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SOUTHERN COMPANY
Energy to Serve Your World℠

July 19, 2000

HL-5957

Docket Nos. 50-321
50-366

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Edwin I. Hatch Nuclear Plant
Third 10-Year Interval Inservice Inspection Program
Submittal of Additional Requests for Relief

Ladies and Gentlemen:

This letter submits Requests for Relief RR-MC-8, RR-MC-9 and a modification to previously submitted RR-12 for the Third 10-Year Interval Inservice Inspection Program for the Edwin I. Hatch Nuclear Plant. The enclosed relief requests ask for relief from performing the required torque or tension testing on Class MC pressure retaining bolting for bolted connections that have not been disassembled and reassembled during the inspection interval, relief from performing required visual examination (VT-3) on nonsubmerged, accessible pressure boundary surfaces, including Vent System, at the end of the 10-year inspection interval and modify RR-12 to clarify reporting documentation requirements. Requests for Relief RR-MC-8, RR-MC-9 and RR-12 are provided in Attachments 1, 2, and 3, respectively.

Should you have any questions in this regard, please contact this office.

Respectfully submitted,

Lewis Sumner

H. L. Sumner, Jr.

IFL/eb

Attachments:
1. Request for Relief No. RR-MC-8
2. Request for Relief No. RR-MC-9
3. Request for Relief No. RR-12

cc: Southern Nuclear Operating Company
Mr. P. H. Wells, Nuclear Plant General Manager
SNC Document Management (R-Type A02.001)

U.S. Nuclear Regulatory Commission, Washington, D.C.
Mr. L. N. Olshan, Project Manager - Hatch

U.S. Nuclear Regulatory Commission, Region II
Mr. L. A. Reyes, Regional Administrator
Mr. J. T. Munday, Senior Resident Inspector – Hatch

A047

Attachment

Edwin I. Hatch Nuclear Plant
Third 10-Year Interval

Request for Relief No. RR-MC-8

SOUTHERN NUCLEAR OPERATING COMPANY
PLANT HATCH, UNIT 1 & 2
THIRD 10-YEAR INTERVAL
REQUEST FOR RELIEF NO. RR-MC-8

I. System/Component(s) for Which Relief is Requested: All Class MC pressure retaining bolting for bolted connections that have not been disassembled and reassembled during the inspection interval.

II. Code Requirement: The 1992 Edition, with the 1992 Addenda of the ASME Section XI, Table IWE -2500-1, Examination Category E-G, Pressure Retaining Bolting, Item E8.20 requires that bolt torque or tension testing be performed on pressure retaining bolting of bolted connections that have not been disassembled and reassembled during the inspection interval.

III. Code Requirement for Which Relief is Requested: Relief is requested from performing the required torque or tension testing on the above identified pressure retaining bolting.

IV. Basis for Relief: 10 CFR Part 50.55a was amended in the Federal Register (61 FR 41303) to require the use of the ASME Section XI, 1992 Edition, 1992 Addenda, when performing containment examinations. Bolt torque or tension testing is required on IWE bolted connections that have not been disassembled and reassembled during the inspection interval, but is not required on any other ASME Section XI Class 1, 2, or 3 bolted connections. The ASME Code Committee recognized that these tests were not warranted and the 1998 Edition of the ASME Section XI Code has dropped this particular requirement.

10 CFR 50 Appendix J, Option B, requires leakrate testing at least every 5 years. Option B also requires more frequent testing if leakrate failures occur and the source of the leakage must also be determined. Additionally, any connection that is disassembled must be leakrate tested after reassembly to confirm leak tight integrity. Torque or tension testing of pressure retaining bolts on a ten year frequency does not provide any additional safety benefit when compared to the frequency of leakrate testing per Appendix J, Option B.

V. Alternate Examinations: The following examinations and tests required by Subsection IWE ensure the structural integrity and the leak-tightness of Class MC pressure retaining bolting, and, therefore, no additional alternative examinations are proposed:

1) When accessible, exposed surfaces of bolted connections shall be visually examined in accordance with the requirements of Table IWE-2500-1, Examination Category E-G, Pressure Retaining Bolting, Item No. E8.10, and

2) Bolted connections shall meet the pressure test requirements of Table IWE-2500-1, Examination Category E-P, All Pressure Retaining Components, Item No. E9.40.

VI. Justification for Granting of Relief: Periodic leakrate testing in accordance with 10CFR50 Appendix J and visual examination as detailed in the proposed alternate examination will provide a reasonable assurance of containment integrity and leak

tightness. Relief should be granted under 10CFR50.55a(a)(3)(i) since the proposed alternative provides an acceptable level of quality and safety.

VII. Implementation Schedule: This relief request will be implemented in accordance with the expedited examination schedule for MC components as specified in 10CFR50.55a(g)(6)(ii)(B) during the Third Ten-Year ISI Interval.

VIII. Relief Request Status: Submitted to NRC for review and approval.

Attachment

Edwin I. Hatch Nuclear Plant
Third 10-Year Interval

Request for Relief No. RR-MC-9

SOUTHERN NUCLEAR OPERATING COMPANY
PLANT HATCH, UNIT 1 & 2
THIRD 10-YEAR INTERVAL
REQUEST FOR RELIEF NO. RR-MC-9

I. System/Component(s) for Which Relief is Requested: Nonsubmerged, accessible surface areas of the Containment Vessel pressure retaining boundary, including Vent System, requiring visual examination (VT-3) per Category E-A, Item Numbers E1.12 and E1.20, in accordance with IWE-3510.2 and IWE-3510.3.

II. Code Requirement: The 1992 Edition, with 1992 Addenda of the ASME Section XI, Table IWE -2500-1, Examination Category E-A, Item Numbers E1.12 and E1.20 requires that both nonsubmerged and submerged, accessible pressure boundary surfaces be visually examined (VT-3). One examination per 10-year inspection interval is required at the end of the interval.

III. Code Requirement for Which Relief is Requested: Relief is requested from performing the required visual examination (VT-3) on nonsubmerged, accessible pressure boundary surfaces, including Vent System, at the end of the 10-year inspection interval.

IV. Basis for Relief: The reactor building environment does not pose adverse conditions that would promote degradation of the outside pressure boundary surfaces of containment. Also, VT-3 visual examination methodologies were developed for detecting various flaws in metal components and are more stringent than those required for detection of degradation in containment integrity, which is essentially due to corrosion. Since corrosion of base metal is the primary issue of concern for Containment Vessel pressure boundary surface areas, a general visual examination should be performed, which is appropriate for detecting age-related mechanisms that may affect structural integrity and/or leak-tightness of the containment. When evidence of degradation is detected, a detailed examination and evaluation would then be performed in response to established reporting procedures.

V. Alternate Examinations: A general visual examination in accordance with paragraph IWE-3510.1 will be performed on all nonsubmerged, accessible pressure boundary surfaces, including Vent System, in lieu of a visual examination (VT-3) performed at the end of the 10-year inspection interval.

In addition, nonsubmerged pressure boundary surfaces inside containment will be inspected in association with a "Qualified (N) Coatings" program. Any evidence of degradation to pressure boundary integrity or potential leakage is reported to the Responsible Engineer for evaluation and disposition.

VI. Justification for Granting of Relief: The proposed alternative to perform general visual examination and the normally performed coatings inspection program is sufficient to identify the principal degradation mechanism for nonsubmerged, accessible containment pressure boundary surface areas. The qualification requirements for general visual examination and coatings inspection provide adequate levels of training and qualification. As a result, relief should be granted under 10CFR50.55a(a)(3)(i) because the proposed alternative provides an acceptable level of quality and safety.

VII. Implementation Schedule: This relief request will be implemented in accordance with the expedited examination schedule for MC components as specified in 10CFR50.55a(g)(6)(ii)(B) during the Third Ten-Year ISI Interval.

VIII. Relief Request Status: Submitted to NRC for review and approval.

Attachment

Edwin I. Hatch Nuclear Plant
Third 10-Year Interval

Request for Relief No. RR-12

SOUTHERN NUCLEAR OPERATING COMPANY
HATCH NUCLEAR PLANT, UNIT 1 & 2
THIRD 10-YEAR INTERVAL
REQUEST FOR RELIEF NO. RR-12

I. System/Component for Which Relief is Requested: Class 1, 2, and 3 pressure retaining bolted connections.

II. Code Requirement: ASME Section XI, IWA-5250(a)(2) requires that if leakage occurs at a bolted connection, the bolting shall be removed, VT-3 visually examined for corrosion, and evaluated in accordance with IWA-3100.

III. Code Requirement for Which Relief is Requested: Relief is requested from removing bolting from pressure retaining bolted connections and performing the required visual examination (VT-3) should leakage be detected during performance of ASME Section XI pressure testing activities.

IV. Basis for Relief: Hatch Nuclear Plant is a Boiling Water Reactor (BWR) and the reactor coolant system and associated systems do not experience the corrosive environment from boric acid residues as would a Pressurized Water Reactor (PWR). When leakage is detected, the integrity of the bolted connections can typically be adequately assessed without the prescriptive requirement for removal of the bolting. Removal of bolting may not represent the prudent course of action. For example, an adequate approach would be to verify bolt tightness and tightening bolts as needed. Tightening a loose bolt employs good and sound engineering judgment, and potentially reduces radiation exposure. This represents a more reasonable approach as opposed to immediately removing all bolting without evaluating the situation as required by the 1989 ASME Section XI Code, or removing the bolt nearest the leakage source as required by the 1990 Addenda and later editions of ASME Section XI. By allowing an evaluation of the bolting and associated mechanical connection, and determining the need for corrective measures, the leakage may be corrected without undue burden and the Code intent would be satisfied.

Based on the above example and other similar scenarios, Southern Nuclear Operating Company (SNC) believes it is appropriate to perform an evaluation. The evaluation may conclude that removal of the bolting is unnecessary.

V. Alternate Examination: Based on these considerations, SNC will perform an evaluation to determine the appropriate course of action. The evaluation will consider the potential for bolting degradation as well as the cause of the leakage. The evaluation will determine whether bolt tightening or removal of bolting is needed. SNC will assure that the bolting and component material in the area of leakage is evaluated to assure joint integrity.

Should the bolting need to be removed, SNC proposes to remove the bolt nearest the leakage source as required by the 1990 ASME Section XI Addenda and later editions, perform a VT-3 examination, and evaluate in accordance with IWA-3100. If the bolt has evidence of degradation, additional bolts in the connection shall be removed, VT-3 examined, and evaluated in accordance with IWA-3100.

Evaluations shall be documented in writing, reviewed by the appropriate plant management, and maintained in the plant records. The results of these findings will be made available to the regulatory and enforcement authority having jurisdiction at the plant site. Plant Hatch has been granted permission to use ASME Code Case N-532 and, as a result, is not required to use the Form NIS-2. Therefore repairs and/or replacements necessitated by these evaluations will be documented on Form OAR-1, "Owners Activity Report".

VI. Justification for the Granting of Relief: Hatch Nuclear Plant is a Boiling Water Reactor (BWR) and the reactor coolant system and associated systems do not experience the corrosive environment from boric acid residues as would a Pressurized Water Reactor (PWR). Therefore, there is no reason to suspect degradation of bolting caused solely by leaking system chemistry.

Satisfying the Code requirement for removing bolting may require significant planning and scheduling due to existing Technical Specification requirements, operational concerns, and personal safety. In cases of unisolatable or non-redundant piping, the requirement to remove the bolting in order to conduct a visual examination and evaluation, may necessitate shutdown of the plant. Shutdown of the plant for the sole purpose of satisfying this visual examination requirement constitutes an undue hardship without a commensurate benefit to safety.

VII. Implementation Schedule: The subject examinations will be performed during the Third 10-Year Interval.

VIII. Relief Request Status: Relief granted by June 16, 1997 SER.