYAPCO) and Northeast Nuclear Energy Company (NNECO) have prepared requests for approval to apply a portion of the ASME Code Section XI, 1986 Edition, as it pertains to visual examination methods at the Haddam Neck Plant and Millstone Nuclear Power Station, Units 2 and 3. The licensees did not include Millstone Nuclear Power Station, Unit 1 in its request because the unit is in its Third Ten-Year Interval ISI Program Plan utilizing the 1986 Edition of the Code. The staff has evaluated the licensees' request to use alternative visual examination methods, and their evaluations and conclusions are discussed in the following sections.

2.0 EVALUATION

Request for Relief Dated 08/24/92 Visual Examinations Categories VT-3 and VT-4

Code Requirement: Article IWA-2213 "Visual Examinations VT-3" requires that visual examinations shall be conducted to determine the general mechanical and structural conditions of components and their supports, such as the presence of loose parts, debris, or abnormal corrosion products, wear, erosion, corrosion, and the loss of integrity at bolted or welded connections. Article IWA-2214 "Visual Examinations VT-4" requires that examinations shall be conducted to determine conditions relating to the operability of components or devices such as mechanical and hydraulic snubbers, component supports, pumps, valves, and spring loaded and constant weight hangers.

Licensees' Code Request: Approval is requested to authorize Visual Examinations VT-3 and VT-4 to be combined into a single visual examination category VT-3 as delineated in the 1986 Edition of the Code.

Licensees' Basis for Requesting Relief: The licensees stated that the 1986 Code has modified the four visual examination categories. This modification has resulted in the combination of Visual Examinations VT-3 and VT-4 into visual Examination VT-3. It is this portion of the 1986 ASME Code that the

licensees have requested to use. The licensees also stated that they will not change their current ASME Code, Section XI commitments and will still schedule and require VT-4 examinations in the inservice inspection program. However, the licensees are also proposing to use Northeast Nuclear Energy Company (NNECO), Connecticut Yankee Atomic Power Company (CYAPCO) or Northeast Utilities Service Company qualified Visual Examinations VT-3 personnel (who are qualified to do the operability testing) for both Visual Examinations VT-3 and VT-4 method requirements. NNECO and CYAPCO believe this is appropriate since the 1986 Edition of the Code has deleted the Visual Examination VT-4 requirements and has included the deleted material into the Visual Examination VT-3 Section.

Licensees' Proposed Alternative Examination: The licensees propose as an alternative examination a single VT-3 as described in the 1986 Code instead of VT-3 and VT-4 of the current Code for each plant respectively.

Staff Evaluation: The Code visual inspection category VT-3 requires that visual examinations shall be conducted to determine the general mechanical and structural conditions of components and their supports, and the Code visual inspection category VT-4 requires that examinations shall be conducted to determine conditions relating to the operability of components or functional adequacy of devices such as mechanical and hydraulic snubbers, component supports, pumps, valves, and spring loaded and constant weight hangers. Changes in the requirements were made in the 1984 Winter Addenda, of the 1983 Code Edition and did not apply to the applicable Codes for the current ISI Program Plans for Millstone, Units 2 and 3, and Haddam Neck. Although the early Code editions specifically state that a Visual Examination VT-4 requires disassembly of components or devices, there is no substantial difference between the visual examinations VT-3 requirements in the 1986 Edition of the Code and the attributes in both the VT-3 and VT-4 visual examinations in Code Editions (Millstone 2 - 80W81, Millstone 3 - 83S83, and Haddam Neck - 83S83) applicable to each plant's inservice inspection program plan. The 1986 Code Edition has been approved by the NRC and is listed in 10 CFR 50.55a(b)(2). The licensee's proposed use of the IWA-2213 "Visual Examination" VT3 in the 1986 Code Edition provides an acceptable level of quality and safety, and reasonable assurance that the structural integrity of the plant's systems, components, and supports will be maintained. In addition, the staff finds that the performance of the required inspections will insure that all related requirements of the respective editions or addenda are met.

3.0 CONCLUSION

Pursuant to 10 CFR 50.55a(g)(4)(iv), the licensee's request to use the 1986 Edition of the Code, Article IWA-2213 "Visual Examination VT-3" as a subsequent Edition of the Code may be approved as requested, provided that all related requirements of the respective editions or addenda are met.

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