

Indian Point 3  
Nuclear Power Plant  
P.O. Box 215  
Buchanan, New York 10511  
914 736.8001



Robert J. Barrett  
Site Executive Officer

May 7, 1997  
IPN-97-058

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

Subject: Indian Point 3 Nuclear Power Plant  
Docket No. 50-286  
**Response to NRC Request For Additional Information Regarding  
Request For Relief From ASME Section XI Code - Implementation  
Schedule For Containment Repair / Replacement Requirements**

- References:
1. NRC letter, G. F. Wunder to James Knubel, NYPA, "Request For Additional Information - Request For Relief From ASME Section XI Code Regarding Implementation Schedule For Containment Repair / Replacement Requirements," (TAC No. M9806), dated April 28, 1997.
  2. NYPA letter, W. J. Cahill, Jr. to NRC (IPN-97-011), "Request for Relief from ASME Section XI Code Regarding Implementation Schedule for Containment Repair / Replacement Requirements," dated January 29, 1997.

Dear Sir:

This letter provides a response to the NRC's Request for Additional Information (Reference 1) regarding the Authority's schedular relief request (Reference 2) from the primary containment repair and replacement provisions of the 1992 Edition of ASME Section XI, Subsections IWE and IWL. The attachment to this letter provides the information requested.

This edition of the ASME Code was incorporated by an amendment to NRC regulation 10 CFR 50.55a. The relief request would defer the implementation date for the containment repair and replacement provisions by one year until September 9, 1997. Change in the implementation date will accommodate procedural and programmatic revisions, and the training and qualification of personnel. An accelerated review and approval is requested for this matter since the plant is scheduled to enter a refueling outage on May 17, 1997.

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There are no commitments made by the Authority in this letter. If you have any questions, please contact Ms. C. Faison at (914) 681-6306.

Very truly yours,



R. J. Barrett  
Site Executive Officer  
Indian Point 3 Nuclear Power Plant

Attachment: as stated

cc: Regional Administrator  
U.S. Nuclear Regulatory Commission  
475 Allendale Road  
King of Prussia, PA 19406

Resident Inspector's Office  
Indian Point Unit 3  
U.S. Nuclear Regulatory Commission  
P.O. Box 337  
Buchanan, NY 10511

Mr. George F. Wunder, Project Manager  
Project Directorate I-1  
Division of Reactor Projects - I/II  
U.S. Nuclear Regulatory Commission  
Mail Stop 14 B2  
Washington, DC 20555

**RESPONSE TO NRC REQUEST FOR ADDITIONAL INFORMATION (RAI)  
RELATED TO RELIEF REQUEST FROM IMPLEMENTATION OF  
10 CFR 50.55a CONTAINMENT REPAIR/REPLACEMENT REQUIREMENTS  
INDIAN POINT NUCLEAR GENERATING UNIT NO. 3**

**RAI Item 1**

The licensee stated the relief request was "to accommodate procedural and possible personnel qualification changes needed to implement the provision". The staff indicated that this does not seem to be any indication of "unusual difficulty" or "hardship" that would require 1-year to implement the rule for repair and replacement (R/R) activities. The licensee was asked to provide a realistic assessment of how far you are in implementing Section XI Articles IWE-4000, IWL-4000, IWE-7000, IWL-7000 for R/R activities, and what factors prevent the licensee from implementing them immediately.

**Response to RAI Item 1 (Hardship Issue):**

The Authority initially requested, on January 29, 1997, the implementation of the repair and replacement provisions of the 1992 Section XI, Subsections IWE & IWL be deferred by one year from September 9, 1996 to September 9, 1997, based on an initial outage date of about Mid-April, 1997. A relief from the NRC to defer the implementation of the code provisions would allow the Authority sufficient time to provide appropriate resources to develop, train necessary personnel, and implement a containment repair/replacement program with minimal impact on the refueling outage.

The IP3 ISI program for Class 1, 2, and 3 components and their supports is based on ASME Section XI, 1983 Edition including the 1983 Summer Addenda. The classification of systems and their components is based on requirements in 10 CFR 50.55(a) and Regulatory Guide 1.26. The 1992 Edition including the Addenda, IWE-1220(d) requires that all piping, pumps, and valves that are part of the containment system, or which penetrate or are attached to the containment vessel be examined in accordance with the rules of IWB or IWC. This would require the portion of piping systems (up to the first isolation on either side of the containment) that penetrates the containment for all Class 3 systems (such as Service Water, Component Cooling, etc.) and other non-code class systems (such as Instrument Air, Station Air, Nitrogen, Weld Channels, etc.) be upgraded to either ISI Class 1 or Class 2 for purpose of examination for any repair/replacement activities. Implementation of the rule requires: identification and re-classification of the applicable ISI boundaries for engineering, design and planning personnel (drawing development, preparation, and issuance); revision of applicable plant programs and procedures related to maintenance and modification work packages preparation; review and/or revision of all work packages for the upcoming refueling outage to determine the potential impact of the activity relative to repair and replacement rules implemented by the Code in Subsections IWE and IWL. Additional time is needed to accommodate these tasks.

Similarly, the ISI program defines the VT-1 and VT-3 examinations and includes all factors necessary to qualify the examiners and assure the examinations are performed to the highest quality levels (in accordance with the 1983 Section XI and 1980 Edition of SNT-TC-1A). The imposition of 1992 Code requirements (ANSI/ASNT CP-189, 1991 Edition) for containment would necessitate a separate administrative program including procedures, certification tests and record keeping requirements, which would merely parallel the existing program with no benefit to quality. The existing program is the same as used on the reactor vessel and other Class 1 components, and continues to prove effective. Implementing and maintaining two separate programs for similar inspections is a significant burden at this time to the Authority, and would not provide a compensatory increase in the level of quality and safety.

For authorized inspection, the third party inspection agency (Hartford Steam Boiler Inspection and Insurance Co.) does not currently have inspectors qualified for concrete inspection (VT-1C and VT-3C). Should a concrete repair situation arise during our refueling outage, there are no VT-1C or VT-3C qualified personnel and third party inspectors available to the Authority at this time to perform the 1992 IWL Code required inspections, thus preventing the completion and acceptance of code repair/replacement activities and the NIS-2 reports. The Authority understands that this is an industry-wide situation. Although the qualification of the authorized inspector is the responsibility of the authorized inspection agency, the Authority has encouraged Hartford to obtain any additional qualification that would be required to implement Subsections IWE and IWL. EPRI is in the process of developing qualification program guidelines for VT-1C and VT-3C. In the interim, the Authority will address any concrete repair (or restoration) issues in accordance with its corrective action program. Experienced individuals will be utilized to inspect, evaluate, and perform the required repair/replacement activities. In light of the lack of certification requirements and the required inspection personnel at this time, the Authority may submit separately, a relief request for deferral of the VT-1C and VT-3C certification requirements beyond September 9, 1997.

Indian Point 3 is currently scheduled to begin its refueling outage on May 17, 1997. A revision to its ASME Section Repair/Replacement program at this time to incorporate the provisions of the 1992 ASME Section XI, Subsections IWE and IWL would have a significant negative impact on IP3's outage schedule. A significant diversion of its resources would be required: to review all outage related modifications and maintenance repair/replacement activities and the thousands of associated outage work packages (many were initiated prior to the issuance of the rule change) for potential impact of the planned activities relative to repair and replacement rules implemented by the Code in Subsections IWE/IWL; training of maintenance, engineering and design personnel; training and qualification of NDE personnel; review, preparation and incorporation of a repair/replacement program to the 1992 Code requirements; review and revise ISI class boundary document (drawing development, preparation and issuance). These activities would require significant resources, but would not result in a compensatory increase in the level of quality and safety.

The Authority has implemented the following actions toward the development and implementation of a containment repair/replacement program in accordance with the provisions of the 1992 Edition of ASME Section XI, Subsections IWE/IWL: a responsible individual from the engineering program group (ISI Coordinator), a maintenance engineer, work package planners, QA engineers, and civil/structural engineers have attended a training class on the subject Code requirements. Additional training classes will be provided for other responsible individuals after the outage; Action items have been generated and assigned to responsible individuals to incorporate the requirements of IWE/IWL into the IP3 ISI program, and to develop a containment repair/replacement program by September 1997 which is contingent on the approval of this Relief Request; A planned general walkdown and video taping of the inside exposed surfaces of the containment, in preparation for the general visual inspection to be performed prior to September, 2001 as required under IWE-1231; Initial effort on the development of a concrete inspection program which may be combined with the containment inspection under the Maintenance Rule; Review of major containment modification or repair/replacement activities such as installation of the outage equipment hatch to include Preservice Inspection (PSI) requirements in accordance with the provisions of 1992 ASME Section XI, Subsection IWE.

#### **RAI Item 2**

In describing the proposed alternative requirements for repair and replacement activities, a reference is made to FSAR Section 5.1.1.5. A review of the FSAR section indicates a listing of Codes and Standards used during the construction of seismic Category I structures. If procedures are set up to perform the containment R/R activities that could satisfy the design basis requirements, then, the licensee shall provide a summary of such procedure.

#### **Response to RAI Item 2 (Proposed Alternative Requirements):**

The containment, including its components, containment penetrations and the associated process lines that pass through these penetrations up to the first isolation, are designed to QA Category I and Seismic Class I in accordance with the design basis requirements as described in FSAR Chapter 5 and the Design Basis Documents. FSAR Section 5.1.1.5 is a list of the original design Codes and Specifications. All repair/replacement (R/R) activities, including those for the containment, are controlled by various administrative and implementation procedures. The following are examples of these procedures:

- A) Modification Control Manual Procedures which control the engineering and design processes of plant modifications, such as:
- MCM-3, Modification Package Preparation, Review and Approval
  - MCM-4, Nuclear Safety and Environmental Impact Screens and Nuclear Safety Evaluations
  - MCM-5, Minor Modifications
  - MCM-7, Parts and Material Substitutions
  - MCM-14, Type 1 Change (IP3)

- B) Station Administrative Procedures (AP) and Administrative Directives (AD) which establish control on the planning, work control, quality assurance, and implementation of work packages associated with the repair/replacement activities, such as:
- AP-9, Work Control
  - AP-12, Modifications
  - AP-16, Quality Assurance Program
  - AP-39, IP3 ASME Section XI Repair/Replacement Program
  - SED-AD-24, Technical Evaluation of Components and Replacement Items

These procedures, together with other lower level implementation procedures, ensure any containment R/R activities meet or exceed the original design criteria. Our QA personnel are also involved with all containment related R/R activities. The examination requirements for containment related repair/replacement activities in many cases are actually more stringent than are required under the provisions of 1992 IWE (VT-1 or VT-3). For example, in the upcoming outage, the Service Water piping/containment penetration modification requires both visual and surface examinations for the welds under the Construction Code of ANSI B31.1-1967. These repaired/replaced components, in conjunction with the containment, are also periodically tested in accordance with Appendix J requirements to ensure containment integrity. Therefore, deferral of the implementation date for the repair and replacement provisions of the 1992 ASME Code will not compromise the structural integrity of the containment, and is consistent with maintaining the continued health and safety of the public.

An annual inspection of the containment structure is performed in accordance with the IP3 Technical Specifications. Deficiencies identified during the inspections are resolved in accordance with the corrective action program. No significant degradation of containment integrity has been detected. Maintenance Rule walkdowns have also been scheduled for this outage and will be performed by civil engineers under the direction of a Professional Engineer.