



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

GEORGIA POWER COMPANY

OGLETHORPE POWER CORPORATION

MUNICIPAL ELECTRIC AUTHORITY OF GEORGIA

CITY OF DALTON, GEORGIA

DOCKET NO. 50-321

EDWIN I. HATCH NUCLEAR PLANT, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 158  
License No. DPR-57

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment to the Edwin I. Hatch Nuclear Plant, Unit 1 (the facility) Facility Operating License No. DPR-57 filed by Georgia Power Company, acting for itself, Oglethorpe Power Corporation, Municipal Electric Authority of Georgia, and City of Dalton, Georgia, (the licensee) dated July 11, 1988, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-57 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 158, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance and shall be implemented within 60 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Original Signed By:

David B. Matthews, Director  
Project Directorate II-3  
Division of Reactor Projects-I/II

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: September 29, 1988

OFFICIAL RECORD COPY

LA:PDII-3  
MRdod  
9/11/88

PM:PDII-3  
LCrocker:bd  
9/11/88

ARR:PLB  
Craig  
9/16/88

OGC-WF  
SHL  
9/17/88

DSH  
D:PDII-3  
DBMatthews  
9/29/88

No legal objection

ATTACHMENT TO LICENSE AMENDMENT NO. 158

FACILITY OPERATING LICENSE NO. DPR-57

DOCKET NO. 50-321

Replace the following pages of the Appendix A Technical Specifications with the enclosed pages. The revised page is identified by amendment number and contains a vertical line indicating the area of change.

<u>Remove Page</u>	<u>Insert Page</u>
3.7-12	3.7-12
3.7-12a	3.7-12a
3.7-13	3.7-13
3.7-34a	3.7-34a
3.7-40	3.7-40
5.0-1a	5.0-1a

C. Secondary Containment1. Normal Unit 1 Secondary Containment\* Integrity

- a. Normal Unit 1 secondary containment integrity shall be maintained during all modes of Unit 1 plant operation except when all of the following conditions are met:
- (1) The reactor is subcritical and Specification 3.3.A. is met.
  - (2) The reactor water temperature is below 212°F and the reactor coolant system is vented.
  - (3) No activity is being performed which can reduce the shutdown margin below that stated in Specification 3.3.A.
  - (4) The fuel cask or irradiated fuel is not being moved in the reactor building.
  - (5) All hatches between the normal Unit 1 secondary containment and Unit 2 secondary containment are closed and sealed.
  - (6) At least one door in each access path between the normal Unit 1 secondary containment and Unit 2 secondary containment is closed.
- b. Integrity of the normal Unit 1 secondary containment shall be maintained during all modes of Unit 2 plant operations except Operational Condition 4 as defined in the Unit 2 Technical Specifications.

C. Secondary Containment1. Surveillance While Integrity Maintained

Normal Unit 1 secondary containment surveillance shall be performed as indicated below:

- a. A normal Unit 1 secondary containment capability test shall be conducted after isolating the normal Unit 1 secondary containment and placing the standby gas treatment system filter trains in operation. Such tests shall demonstrate the capability to maintain a minimum 1/4-inch of water vacuum under calm wind (< 5 mph) conditions with each filter train flow rate not more than 4000 cfm.
- b. Normal Unit 1 secondary containment capability to maintain a minimum 1/4-inch of water vacuum under calm wind (< 5 mph) conditions with each filter train flow rate not more than 4000 cfm shall be demonstrated at such refueling outages, prior to refueling.

\*Normal Unit 1 secondary containment includes the Unit 1 reactor building area below the refueling floor and the common Unit 1 and Unit 2 area above the refueling floor. For modified Unit 1 secondary containment conditions see Specification 3.7.C.2.

2. Modified Unit 1 Secondary Containment\* Integrity

- a. Operation with modified Unit 1 secondary containment integrity is permissible provided all of the following conditions are met:
- (1) The reactor is subcritical and Specification 3.7.C.1. is met.
  - (2) The reactor water temperature is below 212°F and the reactor coolant system is vented.
  - (3) All hatches between the modified Unit 1 secondary containment and Unit 2 secondary containment are closed and sealed.
  - (4) At least one door in each access path between the modified Unit 1 secondary containment and Unit 2 secondary containment is closed.
  - (5) All hatches separating the modified Unit 1 secondary containment from the Unit 1 reactor building area below the refueling floor are closed and sealed.
  - (6) At least one door in each access path separating the modified Unit 1 secondary containment from the Unit 1 reactor building area below the refueling floor is closed.
  - (7) The SGTS valves to the Unit 1 reactor building area below the refueling floor, to the Unit 1 drywell, and to the Unit 1 torus are secured closed.
- b. Integrity of the modified Unit 1 secondary containment shall be maintained during all modes of Unit 2 plant operations except Operational Condition 4 as defined in the Unit 2 Technical Specifications.
- c. Refueling operations may continue in the modified Unit 1 secondary containment provided all conditions in Specification 3.7.C.2.a. are met.

2. Surveillance while Integrity Maintained

Modified Unit 1 secondary containment surveillance shall be performed as indicated below:

- a. A modified Unit 1 secondary containment capability test shall be performed after isolating the modified Unit 1 secondary containment and placing the standby gas treatment system filter trains in operation. Such tests shall demonstrate the capability to maintain a minimum 1/4-inch of water vacuum under calm wind (< 5 mph) conditions with each filter train flow rate not more than 4000 cfm.
- b. If normal Unit 1 secondary containment integrity should be required as stated in Specification 3.7.C.1., perform surveillance as stated in Specification 4.7.C.1.a. If modified Unit 1 secondary containment is subsequently required as stated in Specification 3.7.C.2., perform surveillance as stated in Specification 4.7.C.2.a.

\*Modified Unit 1 secondary containment includes the common Unit 1 and Unit 2 area above the refueling floor. For normal Unit 1 secondary containment conditions, see Specification 3.7.C.1.

3.7.C.3. Violation of Secondary Containment Integrity

- a. Without Hatch-Unit 1 secondary containment integrity, restore Hatch-Unit 1 secondary containment integrity within 4 hours, or perform the following (as applicable):
- (1) Suspend irradiated fuel and/or fuel cask handling in the Hatch-Unit 1 secondary containment.
  - (2) Be in at least Hot Shutdown within the next 12 hours and meet the Conditions of 3.7.C.1.a. within the next 24 hours.
- b. Without Hatch-Unit 1 secondary containment, refer to the following Hatch-Unit 2 Technical Specification, for LCDs to be followed for Hatch-Unit 2:
- (1) Section 3.6.5.1.
  - (2) Section 3.9.5.1.

D. Primary Containment Isolation Valves1. Valves Required to be Operable

During reactor power operation, all primary containment isolation valves and all reactor coolant system instrument line excess flow check valves shall be operable except as stated in Specification 3.7.0.2.

4.7.C.3. Surveillance After Integrity Violated

After a secondary containment violation is determined the standby gas treatment system will be operated immediately after the affected zones are isolated from the remainder of the secondary containment. The ability to maintain the remainder of the secondary containment at 1/4-inch of water vacuum pressure under calm (< 5 mph) wind conditions shall be confirmed.

D. Primary Containment Isolation Valves1. Surveillance of Operable Valves

Surveillance of the primary containment isolation valves shall be performed as follows:

- a. At least once per operating cycle the operable isolation valves that are power operated and automatically initiated shall be tested for simulated automatic initiation and the closure times.

## CONTAINMENT SYSTEMS

### BASES FOR LIMITING CONDITION FOR OPERATION

#### B. Standby Gas Treatment System (Continued)

The Unit 1 standby gas treatment system fans are designed to automatically start upon receipt of a high radiation signal from either the Unit 1 or Unit 2 refueling floor ventilation exhaust duct monitors or the Unit 1 reactor building ventilation exhaust duct monitors, or upon receipt of a signal from the Unit 1 primary containment isolation system. The Unit 2 standby gas treatment system fans are designed to automatically start, to assist the Unit 1 fans to exhaust the Unit 1 secondary containment atmosphere upon receipt of a high radiation signal from either the Unit 1 or Unit 2 refueling floor ventilation exhaust duct monitors or the Unit 1 reactor building ventilation exhaust duct monitors, or upon receipt of a signal from the Unit 1 primary containment isolation system. In addition, the systems may also be started manually, from the Main Control Room.

In case of the Unit 1 standby gas treatment system, upon receipt of any of the isolation signals, both fans start, isolation dampers open and each fan draws air from the isolated Unit 1 secondary containment. In the modified Unit 1 secondary containment configuration as defined in Specification 3.7.C.2, the Unit 1 standby gas treatment system valves to the Unit 1 reactor building area below the refueling floor, to the Unit 1 drywell, and to the Unit 1 torus that are needed to properly isolate the area will be secured closed. Therefore, Unit 1 standby gas treatment system operation will be limited to suction from the area above the common Unit 1 and Unit 2 refueling floor only. With this arrangement, secondary containment integrity will continue to be properly maintained to support refueling operations and Unit 2 reactor operation.

In case of the Unit 2 standby gas treatment system, upon receipt of an isolation signal from the Unit 1 primary containment isolation system, reactor building ventilation exhaust duct monitors, or the Unit 1 or Unit 2 refueling floor ventilation exhaust duct monitors, both fans start, fan supply and discharge dampers open, and the fans draw air from the isolated Unit 1 secondary containment. In the modified Unit 1 secondary containment configuration as defined in Specification 3.7.C.2, the Unit 2 standby gas treatment system will continue to operate as previously discussed since it is only capable of taking suction from the area above the common Unit 1 and Unit 2 refueling floor.

Once the SGTs systems have been initiated automatically, the operator may place any one of the Unit 1 and Unit 2 trains in the standby mode provided the remaining train in each unit is operable. Should a failure occur in the remaining operating trains, resulting in air flow reduction below a preset value, the standby systems will restart automatically.

As a minimum for operation, one of the two Unit 1 standby gas treatment trains and one of the two Unit 2 standby gas treatment trains is required to achieve the design differential pressure, given the design building infiltration rate. Once this design differential pressure is achieved, any leakage past the secondary containment boundary shall be inleakage.

A detailed discussion of the standby gas treatment systems may be found in Section 5.3.3.3 of the Unit 1 FSAR, and in Section 6.2.3 of the Unit 2 FSAR.

Any one of the four filter trains has sufficient absorption capacity to provide for cleanup of the Unit 1 secondary containment atmosphere following containment isolation. Any one the four available

4.7.B Standby Gas Treatment System and  
4.7.C. Secondary Containment (Continued)

Initiating reactor building isolation and operation of the standby gas treatment system to maintain at least a 1/4-inch of water vacuum within the secondary containment provides an adequate test of the operation of the reactor building isolation valves, leak tightness of the reactor building and performance of the standby gas treatment system. Functionally testing the initiating sensors and associated trip channels demonstrates the capability for automatic actuation. Performing these tests prior to refueling will demonstrate secondary containment capability prior to the time the primary containment is opened for refueling. Periodic testing gives sufficient confidence of reactor building integrity and standby gas treatment system performance capability.

In the modified Unit 1 secondary containment configuration as defined in Specification 3.7.C.2, the standby gas treatment system is functionally tested to demonstrate that secondary containment integrity can be maintained. Also, when Unit 1 secondary containment is subsequently changed to its normal configuration as defined in Specification 3.7.C.1, a standby gas treatment system functional test is again performed to demonstrate secondary containment integrity. Therefore, each time secondary containment configuration is changed, a functional test of the standby gas treatment system is performed to demonstrate secondary containment integrity.

D. Primary Containment Isolation Valves

The maximum closure time for the automatic isolation valves of the primary containment and reactor vessel isolation control system have been selected in consideration of the design intent to prevent core uncovering following pipe breaks outside the primary containment and the need to contain released fission products following pipe breaks inside the primary containment.

An additional margin has been included in specifying maximum closure times. This margin permits identification of degraded valve performance, prior to exceeding the design closure times.

These valves are highly reliable, have low service requirement and most are normally closed. The initiating sensors and associated trip channels are checked to demonstrate the capability for automatic isolation. The test interval of once per operating cycle for automatic initiation results in a failure probability of  $1.1 \times 10^{-7}$  that a line will not isolate. More frequent testing for valve operability results in a greater assurance that the valve will be operable when needed.

In order to assure that the doses that may result from a steam line break do not exceed the 10 CFR 100 guidelines, it is necessary that no fuel rod perforations resulting from the accident occur prior to closure of the main steam line isolation valves. Analyses indicate that fuel rod cladding perforations would be avoided for main steam valve closure times, including instrument delay, as long as 10.5 seconds.

The main steam line isolation valves are functionally tested on a more frequent interval to establish a high degree of reliability.



\* 2. Secondary Containment

The Unit 1 secondary containment shall consist of the main stack, the Standby Gas Treatment System, and the portion of the reactor building above the common Unit 1 and 2 refueling floor provided the conditions of Section 3.7.C.2 are met for the modified configuration.