7590-01

UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

In the Matter of GEORGIA POWER COMPANY OGLETHORPE POWER CORPORATION MUNICIPAL ELECTRIC AUTHORITY OF GEORGIA CITY OF DALTON, GEORGIA Edwin I. Hatch Nuclear Plant, Unit 2	)	Docket No. 50-366

EXEMPTION

I.

Georgia Power Company, et al., (the licensee) is the holder of Facility Operating License No. NPF-5, which authorizes full power operation of the Edwin I. Hatch Nuclear Plant, Unit 2. The license provides, among other things, that it is subject to all rules, regulations and Orders of the Nuclear Regulatory Commission (the Commission) now or hereafter in effect.

The facility incorporates a boiling water reactor at the licensee's site located in Appling County, Georgia.

II.

By letter dated January 6, 1988, the licensee requested an exemption from the requirements of 10 CFR Part 50.62(c)(4), which establishes the minimum injection flow rate and the boron concentration for the standby liquid control system (SLCS).

Specifically, 10 CFR Part 50.62(c)(4) requires that each boiling water reactor must have a SLCS with minimum flow capacity and boron content equivalent in control capacity to 86 gallons per minute (GPM) of 13 weight percent (w/o) sodium pentaborate solution. The licensee requested an exemption from

this requirement to permit use of a minimum flow rate of 41.2 GPM and an available sodium pentaborate concentration ranging from 6.2% to 13 w/o depending on the volume in the existing SLCS storage tank. The Boron-10 content of the boron in the dissolved sodium pentaborate solution would be enriched to 60 atomic percent.

The requirement established by the regulation was intended to provide for prompt injection of negative reactivity into a boiling water reactor pressure vessel in the event of an anticipated transient without scram (ATWS) event. The reactor vessel size used to establish the required flow rate of 86 GPM and the sodium pentaborate concentration of 13 w/o was the large 251-inch diameter vessel used in the BWR/5 and BWR/6 designs. The Hatch Unit 2 reactor has a much smaller 218-inch diameter vessel. For the Hatch Unit 2 reactor, a lesser flow rate, following the formula proposed by the licensee, will provide a negative reactivity injection in an ATWS event equivalent to that called for by the regulation for the larger 251-inch diameter boiling water reactor vessel. See Generic Letter 85-03, "Clarification of Equivalent Control Capacity for Standby Liquid Control Systems," January 28, 1985.

III.

In this case, the flow rate-boron 10 concentration relationship established by the licensee's formula will provide control capacity for the smaller Hatch Unit 2 reactor pressure vessel equivalent to that called for by the rule based on larger reactor pressure vessels. Requiring Hatch Unit 2 to have the flow rate-boron 10 concentration capacity specified by the rule is not necessary to provide adequate negative reactivity in the event of an ATWS at Hatch Unit 2. Thus, the Commission's staff finds that there are special circumstances in this

case which satisfy the standards of 10 CFR Part 50.12(a)(2)(ii). As set forth in the Safety Evaluation of Amendment No. 90, issued concurrently with this Exemption, the staff has determined that operation under the revised Technical Specifications governing flow rate and boron-10 concentration will not endanger public health and safety and will not be inimical to the common defense and security.

IV.

Accordingly, the Commission has determined that pursuant to 10 CFR Part 50.12, an exemption is authorized by law and will not present an undue risk to the public health and safety, and is consistent with the common defense and security, and hereby grants the following exemption with respect to the requirements of paragraph (c)(4) of 10 CFR Part 50.62.

The licensee may operate the facility with flow rate and boron concentration requirements as set forth in Sections 3.1.5 and 4.1.5 of the Hatch Unit 2 facility Technical Specification.

Pursuant to 10 CFR Part 51.32, the Commission has determined that granting this Exemption will have no significant impact on the environment (53 FR 2659).

This Exemption is effective upon issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Steven A. Varga, Director
Division of Reactor Projects I/II

Dated at Rockville, Maryland,
this 3d day of February 1988

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