ch 24, 1987

Dockets Nos. 50-321/366

Mr. James P. O'Reilly
Sr. Vice President - Nuclear Operations
Georgia Power Company
Post Office Box 4545
Atlanta, Georgia 30302

Dear Mr. O'Reilly

We have learned through conversations with Mr. J. Heidt of your staff that the Safety Evaluation that we issued in support of the Exemption of Hatch Units 1 and 2 to the requirements of Appendix R to 10 CFR Part 50 on January 2, 1987 is not consistent, in its discussion of the intake structure, with the Exemption. Errors in identification numbers of a valve and a fire area and in the size of two fire areas were also pointed out.

Enclosed are replacement pages 7, 8, 9, 10 and 17 for the Safety Evaluation that correct these discrepancies.

The corrections consist of:

1. Changing the reference to RHR valve E11-F0650 in Section 5.2.2 at page 7 to valve E11-F065D.

2. Changing the floor area of Fire Zone 1203A from 6680 to 6670 sq. ft. in Section 5.2.4 at page 8 and changing the floor area of Fire Zone 2205A from 6727 to 6427 sq. ft. in Section 5.2.11 at page 10.

3. Changing the reference to Fire Area Zone F in Section 5.2.7 at page 9 to Fire Zone 2203F.

4. Correcting the last sentence in Section 9.3 at page 17 to indicate that a fire watch is required whenever combustibles are stored in the intake structure and during maintenance and repair activities involving the use of combustible materials.

5. Correcting Section 9.4 at page 17 to indicate that the condition for concluding the exemption be granted is that the licensee augment its administrative procedures such that storage in or movement of transient combustibles into the intake structure or maintenance or repair activities involving use of combustible materials will require the initiation of a fire watch.

We appreciate your calling these errors to our attention and apologize for any inconvenience they have caused.

Sincerely,

Original signed by

George Rivenbark, Project Manager
BWR Project Directorate #2
Division of BWR Licensing

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4.4 Conclusion

Based on the above evaluation, the staff has concluded that an exemption from the requirements of Section III.J of Appendix R for the control room and the yard should be granted.

5.0 UNIT 1 REACTOR BUILDING NORTH OF COLUMN LINE R7

UNIT 1 REACTOR BUILDING SOUTH OF COLUMN LINE R7

UNIT 2 REACTOR BUILDING NORTH OF COLUMN LINE R19

UNIT 2 REACTOR BUILDING SOUTH OF COLUMN LINE R19

5.1 Exemption Requested

An exemption from the 1-hour barrier requirements of Section III.G.2 of Appendix R 10 CFR 50 is requested by the licensee for equipment within the suppression system/water curtain boundary.

5.2 Discussion

5.2.1 Unit 1 Pathway 1, RHR Inboard Valves E11-F015A, E11-F017A

Valves E11-F015A and E11-F017A are motor operated residual heat removal isolation valves. The location of these valves is approximately 13 feet south of the column line R7 on elevation 130 feet of the Unit 1 Reactor Building inside the piping penetration room in Fire Zone 1203F. This room is located totally within the east water curtain zone on elevation 130 feet. (wet pipe automatic sprinkler system) and is also covered by a linear thermal heat detection system. Cables for the valves will be protected with a 1-hour fire protective wrapping within the suppression system boundary. The valve operators, however, are not protected since complete enclosure could jeopardize their operability according to the licensee. Also, there are no unprotected pathway 2 components located within 20 feet of the valves. Fire Zone 1203F has a fire loading of about 105,000 BTU's/square foot over an area of 8172 square feet.

5.2.2 Unit 1, Pathway 2, RHR Suppression Pool Suction Valve E11-F065D

Valve E11-F065D is an air operated suppression pool suction valve located approximately 15½ feet north of column line R7 on elevation 87 feet in the Unit 1 Reactor Building in Fire Zone 1205A. This valve is located within the east torus water curtain zone (wet pipe sprinkler system) which is also covered by a linear thermal heat detection system. Cables for the valve will be protected by 1-hour fire protective wrapping. The valve operator, however, is not covered since complete enclosure could jeopardize its operability according to the licensee. There are four torus water temperature instruments located on this same elevation at 90-degree intervals around the torus, one of which is located approximately 12½ feet from this valve. Fire loading within Fire Zone 1205A is about 13,000 BTUs/square foot over an area of 6620 square feet.

5.2.3 Unit 1 Pathway 2, HPCI Pump Discharge Valve E41-F006

Valve E41-F006 is a motor operated HPCI pump discharge valve located approximately 17 feet north of column line R7 at elevation 87 feet on the west side of the Unit 1 Reactor Building in Fire Zone 1205A. This valve is located within the west torus water curtain zone (wet pipe sprinkler system) which is also covered by a linear thermal heat detection system. Cables for the valve will be protected with 1-hour fire protective wrapping. However, no protection is proposed for the valve operator since complete enclosure could jeopardize the operability of the valve, according to the licensee.

5.2.4 Unit 1 Pathway 1, RCIC Pump Discharge Valve E51-F013

Valve E51-F013 is a motor operated RCIC pump discharge valve located about 4 feet south of column line R7 at elevation 87 feet on the west side of the Unit 1 Reactor Building in Fire Zone 1203A. This valve is located within the west torus water curtain zone (wet pipe sprinkler system) which is also covered by a linear thermal detection system. Cables for the valve will be protected with 1-hour fire protective wrapping. However, no protection is proposed for the valve operator since complete enclosure could jeopardize the operability of the valve, according to the licensee. Fire loading within Fire Zone 1203A is 8352 BTU's/square foot over 6670 square feet.

5.2.5 Unit 1 Torus Water Temperature Instruments T-48-N009A and T-48-N009C

Torus water temperature instruments T-48-N009A and T-48-N009C are located opposite each other on the west and east sides of the torus, respectively, at elevation 87 feet in the Unit 1 Reactor Building in Fire Zones 1203A and 1205A. Two other water temperature instruments are located 90° apart from these.

In response to a staff question, the licensee reevaluated the instrument location and circuit routing (letter of 10/31/86 L. T. Gucwa to D. Muller). The licensee found that the circuit routing is such that for a fire occurring anywhere within the torus room (fire areas 2203 and 2205) at least one instrument will always be available. Thus, protection of these instruments is not required by Appendix R.

5.2.6 Unit 1 Pathway 1, Motor Control Center R24-S018A and Pathway 2, Motor Control Center R24-S028B

Motor control centers (MCC's) R24-S018A and R24-S028B are located in the southside along the east wall between column lines R7 and R9 of the Unit 1 Reactor Building at elevation 130 feet in Fire Zone 1203F. Both MCC's are located in the east water curtain zone on elevation 130 feet (wet pipe sprinkler system) which is covered by a linear thermal detection system. No protection is proposed for the cables and components within each MCC. The cables leading to the MCC are covered by a 1-hour fire protective covering. There are no required unprotected pathway 2 components within 20 feet of either of these MCCs. Also the loss of R24-S018B does not impact shutdown pathway 2.

5.2.7 Unit 2, Pathway 2, Remote Shutdown Panel 2H21-P173

Remote shutdown panel 2H21-P173 is located approximately 12 feet east of column line RA and 12 feet north of column line R17 in the Unit 2 Reactor Building at elevation 130 feet in Fire Zone 2203F. A control cable for the pathway 2 plant service water pump is routed through the area and panel. All raceways in this area containing this cable will be protected with 1-hour fire protective wrapping up to this panel. For a fire inside the panel, pathway 1 will be available for shutdown. The panel is located in the northwest water curtain zone (wet pipe sprinkler system) which is also covered by a linear thermal detection system. However, the water curtain does not meet the 20 feet extension criteria stated in Section 4.2.1 of the April 28, 1984 SER. This criteria required the water curtain to extend at least 20 feet beyond the protected component. The fire loading within Fire Zone 2203F is about 111,422 BTU's/square foot over 7438 square feet.

5.2.8 Unit 2, Pathway 1 RCIC Pump Discharge Valve 2E51-F013

Valve 2E51-F013 is a motor operated RCIC pump discharge valve. The location of this valve is about 8 feet north of column line R19 and 20 feet east of column line RA at elevation 87 feet in the west side of the torus area in the Unit 2 Reactor Building in Fire Zone 2203A. The valve is located in the west torus water curtain zone (wet pipe sprinkler system) which is covered by a linear thermal detection system. Cables for the valve are protected with 1-hour fire protective wrapping. However, no protection is provided for the valve operator, since complete enclosure could jeopardize the operability of the valve, according to the licensee. There are no unprotected pathway 2 components located within 20 feet of the valve operator. Fire loading in Fire Zone 2203A is about 25,000 BTU's/square foot over 6427 square feet.

5.2.9 Unit 2, Pathway 1, Plant Service Water Inlet Valve No. 2P41-F066

Valve 2P41-F066 is a solenoid-operated valve located about 8 feet north of column line R19 and 6 feet west of column line RL in the torus area on the east side of the Unit 2 Reactor Building in Fire Zone 2203A. The valve is located in the east torus water curtain zone (wet pipe sprinkler system) which is covered by a linear thermal detection system. All cables for the valve will be protected by 1-hour fire protective wrapping. However, no protection is proposed for the valve operator because complete enclosure could jeopardize its operability, according to the licensee. There are no unprotected pathway 2 components within 20 feet of the valve operator.

5.2.10 Unit 2, Pathway 1, RHR Inboard Valve and RHR Outboard Valves 2E11-F015A and 2E11-F017A

Valves 2E11-F015A and 2E11-F017A are motor operated isolation valves located about 16 feet north of column line R19 and about 29 feet (2E11-F015A) and 24 feet (2E11-F017A) west of column line RL on

elevation 130 feet of the Unit 2 Reactor Building. The valves are located in Fire Zone 2203F and in the East Water Curtain Zone on elevation 130 feet which is also covered by a linear thermal detection system. Cables for these valves will be protected with 1-hour fire protective wrapping. However, no protection is proposed for the valve operators because complete enclosure could jeopardize their operability, according to the licensee. There are no unprotected pathway 2 components within 20 feet of the valve operator.

5.2.11 Unit 2, Pathway 2, HPCI Pump Discharge Valve 2E41-F006

Valve 2E41-F006 is a motor operated HPCI discharge valve located about 15 feet south of column line R19 and 25 feet east of column line RA at elevation 87 feet in the torus area on the west side of the Unit 2 Reactor Building. The valve is located in Fire Zone 2205A and the west torus water curtain zone which is covered by a linear thermal detection system. The cables to the valve will be protected with 1-hour protective wrapping. However, no protection is proposed for the valve operator because complete enclosure could jeopardize its operability, according to the licensee. There are no unprotected pathway 2 components located within 20 feet of the valve operator. The combustible loading in Fire Zone 2205A is about 23,000 BTU/square foot over 6427 square feet.

5.2.12 RCIC Steam Supply Valve MCC, Unit 2 Pathway 1 2R24-S012B

MCC 2R24-S012B contains the valve motor starter for the RCIC steam supply valve 2E51-F007. It is located about 6 feet west of column line RB and 2 feet north of column line R21 on elevation 164 feet in the chiller room in the Unit 2 Reactor Building. The chiller room is in Fire Zone 2205N and is protected by a preaction sprinkler system which is activated by ionization type smoke detectors. Cables for the valve starter will be protected with 1-hour fire protective wrapping. However, the control cables and starter for the valve are inside the MCC and further protection is not proposed. Valve 2E51-F007 is considered a passive component required to remain open. Safe shutdown does not require operability of the valve. The fire loading in Fire Zone 2205N is about 83,000 BTU/square foot over 4204 square feet.

5.2.13 HPCI Steam Line Leak RTD's Unit 1 Pathway 2 (E41-N071) and Unit 2 Pathway 2 (2E41-N071)

The HPCI Line Leak resistance temperature detectors (RTD's) are the pipe penetration room high ambient temperature detectors. These will be located in both the Unit 1 and Unit 2 Reactor Buildings on elevation 130 feet in Fire Zone 1203F and 2203F. The RTD's are designed to sense a HPCI steam line break but could respond to the heat of a fire and cause isolation of the HPCI system which is assumed lost for a fire on this side of the Reactor Building. Once the RTD's are installed, the cables to the RTD's will be protected with a 1-hour fire protective coating. However, the RTD's will not be protected. The pipe penetration rooms are located within water curtain zones covered with a fire detection system. There are no unprotected pathway 1 components within 20 feet of the RTD's.

The entire structure is protected by ionization type smoke detectors.

9.3 Evaluation

When transient combustibles are not present, the 8 feet minimum separation distance is sufficient protection because of the near zero fire load away from the pumps. Near the pumps, the 135°F rated sprinkler heads may be expected to fuse quick enough to suppress any fire that might result from leaking grease or oil.

During maintenance and repair activities, however, transient combustibles may present a hazard to the unprotected conduits. Therefore, the staff will require that a fire watch be maintained whenever combustibles are stored in the intake structure and during maintenance and repair activities involving the use of combustible materials.

9.4 Conclusion

Based on the above evaluation, the staff recommends that the exemption from the 20-feet requirement of Section III.G.2 be granted with the condition that the licensee augment its administrative procedures such that storage in or movement of transient combustibles into the intake structure, or maintenance or repair activities involving use of combustible materials, will require the initiation of a fire watch.

10.0 ADDITIONAL CLARIFICATION REGARDING THE EXISTING 3-HOUR BARRIER REQUIREMENT EXEMPTION

10.1 Areas Affected

- Unit 2 - Turbine Building East Cableway elevation 130 feet.
- Control Building East Corridor, elevation 112 feet.
- Control Building Working Floor, elevation 112 feet.
- Unit 1 Turbine Building East Cableway elevation 130 feet.
- Unit 2 Switch Gear Hallway.

The above areas refer to items 2.2 - 2.6 in the licensee's May 16, 1986 exemption request letter providing clarification of previously granted exemptions.

10.2 Information Submitted

All of the above items are in the form of clarifications to and interpretations of exemptions which were granted in the staff SER dated April 18, 1984. All of the above deal with adequacy of existing fire barriers within the plant. The submittal also provides justification (evaluation) for the clarification and interpretation.