



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

OF THE FIRST TEN-YEAR INTERVAL INSERVICE

INSPECTION/INSERVICE TESTING RELIEF REQUESTS

ILLINOIS POWER COMPANY, ET AL.

CLINTON POWER STATION, UNIT NO. 1

DOCKET NUMBER 50-461

1.0 INTRODUCTION

By letter dated July 29, 1988, the Illinois Power Company (the licensee) submitted revised Relief Request Nos. 4001 (Revision 1) and 4003 (Revision 1), and new Relief Request No. 4004. By letter dated December 28, 1988, the licensee submitted a revised Relief Request No. 4004. The Idaho National Engineering Laboratory (INEL) provided technical assistance to the staff for the evaluation of Relief Request Nos. 4001 and 4003.

The Technical Specifications (TS) for Clinton Power Station, Unit 1, state that the inservice inspection and testing of the American Society of Mechanical Engineers (ASME) Code Class 1, 2, and 3 components shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel 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). Section 50.55a(a)(3) of 10 CFR Part 50 states that alternatives to the requirements of paragraph (g) may be used if (i) the proposed alternatives would provide an acceptable level of quality and safety, or (ii) compliance with the specified requirements would result in hardship or unusual difficulties without a compensating increase in the level of quality and safety.

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 10-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 12 months prior to the issuance of the operating license, subject to the limitations and modifications listed therein. The applicable edition of Section XI of the ASME Code for the Clinton Power Station (CPS), Unit 1, first 10-year ISI interval is the 1980 Edition through Winter 1981 Addenda. 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 impose alternative requirements that are determined to be authorized by law, will not endanger life, property, or the common defense and security, and is otherwise in the public interest, giving due consideration to the burden upon the licensee that could result if the requirements were imposed.

2.0 EVALUATION

The information provided by the licensee in support of the requests for relief from impractical requirements has been evaluated and the bases for granting relief from those requirements are documented below.

A. Request for Relief No. 4001, Revision 1, Examination Category C-F, Open-ended Class 2 Piping and IWF-2510(a), Selection of Component Supports

NOTE: Request for Relief No. 4001 (Revision 0), was previously granted by the staff in an SER dated March 1, 1988. Revision 1 includes two additional open-ended lines, 1RH30BA-12" and 1RH30DA-12" and the component supports associated with all the subject open-ended piping that is exempted by Code Case N-408.

The addition of two open-ended lines to this request for relief does not change the evaluation. They remain exempted from examination by Code Case N-408. Therefore, pursuant to 10 CFR 50.55a(g)(6)(i), relief should remain granted as requested.

Evaluation of the associated component supports is not required based on Code Interpretation XI-1-36-49. (The Interpretation question as submitted to ASME is: "Does IWF-2510(a) require examination of supports for Class 1 or Class 2 piping, if the piping welds are not required to be examined in accordance with Examination Categories B-F, B-J, B-K-1, C-C, C-F-1, and C-F-2?" The ASME Code response was "No.") This Code rule can be applied to exemptions based on an NRC-approved Code Case. It is therefore concluded that relief from these component support examinations is not required.

B. Request for Relief No. 4003, Revision 1, Subarticle IWF-2500, VT-4 Visual Examination of Component Supports

NOTE: Request for Relief No. 4003 (Revision 0), was previously granted by the staff in an SER dated March 1, 1988. Relief was requested from the VT-4 visual examination requirements of 1980 Edition, Winter 1981 Addenda, Examination Category F-C, Component Standard Supports, Item F3.50, "Spring type supports, constant load type supports, shock absorbers,

hydraulic and mechanical type snubbers." In Revision 1, Illinois Power Company proposes the use of the 1983 Edition, Winter 1984 Addenda (83W84) to define a VT-3 visual examination. The 83W84 Code Edition combines the VT-3 and VT-4 visual examination requirements into a single VT-3 visual examination. Revision 1 is requesting to use the 83W84 Edition VT-3 visual examination requirements for all component supports that are subject to examination under IWF-2500, in lieu of the VT-3 visual defined in 80W81.

The staff concludes that Relief Request No. 4003 (Revision 1) does not require additional technical evaluation. The VT-3 visual examination requirement in the 83W84 Code Edition is equivalent to the combined VT-3/VT-4 requirements of 80W81 Edition. Therefore, pursuant to 10 CFR 50.55a(a)(3)(i), the alternative examinations remain approved as requested.

- C. Request for Relief No. 4004, Examination Category F-C, Item F3.50, IWF-5400, IWF-2420, IWF-2430, and IWF-5500, Visual Inspection, Functional Testing Frequencies, and Corrective Action for Hydraulic and Mechanical Snubbers

The requested relief would relieve the licensee from performing the Section XI required surveillance and permit only the inservice surveillance requirements for snubbers in accordance with TS Section 4.7.4, "Snubbers." The Inservice surveillance requirements for snubbers consist of two parts, visual examination and functional testing. Present CPS surveillance requirements for snubbers are listed in TS Section 4.7.4 which describes the details of the visual examination and functional testing requirements, and implementation plans; and are referenced in TS 4.0.5 which incorporates the inservice surveillance requirements specified by Section XI. The details of the Section XI visual examination and functional testing requirements are the same as those of the TS, but Section XI utilizes different sampling implementation plans.

Subsection IWF of Section XI delineates visual examination requirements for component supports, including snubbers. The required examination frequency is the same as that in Subsections IWB, IWC, IWD, and IWE; i.e., three inspections in a 10-year period of time, with a variable percentage sampling basis. The surveillance requirements for snubbers as stated by TS Section 4.7.4 requires an examination period that varies from 90 days to maximum of 18 months, depending on the previous examination results. Therefore, the TS required visual examination requirements envelop the Section XI requirements. The 1980 edition of Section XI, Subsection IWF, generally adopted early TS testing requirements in its entirety, which permitted the use of only one plan for sampling the snubber population, the 10% plan. Since that time, the TS testing requirements have been revised several times. The current TS lists several sampling plans, including the 10% plan. The licensee is permitted to select any one of them for inservice surveillance purposes. The use of any approved plan will yield acceptable results to determine the adequacy of the snubber population for continued plant operation. The 1986 edition of Section XI, Subsection IWF revised its requirements to be identical to the

present generic TS requirements. However, they have not yet been endorsed by NRC. Since the purpose of functional testing is to identify snubbers degraded by service conditions, and different sampling plans should yield similar results for the same population, the licensee should not be required to do more than one test to verify the adequacy of the same population at the same instant.

The staff has reviewed the proposed relief request and finds that performance of the Section XI surveillance referenced by TS 4.0.5 would result in the unnecessary duplication of inservice surveillance required by TS Section 4.7.4, "Snubbers." Because of this duplication, and the fact that either inservice inspection program is acceptable, we find that performance of both Section XI and TS Section 4.7.4 surveillance is impractical. Therefore, pursuant to the provisions of 10 CFR 50.55a(g)(6)(i), the relief requested related to Section XI snubber surveillance requirements is granted.

3.0 CONCLUSION

Paragraph 10 CFR 50.55a(g)(4) requires that components (including supports) that are classified as ASME Code Class 1, 2, and 3 meet the requirements, except design and access provisions and preservice requirements, set forth in applicable editions of ASME Section XI to the extent practical within the limitations of design, geometry, and materials of construction of the components. Pursuant to 10 CFR 50.55a(g)(5)(iii), the licensee has determined that conformance with certain Code requirements is impractical for its facility and submitted supporting technical justification.

The staff has reviewed the licensee's submittals and has concluded that relief can remain granted for Relief No. 4001 (Revision 1), pursuant to 10 CFR 50.55a(g)(6)(i), and the alternative examinations remain approved for Relief No. 4003 (Revision 1), pursuant to 10 CFR 50.55a(a)(3)(i), based on previous safety evaluations. The staff has concluded that relief is not required for associated component supports added to Relief Request No. 4001 (Revision 1). The staff has also concluded that relief can be granted for Relief Request No. 4004, pursuant to 10 CFR 50.55a(g)(6)(i). We have determined that granting of this 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, giving due consideration to the burden upon the licensee that could result if the code requirements were imposed on this facility.

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