



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

REQUEST FOR RELIEF FROM SNUBBER INSPECTION REQUIREMENTS

POWER AUTHORITY OF THE STATE OF NEW YORK

JAMES A. FITZPATRICK NUCLEAR POWER PLANT

DOCKET NO. 50-333

1.0 INTRODUCTION

The Code of Federal Regulations, 10 CFR 50.55a, requires that inservice inspection (ISI) of certain American Society of Mechanical Engineers (ASME Code) Class 1, 2, and 3 components be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code applicable Edition and Addenda, except where specific written relief has been requested by the licensee and granted by the Commission pursuant to paragraph 10 CFR 50.55a(g)(6)(i), or alternatives authorized pursuant 10 CFR 50.55a(a)(3). In proposed alternatives, the licensee must demonstrate that: (i) the proposed alternatives provide an acceptable level of quality and safety; or (ii) compliance would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety. In requesting relief, the licensee must demonstrate that the requirement is impractical for its facility.

10 CFR 50.55a empowers the Commission to authorize an alternative from the ASME Code requirements upon making the necessary findings. The NRC staff's finding, with respect to authorizing the requested alternative as part of the licensee's ISI program, is contained in this Safety Evaluation (SE).

This SE addresses *Relief Request No. 11*, submitted by the New York Power Authority (the licensee, also known as the Power Authority of the State of New York) on January 26, 1998, for authorization to perform the visual examination of snubbers in accordance with the guidance provided in NRC Generic Letter (GL) 90-09, *Alternative Requirements for Snubber Inspection Intervals and Corrective Actions*, in lieu of the requirements of ASME/ANSI OMa-1988, Part 4, Sections 2.3.2.2 and 2.3.2.3 at the James A. FitzPatrick Nuclear Power Plant. The licensee's ISI program for the third ten-year interval is based on the requirements of the ASME Code, Section XI, 1989 Edition, Subsection IWF, Article IWF-5000. Subarticle IWF-5300(a) invokes the Inservice visual examinations requirements that are to be performed in accordance with the first addenda to ASME/ANSI OM-1987, Part 4 (published in 1988), using the VT-3 visual examination method described in IWA-2213.

2.0 DESCRIPTION

Relief is requested from the performance of visual inspections of snubbers at 18-month intervals, and the associated schedule changes if unacceptable snubbers are found, as required by ASME/ANSI OMa-1988 Part 4, Section 2.3.2.2 *Examination Schedules*, invoked by Subarticle IWF-5300(a). Relief is also requested from OMa-1988, Part 4, Section 2.3.2.3 *Subsequent Examination Schedule Adjustment*.

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2.1 LICENSEE'S PROPOSED ALTERNATIVE

The licensee proposes that the visual examination of snubbers at the James A. FitzPatrick Nuclear Power Plant be performed at the intervals and sampling rates in accordance with the guidance provided in NRC's GL 90-09, *Alternative Requirements for Snubber Visual Inspection Intervals and Corrective Actions*, dated December 11, 1996, as specified in Relief Request No. 11. This alternative is based upon the number of unacceptable snubbers found during the previous inspection, the total population or category size for each snubber type, and the previous interval. The licensee's proposed alternative is given below:

Examinations of snubbers will be performed at intervals and sampling rates in accordance with the requirements specified in Generic Letter 90-09, *Alternative Requirements for Snubber Inspection Intervals and Corrective Actions*, December 11, 1990. This proposed alternative is based upon the number of unacceptable snubbers found during the previous inspection, the total population or category size for each snubber type, and the previous interval. Specifically, the visual inspection interval will be determined based upon the following criteria:

| Population Category | Column A Extended Interval | Column B Repeat Interval | Column C Reduce Interval |
|---------------------|-------------------------------|-----------------------------|-----------------------------|
| 1 | 0 | 0 | 1 |
| 80 | 0 | 0 | 2 |
| 100 | 0 | 1 | 4 |
| 150 | 0 | 3 | 8 |
| 200 | 2 | 5 | 13 |
| 300 | 5 | 12 | 25 |

The next visual inspection interval for the population of a snubber category shall be determined based upon the previous inspection interval and the number of unacceptable snubbers found during that interval. Snubbers may be categorized, based on their accessibility during power operation, as accessible or inaccessible. These categories may be examined separately or jointly. This decision shall be made and documented before any inspection and used as the basis upon which to determine the next inspection interval for that category.

Interpolation between population or category sizes and the number of unacceptable snubbers is permissible. The next lower integer for the value or limit for Columns A, B, C shall be used if that integer includes a fractional value of unacceptable snubbers as determined by interpolation.

If the number of unacceptable snubbers is equal to or less than the number in Column A, the next inspection interval may be twice the previous interval but not greater than 48 months.

If the number of unacceptable snubbers is equal to or less than the number in Column B but greater than the number in Column A, the next inspection interval shall be the same as the previous interval.

If the number of unacceptable snubbers is equal to or greater than the number in Column C, the next inspection interval shall be two-thirds of the previous interval. However, if the number of unacceptable snubbers is less than the number in Column C but greater than the number in Column B, the next interval shall be reduced by a factor that is one-third of the ratio of the difference between the number of unacceptable snubbers found during the previous interval and the number in Column B to the difference in the numbers in Columns B and C.

2.2 LICENSEE'S BASIS FOR REQUESTED ALTERNATIVE

The snubber visual inspection schedule specified in OMa-1988 assumes that the refueling intervals will not exceed 18 months. The 18-month visual inspection interval is incompatible with the current FitzPatrick 24-month fuel operating cycle. The large number of snubbers in use at the plant make the specified OMa-1988 snubber inspection schedule and selection method excessively restrictive and resource intensive. Performance of the snubber inspections during power operation, as required by the OMa-1988 Part 4 inspection intervals, would result in expenditures of significant resources, and would subject personnel to unnecessary radiological exposure with no commensurate increase in quality or safety.

Further, the proposed alternative visual inspection schedule conforms with GL 90-09 requirements and has been previously approved for use at FitzPatrick in license amendment 180 issued on April 13, 1992. Snubber inspection requirements were subsequently removed from the technical specifications and relocated to licensee-controlled documents subject to 10 CFR 50.59 in a license amendment issued on June 30, 1998. No additional technical specification changes are required to implement this relief request.

3.0 EVALUATION

The staff developed GL 90-09, in part, to reduce unnecessary radiological exposure to plant personnel during snubber visual inspections. To verify that a snubber can operate within specific performance limits, the licensee usually performs functional testing that typically involves removing the snubber and testing it on a specifically designed stand. Functional testing provides a 95 percent confidence level that 90 percent to 100 percent of the snubbers can operate within specific performance limits. The performance of visual examinations is a separate process that complements the functional program and provides additional confidence in snubber operability. GL 90-09 provides an alternate schedule for snubber visual inspections that maintains the same confidence level as the existing inspection intervals and allows for inspections and corrective actions during plant outages. The staff determined that the visual inspection schedule of GL 90-09 is an acceptable alternative to the ASME Code requirements, and encouraged licensees to change their Technical Specifications to be consistent with this guidance.

Based on its review of the information provided in the request for relief from the snubber visual inservice examination interval requirements of IWF-5000, the staff has determined that the licensee's proposed alternative to use intervals and sampling rates consistent with the GL 90-09

guidance as specified in the submitted relief request and provides an acceptable level of quality and safety by providing a reasonable assurance of snubber operability.

4.0 CONCLUSION

The staff concludes that the licensee's proposed alternative to snubber visual inservice examination intervals and sampling rates requirements contained in the ASME Code, Section XI, Subsection IWF, Article IWF-5000, may be authorized pursuant to 10 CFR 50.55a(a)(3)(i) based on the determination that the licensee's proposed alternatives provide an acceptable level of quality and safety.

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Date: October 14, 1998