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August 28, 2000

Re: Indian Point Unit No. 2
Docket No. 50-247
NL 00-110

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

Subject: Revised Request for Relief from the Requirements of American Society of
Mechanical Engineers (ASME) Section XI Relief Request (RR) Nos. 53 R1 and 55 R1;
Withdrawal of Relief Request No. 54

- References:
1. Consolidated Edison Letter to USNRC dated August 2, 2000, "Request for Relief from the Requirements of American Society of Mechanical Engineers (ASME) Section XI Relief Request (RR) Nos. 53, 54, and 55"
 2. 64 FR 51370, September 22, 1999, "Industry Codes and Standards, Amended Requirements"
 3. "Guidelines for the Implementation of Appendix VIII and 10 CFR 50.55a," May 22, 2000, prepared by Electric Power Research Institute (EPRI) Non-Destructive Examination (NDE) Center
 4. "Guidelines for the Implementation of Appendix VIII and 10 CFR 50.55a," July 11, 2000, prepared by Electric Power Research Institute (EPRI) NDE Center

In accordance with the provisions of 10 CFR 50.55a(a)(3) and 10 CFR 50.55a(g)(5)(iii), Reference 1 requested relief from selected requirements of 10 CFR 50.55a and Section XI of the ASME Code for the Indian Point Unit No. 2. Reference 1 contained three separate relief requests, RR Nos. 53, 54, and 55.

These three relief requests were made necessary by the changes adopted in 1999 to 10 CFR 50.55a, "Codes and Standards," (Reference 2) and were consistent with the EPRI Guideline dated May 22, 2000 on the implementation of these new requirements (Reference 3).

AD47

Subsequent to the May 22, 2000 guidance, the EPRI Guideline was finalized to include the incorporation of NRC comments. On August 17, 2000, during a discussion between Consolidated Edison personnel and the NRC staff, Consolidated Edison was requested to resubmit the relief requests to reflect the changes that were made in the final EPRI Report (Reference 4). Based on further evaluation and additional information regarding anticipated ultrasonic examination coverage for the replacement steam generators' nozzle configuration, Consolidated Edison has determined that RR No. 54 is not needed at this time and is hereby withdrawn.

Attachments 1 and 2 provide the details of the revised relief requests (Nos. 53 and 55) and the associated technical justification. The revised relief requests are consistent with the final EPRI Guideline. Additionally, RR No. 53 has been modified to reduce the period for which relief is requested. RR No. 53 originally proposed use of the alternative qualification requirements for NDE personnel until the end of the current Inservice Inspection Interval. The revised request limits use of the alternative requirement until August 31, 2001. RR No. 55 originally requested use of ASME Code Case N-583 as an alternative to the training specified in ASME Section XI, Appendix VII, paragraph VII-4240. RR No. 55 has been modified to propose use of the ultrasonic training requirements specified in 10 CFR 50.55a(b)(2)(xiv) in lieu of Code Case N-583

Consolidated Edison plans to use the proposed alternative requirements in activities associated with the upcoming steam generator replacement. Therefore, Consolidated Edison Requests these relief requests be reviewed and approved prior to September 28, 2000.

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

If you have any questions regarding this matter, please contact Mr. Charles W. Jackson, Licensing and Environmental Manager, Steam Generator Replacement Project.

Very truly yours,



Attachments

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ATTACHMENT 1

Relief Request 53, R1

RELIEF REQUEST NUMBER 53, R1

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COMPONENT IDENTIFICATION

Code Class: Quality Group A & B
Reference: IWA-2300
Description: Alternate Qualification of Nondestructive Examination Personnel, related to Ultrasonic Examination to the requirements of Appendix VIII of the ASME B&PV Code 1995 Edition with 1996 Addenda

CODE REQUIREMENT

10 CFR 50.55a(g)(6)(ii)(c) requires implementation of the ASME Code, Section XI, 1995 Edition, 1996 Addenda with the expedited implementation for Appendix VIII ultrasonic examinations. The Supplements to Appendix VIII of Section XI, Division 1, 1995 Edition with the 1996 Addenda of the ASME Boiler and Pressure Vessel Code must be implemented in accordance with the following schedule: Supplements 1, 2, 3, and 8--May 22, 2000; Supplements 4 and 6--November 22, 2000; Supplement 11--November 22, 2001; and Supplements 5, 7, 10, 12, and 13--November 22, 2002. Related sub-article IWA-2300, of the 1995 Edition, 1996 Addenda of ASME Section XI requires qualification of examiners to CP-189 as amended by Division 1

The 1989 Edition of the ASME Section XI, Subarticle IWA-2300, defines the qualification requirements for NDE personnel as ASNT SNT-TC-1A and the additional requirements of Division 1, including Appendix I.

BASIS FOR RELIEF

Pursuant to 10 CFR 50.55a(a)(3)(i) and (ii), relief is requested on the basis that the proposed alternative provides an acceptable level of quality and safety and that compliance with the specified requirement would impose a hardship or unusual difficulty without a compensating increase in the level of quality and safety. Consolidated Edison proposes that initial certification and recertification of NDE personnel shall continue to be conducted in accordance with the requirements contained in the 1989 Edition of ASME Section XI. This relief is requested through August 31, 2001.

10 CFR 50.55a was amended in the Federal Register (64 FR 51370) to require the use of the 1995 Edition, with the 1996 Addenda of Section XI with an expedited implementation schedule for Appendix VIII qualification requirements. This imposed the requirements Appendix VII of the 1995 Edition, with 1996 Addenda of Section XI. This includes sub-article IWA-2300, which requires a written practice prepared in accordance with CP-189, 1991 Edition, as amended by the requirements of Division 1. Current Certifications are not affected. Paragraph IWA-2310 in the 1995 Edition with 1996 Addenda states that certification based on SNT-TC-1A are valid until recertification is required.

This requires development, implementation, and to the extent possible, consolidation of a multifaceted written practice, specific to ultrasonic examination personnel, that addresses the various requirements contained in SNT-TC-1A and CP-189, as amended by different Editions and Addenda of Section XI, including IWA-2300 and Appendix VII. The requirements are phased in with implementation dates for certification and recertification requirements of May 22, 2000 for personnel examining piping and bolting, November 22, 2000 for personnel examining RPV welds and clad/base-metal interface, November 22, 2001 for weld overlays, and November 22, 2002 for nozzle and dissimilar metal welds.

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Regardless of whether CPM-189 and ASNT SNT-TC-1A is the base documents used to prepare the written practice, personnel conducting examinations to Appendix VIII requirements must be examined in accordance with Appendix VIII and personnel qualified through the PDI program must also meet the qualification requirements of Appendix VII. Additionally, for other than Appendix VIII ultrasonic examinations, NDE examiners (regardless of the method) will continue to be certified in accordance with a written practice developed in accordance with ASNT SNT-TC-1A through August 31, 2001.

Relief is requested in accordance with 10 CFR 50.55a(3)(ii) to continue basing requirements for initial certification and recertification of ultrasonic examination personnel on the 1989 Edition of Section XI. This includes use of ASNT SNT-TC-1A, 1984, as amended by IWA-2300 and Appendix VII of Section XI, 1989 Edition. Relief is requested until August 31, 2001.

A direct comparison of the implementation requirements for Appendix VIII examinations using the 1984 Edition of SNT-TC-1A as modified by IWA-2300 and Appendix VII of the 1989 Edition of Section XI with the 1991 Edition of CP-189 as modified by IWA-2300 and Appendix VII of the 1995 Edition and 1996 Addenda is considered to be unwieldy because of their significant differences. Therefore, three less complex comparisons were prepared by EPRI in their draft, "Guideline for the Implementation of Appendix VIII and 10 CFR 50.55a," dated July 11, 2000 (pages 79 – 84). Qualifications of ultrasonic examination personnel to SNT-TC-1A and the additional requirements of the 1989 Edition of Section XI, including Appendix VII are considered equivalent to Qualification to CP-189 as amended by the 1995 Edition with the 1996 Addenda of Section XI.

In lieu of maintaining redundant, possibly conflicting programs, the proposed alternative of maintaining the current program through August 31, 2001 for qualification of ultrasonic personnel will simplify record keeping, satisfy the need to maintain personnel qualifications, eliminate redundant systems, and provide an acceptable level of quality and safety commensurate with the other NDE disciplines.

PROPOSED ALTERNATIVE PROVISIONS

Initial certification and recertification of NDE personnel shall continue to be conducted in accordance with the requirements contained in the 1989 Edition of ASME Section XI. Personnel performing ultrasonic examinations shall also meet the requirements specified in 10 CFR 50.55a as amended by 64 FR 51370, which sets forth the requirements for qualification of personnel by demonstration. The combination of a written practice based on SNT-TC-1A and performance based demonstrations for personnel performing ultrasonic examinations of welds or components will continue to ensure the structural integrity of the systems/components.

PERIOD FOR WHICH RELIEF IS REQUESTED

Through August 31, 2001

JUSTIFICATION FOR RELIEF

As written, there are major differences between CP-189 and SNT-TC-1A. However these are minimized by the moderating effects of the applicable IWA-2300 requirements and the Appendix VII requirements. In addition, regardless of whether CPM-189 and ASNT SNT-TC-1A is the base documents used to prepare the written practice, personnel conducting examinations to Appendix VIII requirements must be examined in accordance with Appendix VIII and personnel qualified through the PDI program must also meet the qualification requirements of Appendix VII.

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Compliance with the specified requirements would result in hardship or unusual difficulty without a compensating increase in the level of quality or safety. For example, the 1995 Edition with the 1996 Addenda require near vision acuity of 20/25 or greater Snellon fraction while the 1989 Edition requires a Jaeger No. 1 print. Development and administration of a second or consolidated program in an accelerated manner would not enhance safety or quality and would create an unnecessary burden particularly in developing an additional written practice, tracking of certifications, duplication of paperwork, etc. This duplication would also apply to NDE vendor programs.

ATTACHMENT 2

Relief Request 55, R1

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COMPONENT IDENTIFICATION

Code Class: Quality Group A & B
Reference: VII-4240 of Appendix VII
Description: Alternate Training Hours for Ultrasonic Examination Personnel

CODE REQUIREMENT

The 1995 Edition and 1996 Addenda of ASME Section XI, Subarticle VII-4240 requires a minimum of 10 hours of annual training.

10 CFR 50.55a(b)(2)(xiv) requires that all personnel qualified for performing ultrasonic examinations in accordance with Appendix VIII shall receive 8 hours of hands-on training on specimens that contain cracks. The training must be completed no sooner than 6 months prior to performing ultrasonic examinations at a licensee's facility.

BASIS FOR RELIEF

Pursuant to 10 CFR 50.55a(a)(3)(i), relief is requested on the basis that the proposed alternative provides an acceptable level of quality and safety. Consolidated Edison proposes that annual ultrasonic examination training be conducted in accordance with 10 CFR 50.55a(b)(2)(xiv) in lieu of Section XI, Appendix VII, paragraph VII-4240.

10 CFR 50.55a was amended in the Federal Register (64 FR 51370) to require the 1995 Edition, with the 1996 Addenda of Section XI for Appendix VIII qualification requirements. This also imposes the requirements of Appendix VII of the 1995 Edition with 1996 Addenda of Section XI. This includes Sub-article VII-4240, which requires a minimum of 10 hours of annual training.

Paragraph 2.4.1.1.1 in the Federal Register contained the following statement:

“The NRC had determined that this requirement (10 hours of training on an annual basis) was inadequate for two reasons. The first reason was that the training does not require laboratory work and examination of flawed specimens. Signals can be difficult to interpret and, as detailed in the regulatory analysis for this rulemaking, experience and studies indicate the examiner must practice on a frequent basis to maintain the capability for proper interpretation. The second reason is related to the length of the training and its frequency. Studies have shown that an examiner's capability begins to diminish within approximately 6 months if skills are not maintained. Thus, the NRC had determined that 10 hours of annual training is not sufficient practice to maintain skills, and that an examiner must practice on a more frequent basis to maintain proper skill level . . . The PDI program has adopted a requirement for 8 hours of training, but it is required to be hands-on practice. In addition, the training must be taken no earlier than 6 months prior to performing examinations at a licensee's facility. PDI believes that 8 hours will be acceptable relative to an examiner's abilities in this highly specialized skill area because personnel can gain knowledge of new developments, material failure modes, and other pertinent technical topics through other means. Thus the NRC has decided to adopt in the Final Rule the PDI position on this matter. These changes are reflected in § 50.55a(b)(2)(xiv) of the final rule.”

Implementation of the requirements contained in ASME Section XI and the Final Rule will result in redundant systems. The use of the Final Rule requirements in lieu of additional requirements will

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simplify record keeping, satisfy needs for maintaining skills, and provide an acceptable level of safety and quality.

PROPOSED ALTERNATIVE PROVISIONS

Annual ultrasonic examination training will be conducted in accordance with 10 CFR 50.55a(b)(2)(xiv) in lieu of Section XI, Appendix VII, paragraph VII-4240.

PERIOD FOR WHICH RELIEF IS REQUESTED

Remainder of 3rd Ten-Year Interval

JUSTIFICATION FOR RELIEF

Paragraph 2.4.1.1.1 in the Federal Register contained the following statement, “. . . Thus, the NRC had determined that 10 hours of annual training is not sufficient practice to maintain skills, and that an examiner must practice on a more frequent basis to maintain proper skill level . . . The PDI program has adopted a requirement for 8 hours of training, but it is required to be hands-on practice. In addition, the training must be taken no earlier than 6 months prior to performing examinations at a licensee’s facility. PDI believes that 8 hours will be acceptable relative to an examiner’s abilities in this highly specialized skill area because personnel can gain knowledge of new developments, material failure modes, and other pertinent technical topics through other means. Thus the NRC has decided to adopt in the Final Rule the PDI position on this matter.”

Implementation of the requirements contained in ASME Section XI and the Final Rule will result in redundant systems. The use of the Final Rule requirements in lieu of additional requirements will simplify record keeping, satisfy needs for maintaining skills, and provide an acceptable level of safety and quality.