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June 8, 1999

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

Document Control Desk
US Nuclear Regulatory Commission
Mail Station P1-137
Washington, DC 20555-0001

Subject: Request for Approval of Alternate to ASME Code Requirements

Pursuant to 10 CFR 50.55a(a)(3), Consolidated Edison Company of New York, Inc. (Con Edison) hereby submits a request for approval of four (4) alternatives to the ASME Boiler & Pressure Vessel Code Section XI requirements for Inservice Inspection. The proposed alternatives are contained in the Attachment, summarized as follows:

1. Relief Request No. 29 proposes an alternative to the requirement to remove the insulation from pressure retaining bolted connections in order to perform a VT-2 visual examination. The proposed alternative is based upon draft Code Case N-533-1, "Alternative Requirements for VT-2 Visual Examination of Class 1, 2, and 3 Insulated Pressure-Retaining Bolted Connections Section XI, Division 1."

2. Relief Request No. 37 proposes an alternative to the ASME B&PV Code, Section XI, 1992 edition, with 1992 addenda requirements regarding repair and replacement of the newly designated Class 2 piping that penetrates containment. The proposed alternative seeks the use of the ASME B&PV Code Section XI, 1989 edition requirements for Class 1, 2 & 3 components and piping.

3. Relief Request No. 38 proposes an alternative to the 100% surface examination requirement for Class 1 integrally welded attachments on the reactor coolant pumps. The proposed alternative seeks the use of Code Case N-509, "Alternative Rules for the Selection and Examination of Class 1, 2, and 3, Integrally Welded Attachments Section XI, Division 1," with the additional requirement that a minimum of 10% of the integral attachments in Code Class 1, 2, and 3 systems be scheduled. This additional requirement was discussed in NRC Letter to Con Edison dated June 3, 1997 (TAC No. M88559).

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4. Relief Request No.39 proposes an alternative to the ASME B&PV Code, Section XI, 1992 edition, with 1992 addenda requirements regarding surface and volumetric examination of Class 2 piping. The affected welds are limited to the Service Water System, which has received additional inspections as a result of NRC Generic Letter 89-13.

NRC authorization of the proposed alternatives is requested by December 31, 1999 in order to prepare for the 2000 refueling outage. 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. John McCann, Manager, Nuclear Safety & Licensing.

Very truly yours,

Attachments

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ATTACHMENT

Relief Request Nos. 29, 37, 38, and 39

Consolidated Edison Company of New York, Inc.
Indian Point Unit No. 2
Docket No. 50-247
June 1999

RELIEF REQUEST NUMBER 29
(Page 1 of 2)

COMPONENT IDENTIFICATION

Code Class:	1, 2 and 3
References:	IWA-5242(a)
Examination Category:	B-P, C-H, D-A, D-B & D-C
Item Number:	Various
Description:	Insulation removal at mechanical joints of borated systems.

CODE REQUIREMENT

IWA-5242(a) states, "Systems borated for the purpose of controlling reactivity, insulation shall be removed from pressure retaining bolted connections for visual examination VT-2."

BASIS FOR RELIEF

Pursant to 10 CFR 50.55a(a)(3)(i), relief is requested on the basis that the proposed alternative would provide an acceptable level of quality and safety.

Based upon NRC comments regarding Relief Request 29 discussed in NRC Letter to Con Edison dated June 3, 1997, we have revised our original request to include the alternatives identified in ASME Code Case N-533 and N533-1(Draft). The ASME Committee approved Code Case N-533 on March 14, 1995. A draft change to N-533, Code Case N-533-1 is currently in the approval process. N-533-1 addresses alternative requirements for Class 2 and 3 pressure retaining bolted connections, and the period for performance of the VT-2 examinations.

PROPOSED ALTERNATIVE PROVISIONS

The alternative provisions will be those identified in Code Case N-533-1.

(a) A system pressure test and VT-2 visual examination shall be performed each refueling outage for Class 1 connections, and each period for Class 2 and 3 connections without removal of insulation.

(b) The insulation shall be removed from the bolted connections each refueling outage for Class 1 connections and each period for Class 2 and 3 connections and a VT-2 visual examination shall be performed. The connection is not required to be pressurized. Any evidence of leakage shall be evaluated in accordance with IWA-5250.

RELIEF REQUEST NUMBER 29
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PERIOD FOR WHICH RELIEF IS REQUESTED

Relief is requested for the remainder of the third inspection interval, July 1, 1999 through June 30, 2004. Furthermore, this interval has been extended to May 18, 2005 as discussed in Con Edison Letter to USNRC dated April 9, 1999.

JUSTIFICATION FOR RELIEF

The leakage/bolting inspection program performed each refueling outage for Class 1 connections and each period for Class 2 and 3 connections will detect damage resulting from boric acid corrosion. The schedule for examinations is consistent with the schedules identified in the Code. This program, combined with operational leakage monitoring of Class 1 systems (1 gpm unidentified / 10 gpm identified) performed in accordance with Technical Specification 3.1.F, Reactor Coolant System Leakage, provide an acceptable level of quality and safety.

A similar relief request (No. 35), was previously approved for Class 1 components in NRC Letter dated July 3, 1996 (TAC No. M91514).

RELIEF REQUEST NUMBER 37
(Page 1 of 3)

COMPONENT IDENTIFICATION

Code Class:	(None)
References:	IWE-1220(d)
Subsection:	IWB & IWC

CODE REQUIREMENTS

Per IWE-1220(d) piping, pumps, and valves that are part of the containment system, or which penetrate, or are attached to the containment vessel shall be examined in accordance with the rules of IWB or IWC, as appropriate to the classification defined by their design specifications.

BASIS FOR RELIEF

Pursuant to 10 CFR 50.55a(a)(3)(i), relief is requested on the basis that the proposed alternative would provide an acceptable level of quality and safety.

When the Federal Register published the rules for inservice inspection of containment, ASME B&PV Code, Section XI, 1992 edition with 1992 addenda and specifically subsection IWE, became applicable for inservice inspection of containment. At a minimum, the Code requires all containment penetrations to be Class 2, and that the piping should be examined to the requirements of Subsections IWB or IWC. The Code does not address pre-existing Code requirements. Relief is sought in order to reconcile the differences regarding Quality Groups within the editions of the Code.

The initial Inservice Inspection Program designated plant components and piping, including containment penetrations, as Quality Group A, B, C and None in accordance with NRC Regulatory Guide 1.26, Rev. 3. Quality Group A, B and C piping systems are examined and tested to the requirements of Section XI 1989 edition, as published in the Federal Register. Containment penetrations were classified based on the designation of the associated system. The NRC approved the Inservice Inspection Program for the Third Interval in a letter to Con Edison dated June 3, 1997. This program, per 10 CFR 50.55(a) is written to the ASME Section XI, 1989 edition with no addenda. Non-code piping was subjected to pressure testing per 10 CFR 50, Appendix J.

The 1992 edition of the ASME Code with 1992 addenda requires that all piping penetrating or attached to the containment vessel be examined in accordance with the rules of IWB or IWC. The rules for Class 2 in the 1992 edition, 1992 addenda, of Section XI have not been approved for inspection of piping and components at Indian Point. These Codes may only become applicable one year prior to the end of our current interval, provided they have been published in the Federal Register.

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BASIS (continued)

Rather than maintain two programs for the inspection of piping and related components, the requirements of ASME Section XI, 1989 edition will be used for the inservice inspection of Quality Group A, B & C and the previously non-Code components.

The inservice inspection of the containment, including repair and replacement will be to the requirements of the ASME Section XI, 1992 edition, including 1992 addenda.

PROPOSED ALTERNATE EXAMINATIONS

Inservice inspection, including Code repair and replacement of previously non-Code piping, pumps and valves that are part of the containment system, or which penetrate or are attached to the containment vessel, are newly designated Class 2. This designation is in accordance with the rules of the 1992 Code, with 1992 addenda. These new Class 2 components are identified as Quality Group E* and will be inspected and maintained to the rules of ASME Section XI, 1989 edition and the inservice inspection program as required for Class 1, 2 & 3 components.

* Quality Group "E" is a designation identifying the previously non-code piping, at containment penetrations, that are now included in the inservice inspection program, as Class 2. This designation allows for the separation of Code requirements. The boundary is from the first weld inside of containment to the outermost containment isolation valve, as identified in the IP-2 UFSAR. Quality Group C closed systems will be designated Quality Group E from the first weld inside containment to the first weld outside containment. This is to specifically address the Component Cooling Water System, which, if left upgraded, would be exempt from NDE, based upon the operating pressure and temperature of the system. Currently the Component Cooling Water System is designated Quality Group C and is subject to examination of integrally welded pipe attachments and pressure testing.

PERIOD FOR WHICH RELIEF IS REQUESTED

Relief is requested for the third inspection interval, July 1, 1994 through June 30, 2004. Furthermore, this interval has been extended to May 18, 2005 as discussed in Con Edison Letter to USNRC dated April 9, 1999.

RELIEF REQUEST NUMBER 37
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JUSTIFICATION FOR RELIEF

Inservice inspections of Quality Group E, previously non-code piping and components that penetrate or are attached to containment, to the same Code edition as required for examination of Class 1, 2 & 3 components, will provide an acceptable level of safety and quality.

The new requirements for the inspection of containment address the examination of Class 1 and 2 piping, components and their supports to the requirements in the 1992 edition, 1992 addenda, of the Code. These requirements have not been approved for the inspection of Class 1 and 2 piping, components and their supports. The current inservice inspection program for Quality Group A, B and C components are required to be performed in accordance to the rules of ASME Section XI, 1989 edition, no addenda. The current inservice inspection program at IP-2 has been previously reviewed and approved by the NRC.

RELIEF REQUEST NUMBER 38

COMPONENT IDENTIFICATION

Component:	Reactor Coolant Pumps
Code Class:	Quality Group A
References:	IWB-2500 Table 1
Examination Category:	B-K-1
Item Number:	B 10.20
Description:	Integrally Welded Attachments
ASME Code Case:	N-509

CODE REQUIREMENT

Table IWB-2500-1, Examination Category B-K-1, Item B 10.20, Note 2 requires "...essentially 100% coverage of the attachment weld..." (or "greater than 90%" as clarified in NRC Information Notice 98-42).

BASIS FOR RELIEF

Pursuant to 10 CFR 50.55a(a)(3)(i), relief is requested on the basis that the purposed alternative would provide an acceptable level of quality and safety.

The access to the integrally welded attachments on the reactor coolant pumps is limited to approximately 81% of the required area. This is due to the proximity of the pump supports to the lugs preventing access for adequate surface preparation. There are three lugs supporting each reactor coolant pump and loop piping.

There are a total of twelve (12) lugs for the four (4) reactor coolant pumps. Per Code Case N-509, a total of 10% or 1 (rounded-off) lug requires examination.

Implementation of Code Case N-509 was discussed in the NRC's Request for Additional Information dated October 13, 1994 and Con Edison's response dated November 16, 1994. Con Edison indicated that it intended to incorporate N-509 in its ISI Program and requested authorization to do so. The NRC in its response (TAC No. M88559) did not specifically address the incorporation of Code Case N-509; however, the reviewer [INEL-95/0125] indicated that the use of the code case would be, "acceptable provided [Con Edison] schedules a minimum of 10% of the integrally welded attachments in Class 1, 2 and 3 systems."

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PROPOSED ALTERNATIVE PROVISIONS

Con Edison will continue to inspect those available portions (approximately 81%) of the three welded attachments on one of four pumps that are accessible using the liquid penetrant method. Con Edison will perform a VT-1 visual examination on 100% of the integrally welded attachments on the selected pump.

Examination of three out of twelve lugs is a 25% sample size within this category.

PERIOD FOR WHICH RELIEF IS REQUESTED

Relief is requested for the third inspection interval, July 1, 1994 through June 30, 2004. Furthermore, this interval has been extended to May 18, 2005 as discussed in Con Edison Letter to USNRC April 9, 1999.

JUSTIFICATION FOR RELIEF

The performance of two additional weld examinations combined with a 100% visual examination VT-1 provides continued assurance that the integrity of the integrally welded attachments are maintained.

RELIEF REQUEST NUMBER 39

COMPONENT IDENTIFICATION

Code Class:	Quality Group B (identified as Quality Group E for piping upgraded as a result of incorporating the containment code rules)
References:	Table IWB-2500-1
Examination Category:	C-F-2
Item:	C5.50 & C5.60
Description:	Pressure Retaining Welds
System:	Service Water

CODE REQUIREMENT

The Code requires the performance of surface and volumetric examination of pipe welds.

BASIS FOR RELIEF

Piping in the service water system was originally identified as Quality Group D and received the examinations as required by Section XI. In our response to NRC Generic Letter 89-13, Con Edison committed to performance of a program that including radiography. This was identified in Con Edison Letter to the NRC dated February 2, 1990.

The portion of piping from the first weld inside containment to the second containment isolation valve has now been re-designated Quality Group E (Class 2) due to the incorporation of the rules for IWE & IWL in the Federal Register. This classification requires the performance of surface and volumetric examination. The piping in the service water system is fabricated using partial penetration welds, square butt preparation with concrete lining, per Con Edison Specification 9321-248-35. This weld configuration does not support volumetric examination as required by the Code.

A radiographic technique for the measurement of wall thinning was developed. This technique identifies corrosion problems, unique to this system, and is used to monitor the condition of the system. The 10" service water piping has been examined 100% using this technique. Based on tracking and trending of the conditions identified they are corrected, as required.

PROPOSED ALTERNATIVE PROVISIONS

The surface examination will be performed as required by Code.

Based on the tracking and trending of previously identified conditions, recommendations will be made on the number and locations of welds to be examined. These welds will be examined using the radiographic technique for wall thinning.

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PERIOD FOR WHICH RELIEF IS REQUESTED

Relief is requested for the third inspection interval, July 1, 1994 through June 30, 2004. Furthermore, this interval has been extended to May 18, 2005 as discussed in Con Edison Letter to USNRC letter dated April 9, 1999.

JUSTIFICATION FOR RELIEF

The Service Water System has been the focus of examinations beyond that required by Section XI, as identified in our response to Generic Letter 89-13. The Class 2 (Quality Group E) portion represents a small portion (less than 5%) of the system. It will benefit from the examination and evaluation of the overall Service Water System.