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Energy to Serve Your World<sup>SM</sup>

NL-03-1398

July 11, 2003

Docket Nos.: 50-321  
50-366

U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D. C. 20555-0001

Edwin I. Hatch Nuclear Plant  
Submittal of Updated Fire Hazards Analysis Report (FHA)

Ladies and Gentlemen:

In accordance with the provisions of 10 CFR 50.71, Southern Nuclear Operating Company (SNC) hereby submits the updated Fire Hazards Analysis and the Fire Protection Program (FHA) (Revision 21) for Plant Hatch Units 1 and 2, as incorporated by reference in the Unit 1 and Unit 2 Final Safety Analysis Reports (FSAR).

The enclosed updated FHA Revision 21 reflects plant changes through June 2003, thereby satisfying the requirements of 10 CFR 50.71.

Mr. H. L. Sumner, Jr. states he is a Vice President of Southern Nuclear Operating Company, is authorized to execute this oath on behalf of Southern Nuclear Operating Company and to the best of his knowledge and belief, the facts set forth in this letter are true.

This letter contains no NRC commitments. If you have any questions, please advise.

Respectfully submitted,

SOUTHERN NUCLEAR OPERATING COMPANY

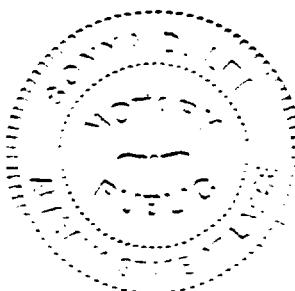
H. L. Sumner, Jr.

Sworn to and subscribed before me this 11<sup>th</sup> day of July, 2003.

  
Notary Public

My commission expires: 7/1/2006

HLS/IL/daj



A.006

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NL-03-1398  
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Enclosure: Plant Hatch Units 1 and 2 FHA Revision 21 (hardcopy)

cc: Southern Nuclear Operating Company  
Mr. J. D. Woodard, Executive Vice President  
Mr. G. R. Frederick, General Manager – Plant Hatch  
Document Services RTYPE: CHA02.004

U. S. Nuclear Regulatory Commission  
Mr. L. A. Reyes, Regional Administrator  
Mr. S. D. Bloom, NRR Project Manager – Hatch  
Mr. D. S. Simpkins, Senior Resident Inspector – Hatch

State of Georgia  
Mr. L. C. Barrett, Commissioner – Department of Natural Resources

**Edwin I. Hatch Nuclear Plant Units 1 and 2  
Fire Hazards Analysis Revision 21  
Insertion Instructions**

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p. 9.2-B-17 / -18	Replace

## Edwin I. Hatch Nuclear Plant Unit 1 & 2 FHA Distribution List

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66	Shuman, John	ENG		63010	Pit Hatch-Simulator Bldg	Baxley, GA 31515	Southern Nuclear Op. Co.
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80	Quinnette, James W.		1200		Suite 1200, 1201 Market St.	Wilmington, DE 19801	Nuclear Service Organization

Edwin I. Hatch Nuclear Plant  
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## **FIRE PROTECTION EQUIPMENT OPERATING AND SURVEILLANCE REQUIREMENTS**

Fire protection systems are required to protect safety related or safe shutdown components from the effects of fire. Consistent with nuclear safety objectives, minimum operating requirements and surveillance requirements for these systems have been developed. These requirements, formerly embodied in the plant Technical Specifications, have been incorporated into this Appendix.

Certain terms used in this Appendix are defined so that uniform interpretation of the Appendix may be achieved. The defined terms appear in capitalized type and are defined in the Technical Specifications.

Each Surveillance Requirement shall be performed within the specified time interval with a maximum allowable extension of 25% of the surveillance interval; this 25% extension is known as the grace period.

## FIRE-RATED ASSEMBLIES

### OPERATING REQUIREMENTS

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- 1.1.1 Fire-rated assemblies and sealing devices in fire-rated assembly penetrations separating fire areas or separating portions of redundant systems important to safe shutdown within a fire area shall be OPERABLE. Fire-rated assemblies are walls, floor/ceilings, cable tray enclosures and other fire barriers. Sealing devices in fire-rated assembly penetrations are fire doors, fire dampers, cable, piping, and ventilation duct penetration seals. Tables 1.1-1 and 1.1-2 contain the Unit 1 and Unit 2 fire door listings to which this Specification applies.

APPLICABILITY: When fuel is in the reactor vessel for the affected unit.

#### ACTION:

- a. With one or more of the above required fire-rated assemblies and/or sealing devices inoperable or with the required surveillance interval (including grace period) exceeded, within 1 hour establish a continuous fire watch on at least one side of the affected assembly(s) and/or sealing device(s) or verify the OPERABILITY of fire detectors on at least one side of the inoperable assembly(s) and sealing device(s), and establish an hourly fire watch patrol.

### SURVEILLANCE REQUIREMENTS

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- 2.1.1 Each of the above required fire-rated assemblies and penetration sealing devices shall be verified OPERABLE at least once per 24 months by performing a visual inspection of:
- a. The exposed surfaces of each fire-rated assembly.
- b. Each fire damper and associated hardware.
- c. At least 10 percent of each type of sealed penetration. If apparent changes in appearance or abnormal degradations are found, a visual inspection of an additional 10 percent of each type of sealed penetration shall be made. This inspection process shall continue until a 10-percent sample with no apparent changes in appearance or abnormal degradation is found. Samples shall be selected such that each penetration seal will be inspected at least once per 15 years.

## **SURVEILLANCE REQUIREMENTS (Continued)**

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- c. At least once per 12 months by:
  - 1. Verifying that each pump develops at least 2500 gpm at a system head of 120 psig.
  - 2. Verifying that each high pressure pump starts sequentially to maintain the fire suppression water system pressure greater than or equal to 85 psig.
- d. At least once per 18 months by performance of a system flush.
- e. At least once per 3 years by performing a flow test of the system in accordance with guidance provided by the National Fire Protection Association.

### **2.3.2 Each fire pump diesel engine shall be demonstrated OPERABLE:**

- a. At least once per 31 days by verifying the fuel storage tank contains at least 275 gallons of fuel.
- b. At least once per 92 days by verifying that a sample of diesel fuel from the fuel storage tank is obtained in accordance with and is within the acceptance limits given in Technical Specification 5.5.9.
- c. At least once per 24 months, during shutdown, by verifying the diesel starts from ambient conditions, via the auto-start signal, and operates for greater than or equal to 60 minutes while loaded with the fire pump.
- d. Subjecting the diesels, to inspections, at the intervals recommended by the vendor for the class of service.

### **2.3.3 The fire pump diesel starting 24-V battery bank and charger shall be demonstrated OPERABLE:**

- a. At least once per 7 days by verifying that:
  - 1. The electrolyte level of each pilot cell is above the plates.
  - 2. The pilot cell specific gravity, corrected to 77°F and full electrolyte level, is greater than or equal to 1.205.
  - 3. The pilot cell voltage is greater than or equal to 2.0 V.
  - 4. The overall battery voltage is greater than or equal to 24 V.

## **SURVEILLANCE REQUIREMENTS (Continued)**

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**b. At least once per 92 days by verifying that:**

- 1. The voltage of each connected cell is greater than or equal to 2.0 V under float charge and has not decreased more than 0.17 V from the value observed during the original acceptance test.**
- 2. The specific gravity, corrected to 77°F and full electrolyte level, of each connected cell is greater than or equal to 1.205 and has not decreased more than 0.02 from the value observed during the previous test.**
- 3. The electrolyte level of each connected cell is above the plates.**

**c. At least once per 18 months by verifying that:**

- 1. The batteries and battery racks show no visual indication of physical damage or abnormal deterioration.**
- 2. Cell-to-cell and terminal connections are clean, tight, free of corrosion, and coated with anti-corrosion material.**

## SPRAY AND/OR SPRINKLER SYSTEMS

### OPERATING REQUIREMENTS

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1.4.1 The spray and/or sprinkler systems in Tables 1.4-1 and 1.4-2 shall be OPERABLE.

**APPLICABILITY:** Whenever equipment protected by the spray and/or sprinkler systems is required to be OPERABLE.

**ACTION:**

- a. With one or more of the above required spray and/or sprinkler systems inoperable or with the required surveillance interval (including grace period) exceeded, within 1 hour establish a continuous fire watch with backup fire suppression equipment provided radiation levels permit personnel access; for other areas, establish an hourly fire watch patrol.

### SURVEILLANCE REQUIREMENTS

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2.4.1 Each of the above required spray and/or sprinkler systems shall be demonstrated OPERABLE:

- a. At least once per 31 days by verifying that each isolation valve in the flow path, not monitored through an electrically supervised circuit signaling to a constantly manned location, is in its correct position.
- b. At least once per 12 months by cycling each testable isolation valve in the flow path through at least one complete cycle of full travel, and verifying proper operation of electrical supervision of monitored valves.
- c. At least once per 24 months:
  1. By performing a system functional test which includes simulated automatic actuation of the system.
  2. By performing a visual inspection of the dry pipe spray and/or sprinkler headers to verify their integrity.
  3. By performing a visual inspection of each nozzle's spray pattern.

## **SURVEILLANCE REQUIREMENTS (Continued)**

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4. By cycling each isolation valve in the flow path that is not testable during plant operation through at least one complete cycle of full travel.
- d. At least once per 3 years by performing an air flow test through each open head spray and sprinkler header and verifying each open head spray and sprinkler nozzle is unobstructed.