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April 12, 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 to use an alternative to the ASME Boiler & Pressure Vessel Code Section XI requirements for inservice inspection. The proposed alternative is requested for use at Indian Point 2 for the remainder of the third 10-year inservice inspection interval. The alternative is based upon ASME Code Case N-416-1, "Alternative Pressure Test Requirement for Welded Repairs or Installation of Replacement Items by Welding, Class 1, 2, and 3, Section XI, Division 1," and is described in Attachment 1.

The ASME approved Code Case N-416-1 on February 15, 1994 but the NRC indicated in Regulatory Guide 1.147 that this code case has not yet been endorsed. It should be noted that ASME Code Case N-416-1 is identified in the Draft Regulation Guide Proposal DG-1050 (Revision 12 to Regulatory Guide 1.147). We note that a request similar to the one we are now making has been granted by the NRC for use at Indian Point 3.

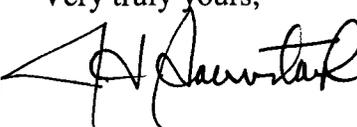
No new regulatory commitments are being made by Con Edison in this correspondence.

Should you or your staff have any concerns regarding this matter, please contact Mr. John McCann, Manager, Nuclear Safety & Licensing.

Very truly yours,

Attachments

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P PDR

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ATTACHMENT 1

Relief Request for Alternative to ASME Code Requirements

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

INSERVICE INSPECTION PROGRAM
REQUEST FOR APPROVAL TO USE ASME CODE CASE N-416-1

Indian Point 2 Technical Specification 4.2.2 states that the inservice inspection 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 50.55 a (g), except where specific written relief has been granted by the Commission pursuant to 10 CFR 50.55 a (g)(6)(i). 10 CFR 50.55 a (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 safety and quality.

ASME Code Case N-416-1, "Alternative Pressure Test Requirements for Welded Repairs or Installation of Replacement Items by Welding, Class 1, 2, and 3, Section XI, Division 1," was approved by the ASME on February 15, 1994. However, this Code Case has not yet been endorsed by the NRC in Regulatory Guide 1.147, "Inservice Inspection Code Case Acceptability, ASME Code Section XI, Division 1." Therefore, pursuant to 10 CFR 50.55 a (a)(3), Con Edison requests that Code Case N-416-1 be approved for use during the remainder of the Indian Point 2 third 10-year inservice inspection interval. The end date of the third 10-year inspection interval has been extended to May 18, 2005. The original end date was June 30, 2004. Use of Code Case N-416-1 at Indian Point 2 would provide an acceptable level of safety and quality. Compliance with the ASME Code Section XI requirements would result in hardship or unusual difficulties without a compensating increase in the level of safety and quality over the requirements specified in Code Case N-416-1, as described below.

The use of Code Case N-416-1 at Indian Point 2 would provide an acceptable level of safety and quality. Piping components are designed for a number of loadings that would be postulated to occur under the various modes of plant operation. Hydrostatic testing only subjects the piping components to a small increase in pressure over the design pressure and, therefore, does not present a significant challenge to pressure boundary integrity. Accordingly, hydrostatic pressure testing is primarily regarded as a means to enhance leakage detection during the examination of components under pressure, rather than solely as a measure to determine the structural integrity of the components. Code Case N-416-1 allows an alternative system leakage test to be performed in lieu of the hydrostatic test required by Article IWA-4400 and IWA-5214.

Industry experience has demonstrated that leaks are not being discovered as a result of hydrostatic test pressures propagating a pre-existing through wall flaw. Leaks in most cases are being found when the system is at normal operating pressure. This is largely due to the fact that hydrostatic pressure testing was required only upon installation and then once every 10 years during the inspection interval, while system leakage tests at nominal operating pressure are conducted at a minimum of once each refueling outage for Class 1 systems, and each 40 month inspection period for Class 2 and 3 systems. In addition, leaks may be identified during system walkdowns by plant personnel, which may be conducted as often as once a shift.

Compliance with the ASME Code Section XI requirements would result in hardship or unusual

difficulties without a compensating increase in the level of safety and quality over the requirements as specified in Code Case N-416- 1. Hardships are generally encountered with the performance of hydrostatic testing performed in accordance with the code. For example, since hydrostatic test pressure would be higher than nominal operating pressure, hydrostatic pressure testing frequently requires significant effort to set up and perform. The need to use special equipment, such as temporary attachment of test pump and gages, and the need for individual valve lineups can cause the test to be on critical path during outages.

Use of hydrostatic testing deferrals, which are presently allowed in the current Code Case N-416 for class 2 components, are not a satisfactory solution because the test must eventually be performed, and it is the performance of the test itself that is considered burdensome.

Code Case N-416-1 provides increased testing flexibility, which would considerably reduce, if not, eliminate relief request requirements associated with post welded repair/ replacement hydrostatic testing. This is accomplished while maintaining an acceptable level of safety and quality as determined by the ASME Code.