



**Northeast  
Nuclear Energy**

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The Northeast Utilities System

OCT 22 1999

Docket No. 50-336  
B17870

RE: 10 CFR 50.55a(a)(3)(i)

U. S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, DC 20555

Millstone Nuclear Power Station, Unit No. 2  
Request to Use an Alternative to ASME Code Section XI  
Code Case N-532

Pursuant to the provisions of 10 CFR 50.55a(a)(3)(i), Northeast Nuclear Energy Company (NNECO) hereby requests permission to use an alternative to the ASME Boiler and Pressure Vessel Code, Section XI, 1989 Edition. Specifically, NNECO requests to utilize Code Case N-532 "Alternative Requirements to Repair and Replacement Documentation Requirements and Inservice Summary Report Preparation and Submission as required by IWA-4000, IWA-6000, Section XI, Division 1," for the Millstone Unit No. 2 Third 10-Year Interval Inservice Inspection (ISI) Program Plan as detailed in Relief Request RR-89-22 (Attachment 1). This request incorporates two clarifications: the first regarding the reporting of corrective measures that are not related to Repair and Replacement (R&R) activities; and the second, a clarification related to the requirements to use the provisions of IWA-4140 of the 1992 Edition of Section XI.

Code Case N-532 (Attachment 2) provides an alternative to the 1989 Edition of ASME Section XI, R&R documentation requirements as well as regulatory reporting requirements relating to ISI. This alternative will reduce the resources required to prepare NIS-2 Forms and prepare and submit the ISI Summary Report including the NIS-1 Form currently required after each refueling outage. This is a significant reduction in administrative burden required by IWA-6000. The use of this Code Case only effects documentation and reporting requirements and does not effect the level of quality or safety provided by the R&R and ISI programs, and therefore, NNECO considers this request to meet the provisions of 10 CFR 50.55a(a)(3)(i) as providing an acceptable level of quality and safety.

Code Case N-532 was approved by the ASME Boiler and Pressure Vessel Code Committee on December 12, 1994, but is not included in the most recent listing of NRC

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approved Code Cases in Revision 12 of USNRC Regulatory Guide 1.147, "Inservice Inspection Code Case Acceptability - ASME Section XI Division 1," dated May 1999. However, use of this Code Case has been recommended in the NRC Staff approved version of the Westinghouse Owners Group WCAP-14572, Revision 1-NP-A, "Westinghouse Owners Group Application of Risk-Informed Methods to Piping Inservice Inspection Topical Report" dated February, 1999.

During the Third 10-Year Interval, NNECO plans to use Code Case N-532 with the clarifications requested, subject to NRC approval, until such time this Code Case is incorporated into a future revision of Regulatory Guide 1.147. Upon issuance of a future revision of Regulatory Guide 1.147, NNECO will follow all provisions in Code Case N-532 with the clarifications requested, including exceptions or limitations imposed within the future revision of the Regulatory Guide.

Implementation of this Code Case will be on a phased in approach. Upon NRC approval, NNECO will use existing NIS-2 Forms documenting Repairs and Replacements performed since the last refueling outage 2R12 until internal procedure changes are in place to use the new NIS-2A Forms within our R&R Plans. All NIS-2 Forms generated since the last refueling outage and new R&R Plans with new NIS-2A Forms will be listed by the unique identification number required under paragraph 1(b) of the Code Case. This unique identification number is the Automated Work Order (AWO) number. This AWO number will be listed in Table 3 of OAR-1 for the applicable R&R Plans as the unique R&R Plan Number. Full documentation compliance with the Code Case for Millstone Unit No. 2 would begin prior to the start of 2R13.

Approval of this request is needed by December 2000.

There are no regulatory commitments contained within this letter.

Should you have any questions regarding this matter, please contact Mr. D. W. Dodson at (860) 447-1791, extension 2346.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

FOR: Raymond P. Necci  
Vice President - Nuclear Oversight and  
Regulatory Affairs

BY: 

\_\_\_\_\_  
David A. Smith  
Manager - Regulatory Affairs

U.S. Nuclear Regulatory Commission  
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Attachments: (2)

1. Relief Request RR-89-22
2. ASME Code Case N-532

cc: H. J. Miller, Region I Administrator  
R. B. Eaton, NRC Senior Project Manager, Millstone Unit No. 2  
D. P. Beaulieu, Senior Resident Inspector, Millstone Unit No. 2

Docket No. 50-336  
B17870

Attachment 1

Millstone Nuclear Power Station, Unit No. 2

Relief From In-Service Inspection Requirements  
Request To Use Code Case N-532 As An Alternative To ASME Section XI  
Relief Request RR-89-22

October 1999

Attachment 1

**Request To Use**  
**Code Case N-532 As An Alternative To ASME Section XI**

**Relief Request:** RR-89-22

**Code Class:** 1, 2, and 3

**Code Category:** All

**Item No.:** All

**Code Requirement:**

Section XI of the ASME B&PV Code, 1989 Edition, requires that an Inservice Inspection Summary Report containing documentation of ISI and R&R activities be submitted to the NRC within 90 days of the completion ISI conducted during each refueling outage. Requirements for actual documentation submitted are contained in IWA-4000, and IWA-6000.

**Code Relief Requested:**

Pursuant to the provisions of 10 CFR 50.55a(a)(3)(i), relief is requested to utilize the alternative requirements of Code Case N-532 "Alternative Requirements to Repair and Replacement Documentation Requirements and Inservice Summary Report Preparation and Submission as Required by IWA-4000 and IWA-6000, Section XI, Division 1," for the Millstone Unit No. 2 Third 10-Year Interval Inservice Inspection (ISI) Program Plan with two clarifications: the first regarding the reporting of corrective measures that are not related to Repair and Replacement (R&R) activities; and a second clarification related to the requirements to use the provisions of IWA-4140 of the 1992 Edition of Section XI.

This first clarification needed to use Code Case N-532 regards compliance with the Code Case in the matter of reporting of "corrective measures." ASME Section XI uses the term, "corrective measures," in two different ways. One use of the term involves Code required activities such as repair or replacement. The other use of the term, as used in IWX-3000, involves maintenance activities that do not involve repair or replacement activities. With this understanding NNECO

proposes not to report "corrective measures" which are performed during routine maintenance activities such as tightening threaded fittings to eliminate leakage, torquing of fasteners to eliminate leakage at bolted connections, replacing valve packing due to unacceptable packing leakage, tightening loosened mechanical connections on supports, adjustment and realignment of supports, or cleanup of corrosion on components resulting from leakage, etc. Including these routine maintenance activities in the OAR-1 Form required by the Code Case would be a significant expansion of current requirements. In addition, it would be an unnecessary reporting burden and would provide little benefit for the experience gained. Reporting of these minor maintenance corrective measures has no safety significance and clutters the reporting of the meaningful information from repairs, replacements, or evaluations performed to accept flaws or relevant conditions exceeding the Section XI acceptance criteria. Corrective measures that refer to Code required activities, such as repairs or replacements, will be reported in compliance with Code Case N-532. Therefore, use of Code Case N-532 is requested with the above clarification regarding the provisions of paragraph 2 (c) for reporting corrective measures.

The second clarification centers on the requirement in the Code Case under paragraph 1 (b) that the Repair/Replacement Plan shall be prepared in accordance with IWA-4140 of the 1992 Edition of Section XI. The Millstone Unit No. 2 Repair and Replacement Program is documented in Millstone Station Procedure WC 3, "ASME Section XI Repair and Replacement Program" and is currently written to the 1989 Edition of Section XI with an exception for Repairs/Replacements of containment structures under Subsection IWE, "Requirements for Class MC and Metallic Liners of Class CC components of Light-Water Cooled Plants," and Subsection IWL, "Requirements for Class CC Concrete Components of Light-Water Plants" where the procedure requires the use of the 1992 Edition with the 1992 Addenda. The requirements in this procedure for a Repair/Replacement Plan currently contains all the attributes described in IWA-4140 of the 1992 Edition, but NNECO has no plans to update this procedure fully to the 1992 Edition at this time. Therefore, the clarification requested is that use of this Code Case is acceptable provided NNECO continues to use Repair/Replacement Plan requirements that meet IWA-4140 of the 1992 Edition of Section XI, but is not required to update the entire Repair and Replacement Program to the 1992 Edition.

### **Reason for Relief**

Code Case N-532 provides an alternative to the 1989 Edition of ASME Section XI, R&R documentation requirements as well as regulatory reporting requirements relating to the ISI program. Implementation of this alternative will reduce the resources required to prepare NIS-2 Forms and to prepare and submit the ISI Summary Report (including the NIS-1 Form) currently required after each refueling outage. This is a significant reduction in administrative burden required by IWA-6000. Additionally, use of this Code Case has been recommended in the Westinghouse Owners Group WCAP-14572, Revision 1-

NP-A, "Westinghouse Owners Group Application of Risk-Informed Methods to Piping Inservice Inspection Topical Report" dated February 1999, which was approved by the NRC. Millstone Unit No. 2 plans to pursue use of WCAP-14572, Revision 1-NP-A in the first quarter of 2000. The use of Code Case N-532 would only effect documentation and reporting requirements and would not effect the level of quality or safety provided by the R&R and ISI programs. Therefore, NNECO considers this request to meet the provisions of 10 CFR 50.55a(a)(3)(i) as providing an acceptable level of quality and safety.

### **Proposed Alternative**

During the Third 10-Year Interval, NNECO plans to use Code Case N-532 with the clarifications requested, subject to NRC approval, until such time this Code Case is incorporated into a future revision of Regulatory Guide 1.147. Upon issuance of the Regulatory Guide, NNECO will follow all provisions in Code Case N-532 with the clarifications requested, including any exceptions or limitations as would be discussed in the Regulatory Guide.

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Attachment 2

Millstone Nuclear Power Station, Unit No. 2  
ASME Code Case N-532

October 1999



Attachment 2

**ASME Code Case N-532**

CASE  
N-532

CASES OF ASME BOILER AND PRESSURE VESSEL CODE

Approval Date: December 12, 1994

See Numeric Index for expiration  
and any reaffirmation dates.

Case N-532  
Alternative Requirements to Repair and  
Replacement Documentation Requirements and  
Inservice Summary Report Preparation and  
Submission as Required by IWA-4000 and  
IWA-6000<sup>1</sup>  
Section XI, Division 1

*Inquiry:* What alternatives may be used to the requirements of IWA-4910(d) and IWA-6210(e) for completion of Form NIS-2 following repair or replacement, and IWA-6210(c) and (d), IWA-6220, IWA-6230(b), (c), and (d), and IWA-6240(b) for preparation and submittal of the inservice summary report and Form NIS-1?

*Reply:* It is the opinion of the Committee that as an alternative to the requirements of IWA-4910(d), IWA-6210(c), (d), and (e), IWA-6220, IWA-6230(b), (c), and (d), and IWA-6240(b), the following provisions may be used. This Case shall be utilized at least until the end of the inspection period in which it was invoked.

**1.0 CERTIFICATION OF THE REPAIR OR REPLACEMENT**

(a) The Owner's Repair/Replacement Program shall identify use of this Case.

(b) A Repair/Replacement Plan shall be prepared in accordance with IWA-4140<sup>1</sup>, and shall be given a unique identification number.

(c) Upon completion of all required activities associated with the Repair/Replacement Plan, the Owner shall prepare a REPAIR/REPLACEMENT CERTIFICATION RECORD, FORM NIS-2A.

(d) Form NIS-2A shall be presented to the Inspector for certification.

(e) The completed Form NIS-2A shall be maintained by the Owner.

(f) The Owner shall maintain an index of Repair/Replacement Plans in accordance with IWA-6340. The index shall identify the identification number required by (b) above the inspection interval and period during which each repair or replacement was completed.

**2.0 OWNER'S ACTIVITY REPORT PREPARATION AND SUBMITTAL**

An OWNER'S ACTIVITY REPORT FORM OAR-1 shall be prepared and certified upon completion of each refueling outage. Each Form OAR-1 prepared during an inspection period shall be submitted following the end of the inspection period. Each Form OAR-1 shall contain the following:

(a) Abstract of applicable examinations and tests with the information and format of Table 1.

(b) A listing of item(s) with flaws or relevant conditions that required evaluation to determine acceptability for continued service, whether or not the flaw or relevant condition was discovered during a scheduled examination or test. The listing shall provide the information in the format of Table 2.

(c) Abstract for repairs, replacements and corrective measures performed, which were required due to an item containing a flaw or relevant condition that exceeded IWB-3000, IWC-3000, IWD-3000, IWE-3000, IWF-3000, or IWL-3000 acceptance criteria; even though the discovery of the flaw or relevant condition that necessitated the repair, replacement or corrective measure, may not have resulted from an examination or test required by this Division. If acceptance criteria, for a particular item is not specified in this Division, the provisions of IWA-3100(b) shall be used to determine which repairs, replacements, and corrective measures are required to be included in the abstract. The abstract shall provide the information in the format of Table 3.

<sup>1</sup>All references to IWA-4000 and IWA-6000 used in this Case refer to the 1992 Edition.

CASE (continued)

N-532

CASES OF ASME BOILER AND PRESSURE VESSEL CODE

FORM NIS-2A REPAIR/REPLACEMENT CERTIFICATION RECORD

OWNER'S CERTIFICATE OF CONFORMANCE

I certify that the \_\_\_\_\_ represent by Repair/Replacement  
repair or replacement

Plan number \_\_\_\_\_ conforms to the requirements of Section XI.

Type Code Symbol Stamp \_\_\_\_\_

Certificate of Authorization No. \_\_\_\_\_ Expiration Date \_\_\_\_\_

Signed \_\_\_\_\_ Date \_\_\_\_\_  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of \_\_\_\_\_ and employed by \_\_\_\_\_

of \_\_\_\_\_ have inspected the items described in Repair/Replacement Plan number \_\_\_\_\_ during the period \_\_\_\_\_ to \_\_\_\_\_ and state that to the best of my knowledge and belief, the Owner has performed all the activities described in the Repair/Replacement Plan in accordance with the requirements of Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the activities described in the Repair/Replacement Plan. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Inspector's Signature \_\_\_\_\_ Commissions \_\_\_\_\_ National Board, State, Province, and Endorsements \_\_\_\_\_

Date \_\_\_\_\_

This form (E00126) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

CASES OF ASME BOILER AND PRESSURE VESSEL CODE

FORM OAR-1 OWNER'S ACTIVITY REPORT

Report Number \_\_\_\_\_

Owner \_\_\_\_\_ (Name and Address of Owner)

Plant \_\_\_\_\_ (Name and Address of Plant)

Unit No. \_\_\_\_\_ Commercial service date \_\_\_\_\_ Refueling outage no. \_\_\_\_\_  
(if applicable)

Current inspection interval \_\_\_\_\_ (1st, 2nd, 3rd, 4th, other)

Current inspection period \_\_\_\_\_ (1st, 2nd, 3rd)

Edition and Addenda of Section XI applicable to the inspection plan \_\_\_\_\_

Date and revision of inspection plan \_\_\_\_\_

Edition and Addenda of Section XI applicable to repairs and replacements, if different than the inspection plan \_\_\_\_\_

CERTIFICATE OF CONFORMANCE

I certify that the statements made in this Owner's Activity Report are correct, and that the examinations, tests, repairs, replacements, evaluations, and corrective measures represented by this report conform to the requirements of Section XI.

Certificate of Authorization No. \_\_\_\_\_ Expiration Date \_\_\_\_\_  
(if applicable)

Signed \_\_\_\_\_ Date \_\_\_\_\_  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of \_\_\_\_\_ and employed by \_\_\_\_\_ of \_\_\_\_\_ have inspected the items described in this Owner's Activity Report, during the period \_\_\_\_\_ to \_\_\_\_\_, and state that to the best of my knowledge and belief, the Owner has performed all activities represented by this report in accordance with the requirements of Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations, tests, repairs, replacements, evaluations and corrective measures described in this report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from the connected with this inspection.

Inspector's Signature \_\_\_\_\_ Commissions \_\_\_\_\_ National Board, State, Province, and Encorsements

Date \_\_\_\_\_

This form (E00127) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

CASE (continued)

N-532

CASES OF ASME BOILER AND PRESSURE VESSEL CODE

TABLE 1  
 ABSTRACT OF EXAMINATIONS AND TESTS

Examination Category	Total Examinations Required for The Interval	Total Examinations Credited for This Period	Total Examinations Credited (%) For The Period	Total Examinations Credited (%) To Date for The Interval	Remarks
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TABLE 2  
 ITEMS WITH FLAWS OR RELEVANT CONDITIONS THAT  
 REQUIRED EVALUATION FOR CONTINUED SERVICE

Examination Category	Item Number	Item Description	Flaw Characterization (IWA-3300)	Flaw or Relevant Condition Found During Scheduled Section XI Examination or Test (Yes or No)
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TABLE 3  
 ABSTRACT OF REPAIRS, REPLACEMENTS, OR CORRECTIVE MEASURES  
 REQUIRED FOR CONTINUED SERVICE

Code Class	Repair, Replacement, or Corrective Measure	Item Description	Description of Work	Flaw or Relevant Condition Found During Scheduled Section XI Examination or Test (Yes/No)	Date Completed	Repair/ Replacement Plan Number
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