



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

ENCLOSURE

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO THE INSERVICE TESTING PROGRAM AND REQUESTS FOR RELIEF
LIMERICK GENERATING STATION UNITS 1 AND 2
DOCKET NOS.: 50-352 AND 50-353

INTRODUCTION

The Code of Federal Regulations, 10 CFR 50.55a(g), requires that inservice testing (IST) of ASME Code Class 1, 2, and 3 pumps and valves be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable addenda, except where specific written relief has been requested by the licensee and granted by the Commission pursuant to subsections (a)(3)(i), (a)(3)(ii), or (g)(6)(i) of 10 CFR 50.55a. In requesting relief, the licensee must demonstrate that: (1) the proposed alternatives provide an acceptable level of quality and safety; (2) compliance would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety; or (3) the conformance with certain requirements of the applicable Code edition and addenda is impractical for its facility.

These regulations authorize the Commission to grant relief from ASME Code requirements upon making the necessary findings. The NRC staff's findings with respect to granting or not granting the relief requested as part of the licensee's IST Program are contained in this Safety Evaluation (SE).

The IST program addressed in this SE covers the first ten-year inspection interval which commenced on February 1, 1986 for Unit 1 and January 8, 1990 for Unit 2. The licensee's program includes pump and valve IST program, Revision 0, for both Units 1 and 2, and is described in a letter dated November 23, 1988, which supersedes all previous submittals. The licensee's program is based on the requirements of Section XI of the ASME Code, 1986 Edition.

EVALUATION

The licensee's IST program and the requests for relief from the requirements of Section XI have been reviewed by the staff with the assistance of its contractor, EG&G, Idaho, Inc. (EG&G). In addition, EG&G and staff members met with licensee representatives on February 24 and 25, 1988, in a working session to discuss questions resulting from the review. The Technical Evaluation Report (TER) provided as Attachment 1 is EG&G's evaluation of the licensee's IST program and relief requests. The staff has reviewed the TER and concurs with the evaluation and conclusions contained in the TER. A summary of the pump and valve relief request determinations is presented in Table 1. The granting of relief is based upon the fulfillment of any commitments made by the licensee in its basis for each relief request and the alternative proposed testing.

March 5, 1991

interest giving due consideration to the burden upon the licensee that could result if the requirements were imposed on the facility. Accordingly, relief from certain requirements of Section XI of the ASME Code is hereby granted, as described in the enclosed Safety Evaluation, provided the program/procedural changes identified in Appendix A of the TER are addressed within the time frame specified in the SE.

We have received your relief request of January 23, 1991 regarding the use of ultrasonic equipment to trend flow measurements for certain pumps. Our determination on this will be provided in separate correspondence.

IST program changes such as additional relief requests or changes to relief requests should be submitted for staff review but should not be implemented prior to review and approval by the NRC. New or revised relief requests meeting the positions in Generic Letter 89-04, Attachment 1, can be implemented provided the guidance in Generic Letter 89-04, Section D, is followed. Program changes that involve additions or deletions of components from the IST program should be provided to the NRC.

Should you have any questions concerning the above, please do not hesitate to contact us.

Sincerely,

/s/

Walter R. Butler, Director
Project Directorate I-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosure:
Safety Evaluation w/Att'ts
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LIMERICK GENERATING STATION, UNITS 1 AND 2
SER TABLE 1
SUMMARY OF RELIEF REQUESTS

RELIEF REQUEST NUMBER	TER SECTION	SECTION XI REQUIREMENT & SUBJECT	EQUIPMENT IDENTIFICATION	ALTERNATE METHOD OF TESTING	ACTION BY USMRC
GPRR-1	2.1.1.1	IWP-3300: Annual bearing temperature measurement.	Various pumps listed in IST program.	Monitor bearing condition using the vibration monitoring program.	Relief Granted (a)(3)(i)
GPRR-2	2.1.2.1	IWP-4110: Instrument accuracy requirements.	All pumps except safeguard piping fill, diesel fuel oil transfer, and standby liquid control pumps.	Use installed instruments that are accurate to +/- 3% of full-scale range.	Relief Granted for certain instruments (a)(3)(ii) Relief Denied for instruments with inaccuracies greater than +/- 6%.
GVRR-1	3.1.1.1	IWV-3420: Category A valve leak rate testing requirements.	All containment isolation valves.	Leak rate test valves using 10 CFR 50, Appendix J, Type C, leak rate test during refueling outages.	Relief Granted with provision (a)(3)(i)
GVRR-2	3.1.2.1	IWV-3520: Exercise frequency.	All excess flow check valves.	Perform functional testing of the closure capability of these valves during refueling outages.	Relief Granted (a)(3)(i)
GVRR-3	3.1.3.1	IWV-3417(a): Stroke time corrective action.	Power operated valves that normally stroke in 2 seconds or less.	Assign a maximum limiting stroke time of 2 seconds to the valves and take corrective action if limit is exceeded.	Relief Granted (a)(3)(i)

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GVRR-4	3.1.4.1	IWV-3522: Check valve test method.	Various series safeguards piping stay fill check valves.	Verify the closure capability of each set of series check valves as a unit.	Relief Granted with provision (g)(6)(i)
GVRR-6	3.1.4.2	IWV-3522: Check valve test method and frequency.	Various series safeguards piping stay fill check valves.	Verify the closure capability of each check valve by disassembly during system mini-outages or refueling outages.	Relief Granted with provision (g)(6)(i)
GVRR-5	3.1.5.1	IWV-3522: Check valve test method.	Suppression pool vacuum relief check valves.	Full-stroke exercise each set of four series-parallel check valves to the open position as a unit.	Relief Granted with provision (g)(6)(i)
20-VRR-1	3.2.1.1	IWV-3412: Test frequency and method. IWV-3413: Valve stroke timing.	Diesel generator air start solenoid valves, 92-1(2)302A, B, C, D, -1(2)303A, B, C, D, -1(2)308A, B,	Test valves as a unit during diesel testing every 18 months.	Relief Granted with provision (g)(6)(i)
41-VRR-1	3.3.1.1	IWV-3520: Test frequency requirements.	Feedwater system inside containment isolation valves, 41-1(2)F010A, B	Verify closure capability of the valves using Appendix J, Type C, leak rate test during refueling outages.	Relief Granted (g)(6)(i)
41-VRR-2	3.3.2.1	IWV-3411: Test frequency requirements. IWV-3413: Valve stroke timing.	Reactor coolant system ADS valves, PSV-41-1(2)F013E, K, M, S	Full-stroke exercise during restart after refueling outages with no stroke timing.	Relief Granted with provision (g)(6)(i)

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41-VRR-3	3.3.3.1	IWV-3522: Test frequency requirements.	ADS valve accumulator gas supply check valves, 41-1(2)F036E, H, K, M, S	Full-stroke exercise during cold shutdowns when containment is de-inerted and during refueling outages.	Relief Granted (g)(6)(i)
41-VRR-4	3.3.3.2	IWV-3522: Test frequency requirements.	Inboard main steam isolation valve accumulator inlet check valves, 41-1(2)F024A, B, C, D	Full-stroke exercise during cold shutdowns when containment is de-inerted and during refueling outages.	Relief Granted (g)(6)(i)
41-VRR-5	3.3.3.3	IWV-3522: Test frequency requirements.	Outboard main steam isolation valve accumulator inlet check valves, 41-1F029A, B, C, D	Full-stroke exercise during refueling outages.	Relief Granted (g)(6)(i)
41-VRR-1	3.4.1.1	IWV-3520: Test frequency requirements.	Recirculation pump seal purge primary containment isolation check valves, 43-1(2)004A, B	Verify closure capability using Appendix J, Type C, leak rate testing during refueling outages.	Relief Granted (g)(6)(i)
46-VRR-1	3.5.1.1	IWV-3412: Test frequency requirements.	Reactor recirculation pumps seal purge water line bypass leakage vent valves, HV-46-1(2)25, -1(2)26	11-stroke exercise during cold shutdowns when the containment is de-inerted and during refueling outages.	Relief Granted (g)(6)(i)

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47-VRR-1	3.6.1.1	IWV-3412: Test frequency requirements. IWV-3413: Valve stroke timing reqmts.	Control rod drive scram valves, XV-47-1(2)-26, -1(2)-27	Verify valve operability using control rod scram insertion time testing per Technical Specification 4.1.3.2.	Relief Granted (a)(3)(i)
47-VRR-1	3.6.2.1	IWV-3520: Test frequency and method requirements.	Control rod drive scram check valve, 47-1(2)-14	Verify full-stroke capability using control rod scram insertion time testing per Technical Specification 4.1.3.2.	Relief Granted (a)(3)(i)
48-VRR-1	3.7.1.1	IWV-3520: Test frequency requirements.	Standby liquid control injection line primary containment isolation valves, HV-48-1(2)F006A, -1(2)F0	Full-stroke exercise during refueling outages.	Relief Granted (g)(6)(i)
48-VRR-1	3.7.2.1	IWV-3520: Test frequency requirements.	Standby liquid control inboard injection check valve, 48-1(2)027	Full-stroke exercise during refueling outages.	Relief Granted (g)(6)(i)
49-VRR-1	3.8.1.1	IWV-3520: Test frequency requirements.	Reactor core isolation cooling pump suction check valve from suppression pool, 49-1(2)030	Part-stroke exercise quarterly and full-stroke exercise during refueling outages.	Relief Granted (g)(6)(i)

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51-VRR-1	3.9.1.1	IWV-3412. Test frequency requirements. IWV-3413: Valve stroke timing reqmts.	Residual heat removal service water emergency core flood isolation valve, HV-51-1(2)F07	Exercise and stroke time during refueling outages.	Relief Granted (g)(6)(i)
52-VRR-1	3.10.1.1	IWV-3520: Test frequency requirements.	Core spray injection check valve, HV-52-1(2)08	Full-stroke exercise open during refueling outages using a chainfall and closed using Appendix J, Type C, leak testing.	Relief Granted (g)(6)(i) to verify closure capability during refueling outages Relief Denied to exercise open during refueling outages.
55-VRR-1	3.11.1.1	IWV-3520: Test frequency and method requirements.	High pressure coolant injection pump suction check valve from the suppression pool, 55-1(2)F045	Part-stroke exercise quarterly and verify full-stroke open capability using disassembly during refueling outages.	Relief Granted with provision (g)(6)(i)
55-VRR-2	3.11.1.2	IWV-3520: Test frequency and method requirements	High pressure coolant injection pump discharge check valves to feedwater and core spray systems, 55-	Verify full-stroke capability using disassembly during refueling outages.	Interim Relief Granted (g)(6)(i) for one year or until the next refueling outage.

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59-VRR-1	3.12.1.1	IWV-3520: Test frequency requirements.	ADS accumulator nitrogen supply check valves, 59-1(2)001, -1(2)005A, -1(2)005B, -1(2)056, -1(2)112,	Full-stroke exercise during cold shutdowns when the containment is de-inerted and during refueling outages.	Relief Granted (g)(6)(i)
59-VRR-1	3.12.2.1	IWV-3520: Test frequency requirements.	ADS accumulator nitrogen supply check valves, 59-1(2)023E, H, K, M, S, -1(2)024E, H, K, M, S, -1(2)1	Full-stroke exercise during cold shutdowns when the containment is de-inerted and during refueling outages.	Relief Granted (g)(6)(i)
90-VRR-1	3.13.1.1	IWV-3413: Valve stroke timing requirements.	Standby gas treatment access and room supply isolation valves, SV-90-045A, -045B, -047A, -047B	Exercise and fail-safe test valves quarterly without stroke timing.	Interim Relief Granted (g)(6)(i) for one year or until the next refueling outage.