



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

ENCLOSURE 1

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

NORTHEAST NUCLEAR ENERGY COMPANY

MILLSTONE NUCLEAR POWER STATION, UNIT 3

DOCKET NO. 50-423

1.0 INTRODUCTION

Technical Specification 4.0.5 for the Millstone Nuclear Power Station, Unit 3, 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, Section 50.55a(g), except where specific written relief has been granted to the Commission pursuant to 10 CFR 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 first 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 date of issuance of the operating license, 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 its 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 May 22, 1986, Northeast Nuclear Energy Co. (the licensee) submitted the First Ten-Year Interval Inservice Inspection (ISI) Program Plan, Revision 0, for the Millstone Nuclear Power Station, Unit 3, to meet the requirements of the 1983 Edition, Summer 1983 Addenda of Section XI of the ASME Boiler and Pressure Vessel Code. The staff, with technical assistance from its Contractor, Science Applications International Corporation (SAIC), has evaluated the First Ten-Year Interval Inservice Inspection Program Plan, Revision 0, additional information related to the plan, and the requests for relief from certain ASME Code requirements determined to be impractical to perform at the Millstone Nuclear Power Station, Unit 3, during the First 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 commitments made by the licensee prior to plant operation, (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 are documented in the attached SAIC Technical Evaluation Report SAIC-88/1941. We concur with the findings and recommendations contained in the 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 Millstone Nuclear Power Station, Unit 3, First Ten-Year Interval Inservice Inspection Program Plan, Revision 1, with the additional information provided and the specific written relief constitute the basis for compliance with 10 CFR 50.55a(g) and Technical Specification 4.0.5 and is therefore acceptable.

Dated: February 8, 1991

Principal Contributor: George Johnson

TABLE 1
SUMMARY OF RELIEF REQUESTS

<u>Relief Request Number</u>	<u>Exam. Cat.</u>	<u>Item. No.</u>	<u>System or Component</u>	<u>Volume or Area to be Examined</u>	<u>Required Method</u>	<u>Licensee Proposed Alternative</u>	<u>Relief Request Status</u>
IR-1	B-A	B1.12	Reactor Vessel Shell	Pressure Retaining Longitudinal Welds in the Beltline Region: Welds 6,7, & 8	Volumetric Examination of 100% of length of all welds	Volumetric Examination of accessible portions of welds	Granted
	B-A	B1.21	Reactor Vessel Bottom Head	Pressure Retaining Circumferential Welds	Volumetric Examination of accessible length of all welds		Relief not Required
	B-A	B1.22	Reactor Vessel Bottom Head	Pressure Retaining Meridional Welds	Volumetric Examination of accessible length of all welds		Relief not Required
IR-2	B-A	B1.21	Reactor Vessel Closure Head	Pressure Retaining Circumferential Weld No. 103-101	Volumetric Examination of Accessible Length of all welds	Volumetric Examination of accessible portions of weld	Relief not Required

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		B1.22	Reactor Vessel Closure Head	Pressure Retaining Meridional Weld No. 101-104D	Volumetric Examination of accessible length of all welds	Volumetric Examination of accessible portions of weld	Relief not Required
		B1.40	Reactor Vessel Head Flange	Head-to-flange Weld No. 101-101	Volumetric and Surface Examination	Volumetric and Surface Examination of accessible portions of weld	Granted
IR-1	B-D	B3.90	Reactor Vessel	Nozzle-to-vessel weld	Volumetric	Volumetric Examination of accessible portions of welds	Granted
	B-D	B3.100	Reactor Vessel	Nozzle inside radius section	Volumetric		Delayed pending further review. Attempt examination and, request relief at that time if required.

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IR-3	B-B	B2.11	Pressurizer	Pressure Retaining Circumferential shell-to-head welds 03-007-SW-J and 03-007-SW-F	Volumetric	Volumetric Examination of accessible portions of welds.	Granted
IR-8	B-D	B3.110	Pressurizer	Nozzle-to-vessel welds: 03-007-SW-A 03-007-SW-B 03-007-SW-C 03-007-SW-D 03-007-SW-E 03-007-SW-S	Volumetric	Volumetric Examination of accessible portions of welds	Granted
	B-D	B3.130	Steam Generator	Nozzle-to-vessel welds: 03-003-SW-V INLET 03-003-SW-LL OUTLET 03-004-SW-V INLET 03-004-SW-LL OUTLET 03-005-SW-V INLET 03-005-SW-LL OUTLET 03-006-SW-V INLET 03-006-SW-LL OUTLET	Volumetric	Volumetric Examination of accessible portions of Welds	Granted

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IR-3	B-B	B2.11	Pressurizer	Pressure Retaining Circumferential shell-to-head welds 03-007-SW-J and 03-007-SW-F	Volumetric	Volumetric Examination of accessible portions of welds.	Granted
IR-8	B-D	B3.110	Pressurizer	Nozzle-to-vessel welds: 03-007-SW-A 03-007-SW-B 03-007-SW-C 03-007-SW-D 03-007-SW-E 03-007-SW-S	Volumetric	Volumetric Examination of accessible portions of welds	Granted
	B-D	B3.130	Steam Generator	Nozzle-to-vessel welds: 03-003-SW-V INLET 03-003-SW-LL OUTLET 03-004-SW-V INLET 03-004-SW-LL OUTLET 03-005-SW-V INLET 03-005-SW-LL OUTLET 03-006-SW-V INLET 03-006-SW-LL OUTLET	Volumetric	Volumetric Examination of accessible portions of Welds	Granted

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IR-9	B-J	B9.11	Piping Pressure boundary nominal pipe size (NPS) 4 inch or larger	Safe End-to-Pipe Welds	Surface and Volumetric	Full volumetric examination from the ID surface; OD surfaces will be visually examined	Granted with condition
	B-F	B5.10	Reactor Vessel	Nozzle-to-safe end butt welds	Surface and Volumetric	Full volumetric Examination from the ID Surface; OD Surface will be Visually examined.	Granted
IR-10	B-J	B9.11	Piping Welds NPS 4 inch or larger	Centrifugally cast stainless steel component-to-fitting welds: LP4-EC-2-SW-B RCS-20-FW-37 RCS-20-FW-38 RCS-20-FW-39	Volumetric and surface	Volumetric and surface on accessible portions.	Granted
IR-11	B-J	B9.11	Piping welds NPS 4 inch or larger	Pressure Retaining weld in class 1 SIL-6-6-SW-B	Volumetric and surface	Volumetric and surface on accessible portions	Granted

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IR-4	B-L-2	B12.20	Pump Casings	Internal surfaces of pumps	Visual, VT-3	Class 1 pumps will receive a visual examination (VT-3) when they are disassembled	Granted
	B-M-2	B12.40	Valve Bodies	Internal surfaces of valve bodies	Visual, VT-3	Class 1 valves will receive a visual examination (VT-3) when they are disassembled	Granted
IR-14	C-A	C1.10	Residual Heat Exchanger	Shell-to-flange circumferential welds	Volumetric	Volumetric on the accessible portion; Inaccessible portion will receive a liquid penetrant examination	Granted

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IR-7	C-B	C2.21	Steam Generators	Full penetration nozzle-to-vessel welds: 03-003-SW-R S/G A 03-003-SW-T S/G A	Volumetric and surface	Volumetric and surface on accessible areas	Granted
IR-13	C-C	C3.20	Piping	Integrally-welded attachments for piping weld No. 3-SIL-4-PSR-040	Surface	Surface exam on the accessible portions.	Granted

TECHNICAL EVALUATION REPORT
FIRST INTERVAL INSERVICE INSPECTION PROGRAM
MILLSTONE NUCLEAR POWER STATION UNIT 3



Science Applications International Corporation
An Employee-Owned Company