

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of)	
GEORGIA POWER COMPANY, ET AL.)	
(EDWIN I. HATCH NUCLEAR PLANT,)	Docket No. 50-366
UNIT 2))	

EXEMPTION

I.

Georgia Power Company, et al. (GPC or the licensee), is the holder of Facility Operating License No. NPF-5, which authorizes operation of the Hatch Nuclear Plant, Unit 2. The license provides, among other things, that the licensee is subject to all rules, regulations, and orders of the Nuclear Regulatory Commission (the Commission) now and hereafter in effect. The facility consists of one boiling water reactor located in Appling County, Georgia.

II.

Section 50.54(o) of 10 CFR Part 50 requires that primary reactor containments for water cooled power reactors be subject to the requirements of Appendix J to 10 CFR Part 50. Appendix J contains the leakage test requirements, schedules, and acceptance criteria for tests of the leak tight integrity of the primary reactor containment and systems and components that penetrate the containment. Sections II.H.4 and III.C.2 of Appendix J to 10 CFR Part 50 require leak rate testing of the Main Steam Isolation Valves (MSIVs) at the calculated peak containment pressure related to the design-basis accident, and Sections III.A.5, III.B.3, and III.C.3 require that the measured leak rates be included in the combined leak rate test results.

By letter dated June 20, 1995, the licensee requested an exemption from the Commission's regulations. The subject exemption is from the requirements of 10 CFR Part 50, Appendix J, "Primary Reactor Containment Leakage Testing for Water-Cooled Power Reactors," Sections III.A.5(b)(1), III.A.5(b)(2), III.B.3, and III.C.3 to exclude the MSIV leakage from the combined local leak rate test results. This request was needed after the MSIV leakage rate was increased by the issuance of Amendment No. 132 on March 17, 1994. In addition, the Commission is granting another exemption from the requirements of Section III.C.2(a) to account for a previously granted exemption, stated in the Hatch Unit 2 Technical Specifications (TS), which allows the leak rate testing at a reduced pressure.

The licensee's June 20, 1995, request stated that a plant-specific radiological analysis of a postulated design-basis loss-of-coolant accident (LOCA) has been performed, and is documented in Section 15.1.39 of the Hatch Unit 2 Final Safety Analysis Report (FSAR). The radiological analysis calculated the effect of the maximum leakage rate from the containment volume in terms of onsite and offsite doses, which were evaluated against the dose limits of 10 CFR 50, Appendix A, General Design Criterion (GDC) 19 and 10 CFR Part 100, respectively. The analysis accounted for the radiological effect from MSIV increased leakage and other containment leakages following a postulated LOCA in terms of the doses that could be received by personnel in the technical support center (TSC), the main control room (MCR), and at the site boundary. The analysis results demonstrated that the dose from all the leakage, including the MSIV leakage rate limit of 100 standard cubic feet per hour (scfh) per MSIV not to exceed 250 scfh for all four main steam lines, results in an acceptable value when evaluated against the regulatory limits for the off-site doses, TSC and MCR doses contained in 10 CFR Part 100, and 10 CFR Part 50, Appendix A, GDC-19, respectively.

The staff concluded that the exemption requested is acceptable based on: the method of MSIV testing (i.e., 28.8 psig test pressure when applied between MSIVs on a single steam line); a radiological analysis that assumes a 100 scfh per MSIV leak rate not to exceed 250 scfh for all four steam lines; and the requirement that the MSIVs would be periodically tested to ensure the validity of the radiological analysis (i.e., verify that the MSIV leakage rate during testing is accounted for separately in the radiological analysis of the site).

For the reasons set forth above, the NRC staff concludes that there is reasonable assurance that: the current MSIV leak testing method (i.e., test pressure of 28.8 psig when applied between MSIVs) is an acceptable method; and the calculated doses obtained by performing radiological analysis (calculated using an MSIV leakage rate limit of 100 scfh per MSIV, not to exceed 250 scfh for all four main steam lines), are within the limits of 10 CFR Part 100 and GDC-19. The staff finds it acceptable to continue to exclude the measured MSIV leakage rate from the combined leak rate test results, since the leakage is accounted for separately and continues to meet the underlying purpose of the rule. Therefore, the staff finds that the requested exemption presented in the licensee's June 20, 1995, submittal is acceptable.

III.

Pursuant to 10 CFR 50.12, the Commission may, upon application by any interested person or upon its own initiative, grant exemptions from the requirements of 10 CFR Part 50 when (1) the exemptions are authorized by law, will not present an undue risk to public health and safety, and are consistent with the common defense and security; and (2) when special circumstances are present. Special circumstances are present whenever, according to 10 CFR 50.12(a)(2)(ii), "Application of the regulation in the particular

circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule...."

The underlying purpose of the rule is to assure that leakage through systems and components penetrating the primary containment should not exceed allowable leakage rates, so that the dose due to the total leakage, including that due to the MSIVs, is within the limits of 10 CFR Part 100 and GDC-19. The licensee's analysis has demonstrated that an adequate margin can be maintained even if leakage from the MSIVs is considered separately and subject to a leakage restriction of 100 scfh per MSIV, not to exceed a total of 250 scfh for all four main steam lines.

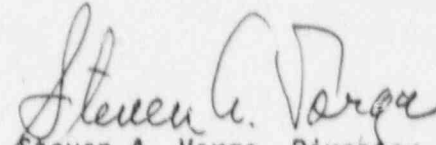
IV.

Accordingly, the Commission has determined that, pursuant to 10 CFR 50.12, an exemption is authorized by law and will not present an undue risk to the public health and safety, and that there are special circumstances present, as specified in 10 CFR 50.12(a)(2). An exemption is hereby granted from the requirements of Sections III.A.5(b)(1), III.A.5(b)(2), III.B.3, III.C.2(a), and III.C.3 of Appendix J to 10 CFR Part 50. The exemption allows (1) leakage testing of the MSIVs, after deletion of the LCS, using a test pressure of 28.8 psig applied between MSIVs, and (2) exclusion of the measured MSIV leakage rate from the combined local leak rate test results.

Pursuant to 10 CFR 51.32, the Commission has determined that the granting of this exemption will have no significant impact on the quality of the human environment (60 FR 54709).

This exemption is effective upon issuance and will be implemented prior to startup of Cycle 13 for Hatch, Unit 2.

FOR THE NUCLEAR REGULATORY COMMISSION



Steven A. Varga, Director
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Dated at Rockville, Maryland
this 1st day of November 1995.

This exemption is effective upon issuance and will be implemented prior to startup of Cycle 13 for Hatch, Unit 2.

FOR THE NUCLEAR REGULATORY COMMISSION

ORIGINAL SIGNED BY:

Steven A. Varga, Director
 Division of Reactor Projects - I/II
 Office of Nuclear Reactor Regulation

Dated at Rockville, Maryland
 this 1st day of November 1995.

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