



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20545

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 9 TO FACILITY OPERATING LICENSE NPF-68

GEORGIA POWER COMPANY, ET AL

DOCKET NO. 50-424

VOGTLE ELECTRIC GENERATING PLANT, UNIT 1

1.0 INTRODUCTION

By letter dated May 19, 1988, supplemented July 5, 1988, Georgia Power Company, et al., (the licensee) requested a change to the Technical Specifications for Vogtle Electric Generating Plant, (VEGP), Unit 1. The proposed change would change the Technical Specifications to allow removal of portions of the temporary wall dividing the control room.

2.0 EVALUATION

Unit 1 is protected from Unit 2 construction and testing activities by existence of physical barriers and administrative controls. In particular, the Vogtle Unit 1 and Unit 2 control room areas are separated by a temporary wall and the heating, ventilation, and air conditioning (HVAC) systems are separated by a series of dampers, removed duct sections, and caps on open ducts. After the Protected/Vital Area is extended to include the Unit 2 portion of the control room, the licensee proposes to remove portions of the temporary wall prior to the scheduled Unit 1 refueling outage. A plan has been developed for wall removal with a minimum of disruption to Unit 1 operation.

During the period that the temporary wall is dismantled, Unit 1 is operating, and Unit 2 has not yet received an operating license, operation of the Unit 2 control room emergency filtration system (CREFS) must be restricted to assure that the Unit 1 CREFS would be capable of performing its intended function. The Unit 2 outside air intake will be maintained closed during this period since the instrumentation in the flow path which initiates control room isolation will not be continuously operable. Operation of the Unit 2 CREFS will be prevented to assure that, in the event of a Unit 1 control room initiation (CRI), operation of an excessive number of CREFSs will not lead to fan damage from unstable operation or unacceptable control room doses. The Unit 1 outside air flowpath is provided with two redundant chlorine detection systems and two redundant radiation monitoring systems. The chlorine detection systems are inoperable and the Unit 1 control room isolation dampers are maintained open as discussed in licensee event report 50-424/1987-044. Each safety injection signal for Unit 1 will initiate its associated CRI signal thereby actuating the associated CREFS and isolating the normal HVAC system.

The licensee proposes 4 notes to Technical Specification (TS) 3/4.7.6, "Control Room Emergency Filtration System" to accomplish the wall removal. In support of notes 1 and 2, the licensee provided the following information:

Specifically, Note 1 would allow the control room HVAC supply and return headers, which are presently separated into Unit 1 and Unit 2 sections, to be connected together. Connection of these headers allows balancing of both the Unit 1 and Unit 2 Control Room Emergency Filtration Systems (CREFSs) for two-unit operation before making an opening in the temporary wall. Dampers in the headers will enable isolation of the Unit 1 CREFS from the Unit 2 CREFS. If a Unit 1 Control Room Isolation (CRI) signal is received, closure of the required isolation dampers and shutdown of any operating Unit 2 CREFS within 4.5 minutes would ensure Unit 1 control room pressurization in accordance with the Technical Specification bases.

Once Unit 1 CREFS balancing for two-unit operation has begun, it becomes necessary to re-establish system operability in accordance with Technical Specification 4.7.6.e.3. Note 2 allows a temporary waiver of this operability verification to allow a reasonable amount of time for flow balancing, temporary wall panel removal, and re-testing of control room pressurization. The planned test sequence provides a high degree of assurance that the Unit 1 CREFS balancing for two-unit operation will be preceded by (1) Unit 2 control room pressurization to 1/8 inch water gauge with 650 cfm outside air, and (2) Unit 2 CREFS flow balancing for two-unit operation with 1500 cfm outside air. Acceptable results from these tests would be a prerequisite for the proposed waiver.

The NRC staff has reviewed the above information and finds that note 1 is acceptable because action will be taken to ensure Vogtle Unit 1 control room pressurization within 4.5 minutes which will maintain radiation doses within acceptable limits. Also, the NRC staff finds that note 2 is acceptable because Vogtle Unit 2 will verify its control room pressurization capability prior to use of the 7 day waiver and Vogtle Unit 2 will be flow balanced for two-unit operation prior to use of the note 2 waiver to try and minimize the amount of time that the waiver will be needed.

In support of notes 3 and 4 the licensee provides the following information:

The proposed notes restrict Vogtle Unit 2 CREFS operation during the period that the temporary wall is removed and Unit 2 has not yet received an operating license. These restrictions are necessary to ensure proper operation of the Unit 1 CREFS.

Following removal of temporary wall panels and pressurization testing of the combined control room, operation of the Unit 2 CREFS will not be required until receipt of the Unit 2 operating license. If a Unit 1 CRI were to occur during operation of a Unit 2 CREFS, an excessive number of CREFSs in operation could lead to fan damage from unstable operation and operator radiation doses in excess of GDC 19 limits. Unit 2 CREFS operation will therefore be prevented during this period.

Instrumentation in the Unit 2 outside air flow path which initiates CREFS operation will not be continuously operable until receipt of the Unit 2 operating license. At least one Unit 2 control room isolation damper must therefore be maintained closed. If a Unit 1 CREFS is in operation, however, these dampers may be open since automatic initiation would no longer be a concern. Unit 1 control room isolation dampers must be maintained open in accordance with commitments made in LER 50-424/1987-044.

The NRC staff has reviewed the above information and finds notes 3 and 4 acceptable because they prevent fan damage and maintain radiation doses within acceptable limits.

In addition, the proposed amendment revises the maximum control room air temperature from 80 to 85°F and revises the maximum control room pressurization flow from 850 to 1500 cfm.

The increase in temperature is needed due to the heat loads added when the Vogtle Unit 2 portion of the control room is included in the control room envelope. All equipment in the control room is designed to operate at temperatures greater than 85°F ambient air temperature. Therefore, the NRC staff concludes that this change is acceptable.

The increase in pressurization flow is needed due to the added volume of the Unit 2 portion of the control room. Radiation doses are maintained within acceptable limits with the 1500 cfm flow. Therefore, the NRC staff concludes that this change is acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

This amendment involves a change in surveillance requirements. The staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational exposure. The NRC staff has made a determination that the amendment involves no significant hazards consideration, and there has been no public comment on such finding. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

4.0 CONCLUSION

The Commission made a proposed determination that the amendment involves no significant hazards consideration which was published in the Federal Register on June 29, 1988, (53 FR 24510), and consulted with the state of Georgia. No public comments were received, and the state of Georgia did not have any comments.

The staff has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations, and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

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Dated: August 17, 1988

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AMENDMENT NO. TO FACILITY OPERATING LICENSE NPF-68 - Vogtle Electric
Generating Plant, Unit 1

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