

Docket Nos. 50-280
and 50-281

DISTRIBUTION

Docket File
ORB#1 RDG
CMiles
TBarnhart (8)
WJones
JNeighbors
HDenton

NRC PDR
DEisenhut
LHarmon
EJordan
DBrinkman
CParrish

L PDR
OELD
ACRS (10)
JTaylor
RDiggs
Gray Files (4)

Mr. W. L. Stewart
Vice President - Nuclear Operations
Virginia Electric and Power Company
P. O. Box 26666
Richmond, Virginia 23261

January 17, 1984

Dear Mr. Stewart:

The Commission has issued the enclosed Amendment No.93 to Facility Operating License No. DPR-32 and Amendment No. 92to Facility Operating License No. DPR-37 for the Surry Power Station, Unit Nos. 1 and 2, respectively. The amendments consist of changes to the Technical Specifications in response to your application transmitted by letter dated September 21, 1981, as April 13 and August 13, 1982, and June 14, 1983.

These amendments revise the Technical Specifications related to fire protection. These changes reflect the upgrading and installation of fire protection systems.

A copy of our Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's next regular monthly Federal Register notice.

Sincerely,

Joseph D. Neighbors
Joseph D. Neighbors, Project Manager
Operating Reactors Branch #1
Division of Licensing

Enclosures:

1. Amendment No. 93to DPR-32
2. Amendment No. 92to DPR-37
3. Safety Evaluation

cc: w/enclosures:
See next page

CP
ORB#1:DL CParrish 12/15/84
ORB#1:DL JNeighbors;ps 12/29/83
E-ORB#1:DL SVarga 12/19/84
OELD w.Shields 12/1/84
AD-OR:DL G. G. G. 12/1/84
CEB 7/6/84 R. FERGUSON

8402010445 840117
PDR ADDCK 05000280
P PDR



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

January 17, 1984

Docket Nos. 50-280
and 50-281

Mr. W. L. Stewart
Vice President - Nuclear Operations
Virginia Electric and Power Company
P. O. Box 26666
Richmond, Virginia 23261

Dear Mr. Stewart:

The Commission has issued the enclosed Amendment No. 93 to Facility Operating License No. DPR-32 and Amendment No. 92 to Facility Operating License No. DPR-37 for the Surry Power Station, Unit Nos. 1 and 2, respectively. The amendments consist of changes to the Technical Specifications in response to your application transmitted by letter dated September 21, 1981, as April 13 and August 13, 1982, and June 14, 1983.

These amendments revise the Technical Specifications related to fire protection. These changes reflect the upgrading and installation of fire protection systems.

A copy of our Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's next regular monthly Federal Register notice.

Sincerely,

Joseph D. Neighbors
Joseph D. Neighbors, Project Manager
Operating Reactors Branch #1
Division of Licensing

Enclosures:

1. Amendment No. 93 to DPR-32
2. Amendment No. 92 to DPR-37
3. Safety Evaluation

cc: w/enclosures:
See next page

Mr. W. L. Stewart
Virginia Electric and Power Company

Surry Power Station
Units 1 and 2

cc: Mr. Michael W. Maupin
Hunton and Williams
Post Office Box 1535
Richmond, Virginia 23213

Mr. J. L. Wilson, Manager
Post Office Box 315
Surry, Virginia 23883

Donald J. Burke, Resident Inspector
Surry Power Station
U.S. Nuclear Regulatory Commission
Post Office Box 166, Route 1
Surry, Virginia 23883

Mr. Sherlock Holmes, Chairman
Board of Supervisors of Surry County
Surry County Courthouse
Surry, Virginia 23683

W. T. Lough
Virginia Corporation Commission
Division of Energy Regulation
Post Office Box 1197
Richmond, Virginia 23209

Regional Radiation Representative
EPA Region III
Curtis Building - 6th Floor
6th and Walnut Streets
Philadelphia, Pennsylvania 19106

Mr. J. H. Ferguson
Executive Vice President - Power
Virginia Electric and Power Company
Post Office Box 26666
Richmond, Virginia 23261

James P. O'Reilly
Regional Administrator - Region II
U.S. Nuclear Regulatory Commission
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303



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

VIRGINIA ELECTRIC AND POWER COMPANY

DOCKET NO. 50-280

SURRY POWER STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 93
License No. DPR-32

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Virginia Electric and Power Company (the licensee) dated September 21, 1981, as supplemented April 13 and August 13, 1982, and June 14, 1983, 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, as amended, the provisions of the Act, and the 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;
 - D. The issuance of this license 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 3.B of Facility Operating License No. DPR-32 is hereby amended to read as follows:

8402010449 840117
PDR ADOCK 05000280
P PDR

B. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 93, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective within 30 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Steven A. Varga, Chief
Operating Reactors Branch #1
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: January 17, 1984



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

VIRGINIA ELECTRIC AND POWER COMPANY

DOCKET NO. 50-281

SURRY POWER STATION, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No.92
License No. DPR-37


1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Virginia Electric and Power Company (the licensee) dated September 21, 1981, as supplemented April 13 and August 13, 1982, and June 14, 1983, 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, as amended, the provisions of the Act, and the 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;
 - D. The issuance of this license 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 3.B of Facility Operating License No. DPR-37 is hereby amended to read as follows:

B. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No.92, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective within 30 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION


Steven A. Varga, Chief
Operating Reactors Branch #1
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: January 17, 1984

ATTACHMENT TO LICENSE AMENDMENTS

AMENDMENT NO. 93 TO FACILITY OPERATING LICENSE NO. DPR-32

AMENDMENT NO. 92 TO FACILITY OPERATING LICENSE NO. DPR-37

DOCKET NOS. 50-280 AND 50-281

Revise Appendix A as follows:

Remove Pages

Insert Pages

3.21-1

3.21-1

3.21-2

3.21-2

3.21-3

3.21-3

3.21-4

3.21-4

3.21-5

3.21-5

3.21-6

3.21-6

3.21-7

3.21-7

3.21-8

3.21-8

--

3.21-9

4.18-1

4.18-1

4.18-2

4.18-2

4.18-3

4.18-3

4.18-4

4.18-4

4.18-5

4.18-5

--

4.18-6

--

4.18-7

3.21 Fire Protection Features

Applicability

Applies to the operating status of the Fire Protection Features.

Objective

To define those conditions of the Fire Detection, Suppression Systems, and other fire protection features necessary to insure safe reactor operations.

These conditions relate to: Fire Detection Systems, Plant Fire Suppression Water System, Plant Spray and/or Sprinkler Systems, Plant CO₂ Systems, Plant Halon System, Plant Fire Hose Stations, Plant Fire Barrier Penetration Fire Seals and Yard Fire Hydrants.

Specifications:

A. Fire Protection Features

1. Fire Detection - the fire detection instrumentation for each fire detection zone shown in Table 3.21-1 shall be operable.
2. Fire Suppression Water System - shall be operable as defined below:
 - a. Two 2,500 gpm fire pumps
 - b. Automatic initiation logic for each fire pump
 - c. Two fire water tanks, each containing at least 250,000 gallons reserved for fire protection
 - d. The necessary piping and valves to insure that fire water is available, upon demand, to the spray and sprinkler systems, fire hose stations, and yard fire hydrant and hydrant hose houses.

3. Spray and Sprinkler System - that provide protection for the cable tunnel and cable vault shall be operable
4. Low Pressure CO₂ Storage Tank - shall be operable with a minimum level of 75% and a minimum pressure of 275 psig.
5. Low Pressure CO₂ System - shall be operable to the extent that when equipment in the below listed areas is required to be operable, fire suppression can be provided upon demand.
 - a. Cable tray rooms
 - b. Cable tunnels
 - c. Cable vaults
 - d. Safety related charcoal filter banks 3A and 3B
 - e. Emergency diesel generator rooms
6. High Pressure CO₂ System - shall be operable to the extent that when equipment in the below listed areas is required to be operable, fire suppression can be provided upon demand. The minimum level of High Pressure CO₂ system shall be 90% by weight.
 - a. Fuel oil storage tank room for emergency service water pumps
 - b. Fuel oil transfer pump rooms for emergency diesel generators
7. Halon System - shall be operable for station records storage vault. The storage tanks shall be at least 95% of full charge weight and 90% of full charge pressure.
8. Fire Hose Stations - the hose stations listed in Table 3.21-2 shall be operable when equipment in the areas served by the hose stations is required to be operable.

9. Yard Fire Hydrant and Hydrant Hose Houses - as listed in Table 3.21-3 shall be operable when equipment or structures served by the hydrant or hose house is required to be operable.
 10. Fire Barrier Penetration Fire Seals - protecting safety related areas shall be functional.
- B. Specifications 3.21.A.1 through 3.21.A.10 may be modified as described below provided immediate attention is directed to making repairs.
1. With the number of operable fire detection instruments less than required by Specification 3.21.A.1, within one hour establish a fire watch patrol to inspect the zone with the inoperable instruments at least once per hour.
 2. Specification 3.21.A.2 (Fire Water Suppression System)
 - a. With less than required equipment:
 - (1) Restore the inoperable equipment to an operable status, within 7 days, or provide an alternate means to accomplish the inoperable function.
 - b. With no Fire Suppression Water System, establish a backup Fire Suppression Water System within 24 hours.
 3. Specification 3.21.A.3 (Spray and Sprinkler Systems) - with a sprinkler system inoperable establish a continuous fire watch, with backup fire suppression equipment, for the unprotected areas within 1 hour.

3.21 Fire Protection Features (continued)

4. Specification 3.21.A.4, 3.21.A.5, 3.21.A.6, 3.21.A.7 (CO₂ and Halon Systems) - with one or more of the required systems inoperable establish a continuous fire watch, with backup fire suppression equipment, for the unprotected area(s) within 1 hour.
5. Specification 3.21.A.8 (Fire Hose Station) - with one or more of the fire hose stations listed in Table 3.21-2 inoperable, route an additional equivalent capacity fire hose to the unprotected area(s) within 1 hour. If the inoperable hose station is not the primary means of fire suppression for the affected area, then the above actions are to be completed within 24 hours.
6. Specification 3.21.A.9 (Fire Hydrants and Hose Houses) - with one or more of the yard hydrants or associated hydrant hose houses listed in Table 3.21-2 inoperable, locate sufficient additional lengths of hose in an operable hose house to provide service to the unprotected area(s) within 1 hour. If the inoperable hydrant or associated hydrant hose house is not the primary means of fire suppression for the affected area, then the above actions are to be completed within 24 hours.
7. Specification 3.21.A.10 (Fire Barriers) - with one or more fire barrier penetrations non-functional, establish a continuous fire watch on at least one side of the non-functional fire barrier within 1 hour.

C. The requirements of Specification 3.0.1 are not applicable.

BasesFire Detection Instrumentation

Operability of the fire detection instrumentation ensures that adequate warning capability is available for the prompt detection of fires. This capability is required in order to detect and locate fires in their early stages. Prompt detection of fires will reduce the potential for damage to safety related equipment and is an integral element in the overall facility fire protection program.

In the event that a portion of the fire detection instrumentation is inoperable, the establishment of frequent fire patrols in the affected areas is required to provide detection capability until the inoperable instrumentation is returned to service.

Fire Suppression Systems

The operability of the fire suppression systems ensures that adequate fire suppression capability is available to confine and extinguish fires occurring in any portion of the facility where safety related equipment is located. The fire suppression system consists of the water system, spray and/or sprinklers, CO₂, Halon, and fire hose stations. The collective capability of the fire suppression systems is adequate to minimize potential damage to safety related equipment and is a major element in the facility fire protection program.

In the event that the fire suppression water systems are inoperable, immediate corrective measures must be taken since this system provides the major fire suppression capability of the plant.

Fire Barrier Penetration Seals

The functional integrity of the fire barrier penetration seals ensures that fires will be confined or adequately retarded from spreading to adjacent portions of the facility. This design feature minimizes the possibility of a single fire rapidly involving several areas of the facility prior to detection and extinguishment. The fire barrier penetration seals are a passive element in the facility fire protection program and are subject to periodic inspections.

During periods of time when the seals are not functional, a continuous fire watch is required to be maintained in the vicinity of the affected seal until the seal is restored to functional status.

TABLE 3.21-1
FIRE DETECTION INSTRUMENTS

<u>INSTRUMENT LOCATION</u>	<u>MINIMUM INSTRUMENTS OPERABLE</u>	
	<u>Heat</u>	<u>Smoke</u>
1. Containment (Reactor Coolant Pumps Only)***	1 per RCP	-
2. Containment Cable Penetration Area		4
3. Containment Recirculation Air System		1
4. Cable Tray Room	3	4
5. Cable Tunnel	2	3
6. Cable Vault Area		
Lower Area	1	2
Upper Area	1	1
7. Charcoal Filter Banks	1 per bank	-
8. Emergency Diesel Generator Room	1 per room	-
9. Fuel Oil Tank Room (river)	1**	1
10. Fuel Oil Transfer Pump Houses	1 per house**	-
11. Control Room		4
12. Emergency Switchgear Room		3
13. Auxiliary Building General Area		12
14. Auxiliary Building Charging Pump Cubicles		1 per cubicle
15. Main Steam Valve House		3
16. Safeguards Area		1
17. Fuel Building		1
18. Fire Pump Building		2
19. Mechanical Equipment Room #3		1
20. Battery Room 1A		1
21. Battery Room 1B		1
22. Battery Room 2A		1
23. Battery Room 2B		1

**Rate of rise actuation devices for high pressure CO₂ system

***One heat detector installed per pump. RCP pump bearing and motor temperature will be monitored once per hour if the RCP heat detector is inoperable.

TABLE 3.21-2FIRE HOSE STATIONS

<u>STATION NUMBER</u>	<u>LOCATION</u>	<u>SIZE</u>
a. 37-51, 41A	Auxiliary Building	1 1/2"
b. 52, 53	Fuel Building	1 1/2"
*c. 12, 16, 20, 21A, 22 23, 33, 34, 54, 55, 56, 57	Turbine Building	1 1/2"
**d. 75-87	Unit 1 Containment	1 1/2"
**e. 60-72	Unit 2 Containment	1 1/2"

* These hose stations to be used as backup to Control Room, Emergency Switchgear Room and Emergency Diesel Generator Rooms

** These hose stations are designed to be dry and shall be operable when the main shutoff valves in the auxiliary building are opened.

TABLE 3.21-3

YARD FIRE HYDRANT AND HYDRANT HOSE HOUSES

<u>HOSE HOUSE NO.</u>	<u>HYDRANT VALVE NO.</u>	<u>LOCATION</u>
1	1-FP-154 1-FP-155 1-FP-156	North of Condensate Polishing Building
2	1-FP-66 1-FP-67 1-FP-68	Between Boron Recovery Tanks and Fuel Oil Storage
5	1-FP-82 1-FP-83 1-FP-84	Alleyway South of Unit 1 Containment
9	1-FP-50 1-FP-51 1-FP-52	South of Unit 2 Main Transformers Side
11	1-FP-62 1-FP-63 1-FP-64	East of Unit 2 Containment, Next To Underground Condensate Tank
12	1-FP-59 1-FP-60 1-FP-61	West of Unit 2 Containment in Alleyway Outside Health Physics

4.18 FIRE DETECTION AND PROTECTION SYSTEM SURVEILLANCE

Applicability

Applies to periodic testing and surveillance of the Fire Protection System.

Objective

To verify that the fire protection system will respond promptly and properly when required.

SpecificationTests and FrequencyA. Fire Detection and Instrumentation

1. All of the fire detection instruments in each zone listed in Table 3.21-1 except items 1, 2, 3, and 14, shall be demonstrated operable at least once per 6 months by a channel functional test. All of the fire detection instruments in zones designated by items 1, 2, 3, and 14 shall be demonstrated operable at least once each refueling by a channel functional test.
2. The circuitry associated with the detector alarms shall be demonstrated operable at least once per 6 months for all NFPA Code 72D Class A supervised circuits except item 1, 2, 3 and 14 shall be demonstrated operable at least once each refueling outage.

B. Plant Fire Suppression Water System

1. The Fire Suppression Water system shall be demonstrated operable:
 - a. At least once per 7 days by verifying the water supply volume.
 - b. At least once per 31 days on a staggered test basis by starting each pump and operating it for at least 15 minutes on recirculation flow.
 - c. At least once per 31 days by verifying that each valve (manual, power operated or automatic) in the flow path is in its correct position.
 - d. At least once per 6 months by performance of a system flush.
 - e. At least once per 12 months by cycling each testable valve in the flow path through at least one complete cycle of full travel.
 - f. At least once per 18 months:
 - (1) By performing a system functional test which includes simulated automatic actuation of the system throughout its operating sequence and verifying that each automatic valve in the flow path actuates to its correct position, and
 - (2) By verifying that each pump develops a flow equal to or greater than 2500 gpm at a Total Dynamic Head of 250 feet, and
 - (3) By verifying that each high pressure pump starts (sequentially) to maintain the fire suppression water system pressure equal to or greater than 90 psig.
 - g. At least once per 3 years by performing a flow test of the system in accordance with Chapter 5, Section 11 of Fire Protection Handbook, 14th Edition published by National Fire Protection Association.

2. The fire pump diesel engine shall be demonstrated operable:
 - a. At least once per 31 days by verifying:
 - (1) The fuel storage tank contains at least 220 gallons of fuel, and
 - (2) The diesel starts from ambient conditions and operates for at least 30 minutes on recirculation flow.
 - b. At least once per 92 days by verifying that a sample of diesel fuel from the fuel storage tank is within the acceptable limits specified in Table 1 of ASTM-D975-74 when checked for viscosity, water, and sediment.
 - c. At least once per 18 months, during shutdown, by subjecting the diesel to an inspection in accordance with procedures prepared in conjunction with its manufacturer's recommendations for the class of service.
3. The fire pump diesel starting 24-volt battery bank and charger shall be demonstrated operable:
 - a. At least once per 7 days by verifying that:
 - (1) The electrolyte level of each battery is above the plates, and
 - (2) The overall battery voltage is greater than or equal to 24 volts.
 - b. At least once per 92 days by verifying that the specific gravity is appropriate for continued service of the battery.
 - c. At least once per 18 months by verifying that:
 - (1) The batteries, cell plates, and battery racks show no visual indication of physical damage or abnormal deterioration, and

- (2) The battery-to-battery and terminal connections are clean, tight, and free of corrosion and coated with anti-corrosion material.

C. Plant Spray and/or Sprinkler Systems

1. The spray and sprinkler systems shall be demonstrated operable:
 - a. At least once per 31 days by verifying that each valve (manual, power operated or automatic) in the flow path is in its correct position.
 - b. At least once per 12 months by cycling each testable valve in the flow path through at least one complete cycle of full travel.
 - c. At least once per 18 months:
 - (1) By a visual inspection of the dry pipe spray and sprinkler headers to verify their integrity, and
 - (2) By a visual inspection of each nozzle's spray pattern to verify the spray pattern is not obstructed.
 - d. At least once per 3 years by performing an air flow test through each open head spray/sprinkler and verifying each open head spray/sprinkler nozzle is unobstructed.

D. Plant CO₂ Systems

1. The low pressure CO₂ system shall be demonstrated operable:
 - a. At least once per 7 days by verifying each CO₂ storage tank level and pressure.
 - b. At least once per 18 months:
 - (1) By verifying the system valves and associated ventilation dampers and fire doors actuate manually and automatically to a simulated actuation signal, and
 - (2) By verifying flow from each nozzle during a "Puff Test".

2. The high pressure CO₂ system shall be demonstrated operable:
 - a. At least once per 6 months by verifying CO₂ cylinder weight.
 - b. At least once per 18 months by:
 - (1) Verifying the system, including associated ventilation dampers and fire doors, actuates manually and automatically upon receipt of a simulated actuation signal, and
 - (2) Performance of a flow test through headers and nozzles to assure no blockage.

E. Plant Halon Systems

1. The Halon system shall be demonstrated operable:
 - a. At least once per 31 days by verifying that each valve (manual, power operated or automatic) in the flow path is in its correct position.
 - b. At least once per 6 months by verifying each Halon storage tank weight and pressure.
 - c. At least once per 18 month by:
 - (1) Verifying the system actuates automatically to a simulated actuation signal, and
 - (2) Performance of a flow test through headers and nozzles to assure no blockage, and
 - (3) Verifying the operability of the manual initiating system.

F. Plant Fire Hose Station

1. Each fire hose station shall be verified operable:
 - a. At least once per 31 days by visual inspection of the fire hose station to assure all equipment is available.

- b. At least once per 18 months by removing the hose for inspection and re-racking, and inspecting all gaskets and replacing any degraded gaskets in the couplings.
 - c. At least once per 3 years by:
 - (1) Partially open each hose station valve to verify valve operability and no flow blockage, and
 - (2) Conducting a hose hydrostatic test at a pressure at least 50 psig greater than the maximum pressure available at that hose station.
2. Each containment hose station shall be verified operable:
- a. By a visual inspection during each outage of duration greater than 7 days.
 - b. At least once per refueling cycle by removing the hose for inspection and reracking, and inspecting all gaskets and replacing any degraded gaskets in the couplings.
 - c. At least once every other refueling by partially opening each hose station valve to verify valve operability and no flow blockage, and conducting a hose hydrostatic test at a pressure at least 50 psig greater than the maximum pressure available at that hose station.

G. Plant Fire Barriers Penetration Fire Seals

- 1. Fire barrier penetrations shall be verified to be functional:
 - a. At least once per 18 months by a visual inspection.
 - b. Prior to returning a fire barrier penetration to functional status following repairs or maintenance by performance of a visual inspection of the affected fire barrier penetration(s).

2. Penetration fire barriers that perform a pressure sealing function shall be verified to be functional by performance of a local leakage test prior to declaring a penetration fire barrier functional following repairs or maintenance.

H. Yard Fire Hydrant and Hydrant Hose Houses.

1. Each yard fire hydrant and associated hydrant hose house shall be verified operable:
 - a. At least once per 31 days by visual inspection of the hydrant hose house to assure all equipment is available.
 - b. At least once per 18 months by visually inspecting each yard fire hydrant and verifying that the hydrant is not damaged.
 - c. At least once per 3 years by:
 - (1) Conducting a hose hydrostatic test at a pressure at least 50 psig greater than the maximum pressure available at any yard fire hydrant.
 - (2) Inspecting all the gaskets and replacing any degraded gaskets in the couplings.
 - (3) Performing a flow check of each hydrant to verify its operability.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 93 TO FACILITY OPERATING LICENSE NO. DPR-32
AND AMENDMENT NO. 92 TO FACILITY OPERATING LICENSE NO. DPR-37
VIRGINIA ELECTRIC AND POWER COMPANY
SURRY POWER STATION, UNIT NOS. 1 AND 2
DOCKET NOS. 50-280 AND 50-281

Introduction

By letter dated September 21, 1981, as supplemented April 13 and August 13, 1982, and June 14, 1983, Virginia Electric and Power Company (the licensee) requested amendments to License Nos. DPR-32 and DPR-37 for Surry Power Station, Unit Nos. 1 and 2. These amendments would change the Technical Specifications related to fire protection.

Discussion and Evaluation

On September 19, 1979, the NRC issued Amendment Nos. 54 and 53 related to facility modifications for fire protection. The Safety Evaluation Report (SER) issued with Amendment Nos. 54 and 53 provided discussion of our review of the Surry fire protection program and stated that additional review was continuing and the results of that review would be included in supplements to the SER. By letters dated May 29, 1980, October 9, 1980, December 18, 1980, and February 13, 1981, we provided supplemental evaluations for most of the outstanding items in the SER. The remaining outstanding items are discussed below and reflects information in the licensee's letter dated August 13, 1982. (The item numbers correspond to the numbering system in the SER):

Cable Tray Covers, Section 3.1.4 and Fire Barriers, Section 3.1.10

NRC letter dated February 13, 1982, stated that the licensee's proposed modifications were not acceptable and that licensee should provide one of the means outlined in Section III, Paragraph G of 10 CFR 50, Appendix R.

The licensee has installed a cross connect between the charging pumps of Units 1 and 2. This cross connect will provide an alternate method for shutdown for a fire damaged plant. This alternate shutdown capability meets the requirements of Section III, Paragraph G of Appendix R and was discussed and considered acceptable in NRC letter dated December 4, 1981.

8402010455 B40117
PDR ADDCK 05000280
P PDR

Technical Specifications, Sections 3.1.30(1) and (2)

The Technical Specifications were to be changed to require a charging pump of the opposite unit to be available at all times during operation of either unit. The licensee submitted proposed Technical Specifications on January 12, 1983. The Technical Specifications are currently under review by the staff.

The Technical Specifications were to be changed to require the availability of a feedwater pump from the opposite unit at all times during the operation of either unit. Amendment Nos. 77 and 78, dated April 27, 1982, issued these Technical Specifications.

In-Situ Testing, Sections 3.2.5

NRC letter dated October 9, 1980 stated that to adequately address the concerns of the staff and assure that the detection system will provide timely detection of any fires, the licensee should conduct bench tests of the detectors to verify that they will be responsive to the products of combustion.

The licensee states in its letter dated August 13, 1982 that the detectors were bench tested to assure proper response. We consider this item to be complete.

Safe Shutdown Circuitry, Section 3.1.5, Monitoring Panels, Section 3.1.23, Safe Shutdown, Section 3.1.25 and Safe Shutdown Analysis, Section 3.2.3

The safe shutdown analysis and other related information was submitted by the licensee on October 31, 1980 and was supplemented with an Appendix R Review dated June 22, 1982. This information has been reviewed and is discussed in NRC letter dated November 18, 1982.

We have reviewed the Technical Specifications proposed by the licensee which reflect changes to upgrade the Technical Specifications to incorporate modifications and changes supported by the NRC SER dated September 19, 1979, as supplemented. Based on our review we find the proposed Technical Specifications, acceptable.

Environmental Consideration

We have determined that the amendments do not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendments involve an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR §51.5(d)(4), that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of these amendments.

Conclusion

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.

Dated: January 17, 1984

Principal Contributor:
Joseph D. Neighbors