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**Technical Evaluation Report on the
Second 10-Year Interval Inservice
Inspection Program Plan:
Duke Power Company,
Catawba Nuclear Station, Unit 2,
Docket Number 50-414**

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Duke Power Company,
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Docket Number 50-414**

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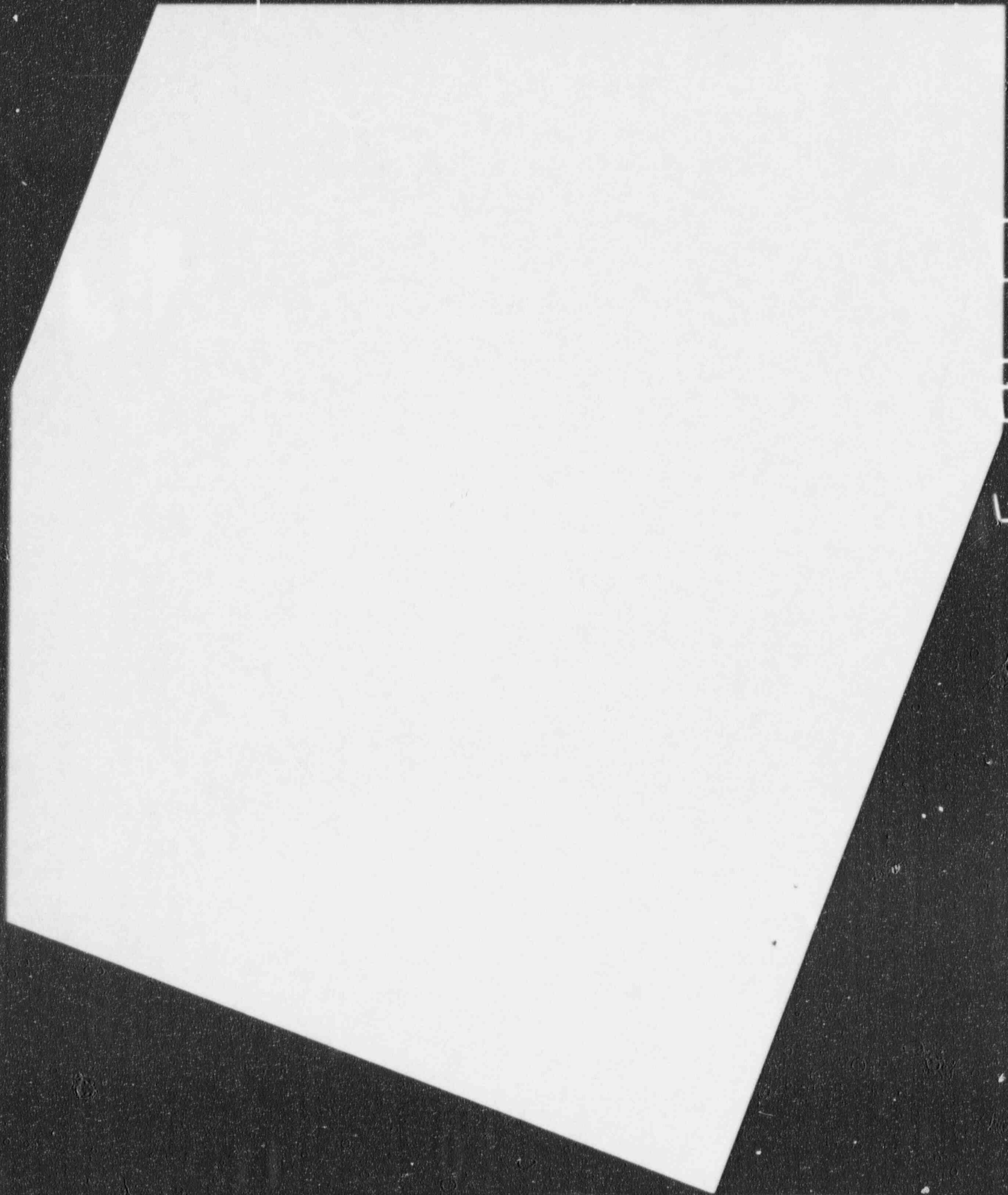
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ABSTRACT

This report presents the results of the evaluation of the *Catawba Nuclear Station, Unit 2, Second 10-Year Interval Inservice Inspection Program Plan*, Revision 1, submitted by letter dated February 14, 1996, including the requests for relief from the American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section XI. The *Catawba Nuclear Station, Unit 2, Second 10-Year Interval Inservice Inspection Program Plan*, Revision 1, is evaluated in Section 2 of this report. The inservice inspection (ISI) program plan is evaluated for (a) compliance with the appropriate edition/addenda of Section XI, (b) acceptability of the examination sample, (c) correctness of the application of system or component examination exclusion criteria, and (d) compliance with ISI-related commitments identified during previous Nuclear Regulatory Commission reviews. The requests for relief are evaluated in Section 3 of this report.

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SUMMARY

The licensee, Duke Power Company, has prepared the *Catawba Nuclear Station, Unit 2, Second 10-Year Interval Inservice Inspection Program Plan*, Revision 1, to meet the requirements of the 1989 Edition of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI. The second 10-year interval start date is August 19, 1996.

The information in the *Catawba Nuclear Station, Unit 2, Second 10-Year Interval Inservice Inspection Program Plan*, Revision 1, submitted by letter dated February 14, 1996, was reviewed. Included in the review were the requests for relief from the ASME Code Section XI requirements that the licensee has determined to be impractical. As a result of this review, Requests for Additional Information (RAI) were prepared describing the information and/or clarification required from the licensee to complete the review. The licensee responded to the RAIs in submittals dated August 19, 1996, and October 23, 1996, and provided additional clarification in a conference call between the NRC and licensee on September 10, 1996.

Based on the review of the *Catawba Nuclear Station, Unit 2, Second 10-Year Interval Inservice Inspection Program Plan*, Revision 1, the licensee's responses to the Nuclear Regulatory Commission's RAIs, and the recommendations for granting relief from the inservice inspection examinations that cannot be performed to the extent required by Section XI of the ASME Code, no deviations from regulatory requirements or commitments were identified in the *Catawba Nuclear Station, Unit 2, Second 10-Year Interval Inservice Inspection Program Plan*, Revision 1.

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TECHNICAL EVALUATION REPORT ON THE SECOND 10-YEAR INTERVAL INSERVICE INSPECTION PROGRAM PLAN DUKE POWER COMPANY CATAWBA NUCLEAR STATION, UNIT 2 DOCKET NUMBER 50-414

1. INTRODUCTION

Throughout the service life of a water-cooled nuclear power facility, its components (including supports) that are classified as American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code Class 1, 2, and 3 are required by 10 CFR 50.55a(g)(4) (Reference 1) to meet the requirements, except the design and access provisions and the preservice examination requirements, of the ASME Code, Section XI, *Rules for Inservice Inspection of Nuclear Power Plant Components*, (Reference 2) to the extent practical within the limitations of design, geometry, and materials of construction of the components. This section of the regulations also requires that inservice examinations of components and system pressure tests conducted during successive 120-month inspection intervals comply with the requirements in the latest edition and addenda of the Code incorporated by reference in 10 CFR 50.55a(b) on the date 12 months prior to the start of the 120-month inspection interval, subject to the limitations and modifications listed therein. The components (including supports) may meet requirements set forth in subsequent editions and addenda of this Code that are incorporated by reference in 10 CFR 50.55a(b) subject to the limitations and modifications listed therein, and subject to Nuclear Regulatory Commission (NRC) approval. The licensee, Duke Power Company, has prepared the *Catawba Nuclear Station, Unit 2, Second 10-Year Interval Inservice Inspection (ISI) Program Plan*, Revision 1 (Reference 3), to meet the requirements of the 1989 Edition of the Code. The second 10-year interval start date is August 19, 1996.

Pursuant to 10 CFR 50.55a(a)(3), proposed alternatives to the Code requirements may be used when authorized by the NRC. The licensee must demonstrate either that the proposed alternatives provide an acceptable level of quality and safety, or that Code compliance would result in hardship or unusual difficulty without a compensating increase in safety. Pursuant to 10 CFR 50.55a(g)(5)(iii), if the licensee determines that conformance with certain Code examination requirements is impractical for its facility, the licensee shall submit information to the NRC to support that determination. Pursuant to 10 CFR 50.55a(g)(6)(i), the NRC will evaluate the licensee's determination that Code requirements are impractical. The NRC may grant relief and may impose alternative requirements that it determines 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 on the facility.

The information in the *Catawba Nuclear Station, Unit 2, Second 10-Year Interval ISI Program Plan*, Revision 1, submitted by letter dated February 14, 1996, was reviewed, including the requests for relief from the ASME Code Section XI requirements that the licensee has determined to be impractical. This review was performed using the standard review plans of NUREG-0800, Section 5.2.4, "Reactor Coolant Boundary Inservice Inspections and Testing," and Section 6.6, "Inservice Inspection of Class 2 and 3 Components" (Reference 4).

In letters dated July 10, 1996 (Reference 5) and September 25, 1996 (Reference 6), the NRC requested additional information that was required in order to complete the review of the inservice inspection (ISI) program plan. The requested information was provided by the licensee in letters dated August 19, 1996 (Reference 7) and October 23, 1996 (Reference 8) with additional clarification provided in a conference call between the NRC and the licensee on September 10, 1996.

The *Catawba Nuclear Station, Unit 2, Second 10-Year Interval ISI Program Plan*, Revision 1, is evaluated in Section 2 of this report. The ISI program plan is evaluated for (a) compliance with the appropriate edition/addenda of Section XI, (b) acceptability of examination sample, (c) correctness of the application of system or component examination exclusion criteria, and (d) compliance with ISI-related commitments identified during the NRC's previous reviews. The requests for relief are evaluated in Section 3 of this report. Unless otherwise stated, references to the Code refer to the ASME Code, Section XI, 1989 Edition. Inservice test programs for snubbers and for pumps and valves are being evaluated in other reports.

2. EVALUATION OF INSERVICE INSPECTION PROGRAM PLAN

This evaluation consists of a review of the applicable program documents to determine whether or not they are in compliance with the Code requirements and any previous license conditions pertinent to ISI activities. This section describes the submittals reviewed and the results of the review.

2.1 Documents Evaluated

Review has been completed on the following information submitted by the licensee:

- *Catawba Nuclear Station, Unit 2, Second 10-Year Interval Inservice Inspection Program Plan*, Revision 1, submitted by letter dated February 14, 1996 (Reference 3)
- Response to Request for Additional Information, Second 10-Year Interval Inservice Inspection Program Plan, submitted by letter dated August 19, 1996 (Reference 7)
- Response to Request for Additional Information, Second 10-Year Interval Inservice Inspection Program Plan, submitted by letter dated October 23, 1996 (Reference 8).

2.2 Compliance with Code Requirements

2.2.1 Compliance with Applicable Code Editions

Inservice inspection program plans are to be based on Section XI of the ASME Code editions defined in 10 CFR 50.55a(g)(4) and 10 CFR 50.55a(b). Based on the starting date of August 19, 1996, the Code applicable for the second interval ISI program is the 1989 Edition. As stated in Section 1 of this report, the licensee has prepared the *Catawba Nuclear Station, Unit 2, Second 10-Year Interval ISI Program Plan*, Revision 1, to meet the requirements of the 1989 Edition.

In accordance with 10 CFR 50.55a(c)(3), 10 CFR 50.55a(d)(2), and 10 CFR 50.55a(e)(2), ASME Code cases may be used as alternatives to Code requirements. Code cases that the NRC has approved for use are listed in Regulatory Guide 1.147, *Inservice Inspection Code Case Acceptability*, (Reference 9) with any additional conditions the NRC may have imposed. When used, these Code cases must be implemented in their entirety. The licensee may adopt an approved Code case by providing written notification to the NRC. Published Code cases awaiting approval and subsequent listing in Regulatory Guide 1.147 may be adopted only if the licensee requests, and the NRC authorizes, their use on a case-by-case basis.

The licensee's second 10-year ISI program includes the Code cases listed below. These Code cases either have been approved for use in Regulatory Guide 1.147 or previously authorized based on requests for relief submitted to the NRC. It is recommended that previously authorized Code Cases be authorized for continued use, with applicable conditions for the second interval per 10 CFR 50.55a(a)(3).

Code Case N-307-1	<i>Revised Ultrasonic Examination Volume For Class 1 Bolting, Table IWB-2500-1, Examination Category B-G-1, When the Examination Are Conducted From the Center-Drilled Hole</i>
Code Case N-416-1	<i>Alternate Rules for Hydrostatic Testing of Repair or Replacement of Class 2 Piping.</i> Authorized for use pursuant to 10 CFR 50.55a(a)(3)(ii) by NRC letter to Mr. D. L. Rehn (Duke) from Mr. Herbert N. Berkow (NRC) dated March 6, 1995.
Code Case N-435-1	<i>Alternative Examination Requirements for Vessels with Wall Thickness 2 in. or Less, Section XI, Division 1</i>
Code Case N-457	<i>Qualification Specimen Notch Location For Ultrasonic Examination of Bolts and Studs</i>
Code Case N-460	<i>Alternative Examination Coverage For Class 1 and 2 Welds</i>
Code Case N-461	<i>Alternative Rules for Piping Calibration Block Thickness</i> (The following condition applies: Thickness measurements and weld joint contour of the pipe/component must be known and used by the inspector who conducts the UT examination.)
Code Case N-463-1	<i>Evaluation Procedures and Acceptance Criteria for Flaws in Class 1 Ferritic Piping that Exceeds the Acceptance Standards of IWB-3514.2</i>
Code Case N-491	<i>Alternative Rules for Examination of Class 1, 2, 3 and MC Component Supports of Light Water Cooled Power Plants Section XI, Division 1</i>
Code Case N-498-1	<i>Alternative Rules for Ten Year Hydrostatic Pressure Testing for Class 1 and 2 Systems.</i> Authorized for use pursuant to 10 CFR 50.55a(a)(3)(ii) by NRC letter to Mr. M. S Tuckman (Duke) from Mr. Herbert N. Berkow (NRC) dated February 13, 1995.
Code Case N-522	<i>Pressure Testing of Containment Penetration Piping.</i> Note: Conditions established for use of this Code Case require that the licensee perform the leak test at the peak calculated containment pressure and use a test procedure that provides for detection and location of through-wall leakages in the pipe

segments being tested. Authorized for use pursuant to 10 CFR 50.55a(a)(3)(ii) by NRC letter to Mr. M. S Tuckman (Duke) dated February 17, 1995.

2.2.2 Acceptability of the Examination Sample

Inservice volumetric, surface, and visual examinations shall be performed on ASME Code Class 1, 2, and 3 components and their supports using sampling schedules described in Section XI of the ASME Code and 10 CFR 50.55a(b). Sample size and weld selection procedures have been implemented in accordance with the Code and 10 CFR 50.55a(b) and appear to be correct.

2.2.3 Exemption Criteria

The criteria used to exempt components from examination shall be consistent with Paragraphs IWB-1220, IWC-1220, IWC-1230, IWD-1220, and 10 CFR 50.55a(b). The exemption criteria have been applied by the licensee in accordance with the Code, as discussed in the ISI program plan, and appear to be correct.

2.2.4 Augmented Examination Commitments

In addition to the requirements specified in Section XI of the ASME Code, the licensee has committed to perform the following augmented examinations:

- Volumetric and surface examination of the Reactor Coolant Pump Flywheels in accordance with Regulatory Guide 1.14, Revision 1 (Reference 10);
- Reactor pressure vessel examinations, including the closure head, in accordance with Regulatory Guide 1.150, Rev. 1, with the exception of Regulatory Position Paragraph C.7.a (Reference 11);
- Ultrasonic examination of Class 1 piping welds and bends per NRC Bulletin 88-08, *Thermal Stress Piping in Reactor Coolant System*, (Reference 12); and
- Examination of high energy fluid system piping in accordance with Branch Technical Position MEB 3-1 as detailed in the Catawba Nuclear Station FSAR, Table 6-103.

2.3 Conclusion

Based on the review of the documents listed in Section 2.1, no deviations from regulatory requirements or commitments were identified in the *Catawba Nuclear Station, Unit 2, Second 10-Year Interval ISI Program Plan*, Revision 1.

3. EVALUATION OF RELIEF REQUESTS

The requests for relief from the ASME Code requirements that the licensee has determined to be impractical for the second 10-year inspection interval are evaluated in the following sections.

3.1 Class 1 Components

3.1.1 Reactor Pressure Vessel

3.1.1.1 Request for Relief 94-05, Rev. 1 (Unit 2), Examination Category B-D, Items B3.90 and B3.100, Examination Scheduling Requirements of Reactor Pressure Vessel Nozzle-to-Vessel Welds and Inner Radius Sections

Code Requirement—Section XI, Table IWB-2500-1, Examination Category B-D, Items B3.90 and B3.100 require that, for reactor pressure vessel nozzle welds and inner radius sections, at least 25% but not more than 50% (credited) of the nozzles shall be examined by the end of the first inspection period and the remainder by the end of the inspection interval.

Licensee's Code Relief Request—The licensee requested relief from the Code requirement to examine at least 25% of the vessel-to-nozzle welds and nozzle inner radius sections during the first examination period.

Licensee's Basis for Requesting Relief (as stated)—

"During the first period of the First Ten Year Inspection Interval at Catawba Nuclear Station, Unit 1 and 2, the Reactor Vessel Outlet Nozzle-to-Vessel Welds, Outlet Nozzle inside Radius Sections, Outlet Nozzle-to-Safe End Welds, and Outlet Nozzle Safe End-to-Reactor Coolant System Piping Welds were examined from the Nozzle ID using B&W Nuclear Technologies' Automated Reactor Inspection System. These examinations met the first Ten Year Inspection Interval requirements of ASME Section XI, 1980 Edition through Winter 1981 Addenda, Table IWB-2500-1; Category B-D, Note (2).

"During the third period of the First Ten Year Inspection Interval, the pressure retaining welds in the Reactor Vessel, the Reactor Vessel Outlet Nozzle-to-Vessel Welds (from the reactor vessel inside surface), the Reactor Vessel Inlet Nozzle-to-Vessel Welds, Inlet Nozzle-to-Safe End Welds and Inlet Nozzle Safe End to Reactor Coolant Piping Welds were examined using B & W Nuclear Technologies' Automated Reactor Vessel Inspection System. These examinations completed the First Inspection Interval requirements of ASME Section XI, 1980 Edition through 1981 Addenda. At this time, with the remote inspection tool already installed on the Reactor Vessel, the Reactor Vessel Outlet Nozzle-to-Vessel Welds, Outlet Nozzle Inside Radius Sections, Outlet Nozzle-to-Safe End Welds and Safe End-to-Pipe Welds were re-examined to the requirements of the 1989 Edition of ASME Section XI and

the alternative rules of Code Case N-521. Credit for these examinations will be applied to the first period requirements of the Second Inspection Interval for Table IWB-2500-1 Examination Category B-D, Item Numbers B3.90 and B3.100. The Reactor Vessel Outlet Nozzle-to-Vessel Welds and Outlet Nozzle Inside Radius Sections will therefore not be examined during the first period of the Second Inspection Interval.

"No inservice repairs or replacements by welding have ever been performed on any of the Nozzle-to-Vessel Welds, Nozzle Inside Radius Sections, Nozzle-to-Safe End Welds or Safe End-to-Pipe Welds. None of the Nozzle-to-Vessel Welds, Nozzle Inside Radius Sections, Nozzle-to-Safe End Welds or Safe End-to-Pipe Welds contain identified flaws or relevant conditions that currently require successive inspections in accordance with IWB-2420(b)."

Licensee's Proposed Alternative Examination (as stated) —

"Automated examination of all Reactor Vessel Nozzle-to-Vessel Welds, Nozzle Inside Radius Sections, Nozzle-to-Safe End Welds, and Nozzle Safe End-to-Reactor Coolant System Piping Welds will be re-examined in the last period of the Second Ten Year Inspection Interval."

In the licensee's October 23, 1996, response to the NRC RAI, the following information was provided:

"Catawba Nuclear Station, when deferring nozzle inspections to the end of the inspection interval, will ensure there are no more than 10 years between inspections, except where the length of the 10-year interval is adjusted in accordance with IWA-2430."

Evaluation—The Code requires that at least 25% but not more than 50% (credited) of the nozzles be examined by the end of the first inspection period, and the remainder by the end of the inspection interval. During the first period of the first interval, the licensee examined the outlet nozzle welds to comply with the percentage of nozzle examinations required by the Code. During the third period of the first interval, the licensee again examined the outlet nozzle welds concurrent with the vessel shell welds. No reportable indications were found. The licensee also stated that when deferring nozzle inspections to the end of the interval, there will be no more than ten years between inspections, except where the length of a 10-year interval is adjusted in accordance with IWA-2430.

The requirement to examine nozzle-to-shell and nozzle inner radius sections in the first period of the second interval when the same examinations were performed during the previous period is considered an imposition. The proposed rescheduling of Examination Category B-D, Items B3.90 and B3.100 welds in conjunction with the second 10-year interval RPV examinations will maintain an acceptable level of quality and safety.

Conclusion—The licensee has established the current level of quality and safety for the reactor pressure vessel nozzles by examination of the subject areas during the last period of the previous interval. Based on these examinations, a new schedule for successive

examinations can be established that maintains essentially ten years between examinations and provides an acceptable level of quality. Therefore, it is recommended that the proposed alternative be authorized pursuant to 10 CFR 50.55a(a)(3)(i).

3.1.2 Pressurizer

3.1.2.1 Request for Relief 94-04, Rev. 1 (Unit 2), Table IWB-2500-1, Examination Category B-H, Item B8.20, Pressurizer Integrally Welded Attachments

Code Requirement—Table IWB-2500-1, Examination Category B-H, Item B8.20 requires 100% volumetric or surface examination, as applicable, for integrally welded attachments to the pressurizer as defined by Figures IWB-2500-13, -14, and -15.

Licensee's Code Relief Request—The licensee requested relief from the Code-required surface examination for Weld 2PZR-SKIRT.

Licensee's Basis for Requesting Relief (as stated) —

"Relief is requested from the surface examination required on surface area C-D as shown on Attachment 1.* Surface area C-D is inaccessible for examination for the following reasons:

- "1. The Pressurizer heater cables must be disconnected for access, and this frequently causes some of the ceramic cable insulators to fail. (See Attachment 2)
- "2. The maximum clearance between the inside surface of the support skirt and the outside row of Pressurizer heaters is 14 inches, which is insufficient clearance for performing the required magnetic particle testing. (See Attachment 3)
- "3. The ID of the Pressurizer Support Skirt is a high radiation area, and personnel performing the required examination would receive significant dose."

Licensee's Proposed Alternative Examination (as stated) —

"The OD surface (surface area A-B) of the weld will be examined by magnetic particle testing. The ID surface (surface area C-D) of the weld will be examined by ultrasonic testing."

Evaluation—The Code requires that the subject pressurizer support skirt integrally welded attachments receive a 100% surface examination. However, considering; 1) that the pressurizer heater cables must be disconnected for access, and this frequently causes some of the ceramic cable insulators to fail; 2) the maximum clearance between the inside surface of the support skirt and the outside row of Pressurizer heaters is 14 inches, which

Attachments provided by the licensee are not included with this evaluation.

is insufficient for performing the required magnetic particle testing; and 3) the ID of the pressurizer support skirt is a high radiation area, and personnel performing the required examination would receive significant dose, it has been determined that performing the Code-required examination from within the support skirt is impractical. To obtain access, design modifications would be necessary. Imposition of this requirement would cause a considerable burden on the licensee.

In lieu of the Code-required surface examination of the support skirt weld (area C-D) from the inside the support skirt, the licensee proposes to perform an ultrasonic examination of area C-D from the outside surface using an ultrasonic technique. Based on the licensee's alternative to the Code surface examination, it can be concluded that degradation, if present, will be detected. As a result, reasonable assurance of structural integrity will be provided.

Conclusion—The INEL staff has reviewed the licensee's request for relief from Code examination requirements. Based on this evaluation, it has been determined that the Code-required surface examination of the weld from within the support skirt is impractical. The INEL staff believes that the proposed alternative, ultrasonic examination of the portion of weld inside the pressurizer support skirt, will provide reasonable assurance of structural integrity. Therefore, it is recommended that relief be granted pursuant to 10 CFR 50.55a(g)(6)(i).

3.1.3 Heat Exchangers and Steam Generators

No relief requests.

3.1.4 Piping Pressure Boundary

No relief requests.

3.1.5 Pump Pressure Boundary

No relief requests.

3.1.6 Valve Pressure Boundary

No relief requests.

3.1.7 General

No relief requests.

3.2 Class 2 Components

No relief requests.

3.3 Class 3 Components

No relief requests.

3.4 Pressure Tests

No relief requests.

3.5 General

3.5.1 Ultrasonic Examination Techniques

No relief requests.

3.5.2 Exempted Components

No relief requests.

3.5.3 Other

3.5.3.1 Request for Relief 96-01, Paragraph IWF-5300, Inservice Examination and Test Requirements for Snubbers

This request for relief is not within the scope of this review and will be reviewed and evaluated by the NRC in a separate report.

4. CONCLUSION

Pursuant to 10 CFR 50.55a(g)(6)(i), it has been determined that certain inservice examinations cannot be performed to the extent required by Section XI of the ASME Code. In the case of Request for Relief 94-04, Rev. 1, the licensee has demonstrated that specific Section XI requirements are impractical. It is, therefore, recommended that relief be granted as requested. The granting of relief 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 on the facility.

Pursuant to 10 CFR 50.55a(a)(3)(i), it is concluded that for Request for Relief 94-05, Rev. 1, the licensee's proposed alternative will provide an acceptable level of quality and safety. It is, therefore, recommended that the proposed alternative be authorized.

Request for Relief 96-01 is not within the scope of this review and is therefore, not included in this report. The Catawba Nuclear Station, Unit 2, Snubber Functional and Visual Testing Program will be evaluated by the NRC in another report.

The licensee should continue to monitor the development of new or improved examination techniques. As improvements in these areas are achieved, the licensee should incorporate these techniques in the ISI program plan examination requirements.

Based on the review of the *Catawba Nuclear Station, Unit 2 Second 10-Year Interval Inservice Inspection Program Plan*, Revision 1, the licensee's response to the NRC's request for additional information, and the recommendations for granting relief from the ISI examinations that cannot be performed to the extent required by Section XI of the ASME Code, no deviations from regulatory requirements or commitments have been identified.

5. REFERENCES

1. Code of Federal Regulations, Title 10, Part 50.
2. American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section XI, Division 1, 1989 Edition.
3. *Catawba Nuclear Station, Unit 2 Second 10-Year Interval Inservice Inspection Program Plan*, Revision 1, submitted by letter dated February 14, 1996.
4. NUREG-0800, *Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants*, Section 5.2.4, "Reactor Coolant Boundary Inservice Inspection and Testing," and Section 6.6, "Inservice Inspection of Class 2 and 3 Components," July 1981.
5. Letter dated July 10, 1996, from Peter S. Tam (NRC) to W. R. McCollum (Duke), containing NRC requests for additional information.
6. Letter dated September 25, 1996, from Peter S. Tam (NRC) to W. R. McCollum (Duke), containing NRC request for additional information.
7. Letter dated August 19, 1996, R. McCollum (Duke) to Document Control Desk (NRC) containing response to the July 10, 1996, request for additional information.
8. Letter dated October 23, 1996, R. McCollum (Duke) to Document Control Desk (NRC) containing response to the September 25, 1996, request for additional information.
9. NRC Regulatory Guide 1.147, *Inservice Inspection Code Case Acceptability*, Revision 11, October 1994.
10. NRC Regulatory Guide 1.14, *Reactor Coolant Pump Flywheel Integrity*, August 1975.
11. NRC Regulatory Guide 1.150, *Reactor Pressure Vessel Beltline Weld Examinations*, Rev. 1, February 1983.
12. NRC Bulletin No. 88-08, *Thermal Stresses in Piping Connected to Reactor Coolant Systems*, June 1988.

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U.S. Nuclear Regulatory Commission
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10. SUPPLEMENTARY NOTES

11. ABSTRACT (200 words or less)

This report presents the results of the evaluation of the *Catawba Nuclear Station, Unit 2, Second 10-Year Interval Inservice Inspection (ISI) Program Plan*, Revision 1, submitted February 14, 1996, including the requests for relief from the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code Section XI requirements that the Licensee has determined to be impractical. The *Catawba Nuclear Station, Unit 2, Second 10-Year Interval Inservice Inspection (ISI) Program Plan*, Revision 1, is evaluated in Section 2 of this report. The ISI Program Plan is evaluated for (a) compliance with the appropriate edition/addenda of Section XI, (b) acceptability of examination sample, (c) correctness of the application of system or component examination exclusion criteria, and (d) compliance with ISI-related commitments identified during previous Nuclear Regulatory Commission (NRC) reviews. The requests for relief are evaluated in Section 3 of this report.

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