UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENTS 156 AND 96 TO

FACILITY OPERATING LICENSES DPR-57 AND NPF-5

GEORGIA POWER COMPANY
OGLETHORPE POWER CORPORATION
MUNICIPAL ELECTRIC AUTHORITY OF GEORGIA
CITY OF DALTON, GEORGIA

EDWIN I. HATCH NUCLEAR PLANT, UNITS 1 AND 2

DOCKET NOS. 50-321 AND 50-366

## 1.0 INTRODUCTION

By letter dated June 20, 1988, Georgia Power Company (the licensee) requested changes to the Technical Specifications (TS) for the Edwin I. Hatch Nuclear Plant, Units 1 and 2. The proposed amendments would delete all references to the main control room chlorine detectors and to the automatic isolation of the main control room environmental control system on high chlorine level.

Units 1 and 2 of the Hatch Nuclear Plant share a common control room which is served by the main control room environmental control system (MCRECS). In addition to its normal function of regulating the temperature and humidity in the control room, the MCRECS also operates in either of two modes to protect the reactor operators from external hazards. Protection from high radiation originating in either unit is provided by automatically aligning the intake dampers to take outside air in through charcoal filters while simultaneously stopping the exhaust fan. In this mode, the control room is pressurized with respect to the surrounding turbine building to preclude air in-leakage. In addition, the system is equipped with chlorine detectors. Upon receipt of a high chlorine signal, the intake dampers close automatically and the exhaust fan is stopped such that the MCRECS operates in a recirculation mode, avoiding the introduction of gaseous chlorine into the control room. Protection from chlorine gas is required because the licensee currently stores on site and uses gaseous chlorine to treat the plant circulating water (CW), the residual heat removal service water (RHRSW), and the plant service water (PSW) systems, as well as sanitary water and the plant sewage system. The design basis for the plant includes the rupture of two 1-ton cylinders of chlorine gas.

## 2.0 EVALUATION

The licensee now proposes to eliminate the potential sources of gaseous chlorine by replacing the present chlorination system with a sodium hypochlorination system. Concurrently, all chlorine cylinders would be removed from the site. Following the proposed change, no gaseous chlorine would be stored or used on site. Sodium hypochlorite will be stored in tanks located in the chlorination building, but even if a tank should rupture, toxic vapors would not be released.

As stated in the staff's "Safety Evaluation Report Related to Operation of Edwin I. Hatch Nuclear Plant, Unit No. 2," NUREG-0411, there are no chlorine hazards to the plant posed by commercial facilities or nearby transporation modes. Protection of the control room against accidental chlorine releases was provided solely to guard against the accidental release of the chlorine stored on-site. Thus, when the on-site sources of gaseous chlorine are removed, there are no residual concerns regarding potential chlorine harzards to the control room.

Thus, the proposed change to sodium hypochlorination will remove the threat to control room habitability now posed by the gaseous chlorine, and will eliminate the need for chlorine detectors and for operation of the MCRECS in the isolation mode.

The staff concludes that the proposed change to sodium hypochlorite for use in plant chlorination systems will result in an overall improvement in plant safety since the hazard attendant to use of gaseous chlorine will be eliminated. We further conclude that when the change to sodium hypochlorination systems is made, there is no further need for chlorine gas detectors or for operation of the MCRECS in the isolation mode, and that TS reference to these may be deleted.

## 3.0 ENVIRONMENTAL CONSIDERATION

These amendments involve changes to the installation or use of facility components located within the restricted area as defined in 10 CFR Part 20 and changes in surveillance requirements. The staff has determined that the amendments involve 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 radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration and there has been no public comment on such finding. Accordingly, the amendments meet 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 amendments.

## 4.0 CONCLUSION

The Commission made a proposed determination that the amendments involve no significant hazards consideration which was published in the Federal Register on August 10, 1988 (53 FR 30135), and consulted with the state of Georgia. No public comments were received, and the state of Georgia did not have any comments.

We have 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 the amendments will not be inimical to the common defense and security or to the health and safety of the public.

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Dated: September 12, 1988