May 18, 1989

Docket Nos. 50-280
and 50-281

Mr. W. R. Cartwright
Vice President - Nuclear
Virginia Electric and Power Company
5000 Dominion Blvd.
Glen Allen, Virginia 23060

Dear Mr. Cartwright:

SUBJECT: SURRY UNITS 1 AND 2 - ISSUANCE OF AMENDMENTS RE: CONTAINMENT PERSONNEL AIRLOCK (TAC NOS. 67978 AND 67979)

The Commission has issued the enclosed Amendment No. 126 to Facility Operating License No. DPR-32 and Amendment No. 126 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 April 26, 1988, as supplemented July 18, 1988.

These amendments revise the Technical Specifications to allow entry into the containment personnel airlock during power operations to make repairs on the inner door of the personnel airlock. In addition, the definition of containment integrity has been revised to clarify the actions to be taken for inoperable automatic containment isolation valve(s).

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

Enclosures:
1. Amendment No. 126 to DPR-32
2. Amendment No. 126 to DPR-37
3. Safety Evaluation

cc w/enclosures:
See next page
[ISS OF AMEND/SURRY TAC 67978/9]

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DMiller	BBuckley/jd	HBerkow	JCraig	SHLewis
5/3/89	5/3/89	5/4/89	for 5/8/89	5/16/89

Mr. W. R. Cartwright
Virginia Electric and Power Company

Surry Power Station

cc:
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Mr. Sherlock Holmes, Chairman
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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. 126
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 April 26, 1988, as supplemented July 18, 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;

   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:

(B) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 126 , 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

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: May 18, 1989

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. 126
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 April 26, 1988, as supplemented July 18, 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;

   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. 126 , 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

Herbert N. Berkow

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: May 18, 1989

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 126 FACILITY OPERATING LICENSE NO. DPR-32

AMENDMENT NO. 126 FACILITY OPERATING LICENSE NO. DPR-37

DOCKET NOS. 50-280 AND 50-281

Revise Appendix A as follows:

Remove Pages	Insert Pages
TS 1.0-5	TS 1.0-5
TS 3.8-1	TS 3.8-1
TS 4.4-3	TS 4.4-3

for operational activities provided that they are under administrative control and are capable of being closed immediately if required.

2. Blind flanges are installed where required.

3. The equipment access hatch is properly closed and sealed.

4. At least one door in the personnel airlock is properly closed and sealed.

5. All automatic containment isolation valves are operable or are deactivated and secured in their closed position under administrative control.

6. The uncontrolled containment leakage satisfied Specification 4.4.

I. Reportable Event

A Reportable Event shall be any of those conditions specified in Section 50.73 to 10 CFR Part 50.

3.8 CONTAINMENT

Applicability

Applies to the integrity and operating pressure of the reactor containment.

Objective

To define the limiting operating status of the reactor containment for unit operation.

Specification

A. Containment Integrity and Operating Pressure

1. The containment integrity, as defined in TS Section 1.0, shall not be violated unless the reactor is in the cold shutdown condition.*
2. The reactor containment shall not be purged whenever the Reactor Coolant System temperature is above 200°F.
3. The inside and outside isolation valves in the steam jet air ejector suction line shall be locked, sealed or otherwise secured closed whenever the Reactor Coolant System temperature is above 200°F.
4. The Reactor Coolant System temperature and pressure must not exceed 350°F and 450 psig, respectively, unless the air partial pressure in the containment is at a value equal to, or below, that specified in TS Figure 3.8-1.
5. The containment integrity shall not be violated when the reactor vessel head is unbolted unless a shutdown margin greater than 5 percent $\Delta k/k$ is maintained.

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* In the event of failure of the personnel airlock inner door seal to meet the leakage test acceptance criteria, the outer personnel airlock door may be opened for a period of time not to exceed fifteen minutes with an annual cumulative time not to exceed one hour per year to allow access for the repair and retest of the inner door.

Basis

The leak tightness testing of all liner welds was performed during construction by welding a structural steel test channel over each weld seam and performing soap bubble and halogen leak tests.

The containment is designed for a maximum pressure of 45 psig. The containment is maintained at a subatmospheric air partial pressure which varies between 9 psia and 11 psia depending upon the cooldown capability of the Engineered Safeguards and is not expected to rise above 39.2 psig for any postulated loss-of-coolant accident.

All loss-of-coolant accident evaluations have been based on an integrated containment leakage rate not to exceed 0.1% of containment volume per 24 hr.

The above specification satisfies the conditions of 10 CFR 50.54(O) which stated that primary reactor containments shall meet the containment leakage test requirements set forth in Appendix J.

The limitations on closure and leak rate for the containment airlocks are required to meet the restrictions on containment integrity and containment leak rate. Surveillance testing of the airlock seals provides assurance that the overall airlock leakage will not become excessive due to seal damage during the intervals between airlock leakage tests.

References

FSAR Section 5.4	Design Evaluation of Containment Tests and Inspections of Containment
FSAR Section 7.5.1	Design Bases of Engineered Safeguards Instrumentation
FSAR Section 14.5	Loss of Coolant Accident
10 CFR 50 Appendix J	"Reactor Containment Leakage Testing for Water Cooled Power Reactors"

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 126 TO FACILITY OPERATING LICENSE NO. DPR-32

AND AMENDMENT NO. 126 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 April 26, 1988, as supplemented by letter dated July 18, 1988, the Virginia Electric and Power Company (the licensee) requested amendments to the Technical Specifications (TS) for the Surry Power Station, Units Nos. 1 and 2. The proposed amendments would revise the Surry, Units 1 and 2 TS to allow entry into the containment personnel airlock during power operations to make repairs on the inner door of the personnel airlock. In addition, the definition of containment integrity would be revised to clarify the actions to be taken for inoperable automatic containment isolation valve(s).

EVALUATION

During power operation, there is an occasional need to enter the containment while it is in a subatmospheric condition to identify sources of leakage, perform immediate repairs or to support other operational activities. Entry into the containment while in a subatmospheric condition is performed by equalizing the pressure, if necessary, and opening the airlock outer door and then closing and sealing the airlock outer door. The pressure in the personnel airlock is then equalized with the containment pressure and the inner door is opened for the final access. This method assures that at least one personnel airlock door is properly closed and sealed whenever the containment is in a subatmospheric condition. Interlocks provide additional assurance that the personnel airlock doors cannot be opened simultaneously while in a subatmospheric condition. However, if the inner door seal fails, the only acceptable method available for repair and retesting of the inner seal is by opening the outer door to gain access to the inner seal. During this brief period, containment integrity as defined in TS Section 1.H.4 is not met since the inner door, while closed, may not be properly sealed.

The licensee has proposed to add a footnote to Section 3.8.A of the TS to clarify that entry into the personnel airlock is permitted for the repair of an inoperable inner personnel airlock door. Specifically, the licensee requested that in the event of an inoperable inner airlock door, the outer personnel airlock door may be opened for a period of time not to exceed 15 minutes with an annual cumulative time not to exceed 1 hour per year to allow access for the repair and retest of the inner door. This clarification has been accepted by the NRC staff on previous occasions for other facilities.

The second licensee proposal would clarify which of the inoperable automatic containment isolation valves need to be locked closed under administrative controls. Section 1.H.5 of the TS, "Containment Integrity" requires that automatic containment isolation valves be operable or be locked closed under administrative control. At Surry, Units 1 and 2, many of the automatic containment isolation valves are air-operated or are directly actuated solenoid operated valves and cannot be locked in the same manner as motor-operated containment isolation valves. The proposed amendment clarifies the requirement for those automatic containment isolation valves, which are not amenable to being locked closed, by requiring that they be deactivated (power removed) and secured in their closed position and placed under administrative control.

SUMMARY

Based on the staff's review of the licensee's submittal, we conclude that containment integrity would not be compromised by the proposed changes and therefore the proposed changes to the containment personnel airlock and the inoperable automatic containment isolation valves are acceptable.

ENVIRONMENTAL CONSIDERATION

These amendments involve a change in the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously published a proposed finding that these amendments involve no significant hazards consideration and there has been no public comment on such finding. 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.

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 these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Dated:

Principal Contributor:
B. Buckley