



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

ON ASME CODE CASE N-532 FOR

WOLF CREEK NUCLEAR OPERATING CORPORATION

WOLF CREEK NUCLEAR GENERATING STATION

DOCKET NO. 50-482

1.0 INTRODUCTION

The Technical Specifications for Wolf Creek Generating Station, 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. Section 50.55a(a)(3) of Title 10 of the Code of Federal Regulations states that alternatives to the requirements of paragraph (g) may be used, when authorized by the NRC, 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 ten-year interval and subsequent intervals 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 interval, subject to the limitations and modifications listed therein. The applicable edition of Section XI of the ASME Code for the Wolf Creek Generating Station first 10-year inservice inspection (ISI) interval is the 1980 Edition, through Winter 1981 addenda (used during the eighth refueling outage, scheduled to begin in March 1996) and for the second 10-year inservice inspection interval the applicable edition is the 1989 Edition (used during outages after the eighth refueling outage). 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 and subject to Commission approval.

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, 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.

By letters dated October 31, 1995, and December 27, 1995, Wolf Creek Nuclear Corporation (licensee) requested approval for the implementation of the alternative rules of ASME Section XI Code Case N-532 dated December 12, 1994, entitled "Alternative Requirements to Repair and Replacement Documentation Requirements and Inservice Summary Report Preparation and Submission as Required by IWA-4000 and IWA-6000, Section XI, Division 1," pursuant to 10 CFR 50.55a(a)(3) to be applied to the Inservice Inspection (ISI) program for Wolf Creek Generating Station.

The NRC staff has reviewed and evaluated the licensee's request and supporting information to use Code Case N-532 as a proposed alternative to the Code requirements for Wolf Creek Generating Station.

2.0 EVALUATION

CODE CASE N-532, "ALTERNATIVE REQUIREMENTS TO REPAIR AND REPLACEMENT DOCUMENTATION REQUIREMENTS AND INSERVICE SUMMARY REPORT PREPARATION AND SUBMISSION AS REQUIRED BY IWA-4000 AND IWA-6000 - SECTION XI, DIVISION 1"

ASME Code Section XI Requirement: Paragraph IWA-6220 requires that the licensee prepare reports using NIS-1, *Owner's Report for Inservice Inspections*, and NIS-2, *Owner's Report for Repair or Replacements*; IWA-6230 requires that these reports be filed with the enforcement and regulatory authorities having jurisdiction at the plant site within 90 days of the completion of the inservice inspection conducted during each refueling outage.

Licensee's Code Relief Request: The licensee requested relief from Code-required repair and replacement and inservice summary report documentation and submission requirements.

Licensee's Basis for Request:

Code Case N-532 provides an alternative to the current ASME Section XI repair and replacement documentation requirements as regulatory reporting requirements relating to Inservice Inspection (ISI). This alternative will reduce the resources required to prepare NIS-2 forms and prepare and submit the ISI Summary Report currently required after each refueling outage. This is a significant reduction in the administrative burden required by

IWA-6000. The use of Code Case N-532 only affects documentation and reporting requirements and does not affect the level of quality or safety provided by the Inservice Inspection Program.

Code Case N-532 was approved by the ASME Boiler and Pressure Vessel Code Committee on December 12, 1994, but is not included in the most recent listing of NRC approved code cases in Revision 11 of Regulatory Guide 1.147, "Inservice Inspection Code Case Acceptability - ASME Section XI Division 1." A copy of Code Case N-532 is attached for your convenience. [Note the copy of the Code Case N-532 is not attached to this document, but was used by the staff for this review.]

The NRC Staff has made recommendations supporting the development of Code Case N-532 in SECY-94-093 "NRC Staff Assessment of Reporting Requirements for Power Reactor Licensees." The use of Code Case N-532 is consistent with the recommendations of SECY-94-093.

This request to use Code Case N-532 includes compliance with the code case with the following clarification regarding reporting of "corrective measures" ASME Section XI uses the term, "corrective measures," in two different ways. One use of the term involves Code required activities such as repair and replacement. The other use of the term as used in IWX-3000, involves maintenance activities that do not involve repairs or replacements. With this clarification, WCNOG proposes not to report corrective measures which only include routine maintenance activities such as tightening threaded fittings to eliminate leakage, torquing of fasteners to eliminate leakage at bolted connections, replacing valve packing due to unacceptable packing leakage, tightening loosened mechanical connections on supports, adjustment and realignment of supports, cleanup of corrosion on components resulting from leakage, etc.

Including these routine maintenance activities in the OAR-1 form required by Code Case N-532 would be a significant expansion of current requirements. In addition, it would be an unnecessary reporting burden and provides little benefit. Reporting of these minor maintenance corrective measures has no safety significance and clutters the reporting of the meaningful information of repairs, replacements, and evaluations performed to accept flaws and relevant conditions exceeding Section XI acceptance criteria. Corrective measures which refer to Code required activities, such as repair and replacement, will be reported in compliance with Code Case N-532. Therefore, use of Code Case N-532 is requested with the above clarification regarding the provisions in paragraph 2 (c) for reporting corrective measures.

WCNOG considers the alternative documentation and reporting requirements of Code Case N-532 to be a reasonable alternative to

existing requirements. Because the use of this alternative only affects documentation and reporting requirements, WNOG considers this alternative to provide an acceptable level of quality and safety. Approval for use of Code Case N-532, with the noted clarification, is requested to support the refueling outage scheduled to begin in early March 1996.

Proposed Alternative Examination: The licensee proposes to implement Code Case N-532 with a clarification of the term "corrective measures."

Evaluation:

The use of Form NIS-1, *Owner's Report For Inservice Inspections*, and Form NIS-2, *Owner's Report for Repairs or Replacements*, and submittal of the 90-day Summary Report are Code requirements. Alternatives contained in Code Case N-532 allow the licensee to submit these records in an abstract format on Form NIS-2A, *Repair/Replacement Certification Record*, and Form OAR-1, *Owner's Activity Report*, following the completion of an inspection period.

Based on the review of the Code, the staff has determined that requirements associated with the documentation of inservice examinations and repairs/replacements and the subsequent submittal of forms NIS-1 and NIS-2 within 90 days following a refueling outage are administrative. The repair and replacement documentation reviews and approvals by the authorized nuclear inspector continue to be required by this Code Case, and the licensee is required to establish a repair/replacement plan in accordance with IWA-6340 of the 1992 edition of Section XI. Therefore, an adequate level of quality and safety will be maintained.

The licensee's request to clarify that the term "corrective measures" applies to Code-required activities regarding repair and/or replacement, and not to routine maintenance activities, is consistent with the scope of Code Case N-532. Since Code Case N-532 provides documentation alternatives for repair and replacement activities only, it is appropriate that the use of the term "corrective measures" be limited to these activities. Therefore, the staff finds the clarification proposed by the licensee to be acceptable.

The licensee has implemented Inspection Program B of the Code. Under this program, examination schedules are satisfied on a per period basis. Considering the milestones associated with Inspection Program B, it can be concluded that the submittal of the results of examinations and an abstract of repairs/replacements on a periodic basis is an acceptable alternative as it will provide sufficient information about the ISI program. In addition, the staff believes that the use of forms contained in Code Case N-532, that provide a summary of the status of repairs/replacements and a more detailed status of repairs/replacements and more detailed status of examinations by period and interval, is an improvement over report forms currently required by the Code. For example, OAR-1 includes the status of examinations credited for a period and percent credited to date, for the interval, by examination

Category. This type of information provides the regulatory authorities a more comprehensive report on the status of the inservice inspection program.

3.0 CONCLUSION

The staff concludes that the licensee's proposed alternative to use Code Case N-532 recording and reporting criteria and the clarification contained in its request for relief will continue to provide an acceptable level of quality and safety for Wolf Creek Generating Station as it provides comprehensive information about the status of the ISI program. Therefore, the licensee proposed alternative with the clarification contained in its request for relief is authorized pursuant to 10 CFR 50.55a(a)(3)(i), for the first and second 10-year ISI intervals, provided that all requirements of Code Case N-532 are satisfied. Use of Code Case N-532 is authorized until such time as the Code Case is published in a future revision of Regulatory Guide 1.147. At that time, if the licensee intends to continue to implement this Code Case, the licensee is to follow all provisions in Code Case N-532 with limitations issued in Regulatory Guide 1.147, if any.

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Date: February 9, 1996