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NED-83-590

November 30, 1983

Director of Nuclear Reactor Regulation
Attention: Mr. John F. Stolz, Chief
Operating Reactors Branch No. 4
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

NRC DOCKETS 50-321, 50-366
OPERATING LICENSES DPR-57, NPF-5
EDWIN I. HATCH NUCLEAR PLANT UNITS 1, 2
DETAILED CLARIFICATION OF REQUESTS FOR EXEMPTION
FROM 10 CFR 50.48 AND 10 CFR 50 APPENDIX R

Gentlemen:

Georgia Power Company's letter dated November 16, 1983, documented our clarification of certain requests for exemption from the requirements of 10 CFR 50.48 and Appendix R. These clarifications provided additional information to address the NRC staff's concerns with the requests for exemption. The enclosure to this letter provides replacement pages to reflect revised sections of our July 1, 1982, "Response to 10 CFR 50.48 and Appendix R".

Should you have any questions regarding this letter or its enclosure, please contact this office.

Yours very truly,

L. T. Gucwa

L. T. Gucwa

RK/eb

Enclosure

xc: J. T. Beckham, Jr.
H. C. Nix, Jr.
J. P. O'Reilly
Senior Resident Inspector

A006
1/1

ENCLOSURE

RESPONSE TO 10 CFR 50.48 AND APPENDIX R

REVISION INSERTION INSTRUCTIONS

November 1983

Revision Status sheet (June 1983)	Discard
Page 4-20	Replace
Page 4-21	Replace
Page 4-49	Replace
Page 4-50	Replace
Page 4-51	Replace
Page 4-52	Replace
Page 4-53	Replace
Revision Insertion Instructions	Discard

Those circuits listed in paragraphs 4.1.5.3 and 4.1.6.3 as requiring protection will be wrapped with a 1-h barrier material. The wrapping will provide the required protection throughout the analyzed fire area. The wrapping will extend beyond the water curtain boundary of the fire area for a distance of 20 ft past the area boundary (column line R7). Additionally, in the coverage area of the water curtain, all safe-shutdown related circuits will be wrapped.

The following circuits will be rerouted in the reactor building:

Component	Circuit	Present Location
E51-F007	R24-S012-ES4-M17	130 ft north of R7
E51-F007	R24-S012-E58-C17K	130 ft and 158 ft north of R7
E51-F007	R24-S012-E58-C17J	130 ft and 158 ft north of R7
E41-F002	R24-S011-ES3-M75	130 ft south of R7
E41-F002	R24-S011-ES7-C75	130 ft south of R7
E41-F002	R24-S011-ES7-C75A	130 ft south of R7
B21-N026A	H11-P603-ES0-C047	130 ft and 158 ft north of R7

Reroute ADS from the single penetration.

Relocate control and transfer switches for E51-F007 from panel C82-P002 to panel C82-P001

Relocate cables for E51-F007 from panel C82-P002 to panel C82-P001

4.1.5.5 Exemptions to Appendix R

An exemption from the separation criteria of paragraph III.G.2 of Appendix R is requested for the fire area boundary between the north and south halves of the reactor building. The proposed water curtain system and the proposed wrapping of both safe shutdown trains in the water curtain portion of the floors will assure that a fire in one area of the reactor building will not affect the safe shutdown equipment in the other fire area. Further, the proposed and existing fire and smoke detection systems will provide reasonable assurance that any fire will be detected early and will be extinguished by prompt fire brigade action.

The separation exemption also extends to el 185 ft. The sprinkler system on el 185 ft will assure that any fire propogating upward from the lower elevations or originating on el 185 ft will not be able to cross from one half of the reactor building to the other via the upper levels.

An exemption from the separation criteria of paragraph III.G.2 of Appendix R is requested for the substantial concrete shield

walls on el 130 ft and 158 ft. These walls are at least 3 ft thick but are not presently rated due to the presence of unsealed penetrations. The heavy walls and relatively small penetrations ensure that a fire will not propogate past these walls prior to its detection by the proposed detection systems. Sealing these penetrations would not materially enhance fire protection safety.

An exemption from the requirement of paragraph III.G.2 of Appendix R for an area wide automatic fire suppression and detection system for the reactor building is requested. The relatively low combustible loading in the area poses only a minimal fire hazard. Further, the presence of electrical components and hydraulic control rod drive units that could be damaged or disabled by inadvertent actuation of a water system indicates that the installation of such a system throughout the area would degrade overall plant safety.

Raceway	Circuit	Component
2E17040	EDE311M03	2E41-F002
2E17041	EDE711C10	2E41-F002
2E17041	EDE711C11	2E41-F002
2E17042	EDE711C11	2E41-F002
2E26992	PUE836C09	2P41-C001B
2E26992	PUE836M02	2P41-C001B
2RDA705	EDE703C01	HPCI system
2RDA705	EDE703C02	HPCI system
2RDA706	EDE703C02	HPCI system
2RDA706	EDE703C01	HPCI system
2RDA706	BCE704C02	ADS
2RDA706	BCE707C02	ADS
2E22073	RXE804C01	2R24-S018B
2E22073	RXE804M02	2R24-S018B
2E27025	RXE404M01	2R24-S018B
2E27308	BHE816C01	2B31-P003B
2MR2049	TGX307M01	2T48-F027
2MR2546	TGX311M02	2T48-F026
2RAA901	BAX902C01	2B21-N027
2RAA902	BAX902C01	2B21-N027
2RAB701	EDE703C03	HPCI system
2RAB702	EDE703C03	HPCI system
2RAB703	EDE703C03	HPCI system
2RBL804	EAE851M02	2E11-F024B
2RBL804	EAE851C02	2E11-F024B
2RBL804	EAE851C04	2E11-F024B
2RBL805	EAE851M02	2E11-F024B
2RBL805	EAE851C02	2E11-F024B
2RBL805	EAE851C04	2E11-F024B
2RCA701	TGX711C01	2T48-F026
2RCA701	TGX711C02	2T48-F026
2RCA702	TGX711C01	2T48-F026
2RCA703	TGX711C02	2T48-F026
2RDA706	EDE703C02	HPCI system
2RDA706	EDE703C01	HPCI system

Raceway	Circuit	Component
2RDA707	BCE704C02	ADS
2RDA707	BCE707C02	ADS
2RDA707	EDE703C01	HPCI system
2RDA707	EDE703C02	HPCI system
2RDA708	BCE702C05	ADS
2RDA708	BCE702C07	ADS
2RDA708	BCE704C02	ADS
2RDA708	BCE707C02	ADS
2RDA709	BCE702C05	ADS
2RDA709	BCE702C07	ADS
2RDA709	BCE704C02	ADS
2RDA709	BCE707C02	ADS
2RDA710	BCE702C05	ADS
2RDA710	BCE702C07	ADS
2RDA710	BCE704C02	ADS
2RDA710	BCE707C02	ADS
2RDA708	EDE703C01	HPCI system
2RDA708	EDE703C02	HPCI system
2RDA710	EDE703C01	HPCI system
2RDA710	EDE703C02	HPCI system
2RDA709	EDE703C01	HPCI system
2RDA709	EDE703C02	HPCI system
2RDA901	BAX902C01	2B21-N027
2RDC701	BCE704C02	ADS
2RDC701	BCE707C02	ADS
2REE301	TGX307M01	2T48-F027
2RJA801	BHE816C01	2B31-P003B
2RLA701	BCE702C05	ADS
2RLA701	BCE702C07	ADS
2RNE701	TGX707C01	2T48-F027
2RNE701	TGX707C02	2T48-F027
2RNE701	TGX711C01	2T48-F026
2RNE701	TGX711C02	2T48-F026
2E27089	EEE805C14	2E51-F007
2E27089	EEE805C15	2E51-F007
2E25326	EDE616M05	2E41-F006
2E25326	EDE616M06	2E41-F006
2E25445	EDE818C05	2E41-F008
2E25401	EDE802C30	2E41-N015A

4.2.6.4 Modifications

A. Raceways 2E26992, 2E27308, 2RBL804, 2RBL805, and 2RJ801 will be protected with a 1-h fire barrier.

B. Relocate instrument circuits of 2B21-N027 to pathway 2 side of reactor building.

C. Reroute HPCI Division I circuits in conduit and wrap other than the ones being rerouted by the installation of ATTS.

D. Relocate control and power of HPCI valve 2E41-F002 to 2R24-S011A.

E. Install a fire suppression system over panel 2082-P001B.

F. Remove power at valve 2T48-F026 and F027.

G. Relocate circuits EDE703C01 and EDE703C02.

H. Protect the following raceways with a 1-h barrier:

2E22073	2E15401
2E27025	
2E27089	
2E15326	
2E25445	

I. Waterproof switches of panel 2C82-P001B.

J. During the investigation of the Appendix R rule it was determined that the safety/relief valves (S/RVs) of the ADS system were required for pathways 1 and 2. In this area it was found that the circuits, controlling all of the S/RVs located in the drywell, were routed through a single penetration such that a single fire could affect all the S/RVs; i.e., the ones required for pathways 1 and 2. This problem will be resolved when the installation of the low-low set relief valve logic is completed per the requirements of the Mark I long-term program. This logic modification, which is being installed with the ATTS system, will separate out two S/RVs from the remaining nine, thus providing the necessary separation required by Appendix R and meeting the requirement of having separate and distinct active pathway components.

K. Install a fire suppression system on the east side of el 158 ft, el 130 ft, and el 87 ft and on the west side of el 87 ft. See paragraph 4.1.5.4 for a description of the extent of these systems.

L. Deleted.

M. Install a partial fire detection system on el 158 ft (east side) and on el 87 ft (east and west sides). See paragraph 4.1.5.4 for a description of the extent of these systems.

N. H_2O above el 158 ft.

O. Relocate transfer and control switches for 2E51-F007 from panel 2C82-P001B to panel 2C82-P001A.

P. Relocate cables for 2E51-F007 from 2C82-P001B to 2C82-P001A.

Q. Upgrade and extend the existing missile shield around and behind panels 2C82-P001A and 2C82-P001B to provide a more effective fire resistant barrier. Install a partition between panels 2C82-P001A and 2C82-P001B from the rear of the panels to the barrier.

R. Install a halon system (or equivalent) with 2C82-P001A and 2C82-P001B.

S. Install a fire detection system within 2C82-P001A and 2C82-P001B.

4.2.6.5 Exemptions to Appendix R

An exemption from the separation criteria of paragraph III.G.2 of Appendix R is requested for the fire area boundary between the north and south halves of the reactor building. The proposed water curtain system and the proposed wrapping of both safe shutdown trains in the water curtain portion of the floors will assure that a fire in one area of the reactor building will not affect the safe-shutdown equipment in the other fire area. Further, the proposed existing fire and smoke detection system will provide reasonable assurance that any fire will be detected early and will be extinguished by prompt fire brigade action.

An exemption from the requirement of paragraph III.G.2 of Appendix R for an area wide automatic fire suppression and detection system for the reactor building is requested. The relatively low combustible loading in the area poses only a minimal fire hazard. Further, the presence of electrical components and hydraulic CRD units that could be damaged or disabled by inadvertent actuation of a water system indicates that the installation of such a system throughout the area would degrade overall plant safety.

An exemption is requested for the separation criteria of paragraph III.G.2 of Appendix R for the substantial concrete shield walls on 130 ft and 158 ft. These walls are at least 3 ft thick but are not presently fire rated due to the presence of unsealed penetrations. The heavy walls and relatively small penetration ensure that fire will not proprogate past these walls prior to its detection by the proposed detection systems. Sealing these penetrations would not materially enhance fire protection safety.

An exemption is requested for the separation criteria of paragraph III.G.2 of Appendix R for the non-fire rated barrier between panels 2C82-P001A and 2C82-P001B which are located adjacent to each other. The addition of the barrier around the panels together with the fire suppression and detection systems installed within the panels as well as in the surrounding area greatly reduces the probability of a fire damaging both pathway 1 and pathway 2 components in panels 2C82-P001A and 2C82-P001B respectively. The walls of the panels provide a degree of separation between the pathway 1 and pathway 2 components. Therefore, the addition of a rated barrier would not greatly enhance plant safety.