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February 19, 1999

Re: Indian Point Unit No. 2
Docket No. 50-247

Document Control Desk
US Nuclear Regulatory Commission
Mail Station PI-137
Washington, DC 20555

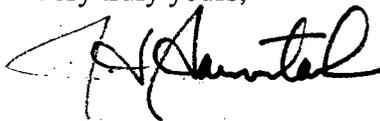
SUBJECT: Request for Approval of Alternate to ASME Code Section XI
Requirements Regarding Corrective Action for Leakage Identified at
Bolted Connections

Pursuant to 10 CFR 50.55a(a)(3), Consolidated Edison Company of New York, Inc. (Con Edison) hereby submits a request for approval of an alternate to the ASME Boiler & Pressure Vessel Code Section XI requirements for inservice inspection. The proposed alternative, described in the attached relief request, would be applicable to the visual examination of bolting following leakage being identified during the conduct of a pressure test. The relief request pertains to the corrective actions prescribed by paragraph IWA-5250(a)(2). These actions direct the disposition of leaks found during the performance of a system pressure test and gives specific instructions with regard to leaks at bolted connections. However, the ASME Code has recognized the impracticability of the requirements for bolted connections and has approved Code Case N-566 as an alternative. This alternative provides a more practical approach for leaks at bolted connections while maintaining the assurance of structural integrity provided by the Code. This relief request is very similar to relief requests that have been previously approved by the NRC for application at individual utilities, such as the Oyster Creek Nuclear Generating Station and the VC Summer Nuclear Station.

No new regulatory commitments are being made by Con Edison in this correspondence.

Should you or your staff have any questions regarding this matter, please contact Mr. Charles W. Jackson, Manager, Nuclear Safety & Licensing.

Very truly yours,



AO47/1

Attachment

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PDR ADDCK 05000247
G PDR

C: Mr. Hubert J. Miller
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ATTACHMENT

RELIEF REQUEST NO. 42
CORRECTIVE ACTIONS FOR LEAKAGE
AT BOLTED CONNECTIONS

Consolidated Edison Company of New York, Inc.
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COMPONENT IDENTIFICATION

Code Class: 1, 2 & 3

References: IWA-5250(a)(2)

Description: Bolted connections with leakage identified during IWA-5000 pressure test.

CODE REQUIREMENTS

Subparagraph IWA-5250(a)(2) requires that the sources of leakage detected during the conduct of a system pressure test shall be located and evaluated by the owner for corrective measures. If leakage occurs at a bolted connection, the bolting shall be removed and visually examined, VT-3 for corrosion, and evaluated in accordance with IWA-3100.

BASIS FOR RELIEF

Pursuant to 10CFR50.55a(a)(3)(i), relief is requested on the basis that the proposed alternate provides an acceptable level of quality and safety.

ASME Boiler & Pressure Vessel Code Case N-566, "Corrective Action for Leakage Identified at Bolted Connections", approved by the ASME on August 9, 1996, addresses alternate action to the requirements of IWE-5250(a)(2). The ASME Working Group-Pressure Testing concluded that the system integrity of a bolted connection is not necessarily compromised by leakage and recommended the approval of Code Case N-566.

ASME Boiler & Pressure Vessel Code Section XI, 1992 edition, in IWA-5250(a)(2) addresses the removal of one bolt for the required visual examination as indicated in the proposed alternate, below. The ASME Boiler & Pressure Vessel Code Section XI, 1992 edition with the 1992 addenda is approved by the NRC for IWE/IWL as indicated in the Federal Register.

Similar requests for relief have been approved for:

- Oyster Creek Nuclear Generating station, SER dated October 3, 1996; TAC No. M96399.
- VC Summer Nuclear Station, SER dated September 22, 1997; TAC No. M98145

PROPOSED ALTERNATE EXAMINATIONS

The source of leakage at bolted connections, detected by visual examination VT-2 during a system pressure test shall be evaluated to determine the susceptibility of the bolting to corrosion and potential failure. This evaluation will consider the following variables as a minimum:

1. Location of leakage;
2. History of leakage;
3. Fastener material;
4. Evidence of corrosion, with the connection assembled;
5. Corrosiveness of the process fluid;
6. History and studies of similar fastener material in a similar environment;
7. Other components in the vicinity that may be degraded due to the leakage.

When the evaluation of the above variables is concluded and if the evaluation determines that the leaking condition has not degraded the fastener, then no further action is necessary. However, reasonable attempts shall be taken to stop the leakage.

If the evaluation of the variables above indicates the need for further evaluation, or if no evaluation is performed, then the bolt closest to the source of leakage shall be removed. The bolt will receive a visual examination VT-1 and be evaluated in accordance with IWB-3140.

If the leakage is identified when the bolted connection is in service, and the information in the evaluation is supportive, the removal of one bolt for visual examination VT-1 may be deferred to the next refueling outage. When the removed bolting shows evidence of unacceptable degradation, the remaining bolts shall be removed and receive a visual VT-1 examination and evaluation in accordance with IWB-3140.

PERIOD FOR WHICH RELIEF IS REQUESTED

Relief is requested for the Third Inspection Interval, July 1, 1994 through June 30, 2004.

JUSTIFICATION FOR RELIEF

This relief request is more prescriptive and conservative than the Code Case. It addresses many implementation and radiological hardships associated with IWA-5250(a)(2) and yet maintains the conclusions of the ASME committee by assuring that a proper evaluation of the connection and/or the bolting is performed. The joint evaluation must consider specific factors, which, if indicative of degradation, must be dispositioned in accordance with IWB-3140 of Section XI. Due to the fact that this engineering evaluation is more comprehensive than the simple bolt examination currently required by IWA-5250, coupled with the benefit that these alternative requirements ensure structural integrity is maintained, and reduce the operational, maintenance, and radiological hardships of the current requirements, this relief request should be considered as an acceptable alternative in accordance with 10CFR50.55a(a)(3)(i). This conclusion is further supported by the fact that the ASME has approved Code Case N-566 and this relief request is essentially a conservative subset of the Code Case.