

September 26, 1991

Docket Nos. 50-280
and 50-281

DISTRIBUTION
See attached sheet

Mr. W. L. Stewart
Senior Vice President - Nuclear
Virginia Electric and Power Company
5000 Dominion Blvd.
Glen Allen, Virginia 23060

Dear Mr. Stewart:

SUBJECT: SURRY UNITS 1 AND 2 - ISSUANCE OF AMENDMENTS RE: FIRE SURVEILLANCE
OF CONTAINMENT (TAC NOS. 79105 AND 79106)

The Commission has issued the enclosed Amendment No. 163 to Facility Operating License No. DPR-32 and Amendment No. 162 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 (TS) in response to your application transmitted by letter dated August 24, 1990, as supplemented August 28, 1991.

These amendments provide an alternative to the impractical requirement of hourly containment entries by a fire watch to compensate for an inoperable fire/smoke detector in containment. The alternative requires hourly monitoring of the containment resistance temperature detectors or containment inspections every 8 hours in the event that the required number of fire detectors are not operable within containment.

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

Sincerely,

(Original Signed By)

Bart C. Buckley, Senior Project Manager
Project Directorate II-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

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Enclosures:

1. Amendment No. 163 to DPR-32
2. Amendment No. 162 to DPR-37
3. Safety Evaluation

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cc w/enclosures:
See next page

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OFC	: LA:PD22	: INT:PD22	: PM:PD22	: PD:PD22	: OGC	: SPLB
NAME	: <i>[Signature]</i>	: FTalbot	: BBuckley	: HBerkow	: <i>[Signature]</i>	: CMcCracken
DATE	: 9/9/91	: 9/11/91	: 9/11/91	: 9/12/91	: 9/18/91	: 9/12/91

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DATED: September 26, 1991

AMENDMENT NO.163 TO FACILITY OPERATING LICENSE NO. DPR-32 - SURRY UNIT 1
AMENDMENT NO.162 TO FACILITY OPERATING LICENSE NO. DPR-37 - SURRY UNIT 2

Docket File

NRC & Local PDRs

PDII-2 Reading

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Virginia Electric and Power Company

Surry Power Station

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Virginia Department of Health
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Richmond, Virginia 23218



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. 163
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 August 24, 1990, as supplemented August 28, 1991, 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;
 - 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 3.B of Facility Operating License No. DPR-32 is hereby amended to read as follows:

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(B) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 163, 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 the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

for Rajender Anluale
Herbert N. Berkow, Director
Project Directorate II-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: September 26, 1991



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. 162
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 August 24, 1990, as supplemented August 28, 1991, 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;
 - 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 3.B of Facility Operating License No. DPR-37 is hereby amended to read as follows:

(B) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 162, 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 the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

for Rajender Anluale

Herbert N. Berkow, Director
Project Directorate II-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: September 26, 1991

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 163 FACILITY OPERATING LICENSE NO. DPR-32

AMENDMENT NO. 162 FACILITY OPERATING LICENSE NO. DPR-37

DOCKET NOS. 50-280 AND 50-281

Revise Appendix A as follows:

Remove Pages

TS 3.21-3
TS 3.21-5

Insert Pages

TS 3.21-3
TS 3.21-5

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, unless the inoperable instrument(s) is (are) in containment, then inspect the containment at least once per 8 hours or monitor the containment air temperature at least once per hour with the permanently installed RTDs.
 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.

Bases

Fire 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 or an alternate method of fire detection (permanently installed RTDs) in the containment 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.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 163 TO FACILITY OPERATING LICENSE NO. DPR-32
AND AMENDMENT NO. 162 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

1.0 INTRODUCTION

By letter dated August 24, 1990, as supplemented August 28, 1991, Virginia Electric and Power Company, the licensee for the Surry Power Station, submitted a request for amendments in the form of changes to the Technical Specifications (TS) for Units 1 and 2. The amendments involve changing the requirement for establishing proper fire surveillance of the containment when the number of operable fire detection instruments becomes less than required by Specification 3.21.A.1.

The proposed changes provide an alternative to the requirement for hourly containment entries by a fire watch to compensate for an inoperable fire/smoke detector in containment. The changes will require hourly monitoring of general area containment Resistance Temperature Detectors (RTDs) or containment inspections every 8 hours in the event that the required number of fire detectors are not operable within containment. The August 28, 1991 letter provided supplemental information that did not change the initial proposed no significant hazards consideration determination.

2.0 EVALUATION

The licensee has evaluated the effect of the TS changes to the proposed fire watch surveillance requirements when local area fire detectors have become inoperable. The proposed TS changes provide an alternative to the requirement of hourly containment entries by a fire watch to compensate for a failed smoke/heat detector in containment. The permanently installed RTDs in the containment will be used as an alternative means of providing fire detection. In the event of a failed containment fire detector, the licensee, as a minimum, will monitor RTDs located at the containment dome, at annulus elevations 72'-0" and 21'-0", near the cable penetration area, and at elevation 18'-0" in the containment cubicles, on a hourly basis. These RTDs will be monitored for small increases in containment air temperature. In the event of a temperature rise of 10-20°F on any of the RTDs, a fire watch will be dispatched and a containment entry will be made to investigate and identify

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the cause of this increase in air temperature. If inspections are deemed necessary in lieu of monitoring the RTDs, they would be performed at 8-hour intervals rather than 1-hour intervals. Performing inspections of containment on an hourly basis creates an unnecessary burden on the licensee. By the time a fire patrol dons breathing apparatuses, equalizes pressure between the personnel air lock and containment, makes its entry, performs the inspection, and exits from subatmospheric containment, the next inspection would be due. Alternatively, inspecting the containment at 8-hour intervals does not significantly increase the probability of a fire going undetected.

An alternative means of providing fire detection for containment is reasonable since the risk of fire in containment is low. Welding and construction are seldom performed in containment during operations and a fire watch is required for such activities. In addition, administrative controls require that transit combustibles must be removed from containment immediately after work is completed. Considering these factors, monitoring RTDs will provide an acceptable alternative to the installed smoke and heat detectors.

3.0 SUMMARY

The staff has reviewed the effects of the proposed TS changes on fire surveillance and concludes that all pertinent safety criteria are met. The licensee's request to provide for hourly surveillance through the use of permanently installed RTDs inside containment and near the general area of a failed smoke/fire detector is acceptable. The alternative of a fire patrol once every 8 hours is also acceptable provided maintenance efforts are initiated to return a detector to an operable status without undue burden on the licensee.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Virginia State official was notified of the proposed issuance of the amendments. The State official had no comment.

5.0 ENVIRONMENTAL CONSIDERATION

These amendments change a surveillance requirement. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluent 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 these amendments involve no significant hazards consideration and there has been no public comment on such finding (55 FR 53078). Accordingly, these 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 these amendments.

6.0 CONCLUSION

The Commission has 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, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: F. Talbot

Date: September 26, 1991