

**VIRGINIA ELECTRIC AND POWER COMPANY**  
**RICHMOND, VIRGINIA 23261**

January 22, 2002

United States Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, DC 20555-0001

Serial No.: 01-731  
LR/DWL R0  
Docket Nos.: 50-280/281  
50-338/339  
License Nos.: DPR-32/37  
NPF-4/7

Gentlemen:

**VIRGINIA ELECTRIC AND POWER COMPANY (DOMINION)**  
**SURRY AND NORTH ANNA POWER STATIONS UNITS 1 AND 2**  
**CLARIFICATION OF CURRENT LICENSING BASIS**  
**REGARDING REQUIRED FIRE SUPPRESSION SYSTEMS**

The purpose of this letter is to provide clarification regarding the current licensing basis for fire suppression systems required by 10 CFR 50.48. Currently, the Surry and North Anna UFSARs contain information on fire protection systems, structures, and components (SSCs) that meet various industry requirements, but are beyond the scope and not required for compliance with 10 CFR 50.48. A revision to Chapter 9 of the Surry and North Anna UFSARs has been completed to provide additional clarification.

UFSAR changes in the attachment to this letter are provided for information only. Formal transmittal of these changes will occur as part of the annual UFSAR revision submittals in compliance with the requirements of 10 CFR 50.71(e). SSCs identified as "not required for compliance to 10 CFR 50.48" in the UFSAR revisions should not be considered as required features. Rather, these features are included in the UFSAR to describe general fire protection capabilities and practices for areas which do not have a nuclear safety function but are located onsite. The basis for the determination that certain systems are not required for compliance with 10 CFR 50.48 is provided in the revised text of the attached UFSAR pages.

A006

Should you have any questions regarding this submittal, please contact us at your convenience.

Very truly yours,

A handwritten signature in black ink, appearing to read "L. N. Hartz", with a large, stylized initial "L" and "H".

Leslie N. Hartz  
Vice President – Nuclear Engineering

Attachment

Commitments made in this letter: None

cc:

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## **Attachment to Letter SN: 01-731**

**Revised UFSAR Pages**  
**Regarding Fire Suppression Systems**  
**For**  
**Surry Power Station**  
**And**  
**North Anna Power Station**

## **Surry UFSAR Section 9.10.1**

### **Approved Changes FS 2001-039**

Revision 33—09/04/01

SPS UFSAR

9.10-3

3. Bearing Cooling Water System. The fire protection system can be used as a backup water source to the bearing cooling water system for cooling the instrument air compressors and the service air compressors (Section 9.8.2 and 10.3.9.3).

These secondary functions of the fire protection system do not prohibit the system from performing its primary function. In accordance with BTP-APCSB 9.5-1, Appendix A, Paragraph A.4, postulated fires need not be considered concurrently with other plant accidents.

As previously stated, part of the regulatory criterion is compliance with Appendix A to BTP APCS 9.5-1. Section F to Appendix A, "Guidelines for Specific Plant Areas" identifies the specific areas of the plant that require fire suppression systems. Section F.18, Miscellaneous Areas, states "Miscellaneous areas such as records storage areas, shops, warehouses, and auxiliary boiler rooms should be so located that a fire or effects of a fire, including smoke will not adversely affect any safety related systems or equipment." Section F.18 does not require a fire suppression system but relies on building location to protect safety related systems and equipment. The following fire suppression systems are not required for compliance to regulatory criterion since the areas they protect meet Section F.18 and do not adversely affect safety-related structures, systems or components or affect safe shutdown capability in the event of a fire.

- Administration Building Sprinkler System
- Construction Clean Change Building Sprinkler System
- Fabrication Shop Sprinkler System
- Fuel Oil Storage Tank Foam System
- Gravel Neck Combustion Turbine Facility Sprinkler System
- Local Emergency Operating Facility Sprinkler System
- Paint Shop Sprinkler System
- Records Vault Sprinkler System
- Security Building Sub-Floor Halon System
- South Annex Sprinkler System
- Station and Chemical Warehouse Sprinkler System
- Surry Nuclear Information Center (SNIC) Sprinkler System
- Training Center Halon and Sprinkler System
- Warehouses (1, 2, 7, and 8) Sprinkler Systems

## **9.10.2 Description**

An arrangement drawing of the fire protection system is provided in Figure 9.10-1.

### **9.10.2.1 Fire Detection and Signaling**

There are three multi-zone fire detection systems. The detection systems utilize ionization-type smoke-sensing units. Two detection systems utilize smoke detectors connected to hardwire type alarm panels, and the third system utilizes smoke detectors and thermal detectors connected to a multiplex-type alarm system.

## **North Anna UFSAR Section 9.5.1.1**

### **Approved Changes (FN 2001-036 & FN 2002-003)**

Revision 37—09/04/01

NAPS UFSAR

9.5-3

All of the fire protection water systems piping and valves, including the supply lines from the fire pumps to the yard loop and the branch piping from the yard loop to the building walls, are designed to Seismic Category I requirements.

All fire protection water lines in the auxiliary and fuel buildings are designed to Seismic Category I requirements.

Carbon dioxide and Halon 1301 fire protection systems are not designed to Seismic Category I requirements.

Carbon dioxide and Halon piping supports in safety-related areas are located to ensure that piping will not damage safety-related equipment.

As previously stated, part of the regulatory criterion is compliance with Appendix A to BTP APCSB 9.5-1. Section F to Appendix A, "Guidelines for Specific Plant Areas" identifies the specific areas of the plant that require fire suppression systems. Section F.17, Cooling Towers, states "Cooling Towers should be of non-combustible construction or so located that a fire will not adversely affect any safety related systems or equipment". Section F.18, Miscellaneous Areas, states "Miscellaneous areas such as records storage areas, shops, warehouses, and auxiliary boiler rooms should be so located that a fire or effects of a fire, including smoke will not adversely affect any safety related systems or equipment." These sections do not require a fire suppression system but rely on building location to protect safety-related systems and equipment. The following fire suppression systems are not required for compliance to regulatory criterion since the areas they protect meet Section F.17 or F.18 and do not adversely affect safety-related structures, systems and components or affect safe shutdown equipment in the event of a fire.

- Cooling Tower Deluge Systems (Bearing Cooling Water)
- Fuel Oil Storage Tank Foam System
- Local Emergency Operating Facility (LEOF) Sprinkler System
- North Anna Nuclear Information Center (NANIC) Sprinkler System
- Records Storage Building Sprinkler System
- Security Building Sprinkler System
- Service Water Chemical Addition System Sprinkler System
- Site Construction Office Building North (SCOBN) Sprinkler System
- Training Center Building Sprinkler System
- Warehouses, including Warehouse #2 (Admin. Annex), Sprinkler Systems
- Control Room Simulator Room (Training Center Bldg.) Halon System
- Monitor Control Room underfloor area ( Security Bldg.) Halon System
- Security Control Center underfloor area Halon System
- Security Control Center North and South Cable Vaults Halon System
- LEOF Computer Room (Training Center Bldg.) Halon System