SAFETY EVALUATION
BY THE OFFICE OF NUCLEAR REACTOR REGULATION
OF THE SECOND TEN-YEAR INTERVAL INSERVICE INSPECTION PROGRAM PLAN

CONSOLIDATED EDISON
INDIAN POINT, UNIT 2

DOCKET NO. 50-247

1.0 INTRODUCTION

Technical Specification 4.2 for Indian Point Unit 2, states that the surveillance requirements for Inservice Inspection and Testing of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code Class 1, 2, and 3 components shall be applicable as follows: Inservice Inspection of ASME Code Class 1, 2, and 3 components shall be performed in accordance with applicable editions and addenda of Section XI of the ASME Code as required by 10 CFR Part 50, Section 50.55a(g), except where written relief has been granted by the Commission pursuant to 10 CFR Part 50, Section 50.55a(g)(6)(i).

Pursuant to 10 CFR 50.55a(g)(4), ASME Code Class 1, 2, and 3 components (including supports) shall meet the requirements, except the design and access provisions and the preservice examination requirements, set forth in the ASME Code, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," to the extent practical within the limitations of design, geometry, and materials of construction of the components. The regulations require that inservice examination of components and system pressure tests conducted during the second ten-year interval shall comply with the requirements in the latest edition and addenda of Section XI of the ASME Code incorporated by reference in 10 CFR 50.55a(b) on the date twelve months prior to the start of the interval, subject to the limitations and modifications listed therein. The components (including supports) may meet the requirements set forth in subsequent editions and addenda of the ASME Code incorporated by reference in 10 CFR 50.55a(b) subject to the limitations and modifications listed therein.

Pursuant to 10 CFR 50.55a(g)(5), if the licensee determines that conformance with an examination requirement of Section XI of the ASME Code is not practical for his facility, information shall be submitted to the Commission in support of that determination and a request made for relief from the ASME Code requirement. After evaluation of the determination, pursuant to 10 CFR 50.55a(g)(6)(i), the Commission may grant relief and may impose alternative requirements that are determined to be authorized by law, will not endanger life or property or the common defense and security, and are otherwise in the public interest, giving due consideration to the burden upon the licensee that could result if the requirements were imposed.

On September 30, 1985, Consolidated Edison (the licensee) submitted the Second Ten-Year Interval Inservice Inspection (ISI) Program Plan for Indian Point, Unit 2, to meet the requirements of the 1980 Edition, Winter 1981 Addenda of Section XI of the ASME Boiler and Pressure Vessel Code, except that Class 2

piping welds in the Emergency Core Cooling (ECC), Containment Heat Removal (CHR), and Residual Heat Removal (RHR) systems were selected/exempted based upon the 1974 Edition, Summer 1975 Addenda of Section XI as required by 10 CFR 50.55a(b). The staff, with technical assistance from its Contractor, Idaho National Engineering Laboratory, has evaluated the Second Ten-Year Interval Inservice Inspection Program Plan, Revision 1, additional information related to the plan, and the requests for relief from certain ASME Code requirements determined to be impractical to perform at the Indian Point, Unit 2 Facility during the second inspection interval.

2.0 EVALUATION

The ISI Program Plan has been evaluated for (a) application of the correct Section XI Code edition and addenda, (b) compliance with examination and test requirements of Section XI, (c) acceptability of the examination sample, (d) compliance with additional or augmented examination or testing commitments relative to the plan made by the licensee, (e) correctness of the application of system or component examination exclusion criteria, and (f) sufficient information in support of requests for relief from impractical Section XI Code requirements. The staff has determined that the licensee's ISI Program Plan reflects compliance with the requirements listed above. The information provided by the licensee in support of requests for relief from impractical requirements has been evaluated and the bases for granting or denying relief from those requirements are documented in the INEL Technical Evaluation Report (TER) attached. We concur with, and adopt, the findings and recommendations in the TER.

3.0 CONCLUSION

The staff concludes that the Indian Point, Unit 2, Second Ten-Year Interval Inservice Inspection Program Plan with the additional information provided and the specific written reliefs [excluding Relief Requests No. 4, 5, 18, 23, and 24 for which relief is denied] constitute the basis for compliance with 10 CFR 50.55a(g) and Technical Specification 4.2 and is therefore acceptable. With respect to the relief granted, the staff has determined that the requirements of the Code are impractical and, based on the alternative testing imposed, pursuant to 10 CFR 50.55a(g)(6)(i), relief is authorized by law and will not endanger life or property or the common defense and security and is otherwise in the public interest. Such relief has been granted giving due consideration to the burden on the licensee that could result if the requirements were imposed on the facility.

CONTRIBUTORS:

D. Jackson
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TABLE 1

INDIAN POINT UNIT 2
SUMMARY OF RELIEF REQUESTS

RELIEF REQUEST NUMBER	ITEM NO.	EXAM CAT.	SYSTEM OR COMPONENT	VOLUME OR AREA TO BE EXAMINED	REQUIRED METHOD	LICENSEE PROPOSED ALTERNATIVE	RELIEF REQUEST STATUS
6	B1.21	B-A	Reactor Pressure Vessel	Circumferential Head Welds RVHC-1 RPVC-5	Volumetric	Visual during hydrostatic test	Granted
7	B2.11	B-B	Pressurizer	Shell-to-head circumferential weld PZRC-5	Volumetric	Visual during hydrostatic test	Granted
7	B2.12	B-B	Pressurizer	Longitudinal weld PZRL-4	Volumetric	Visual during hydrostatic test	Granted
9	B3.120	B-D	Pressurizer	Pressurizer nozzles inside radius sections	Volumetric	Visual during hydrostatic test	Granted
12 (part 1/2)	B5.40	B-F	Pressurizer	Pressurizer nozzle-to-safe end butt welds: PZRS 1 PZRS 5 PZRS 4 PZRS 6	Volumetric Surface	Surface exam on all nozzle to safe end welds. Partial UT on all welds	Granted
8 (part 1/2)	B2.51	B-B	Regenerative Heat Exchanger	Circumferential Head Welds: RGXC 1-1 RGXC 2-4 RGXC 1-4 RGXC 3-1 RGXC 2-1 RGXC 3-4	Volumetric	Visual during hydrostatic test	Granted

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8 (part 1/2)	B2.61	B-B	Regenerative Heat Exchanger	Tubesheet-to-shell Welds: RGXC 1-2 RGXC 2-3 RGXC 1-3 RGXC 3-2 RGXC 2-2 RGXC 3-3	Volumetric	Visual during hydrostatic test	Granted
8 (part 1/2)	B3.150	B-D	Regenerative Heat Exchanger	Nozzle-to-vessel welds: RGXN 1-1 RGXN 2-3 RGXN 1-2 RGXN 2-4 RGXN 1-3 RGXN 3-1 RGXN 1-4 RGXN 3-2 RGXN 2-1 RGXN 3-3 RGXN 2-2 RGXN 3-4	Volumetric	Visual during hydrostratic test	Granted
8 (part 1/2)	B3.160	B-D	Regenerative Heat Exchanger	Nozzles inside Radius Sections: RGXN 1-1 RGXN 2-3 RGXN 1-2 RGXN 2-4 RGXN 1-3 RGXN 3-1 RGXN 1-4 RGXN 3-2 RGXN 2-1 RGXN 3-3 RGXN 2-2 RGXN 3-4	Volumetric	Visual during hydrostratic test	Granted
10	B3.140	B-D		SG nozzle inside radius sections	Volumetric	Visual during hydrostatic test	Granted

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12 (part 2/2)	B5.70	B-F	Steam Generator	SG nozzle to safe end butt welds: SGS 21-4 SGS 23-4 SGS 21-5 SGS 23-5 SGS 22-4 SGS 24-4 SGS 22-5 SGS 24-5	Surface & Volumetric	Surface exam on all nozzle-to-safe end welds. Partial UT on all welds	Granted
8 (part 2/2)	B9.21	B-J	Piping Pressure Boundary	Class I circumferential piping welds: 19-2 RGXP 2-1 27-2 RGXP 2-2 79-25 RGXP 2-3 80-24 RGXP 2-4 RGXP 1-2 RGXP 3-1 RGXP 1-3 RGXP 3-2	Surface	Visual during hydrostatic test	Granted
11	B5.10	B-F	Reactor Pressure Vessel	Nozzle-to-safe end butt welds: RPVS21-1A RPVS23-1A RPVS21-14A RPVS23-14A RSVS22-1A RPVS24-1A RSVS22-14A RPVS24-14A	Surface & Volumetric	Volumetric & Visual	Granted
13	B.12.50	B-M-2	Valve Pressure Boundary	Internal surfaces of Class I valve bodies in RHR: #730 & #731	Visual (VT-3)	Visual during hydrostatic test	Granted

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14	C1.10 C1.20	C-A C-A	Seal Water Return Filter	Seal water return filter shell and head circumferential welds	Volumetric	N/A	Withdrawn
15	C1.10 C1.20	C-A C-A	Seal Water Heat Exchanger	Seal water heat exchanger shell and head circumferential welds	Volumetric	N/A	Withdrawn
16	C1.10	C-A	Residual Heat Exchangers	Shell-to-Flange Welds: RHX C21-1 RHX C22-1	Volumetric	Visual during hydrostatic test	Granted
16	C1.20	C-A	Residual Heat Exchangers	Shell-to-Head Welds: RHX C21-2 RHX C22-2	Volumetric	Visual during hydrostatic test	Granted
16	C2.31	C-B	Residual Heat Exchangers	Reinforcing Plate Welds to Nozzle and Vessels: RHX N21-1 RHX N21-2 RHX N22-1 RHX N22-2	Surface	Visual during hydrostatic test	Granted

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16	C3.10	C-C	Residual Heat Exchangers	Integrally Welded Attachments: RHX 21A RHX 21B RHX 22A RHX 22B	Surface	Visual during hydrostatic test	Granted
4	D2.10	D-B	Service Water	Lines #408 and #409	Visual (VT-2)	Use Provisions of IWA-5244 for Buried Components in Lieu of VT-2	Denied
17	IWC-5222(a)	System pressure tests	Containment Spray	Class 2 Containment Spray line segments	System hydro 1.10 times design pressure	Visual Exam during Test of Containment spray pump	Granted
21	IWC-5222	System pressure tests	Class 2 piping in Safety Injection System	Hydrotest of Class 2 piping in SIS	1.25 Times system pressure		Withdrawn
23	IWC-5222	System pressure tests	Steam and Feedwater	Steam Generators and Connecting Non-Isolatable Main Steam, Blowdown, and Feedwater Piping and Valves	Hydrostatic pressure of 1.25 times system pressure (Psv)	In accordance with IWB-5222	Denied

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24	IWA-5214	System Pressure Tests	Class 2 Steam Trap Piping	Class 2 Steam Trap piping welds	Hydrostatic test following repairs or replacements	System Leakage Test at Operating Pressure	Denied
18	IWD-5223	System Pressure Tests	Auxiliary Cooling System	Supply header & discharge header	Hydrostatic Test at 1.10 times system pressure (Psv)	Test at nominal operating pressure	Denied
19	IWD-5223 (d)	System Pressure Test	Service Water System	Open ended portions of the SWS	Hydrostatic Test	Confirmation of Adequate Flow	Granted
22	IWD-5000	System Pressure Test	Diesel Generator	Diesel Generator Coolers	Hydrostatic test at 1.10 times system design pressure	Test DG Coolers at 142 psi instead of 165 psi	Granted
1	IWA-4400 & IWA-4600	System Pressure Test	Class 2 & 3 Piping	Repaired or replaced piping	Hydrostatic test after Repair or replacement	Rules of Code Case N-416 for Class 2 and 3 Piping	Granted
20	IWA-5211	System Pressure Test	Class 1, 2, & 3 Components	Pressure Retaining Components	Hydrostatic Test during Shutdowns	Hydrostatic Test during either Shutdowns or plant operation	Granted

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2	IWA-2200 (b) (Weld Prep)	Ultra-sonic Exami-nation Methods	Class 1 & 2 Welds	Weld Prep & Angle Beam Scanning of Welds: Class 1 Welds PZRC1 61-2 SGC 21-8 61-3 SGC 22-8 61-12 SGC 23-8 61-13 SGC 24-8 351-2 PZRS2 351-3 PZRS3 352-10 PZR IWS-A 352-11 10-4 358-10 10-4A 358-11 10-17 Class 2 Welds NRX C1 3-22 RCF C2 3-23 SGC 21-3 6-10 SGC 21-4 6-11 SGC 21-6 7-13 NRX C2 355-6 RCF C1 355-7 RCF C3 355-8 SGC 21-1 361-26 SGC 21-7 361-27 2-35 361-47 2-36 361-48 2-8 361-50 2-9 361-51 2-29 361-57 3-21 361-59	In Accordance with IWA-2200 (b), T-547.2.1, T-546.2.4, and T-547.2.2	Angle Beam UT Techniques	Granted

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3	IWA-2610	Weld Reference System	Welds and Surfaces of Piping and Components	Welds & Surfaces	Establish Reference System	Establish Reference System if indications are recorded	Granted
5	IWA-6230	Reporting Requirements	Summary Report Submittal	N/A	days	If not completed within 90 days.	