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Georgia Power
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M84731

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

Edwin I. Hatch Nuclear Plant
Request to Revise Technical Specifications
Implementation of the New 10 CFR 20 Requirements

Gentlemen:

By letters dated October 14, 1992 and January 15, 1993, Georgia Power Company (GPC) submitted proposed changes to the Plant Hatch Unit 1 and Unit 2 Technical Specifications (TS) associated with implementation of the new 10 CFR 20 requirements. Based on subsequent telephone conversations with members of the Nuclear Regulatory Commission (NRC) staff regarding their review of these submittals, GPC was informed that the proposed changes related to gaseous release rates must be revised to demonstrate compliance with effluent limitations. Two alternatives were discussed, one based on a concentration methodology and the other based on a dose rate methodology similar to what is currently required by the Plant Hatch Unit 1 and Unit 2 TS.

GPC has evaluated the alternatives discussed above and has elected to implement the dose rate methodology for determining compliance with gaseous effluent release rate limits. Enclosed are the revised proposed changes to the Unit 1 and Unit 2 TS reflecting this decision.

Enclosure 1 provides a detailed description of the proposed changes and the reasons for the change request.

Enclosure 2 details the bases for GPC's determination that the proposed changes do not involve a significant hazards consideration.

Enclosure 3 provides revised proposed changes to the Units 1 and 2 TS related to gaseous effluent release rate limits. The revised and hand-marked pages supersede those provided for Proposed Change 11 in the October 14, 1992 submittal, and the response to Question 470.4 from NRC letter dated December 2, 1992 provided in the

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January 15, 1993 submittal. The revised pages provided in the January 15, 1993 submittal were used for the hand markups. The remaining proposed changes associated with implementation of the new 10 CFR 20 requirements, including supporting bases and significant hazards evaluation related to these changes provided in the October 14, 1992 and January 15, 1993 submittals, remain applicable.

Enclosure 4 provides hand-marked pages of the proposed changes to the Units 1 and 2 TS.

GPC requests that these proposed changes, together with the applicable proposed changes submitted by letters dated October 14, 1992 and January 15, 1993, and the proposed changes submitted in response to Generic Letter 89-01 by letter dated September 21, 1992, be approved as one single license amendment by September 1, 1993. GPC requests the conditions of the license amendment be made effective upon implementation of the new 10 CFR 20 requirements, but no later than January 1, 1994.

In accordance with the requirements of 10 CFR 50.91, a copy of this letter and all applicable enclosures will be sent to the designated State official of the Environmental Protection Division of the Georgia Department of Natural Resources.

Mr. J. T. Beckham, Jr. states he is duly authorized to execute this oath on behalf of GPC, and to the best of his knowledge and belief, the facts set forth in this letter are true.

Sincerely,

J. T. Beckham, Jr.

Sworn to and subscribed before me

this 26th day of March, 1993

Notary Public

My Commission Expires: MY COMMISSION EXPIRES JUNE 30, 1996

JTB/TMM

Enclosures:
1. Basis for Change Request
2. 10 CFR 50.92 Evaluation
3. Page Change Instructions and Revised Pages
4. Hand-Marked Pages

cc: Georgia Power Company
Mr. H. L. Sumner, General Manager - Nuclear Plant
NORMS

U. S. Nuclear Regulatory Commission, Washington, D. C.
Mr. K. Jabbour, Licensing Project Manager - Hatch

U. S. Nuclear Regulatory Commission, Region II
Mr. S. D. Ebneter, Regional Administrator
Mr. L. D. Wert, Senior Resident Inspector - Hatch

State of Georgia
Mr. J. D. Tanner, Commissioner - Department of Natural Resources

Enclosure 1

Edwin I. Hatch Nuclear Plant
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Basis for Change Request

Proposed Changes

Revise proposed Hatch Unit 1 and Unit 2 Technical Specification (TS) 6.18(7) submitted by Georgia Power Company (GPC) letter dated October 14, 1992, as Proposed Change 11. This specification was later revised by GPC letter dated January 15, 1993 in response to Question 470.4 from Nuclear Regulatory Commission letter dated December 2, 1992. These changes, which address gaseous effluent release rates, are needed to accommodate operational flexibility to facilitate implementation of the new 10 CFR 20 requirements.

Basis for Proposed Changes

The following basic requirements for TS concerning effluents from nuclear power reactors are discussed in 10 CFR 50.36a:

1. Compliance with effluent TS will keep average annual releases of radioactive material in effluents at small percentages of the limits specified in the old 10 CFR 20.106.

2. Flexibility of operation, compatible with considerations of health and safety, is allowed to assure the public is provided a dependable source of power even under unusual operating conditions which may temporarily result in releases higher than such small percentages, but still within limits specified in the old 10 CFR 20.106, which references Appendix B, Table II concentrations. These referenced concentrations are specific values which relate to an annual dose of 500 mrem.

3. When using operational flexibility, best efforts shall be exerted to keep levels of radioactive materials in effluents as low as is reasonably achievable, as set forth in 10 CFR 50, Appendix I.

As stated in the Introduction to Appendix B of the new 10 CFR 20, the gaseous effluent concentration values given in Appendix B, Table 2, Column 1, are based on an annual dose of 50 mrem for radionuclides for which inhalation or ingestion is limiting, or 100 mrem for radionuclides for which submersion is limiting. Current Unit 1 TS 3/4.15.2.1 and Unit 2 TS 3/4.11.2.1 require release concentrations which limit dose rates

at the site boundary to ≤ 500 mrem/year to the total body and ≤ 3000 mrem/year to the skin due to noble gases; and ≤ 1500 mrem/year to any organ due to Iodine-131, Iodine-133, tritium and particulates with half-lives greater than 8 days. These requirements have been acceptable as TS limits for gaseous effluents to assure that the limits of 10 CFR 50, Appendix I, and 40 CFR 190 are not likely to be exceeded. Therefore, it should not be necessary to restrict the operational flexibility by incorporating the dose rates associated with the new 10 CFR 20 effluent concentration values for radionuclides based on inhalation or ingestion (50 mrem/year), or the dose rate associated with the effluent concentration values for radionuclides based on submersion (100 mrem/year).

Having sufficient operational flexibility is especially important in establishing a basis for effluent monitor setpoint calculations. As discussed above, the concentrations stated in the new 10 CFR 20, Appendix B, Table 2, Column 1, relate to a dose of 50 or 100 mrem in a year. When applied on an instantaneous basis, this corresponds to a dose rate of 50 or 100 mrem/year. Such low values are impractical for use as bases for effluent monitor setpoint calculations for many gaseous effluent release situations when monitor background, sensitivity, and performance must be taken into account.

Therefore, to accommodate operational flexibility needed for effluent releases, proposed TS 6.18(7), provided as Proposed Change 11 in GPC letter dated October 14, 1992, and later revised in response to Question 470.4 by letter dated January 15, 1993, is being revised to maintain the current instantaneous dose rate limits of 500 mrem/year to the total body and 3000 mrem/year to the skin due to noble gases ; and 1500 mrem/year to any organ due to Iodine-131, Iodine-133, tritium, and all radionuclides in particulate form with half-lives greater than 8 days.

Compliance with the limits of the new 10 CFR 20.1301 will be demonstrated by operating within the limits of 10 CFR 50, Appendix I, and 40 CFR 190. Operational history at Plant Hatch has demonstrated that use of the dose rate values listed above (i.e., 500 mrem/year, 3000 mrem/year, and 1500 mrem/year) as TS limits has resulted in calculated maximum individual doses to members of the public which are well below the limits of 10 CFR 50, Appendix I, and 40 CFR 190.

Enclosure 2

Edwin I. Hatch Nuclear Plant
Request to Revise Technical Specifications
Implementation of the New 10 CFR 20 Requirements

10 CFR 50.92 Evaluation

Proposed Changes

The proposed changes to the Unit 1 Technical Specifications (TS) 3/4.15.2.1 and Unit 2 TS 3/4.11.2.1 are required to implement the new 10 CFR 20 requirements at Plant Hatch. The proposed TS changes previously submitted by Georgia Power Company (GPC) letters dated October 14, 1992 and January 15, 1993, are being revised to address a concern regarding the limits on gaseous radioactive effluents. Specifically, the proposed change to Administrative Controls Section 6.18(7), pertaining to gaseous effluent release rates, is being revised to maintain the current instantaneous dose rate limits of 500 mrem/year to the total body and 3000 mrem/year to the skin due to noble gases ; and 1500 mrem/year to any organ due to Iodine-131, Iodine-133, tritium, and all radionuclides in particulate form with half-lives greater than 8 days.

Background

By letters dated October 14, 1992 and January 15, 1993, GPC submitted proposed changes to the TS regarding implementation of the new 10 CFR 20 requirements. Based on subsequent telephone conversations with members of the Nuclear Regulatory Commission (NRC) staff regarding the submittals, GPC was informed the proposed changes related to gaseous release rates must be revised to demonstrate compliance with effluent limitations. Two alternatives acceptable to the NRC were discussed, one based on a concentration methodology and the other based on a dose rate methodology similar to the current requirements of Hatch Unit 1 TS 3/4.15.2.1 and Unit 2 TS 3/4.11.2.1. GPC has elected to implement the dose rate methodology for determining compliance with gaseous effluent release rate limits, the details of which are discussed in Enclosure 1.

Analysis

The proposed changes to the TS will allow for the implementation of the new 10 CFR 20 requirements at Plant Hatch. The level of radiological control will not be reduced by the proposed changes since compliance with applicable regulatory requirements governing radioactive effluents, including 10 CFR 50.36a, Appendix I to 10 CFR 50, and 40 CFR 190, will continue to be maintained.

Based on the above considerations, GPC has made the following determination concerning 10 CFR 50.92:

1. The proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated. The proposed changes will facilitate the implementation of the new 10 CFR 20 requirements. Compliance with other applicable regulatory requirements will continue to be maintained. Also, the proposed changes do not alter the conditions or assumptions in any of the Final Safety Analysis Report (FSAR) accident analyses. Since the FSAR accident analyses remain bounding, the radiological consequences previously evaluated are not adversely affected by the proposed changes. Therefore, it can be concluded the proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. The proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated. The proposed changes do not involve any change to the configuration or method of operation of any plant equipment. Accordingly, no new failure modes have been defined for any plant system or component important to safety, nor has any new limiting single failure been identified as a result of the proposed changes. Also, there will be no change in types or increase in the amount of gaseous effluents released offsite. Therefore, it can be concluded the proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. The proposed changes do not involve a significant reduction in a margin of safety. The proposed changes do not involve any change in the methodology to be used in the radiological effluent monitoring of gaseous releases since current TS requirements will continue to be implemented. Accordingly, the methodology to be used in the control of gaseous effluents will remain unchanged. Additionally, annual doses will be limited to the doses specified in 10 CFR 50, Appendix I, and 40 CFR 190. Therefore, it can be concluded the proposed changes do not involve a significant reduction in a margin of safety.

Conclusion

Based on the preceding analysis, GPC has determined the proposed changes to the Unit 1 and Unit 2 TS will not significantly increase the probability or consequences of an accident previously evaluated, create the possibility of a new or different kind of accident

from any accident previously evaluated, or involve a significant reduction in a margin of safety. Therefore, GPC has determined the proposed changes meet the requirements of 10 CFR 50.92(c) and do not involve a significant hazards consideration.