

## ATTACHMENT 1

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

PORTLAND GENERAL ELECTRIC COMPANY  
TROJAN NUCLEAR PLANT,  
DOCKET NUMBER 50-344

#### 1.0 INTRODUCTION

Technical Specification 4.0.5 for the Trojan Nuclear Plant 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 Section XI of the ASME Code and applicable Addenda as required by 10 CFR 50.55a(g), except where specific written relief has been granted by the Commission pursuant to 10 CFR 50.55a(g)(6)(i) or, alternatively, 10 CFR 50.55a(a)(3).

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 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 120-month inspection 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) or, alternatively, 10 CFR 50.55a(a)(3), 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.

The Licensee, Portland General Electric Company, has prepared the Trojan Nuclear Plant Second Ten-Year Interval Inservice Inspection (ISI) Program, Revision 1, and Plan, Revision 0, to meet the requirements of the 1983 Edition, Summer 1983 Addenda of Section XI of the ASME Boiler and Pressure Vessel Code, except that the extent of examination of Class 1 piping welds has been determined by the 1974 Edition, Summer 1975 Addenda as permitted by 10 CFR 50.55a(b) and the extent of examination for Class 2 piping welds has been determined by the 1986 Edition. The 1986 Edition is referenced in 10 CFR 50.55a(b) and, in accordance with 10 CFR 50.55a(g)(4)(iv), may be used. The staff, with technical assistance from its Contractor, the Idaho National Engineering Laboratory (INEL), has evaluated the Second Ten-Year Interval Inservice Inspection Program, through Revision 1, and Plan, Revision 0, additional information related to the Program and Plan, and the requests for relief from certain ASME Code requirements determined to be impractical for Trojan Nuclear Plant during the second inspection interval.

## 2.0 EVALUATION

The ISI Program and Plan have 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 prior ISI commitments made by the Licensee, (e) correctness of the application of system or component examination exclusion criteria, and (f) adequate 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 relief from those requirements are documented in the attached INEL Technical Evaluation Report EGG-ESM-7965. We concur with the findings and recommendations contained in the subject report. Table 1 presents a summary of the reliefs requested and the status of the requests as determined by the staff.

### 3.0 CONCLUSION

The staff concludes that the Trojan Nuclear Plant Second Ten-Year Interval Inservice Inspection Program, Revision 1, and Plan, Revision 0, with the additional information provided and the specific written relief, constitutes the basis for compliance with 10 CFR 50.55a(g) and Technical Specification 4.0.5 and is therefore acceptable.

TABLE 1  
SUMMARY OF RELIEF REQUESTS

<u>Relief Request Number</u>	<u>System or Component</u>	<u>Exam. Cat.</u>	<u>Item No.</u>	<u>Volume or Area to be Examined</u>	<u>Required Method</u>	<u>Licensee Proposed Alternative</u>	<u>Relief Request Status</u>
RR-A1	Reactor Pressure Vessel	B-A	B1.21 and B1.22	One meridional closure head and one circumferential closure head weld	Volumetric exam	None. VT-2 visual exam during system pressure test	Granted with condition stated in Technical Evaluation Report
RR-A2	Steam Generators	B-D	B3.140	Inlet and outlet nozzle inside radius sections on SGs E-201A, B, C, and D	Volumetric exam	Manual or remote visual exam from manway opening	Granted
RR-A3	Reactor Pressure Vessel	B-E	B4.13	RPV inner and outer seal monitoring tube penetrations	VT-2 visual exam during hydro test	None. Indirect visual of the surrounding area	Granted
RR-A4	Pressurizer	B-H	B8.20	Support skirt integrally welded attachment	Volumetric or surface (as applicable)	Surface and "best effort" volumetric exams from weld OD	Granted

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RR-A5	Reactor Coolant Pumps	B-L-1 and B-L-2	B12.10 and B12.20	RC pump casing welds and pump casing internal surfaces	Volumetric exam of welds and VT-3 visual exam of internal surfaces	Code exams if pump disassembled for maintenance or surface exam of weld OD if pump not disassembled	Granted, with condition stated in Technical Evaluation Report
RR-B1	RHR Heat Exchangers	C-B	C2.21 and C2.22	Nozzle-to-vessel welds and nozzle inside radius sections	Volumetric and surface exam of welds and volumetric exam of inside radius	100% surface exam of welds and volumetric of welds and inside radius sections to max. extent practical	Granted
RR-B2	Class 2 Piping	C-F-1 and C-F-2		Containment penetration flued head welds located inside penetrations: P-11, P-44, P-45, P-46, P-47, P-63, P-60, P-28, P-29, P-30, P-31, P-32, P-33, P-34, and P-35	Volumetric and surface	None	Granted with conditions stated in Technical Evaluation Report

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RR-B3	Class 2 Piping	C-H		Class 2 small diameter piping that cannot be isolated from Class 1 lines, e.g., instrument lines, sampling lines, seal vent/drain/monitor lines (for complete description of systems and lines see Technical Evaluation Report)	Hydrostatic test per IWC-5222	Visual exam at Class 1 pressure in conjunction with hydrostatic test of adjacent Class 1 piping	Granted
RR-B4	Class 2 Piping	C-H		Class 2 piping that cannot be isolated from Class 1 lines due to flow direction of check valves (for complete description of systems and lines see Technical Evaluation Report)	Hydrostatic test per IWC-5222	Visual exam at Class 1 pressure in conjunction with hydrostatic test of adjacent Class 1 piping	Granted
RR-B5	Class 2 and Class 3 Piping	C-H, D-A, D-B, and D-C		Scheduling requirements for Class 2 and Class 3 hydrostatic tests	Tests at or near end of inspection interval or during same inspection period each interval	Distribution of tests throughout the inspection interval (elapsed time between consecutive tests not to exceed 10-years)	Granted