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SL-85-49  
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November 27, 1985

Director of Nuclear Reactor Regulation  
ATTN: Mr. D. Muller, Project Director  
BWR Project Directorate No. 2  
Division of Boiling Water Reactor Licensing  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

NRC DOCKET 50-321  
OPERATING LICENSE DPR-57  
EDWIN I. HATCH NUCLEAR PLANT UNIT 1  
RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION  
RELATIVE TO INSERVICE INSPECTION

Gentlemen:

By letter NED-85-508 dated July 18, 1985, Georgia Power Company (GPC) stated its intention to complete the examinations for the Hatch Unit 1 first 10-year inservice inspection interval to an inspection program which was written to the 1980 Edition of the ASME Section XI Code with Addenda through Winter 1980 where practical. The subject letter also requested relief from certain of these Code requirements. The first 10-year inspection interval for that unit concludes on December 31, 1985.

The Nuclear Regulatory Commission (NRC) issued by letter dated November 7, 1985 its safety evaluation and concluded that some of the relief requests should be granted, some conditionally granted, and others denied. In addition, the NRC also concluded that relief was not required for some of the items requested by GPC.

Upon completion of our evaluation of the NRC safety evaluation, GPC requested to meet with the NRC staff to discuss the document. On November 19, 1985, GPC personnel meet with NRC staff to discuss the NRC safety evaluation and to provide additional information relative to the relief requests. It was indicated to the staff that GPC wished to withdraw certain of the relief requested by our July 18, 1985 submittal and pertained to Relief Request Nos. 2.1.2, 3.1.3, 4.1.1, 5.1.1, and 8.1.5 contained therein. GPC personnel clarified certain points in the NRC letter to correct the use of Codes utilized to perform inservice examinations. Contrary to the NRC letter, inservice inspection at Hatch Unit 1 has not been performed solely to the 1974 Edition of the Code as the NRC letter implies but has been performed to the following during the current 10-year inspection interval:

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First 40-mo. inspection period:	1971 Edition of the Code with Addenda through Summer 1972;
Second 40-mo. inspection period:	1974 Edition of the Code with Addenda through Summer 1975; and
Third 40-mo. inspection period: (post January 1, 1984)	1980 Edition of the Code with Addenda through Winter 1980.

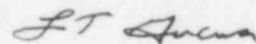
By letter dated August 12, 1983, GPC advised NRC of its intention to utilize the 1980 Edition of the Code effective January 1, 1984. Examinations at Hatch Unit 1 have been conducted to that particular edition of the Code since January 1, 1984.

Pursuant to the NRC staff's request, enclosed are general write-ups relative to how the 1980 Edition of ASME Section XI with Addenda through Winter 1980 has been applied at Hatch Unit 1 since January 1, 1984 relative to inservice inspection. Attachments 1, 2, and 3 address ASME Classes 1, 2, and 3, respectively, for Hatch Unit 1. In addition, the write-ups also provide additional information requested by the NRC staff to clarify Relief Request Nos. 3.1.2 and 5.1.3 provided in our July 18, 1985 letter.

As discussed with the NRC staff during our November 19 meeting, we respectfully request your prompt review and approval of the information provided herein in order to support inservice inspection activities during the Hatch Unit 1 maintenance/refueling outage. The subject outage is scheduled to commence November 30, 1985. The staff at GPC is available at any time for any additional discussion that NRC may desire.

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

Sincerely yours,



L. T. Gucwa

JAE/mb  
Attachments (3)  
xc: Mr. J. T. Beckham, Jr.  
Mr. H. C. Nix, Jr.  
Dr. J. N. Grace (NRC-Region II)  
Senior Resident Inspector

## ATTACHMENT 1

### EXTENT OF EXAMINATIONS TO COMPLETE FIRST 10-YEAR INTERVAL - ASME CLASS 1

#### 1. Pressure-Retaining Welds - Reactor Vessel

The 1974 Edition of the Code requires that 5 percent of each circumferential weld and 10 percent of each longitudinal weld be examined. All welds except the bottom head welds (Note: See Relief Request 2.1.1 from GPC letter NED-85-508 dated July 18, 1985 to the NRC), the bottom head-to-shell weld with intersecting longitudinal welds, and the closure head welds are accessible only through nine shield doors. Due to the lack of space and design considerations all examinations are performed manually. Exposure rates have been as much as 4-5 R/hr during previous examinations.

The 1980 Edition of the Code requires that during the first 10-year interval all welds be 100 percent examined. During the second 10-year interval one beltline area weld should be 100 percent examined. It is the intent of GPC to complete the 10-year requirements using the scope of the 1974 Code. To attempt to perform the examinations in one outage to meet the 1980 Code would result in unnecessary radiation exposure to examination and craft personnel.

During the second 10-year interval all inspection doors in the beltline area will be opened which will give approximately 15 percent coverage for each of the two beltline circumferential welds or an equivalent of 30 percent of one weld. Also, accessible portions of longitudinal welds in the beltline area should total 60-90 percent of the length of one longitudinal weld. As a measure of conservatism, portions of welds outside the beltline area will also be examined in order that the total equivalent length being examined equals the length of one beltline circumferential and one longitudinal weld. Examinations will be scheduled to allow partial coverage of the total scope each 40-month period pursuant to Code philosophy.

#### 2. Vessel-To-Flange, Head-To-Flange - Reactor Vessel

Essentially no change of scope between the 1974 and 1980 Editions of the Code.

#### 3. Full-Penetration Welds of Nozzles in Vessels

Essentially no change of scope between the 1974 and 1980 Editions of the Code.

#### 4. Partial-Penetration Welds in Vessels

Essentially no change of scope between the 1974 and 1980 Editions of the Code.

ATTACHMENT 1 (Continued)

EXTENT OF EXAMINATIONS TO COMPLETE FIRST 10-YEAR INTERVAL -  
ASME CLASS 1

5. Pressure-Retaining Austenitic and Dissimilar Metal Welds

These examinations will be performed in accordance with Supplement 7 of Appendix III of the Code with the exception of utilizing calibration blocks with holes instead of notches (See Relief Request 8.1.1 from GPC letter NED-85-508 dated July 18, 1985 to the NRC).

6. Pressure Retaining Bolting

Essentially no change of scope between the 1974 and 1980 Editions of the Code.

7. Vessel Supports

The 1974 Edition of the Code required that 10 percent of the support skirt-to-vessel weld be examined each 10 years. The 1980 Code requires that 100 percent be examined. It is the intent of GPC to complete the first 10-year requirements using the scope of the 1974 Code. To attempt to perform the examinations in one outage to meet the 1980 Code would result in unnecessary radiation exposure to examination and craft personnel. However, during the second 10-year interval approximately one-third of the weld will be examined each 40-month period.

8. Interior Clad Patch - Reactor Vessel

Since it is no longer required to visually examine the clad patches in the 1980 Code and later NRC approved editions of the Code, GPC does not intend to perform these examinations during the upcoming Hatch Unit 1 outage and subsequent outages.

9. Class 1 Piping

10 CFR 50.55a permits the use of the 1974 Edition of the Code to determine the extent of examination for these welds. This method is being used to complete the first 10-year interval. In addition, high stress and terminal end welds have been chosen to the extent practical for compatibility with the 1980 Code. For the second 10-year interval, the welds examined during the first interval will be scheduled for examination as required by the 1980 Edition.

10. Support Components

The 1974 Code requires that 25 percent of the welded attachments be examined each 10-year interval. The 1980 Code does not require the examination of support components less than 5/8-inch thick; however, 100 percent of the required examinations must be completed in the 10-year interval.

## ATTACHMENT 1 (Continued)

### EXTENT OF EXAMINATIONS TO COMPLETE FIRST 10-YEAR INTERVAL - ASME CLASS 1

GPC has been examining the support components by surface examination methods since January 27, 1982 when relief was granted by the NRC to discontinue ultrasonic examinations. Also, the scope of support components has been determined by the 1980 Code since January 1, 1984.

GPC will verify that the spring support is in operable range plus acceptable tolerances, i.e., within analyzed hot and cold load settings. The support may not exactly show the precise hot or cold setting because the analysis may have used a conservative temperature, i.e., the plant may not see the temperature analyzed of that specific system on the specific day when the inservice inspection was performed. The intent of the inspection is to verify that the spring can is not outside the range specified in the analyses and that the can is not bottomed out.

Per IWF-2510 of the 1980 Code, component supports selected for visual examination shall be the supports of those components required to be examined per IWB of the Code. For Hatch Unit 1 liquid lines less than 2.21-inches I.D. and steam lines less than 4.29-inches I.D. are not required to be examined.

#### 11. Pump and Valve Casing Welds

There are no pressure retaining casing welds in the Reactor Coolant Pumps or Class 1 valves.

#### 12. Pump Casings and Valve Bodies

See Relief Request 2.1.8 from GPC letter NED-85-508 dated July 18, 1985 to the NRC.

#### 13. Reactor Vessel Internals

Essentially no change of scope between the 1974 and 1980 Editions of the Code.

#### 14. Control Rod Drive Housings

See Relief Request 2.1.9 from GPC letter NED-85-508 dated July 18, 1985 to the NRC.

#### 15. Hydrostatic Tests

Hydrostatic tests will be performed using the 1980 Edition of the Code.

## ATTACHMENT 2

### EXTENT OF EXAMINATIONS TO COMPLETE FIRST 10 YEAR INTERVAL - ASME CLASS 2

#### 1. Pressure-Retaining Welds in Pressure Vessels

There are two RHR Heat Exchangers with three pressure retaining welds each. The 1974 Code requires that 20 percent of each weld on one of the heat exchangers be examined during the 40-year lifetime. This is the equivalent of approximately 5 percent of each weld every 10-year interval. The 1980 Code requires that all three welds for one of the heat exchangers be 100 percent examined each 10-year interval. This is approximately one weld each 40-months. GPC has examined one complete weld to the extent practical (See Relief Request 3.1.1 in GPC letter NED-85-508 dated July 18, 1985 to the NRC).

#### 2. Pressure-Retaining Nozzle Welds in Vessel

Essentially no change of scope between the 1974 and 1980 Editions of the Code.

#### 3. Integrally Welded Support Attachments to Vessels

Essentially no change of scope between the 1974 and 1980 Editions of the Code.

#### 4. Pressure-Retaining Bolting

The 1974 Edition of the Code requires that bolting equal to or greater than 1-inch in diameter be volumetrically examined. However, volumetric examinations are required to be performed on all pressure retaining Class 2 bolting exceeding 2-inches in diameter per the 1980 Edition of the Code and all subsequent editions approved by the NRC. There is no Class 2 bolting greater than 2-inches in diameter at Plant Hatch Unit 1. Therefore, no volumetric examinations are being conducted.

#### 5. Component Supports

The 1974 Edition of the Code requires that a sufficient number of attachment welds be examined in a multiple-stream system such that the total number of welds examined over the 40-year life of the plant is equal to one of the multiple streams of the system. For a single-stream system, 100 percent of the required examinations be performed over the life of the plant. The 1980 Edition does not require the examination of attachment welds less than 3/4-inch thick; however, 100 percent of the required examinations must be completed in each 10-year interval. This scope of examinations has been used since January 1, 1984, pursuant to the GPC letter dated August 12, 1983 to the NRC. Contrary to Relief Request 3.1.2 in GPC letter NED-85-508 dated July 18, 1985 to NRC, a partial surface examination can be performed on the torus penetration welds. In these cases, a surface examination will be performed to the extent practical and it will be supplemented by a visual (VT-1) examination.

## ATTACHMENT 2 (Continued)

### EXTENT OF EXAMINATIONS TO COMPLETE FIRST 10 YEAR INTERVAL - ASME CLASS 2

GPC will verify that the spring support is in operable range plus acceptable tolerances, i.e., within analyzed hot and cold load settings. The support may not exactly show the precise hot or cold setting because the analysis may have used a conservative temperature, i.e., the plant may not see the temperature analyzed of that specific system on the specific day when the inservice inspection was performed. The intent of the inspection is to verify that the spring can is not outside the range specified in the analyses and that the can is not bottomed out.

Per IWF-2510 of the 1980 Code, component supports selected for visual examination shall be the supports of those components required to be examined per IWC of the Code. Items 6 and 7 in this writeup discuss the components to be examined.

#### 6. Class 2 Piping Welds (RHR, ECCS, and CHR Systems)

10 CFR 50.55a requires the extent of the examination for these welds to be determined by the 1974 Edition of the Code. This requirement was met as well as selecting high stress and terminal end welds to be more compatible with the 1980 Edition. The 1974 Edition exemptions related to "pressure and temperature" [IWC-1220(a)] and "size" [IWC-1220(d)] were not applied to these welds. Instead, piping welds greater than 1-inch were selected per the 1974 Edition, and will be examined per the 1980 Edition. Branch lines greater than 1-inch will be examined by surface or volumetric means, as appropriate, to the first closed manual or power-actuated isolation valve unless that line has a particular safety function. In the second ten-year inspection interval, GPC may have analyses performed which could exempt some of the smaller diameter lines which do not have a particular safety function.

#### 7. Remaining Class 2 Piping Welds

As permitted in 10 CFR 50.55a, GPC elected to select the remaining Class 2 piping welds per the 1974 Edition of the Code. In addition, high stress and terminal end welds were chosen for compatibility with the 1980 Edition.

#### 8. Pressure-Retaining Pump Casing Welds

Core Spray Pumps - Drawings indicate that there are no pressure-retaining pump casing welds. Visual observation of these uninsulated pumps verified the lack of a weld.

## ATTACHMENT 2 (Continued)

### EXTENT OF EXAMINATIONS TO COMPLETE FIRST 10 YEAR INTERVAL - ASME CLASS 2

RHR and HPCI Pumps - Drawings indicate that there are no pressure-retaining pump casing welds. Insulation will be removed from the pumps during the upcoming outage to verify this condition. If welds are found in the HPCI pump, 1/3 of the welds (minimum of 1 complete weld) will be examined to the extent practical. If welds are found in the two RHR Pumps, 1/3 of the welds in one pump (minimum of 1 complete weld) will be examined to the extent practical. This meets the intent of the 1980 Code and exceeds the requirements of the 1974 Code.

#### 9. Hydrostatic Tests

Hydrostatic tests will be conducted using the 1980 Edition of the Code.

## ATTACHMENT 3

### EXTENT OF EXAMINATIONS TO COMPLETE FIRST 10-YEAR INTERVAL - ASME CLASS 3

#### 1. Visual Examination of Support Components

Per IWF-2510 of the 1980 Code, component supports selected for visual examinations shall be the supports of those components required to be examined per IWD of the Code. There are no actual examinations performed on Class 3 piping as in Class 1 and 2, only hydrostatic tests. Therefore, support components will be visually examined on all components greater than 4-inches in diameter. In addition, support components on piping 4-inches and smaller will be examined if that piping provides safety-related cooling water to an ECCS or RHR Pump (including CHR).

#### 2. Hydrostatic Tests

Hydrostatic tests will be conducted using the 1980 Edition of the Code.