

February 27, 2007

Mr. Dennis R. Madison  
Vice President - Hatch  
Edwin I. Hatch Nuclear Plant  
11028 Hatch Parkway North  
Baxley, GA 31513

SUBJECT: EDWIN I. HATCH NUCLEAR PLANT, UNIT NOS. 1 AND 2, REQUEST FOR ADDITIONAL INFORMATION (RAI) FOR THE THIRD 10-YEAR INTERVAL INSERVICE INSPECTION PROGRAM PLAN REQUESTS FOR RELIEF NOS. RR-42, RR-43, RR-44, RR-45, RR-51, RR-58, RR-59, RR-60, AND RR-62 (TAC NOS. MD2587, MD2588, MD2589, MD2590, MD2591, MD2597, MD2609, MD2610, MD2611, AND MD2613)

Dear Mr. Madison:

The Nuclear Regulatory Commission (NRC) staff has reviewed and evaluated the information provided by Southern Nuclear Operating Company, Inc (the licensee), in its letter dated July 10, 2006, which proposed its Third 10-year Interval Inservice Inspection Program Plan Requests for Relief Nos. RR-42, RR-43, RR-44, RR-45, RR-51, RR-58, RR-59, RR-60, and RR-62 for Edwin I. Hatch Nuclear Plant, Units 1 and 2. To maintain the schedule for our review, it is requested that additional information, as described in the enclosure, be provided by April 13, 2007.

Please contact me if you have any questions regarding this correspondence.

Sincerely,

**/RA/**

Robert E. Martin, Senior Project Manager  
Plant Licensing Branch II-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-321 and 50-366

Enclosure: RAI

cc w/encl: See next page

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REQUEST FOR ADDITIONAL INFORMATION  
REGARDING THIRD 10-YEAR INSERVICE INSPECTION INTERVAL  
REQUEST FOR RELIEF NOS. RR-42, RR-43, RR-44, RR-45, RR-51,  
RR-58, RR-59, RR-60, AND RR-62  
EDWIN I. HATCH NUCLEAR PLANT, UNITS 1 AND 2  
SOUTHERN NUCLEAR OPERATING COMPANY, INC  
DOCKET NOS. 50-321 AND 50-366

Requests for Relief (RR) Nos. RR-42, RR-43, RR-44, RR-45, RR-51, RR-58, RR-59, RR-60, and RR-62 are for the third 10-year inservice inspection (ISI) interval, in which Edwin I. Hatch Nuclear Plant (Hatch), Units 1 and 2, adopted the 1989 edition with no addenda of the American Society of Mechanical Engineers (ASME), *Boiler and Pressure Vessel Code (Code)*, Section XI, as the ASME Code of record. In its letter dated July 10, 2006, Southern Nuclear Operating Company, Inc. (the licensee), requested relief from certain ASME Code, Section XI requirements.

RR-42 and RR-43

For RR-42, the licensee requested relief from the volumetric examination requirements in ASME Code, Section XI, Category B-A, Item B1.21 and Item B1.22 for Hatch Unit 1 reactor pressure vessel (RPV) bottom head meridional welds BHD-A through F and circumferential weld C.

For RR-43, the licensee requested relief from the volumetric examination requirements in ASME Code, Section XI, Category B-A, Item B1.21 and Item B1.22 for Hatch Unit 2 RPV bottom head dome meridional welds 2BHD-A through D and bottom head torus meridional welds 2BHT-A through G.

The ASME Code, Section XI, Table IWB-2500-1, Category B-A, Item B1.21 and B1.22 requires a volumetric examination of essentially 100 percent of the accessible length of all welds on the subject RPV bottom head.

According to the information provided by the licensee in its letter dated July 10, 2006, the licensee was unable to obtain any volumetric coverage on Hatch Unit 1 RPV bottom head dome meridional welds 2BHD-A through D and circumferential weld C due to the RPV support skirt causing the subject welds to be inaccessible for examination. For Hatch Unit 1, the licensee examined bottom head meridional welds BHT-A, BHT-B, BHT-C, BHT-D, BHT-E, BHT-F, BHT-G, and BHT-H, and bottom head circumferential weld C-7 in 2006 and the licensee obtained 100-percent coverage for each weld. The licensee detected no indications during these examinations.

For Hatch Unit 2, the licensee found the examinations to be limited for bottom head dome meridional welds 2BHD-A through D and bottom head torus meridional welds 2BHT-A through G due to the control rod drives that penetrate the bottom head near the welds and the RPV support skirt interfering with the examinations. The licensee obtained 27 percent to 28 percent of the length of welds bottom head dome meridional welds 2BHD-A through D. In addition, the

Enclosure

licensee obtained 88 percent of the length of each weld for the bottom head torus meridional welds 2BHT-A through G. The licensee detected no indications during these examinations. For this particular ASME Code, Section XI, Examination Category B-A and Item Numbers B1.21 and B1.22, the ASME Code specifically states examination is of the accessible weld length. Therefore, the licensee should consider reassessing the ASME Code requirements in that if the licensee actually obtained essentially 100 percent of the accessible weld length, then relief may not be required.

#### RR-44

The licensee requested relief from the volumetric examination requirements in ASME Code, Section XI, Table IWB-2500-1, Category B-D, Item B3.90 for nozzle-to-vessel welds listed in the licensee's Tables RR-44-1<sup>1</sup> and RR-44-2<sup>1</sup> for Hatch Units 1 and 2, respectively.

1. Provide drawings or sketches of the ASME Code, Section XI, Category B-D components listed in Tables RR-44-1 and RR-44-2 for Hatch Units 1 and 2, respectively. Drawings or sketches of every component are not required. An example of one each type of similar component will satisfy this request.
2. For the nozzles listed in Tables RR-44-1 and RR-44-2, identify which nozzle belongs to which vessel.
3. Clarify if the examinations of the nozzles listed in Tables RR-44-1 and RR-44-2 were performed from the inside or the outside of the nozzles.
4. Clarify which ASME Code edition and addenda was used regarding the Performance Demonstration Initiative examination techniques.
5. Describe the plant's leakage and radiation monitor systems with regard identifying leakage from the subject welds. Also, describe when VT-2 visual examinations were last performed on the subject welds.

#### RR-45

The licensee requested relief from the surface examination requirements in ASME Code, Section XI, Code Case N-509, Category B-K, Item B10.10 for Hatch Unit 2 RPV stabilizer brackets SB1 through SB6.

Provide drawings of the RPV stabilizer brackets.

#### RR-51

The licensee requested relief from the volumetric examination requirements in ASME Code, Section XI, IWB-2500-1, Category B-A, Item B1.12 for RPV longitudinal welds, shown in the licensee's Table RR-51-1<sup>1</sup> for Hatch Unit 1.

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1. Tables RR-44-1, RR-44-2, and RR-51-1 are not included in this request for additional information and can be found in the licensee's letter dated July 10, 2006.

1. Provide drawings or sketches of the ASME Code, Section XI, Category B-A, Item B1.12 components listed in Table RR-51-1 for Hatch Unit 1.
2. Describe the plant's leakage and radiation monitor systems with regard to identifying leakage from the subject welds. Also, describe when VT-2 visual examinations were last performed on the subject welds.
3. For weld C-4-B, has the licensee considered VT-1 visual examination by remote camera or any other type of visual examinations of the subject weld as an alternative to the ASME Code volumetric examinations if they can not be performed in February 2008?
4. Has the licensee considered examining weld C-4-B from the inside of the RPV if at any time there is a core off load and dismantling of internal components for Hatch Unit 1?
5. In RR-51 the licensee erroneously stated that the ASME Code requirements for ASME Code, Section XI, Table IWB-2500-1, Examination Category B-A, Item B1.12 requires that 100 percent of the accessible length of each weld be examined. Note 2 of the ASME Code, Section XI, Table IWB-2500-1, Examination Category B-A, Item B1.12 requires that essentially 100 percent of the weld length is to be examined, not the accessible length. Please correct this error in RR-51.

RR-58, RR-59, RR-60, and RR-62

In RR-58 for Hatch Unit 1, the licensee requested relief from the volumetric examination requirements in ASME Code, Section XI, IWC-2500-1, Category C-B, Item C2.21 for residual heat removal (RHR) exchanger weld 1E11-2HX-B-O.

In RR-59 for Hatch Unit 1, the licensee requested relief from the volumetric examination requirements in ASME Code, Section XI, IWC-2500-1, Category C-B, Item C2.21 for RHR heat exchanger weld 2E11-2HX-A-O.

In RR-60 for Hatch Unit 2, the licensee requested relief from the volumetric examination requirements in ASME Code, Section XI, IWC-2500-1, Category C-A, Item C1.20 for RHR heat exchanger weld 2E11-2HX-A-3.

In RR-62 for Hatch Unit 2, the licensee requested relief from the volumetric examination requirements in ASME Code, Section XI, IWB-IWC-2500-1, Category C-A, Item C1.10 for RHR heat exchanger weld 2E11-2HX-A-2.

RR-58, RR-59, RR-60, and RR-62:

1. Provide drawings or sketches of the RHR heat exchanger welds for Hatch Units 1 and 2.
2. Identify the materials (both base material and weld material) by material specification associated with the welds in these RRs. Discuss how the materials properties and/or nozzle geometry hindered the volumetric examinations.

3. Describe the plant's leakage and radiation monitor systems with respect to identifying leakage from the welds. Also, describe when VT-2 visual examinations were last performed on the subject welds.
4. For ASME Code, Section XI, Category C-B, Item Number C2.21 where both a volumetric and surface examination are required, please provide the coverage obtained for the surface examinations.

Edwin I. Hatch Nuclear Plant, Unit Nos. 1 & 2

cc:

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