January 22, 19

Docket Nos. 50-280
and 50-281

DISTRIBUTION:
See next page

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: CONTAINMENT ISOLATION (TAC NOS. M83768 AND M83769)

The Commission has issued the enclosed Amendment No. 172 to Facility Operating License No. DPR-32 and Amendment No. 171 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 June 1, 1992.

These amendments clarify the definition and requirements for containment integrity and establish consistency with NUREG-0452, "Standard Technical Specifications for Westinghouse Pressurized Water Reactors," Revision 4. In addition, the containment isolation valve tables are being eliminated in accordance with Generic Letter 91-08, "Removal of Component Lists from Technical Specifications."

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. 172 to DPR-32
2. Amendment No. 171 to DPR-37
3. Safety Evaluation

cc w/enclosures:
See next page

LA:PD22	PE:PD22	PM:PD22	D:PD22	SRXB	SCSB R Barrett 12/17/92 SPLB	OGC
DMiller	FRinaldi	BBuckley BCB	HBerkow	RJones	CMcCracken	EHolcom
8/ /92	8/10/92	8/18/92	8/10/92	12/8/92	12/ /92	1/12/93

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CP-1

1/1

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Surry Power Station

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DATED: January 22, 1993

AMENDMENT NO. 172 TO FACILITY OPERATING LICENSE NO. DPR-32 - SURRY UNIT 1
AMENDMENT NO. 171 TO FACILITY OPERATING LICENSE NO. DPR-37 - SURRY UNIT 2

Docket File
NRC & Local PDRs
PDII-2 Reading
S. Varga, 14/E/4
G. Lainas, 14/H/3
H. Berkow
D. Miller
B. Buckley
OGC
D. Hagan, 3302 MNBB
G. Hill (8), P-137
Wanda Jones, MNBB-7103
C. Grimes, 11/F/23
ACRS (10)
OPA
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M. Sinkule, R-II
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280051

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. 172
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 June 1, 1992, 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. 172 , 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 its date of issuance and shall be implemented within 30 days.

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: January 22, 1993

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. 171
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 June 1, 1992, 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. 171 , 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 its date of issuance and shall be implemented within 30 days.

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: January 22, 1993

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 172 TO FACILITY OPERATING LICENSE NO. DPR-32

AMENDMENT NO. 171 TO FACILITY OPERATING LICENSE NO. DPR-37

DOCKET NOS. 50-280 AND 50-281

Revise Appendix A as follows:

Remove Pages	Insert Pages
TS 1.0-4	TS 1.0-4
TS 1.0-5	TS 1.0-5
TS 3.8-1	TS 3.8-1
TS 3.8-2	TS 3.8-2
TS 3.8-3	TS 3.8-3
TS 3.8-4	TS 3.8-4
TS 3.8-5	TS 3.8-5
TS Figure 3.8-1 (2 pages)	TS Figure 3.8-1 (1 page)
TS 3.10-1	TS 3.10-1
TS 3.10-5	TS 3.10-5
TS 3.10-6	TS 3.10-6
TS 3.10-7	TS 3.10-7
TS 4.1-1b	TS 4.1-1b

2. CHANNEL FUNCTIONAL TEST

Injection of a simulated signal into an analog channel as close to the sensor as practicable or makeup of the logic combinations in a logic channel to verify that it is operable, including alarm and/or trip initiating action.

3. CHANNEL CALIBRATION

Adjustment of channel output such that it responds, with acceptable range and accuracy, to known values of the parameter which the channel measures. Calibration shall encompass the entire channel, including equipment action, alarm, or trip, and shall be deemed to include the CHANNEL FUNCTIONAL TEST.

4. SOURCE CHECK

A source check shall be a qualitative assessment of radiation monitor response when the channel sensor is exposed to a radioactive source.

H. CONTAINMENT INTEGRITY

Containment integrity shall exist when:

a. The penetrations required to be closed during accident conditions are either:

1) Capable of being closed by an OPERABLE containment automatic isolation valve system, or

2) Closed by at least one closed manual valve, blind flange, or deactivated automatic valve secured in its closed position except as provided in Specification 3.8.C. Non-automatic or deactivated automatic containment isolation valves may be opened intermittently for operational activities provided that the valves are under administrative control and are capable of being closed immediately, if required.

b. The equipment access hatch is closed and sealed,

c. Each airlock is OPERABLE except as provided in Specification 3.8.B,

d. The containment leakage rates are within the limits of Specification 4.4, and

e. The sealing mechanism associated with each penetration (e.g., welds, bellows, or O-rings) is OPERABLE.

l. 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 conditions of the reactor containment.

Specification

A. CONTAINMENT INTEGRITY

1. CONTAINMENT INTEGRITY, as defined in TS Section 1.0, shall be maintained whenever the Reactor Coolant System temperature exceeds 200°F.

   a. Without CONTAINMENT INTEGRITY, re-establish CONTAINMENT INTEGRITY in accordance with the definition within 1 hour.

   b. Otherwise, be in HOT SHUTDOWN within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

2. The inside and outside isolation valves in the Containment Ventilation Purge System shall be locked, sealed, or otherwise secured closed whenever the Reactor Coolant System temperature exceeds 200°F.

3. The inside and outside isolation valves in the containment vacuum ejector suction line shall be locked, sealed, or otherwise secured closed whenever the Reactor Coolant System temperature exceeds 200°F.

B. Containment Airlocks

1. Each containment airlock shall be OPERABLE with both doors of the personnel airlock closed except when the airlock is being used for normal transit entry and exit through the containment, then at least one airlock door shall be closed.

   a. With one airlock or associated interlock inoperable, maintain the OPERABLE door closed and either restore the inoperable door to OPERABLE status or lock closed the OPERABLE door within 24 hours.

   b. If the personnel airlock inner door or interlock is inoperable, the outer personnel airlock door may be opened for repair and retest of the inner door. If the inoperability is due to the personnel airlock inner door seal exceeding 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 for repair and retest of the inner door seal.

   c. Otherwise, be in HOT SHUTDOWN within the next 6 hours and COLD SHUTDOWN within the following 30 hours.

C. Containment Isolation Valves

1. Containment isolation valves shall be OPERABLE.† With one or more isolation valve(s) inoperable, maintain at least one isolation valve OPERABLE† in each affected penetration that is open and either:

   a. Restore the inoperable valve(s) to OPERABLE status within 4 hours, or

   b. Isolate each affected penetration within 4 hours by use of at least one deactivated automatic valve secured in the isolation position, or

† Non-automatic or deactivated automatic containment isolation valves may be opened on an intermittent basis under administrative control. The valves identified in TS 3.8.A.2 and TS 3.8.A.3 are excluded from this provision.

c. Isolate each affected penetration within 4 hours by use of at least one closed manual valve or blind flange, or

d. Otherwise, place the unit in HOT SHUTDOWN within the next 6 hours and COLD SHUTDOWN within the following 30 hours.

D. Internal Pressure

1. Containment air partial pressure shall be maintained within the acceptable operation range as identified in Figure 3.8-1 whenever the Reactor Coolant System temperature and pressure exceed 450°F and 350 psig, respectively.

a. With the containment air partial pressure outside the acceptable operation range, restore the air partial pressure to within acceptable limits within 1 hour or be in at least HOT SHUTDOWN within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

Basis

CONTAINMENT INTEGRITY ensures that the release of radioactive materials from the containment will be restricted to those leakage paths and associated leak rates assumed in the accident analysis. These restrictions, in conjunction with the allowed leakage, will limit the site boundary radiation dose to within the limits of 10 CFR 100 during accident conditions.

The operability of the containment isolation valves ensures that the containment atmosphere will be isolated from the outside environment in the event of a release of radioactive material to the containment atmosphere or pressurization of the containment. The opening of manual or deactivated automatic containment isolation valves on an intermittent basis under administrative control includes the following considerations: (1) stationing an operator, who is in constant communication with the control room, at the valve controls, (2) instructing this operator to close these valves in an accident situation, and

(3) assuring that environmental conditions will not preclude access to close the valves and 4) that this administrative or manual action will prevent the release of radioactivity outside the containment.

The Reactor Coolant System temperature and pressure being below 350°F and 450 psig, respectively, ensures that no significant amount of flashing steam will be formed and hence that there would be no significant pressure buildup in the containment if there is a loss-of-coolant accident. Therefore, the containment internal pressure is not required to be subatmospheric prior to exceeding 350°F and 450 psig.

The allowable value for the containment air partial pressure is presented in TS Figure 3.8-1 for service water temperatures from 25 to 92°F. The allowable value varies as shown in TS Figure 3.8-1 for a given containment average temperature. The RWST water shall have a maximum temperature of 45°F.

The horizontal limit lines in TS Figure 3.8-1 are based on LOCA peak calculated pressure criteria, and the sloped line is based on LOCA subatmospheric peak pressure criteria.

The curve shall be interpreted as follows:

> The horizontal limit line designates the allowable air partial pressure value for the given average containment temperature. The horizontal limit line applies for service water temperatures from 25°F to the sloped line intersection value (maximum service water temperature).

From TS Figure 3.8-1, if the containment average temperature is 112°F and the service water temperature is less than or equal to 83°F, the allowable air partial pressure value shall be less than or equal to 9.65 psia. If the average containment temperature is 116°F and the service water temperature is less than or equal to 88°F, the allowable air partial pressure value shall be less than or equal to 9.35 psia. These horizontal limit lines are a result of the higher allowable initial containment average temperatures and the analysis of the pump suction break.

If the containment air partial pressure rises to a point above the allowable value the reactor shall be brought to the HOT SHUTDOWN condition. If a LOCA occurs at the time the containment air partial pressure is at the maximum allowable value, the maximum containment pressure will be less than design pressure (45 psig), the containment will depressurize in less than 1 hour, and the maximum subatmospheric peak pressure will be less than 0.0 psig.

If the containment air partial pressure cannot be maintained greater than or equal to 9.0 psia, the reactor shall be brought to the HOT SHUTDOWN condition. The shell and dome plate liner of the containment are capable of withstanding an internal pressure as low as 3 psia, and the bottom mat liner is capable of withstanding an internal pressure as low as 8 psia.

References

UFSAR Section 4.3.2	Reactor Coolant Pump
UFSAR Section 5.2	Containment Isolation
UFSAR Section 5.2.1	Design Bases
UFSAR Section 5.5.2	Isolation Design
UFSAR Section 6.3.2	Containment Vacuum System

ALLOWABLE AIR PARTIAL PRESSURE
SURRY POWER STATION UNITS 1 AND 2

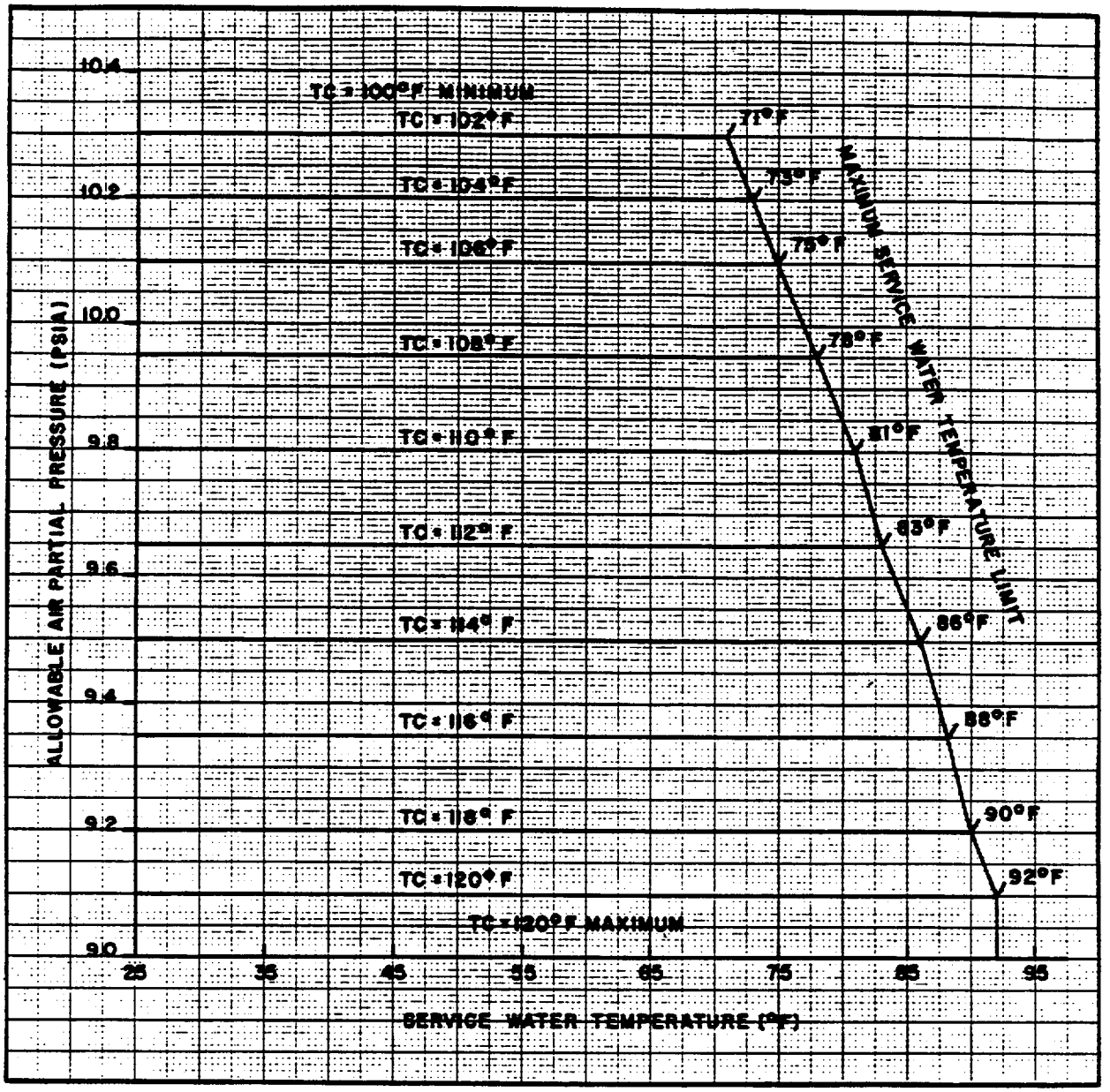

FIGURE NOTATION

TC - Containment average temperature

FIGURE NOTES

1. Refueling Water Storage Tank temperature ≤ 45°F.
2. Allowable operating air partial pressure in the containment is a function of service water temperature.
3. Horizontal lines designate allowable air partial pressure per given containment average temperature.
4. Each containment temperature line is a maximum for the given air partial pressure.

3.10 REFUELING

Applicability

Applies to operating limitations during REFUELING OPERATIONS.

Objective

To assure that no accident could occur during REFUELING OPERATIONS that would affect public health and safety.

Specification

A. During REFUELING OPERATIONS the following conditions are satisfied:

1. The equipment access hatch and at least one door in the personnel airlock shall be properly closed. For those penetrations which provide a direct path from containment atmosphere to the outside atmosphere, the automatic containment isolation valves shall be operable or the penetration shall be closed by a valve, blind flange, or equivalent.

2. The Containment Ventilation Purge System and the area and airborne radiation monitors which initiate isolation of this system shall be tested and verified to be operable immediately prior to REFUELING OPERATIONS.

Basis

Detailed instructions, the above specified precautions, and the design of the fuel handling equipment, which incorporates built-in interlocks and safety features, provide assurance that an accident, which would result in a hazard to public health and safety, will not occur during unit REFUELING OPERATIONS. When no change is being made in core geometry, one neutron detector is sufficient to monitor the core and permits maintenance of the out-of-function instrumentation. Continuous monitoring of radiation levels and neutron flux provides immediate indication of an unsafe condition.

Potential escape paths for fission product radioactivity within containment are required to be closed or capable of closure to prevent the release to the environment. However, since there is no potential for significant containment pressurization during refueling, the Appendix J leakage criteria and tests are not applicable.

The containment equipment access hatch, which is part of the containment pressure boundary, provides a means for moving large equipment and components into and out of the containment. During REFUELING OPERATIONS, the equipment hatch is held in place with at least four approximately equally spaced bolts.

The containment airlocks, which are also part of the containment pressure boundary, provide a means for personnel access during periods when CONTAINMENT INTEGRITY is required. Each airlock has a door at both ends. The doors are normally interlocked to prevent simultaneous opening. During periods of unit shutdown when containment closure is not required, the door interlock mechanism may be disabled, allowing both doors to remain open for extended periods when frequent containment entry is necessary. During REFUELING OPERATIONS, containment closure is required. Therefore, the door interlock mechanism may remain disabled, but one airlock door must remain closed. The emergency escape airlock (trunk) may be removed from the equipment access hatch during REFUELING OPERATIONS, provided the penetration is closed by an approved method which provides a temporary, atmospheric pressure ventilation barrier.

Containment high radiation levels and high airborne activity levels automatically stop and isolate the Containment Ventilation Purge System. The other containment penetrations that provide direct access from containment atmosphere to outside atmosphere must be isolated by at least one barrier during REFUELING OPERATIONS. Isolation may be achieved by an OPERABLE automatic isolation valve, a closed valve, a blind flange, or by an equivalent isolation method. Equivalent isolation methods must be evaluated and may include use of a material that can provide a temporary, atmospheric pressure ventilation barrier.

The fuel building ventilation exhaust is diverted through charcoal filters whenever refueling is in progress. At least one flow path is required for cooling and mixing the coolant contained in the reactor vessel so as to maintain a uniform boron concentration and to remove residual heat.

During refueling, the reactor refueling water cavity is filled with approximately 220,000 gal of water borated to at least 2,300 ppm boron. The boron concentration of this water, established by Specification 3.10.A.9, is sufficient to maintain the reactor subcritical by at least 5 % $\Delta k/k$ in the COLD SHUTDOWN condition with all control rod assemblies inserted. This includes a 1% $\Delta k/k$ and a 50 ppm boron concentration allowance for uncertainty. This concentration is also sufficient to maintain the core subcritical with no control rod assemblies inserted into the reactor. Checks are performed during the reload design and safety analysis process to ensure the K-effective is equal to or less than 0.95 for each core. Periodic checks of refueling water boron concentration assure the proper shutdown margin. Specification 3.10.A.10 allows the Control Room Operator to inform the manipulator operator of any impending unsafe condition detected from the main control board indicators during fuel movement.

In addition to the above safeguards, interlocks are used during refueling to assure safe handling of the fuel assemblies. An excess weight interlock is provided on the lifting hoist to prevent movement of more than one fuel assembly at a time. The spent fuel transfer mechanism can accommodate only one fuel assembly at a time.

Upon each completion of core loading and installation of the reactor vessel head, specific mechanical and electrical tests will be performed prior to initial criticality.

The fuel handling accident has been analyzed based on the activity that could be released from fuel rod gaps of 204 rods of the highest power assembly* with a 100-hour decay period following power operation at 2550 MWt for 23,000 hours. The requirements detailed in Specification 3.10 provide assurance that refueling unit conditions conform to the operating conditions assumed in the accident analysis.

Detailed procedures and checks insure that fuel assemblies are loaded in the proper locations in the core. As an additional check, the movable incore detector system will be used to verify proper power distribution. This system is capable of revealing any assembly enrichment error or loading error which could cause power shapes to be peaked in excess of design value.

References

UFSAR Section 5.2	Containment Isolation
UFSAR Section 6.3	Consequence Limiting Safeguards
UFSAR Section 9.12	Fuel Handling System
UFSAR Section 11.3	Radiation Protection
UFSAR Section 13.3	Table 13.3-1
UFSAR Section 14.4.1	Fuel Handling Accidents
UFSAR Supplement:	Volume I: Question 3.2

* Fuel rod gas activity from 204 rods of the highest power 15 x 15 assembly is greater than fuel rod gap activity from 264 rods of the highest power 17 x 17 demonstration assembly.

F. Containment Ventilation Purge System isolation valves:

1. The outside Containment Ventilation Purge System isolation valves and the isolation valve in the containment vacuum ejector suction line outside containment shall be determined locked, sealed, or otherwise secured in the closed position at least once per 31 days.

2. The inside Containment Ventilation Purge System isolation valves and the isolation valve in the containment vacuum ejector suction line inside containment shall be verified locked, sealed, or otherwise secured in the closed position each COLD SHUTDOWN, but not required to be verified more than once per 92 days.

G. Verify that each containment penetration not capable of being closed by OPERABLE automatic isolation valves and required to be closed during accident conditions is closed by manual valves, blind flanges, or deactivated automatic valves secured* in the closed position at least once per 31 days. Valves, blind flanges, and deactivated automatic or manual valves located inside containment which are locked, sealed, or otherwise secured in the closed position shall be verified closed during each COLD SHUTDOWN, but not required to be verified more than once per 92 days.

* Non-automatic or deactivated automatic valves may be opened on an intermittent basis under administrative control. The valves identified in TS 3.8.A.2 and TS 3.8.A.3 are excluded from this provision.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 172 TO FACILITY OPERATING LICENSE NO. DPR-32

AND AMENDMENT NO. 171 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 June 1, 1992, Virginia Electric and Power Company (the licensee) requested changes to Sections 1.0 "Definitions," 3.8 "Containment," 3.10 "Refueling," and 4.1 "Operational Safety Review," of the Technical Specifications (TS) for the Surry Power Station, Units 1 and 2. The proposed TS changes would clarify the definition and requirements for containment integrity to establish consistency with NUREG-0452, "Standard Technical Specifications for Westinghouse Pressurized Water Reactors," Revision 4, and eliminate the containment isolation valve tables in accordance with Generic Letter (GL) 91-08, "Removal of Component Lists from Technical Specifications." The licensee has provided limiting conditions for operation, action statements, and surveillance requirements to provide specific directions for any breach of containment integrity and has modified action statements for containment air partial pressure outside the current allowable range. Moreover, subsequent to the licensee's June 1, 1992 letter, the NRC staff suggested and the licensee orally requested that the footnotes on TS pages TS 3.8-2 and TS 4.1-1b be modified, for clarification purposes, by adding: "The valves identified in TS 3.8.A.2 and TS 3.8.A.3 are excluded from this provision." This modification did not change the proposed no significant hazards consideration determination.

2.0 BACKGROUND

The current TS require that all automatic containment isolation valves be operable or secured closed, if inoperable. Therefore, testing and/or maintenance of an inoperable valve would be considered a breach of containment integrity. Further, the current TS would require entry into TS 3.0.1 when a breach of containment integrity occurs (hot shutdown in 6 hours and cold shutdown in 30 hours). Also, the current TS require that the containment isolation valve tables be updated following modification of the containment penetration configuration. Current staff criteria in NUREG-0452 and GL 91-08 provide alternative approaches that the licensee is addressing in the proposed TS changes.

3.0 EVALUATION

The changes to TS Section 1.H affect the definitions for containment integrity. These changes establish a penetration as closed (isolable), when one manual valve, blind flange, or deactivated automatic valve is in a closed position. The proposed definition allows testing and maintenance of inoperable valves without breach of containment integrity. The operation leakage limits specified in TS 4.4 will still apply. Therefore, if containment isolation is challenged and a single failure occurs, radioactive leakage from the containment will not exceed previously analyzed limits. Also, this change does not affect any precursor to previously analyzed accidents or malfunctions and does not create a failure mode which could lead to a new type of accident or malfunction.

The changes to the requirements affect Sections 3.8 "Containment," 3.10 "Refueling," and 4.1 "Operational Safety Review." TS 3.8.A.5 and 3.8.A.6 will be deleted. These sections address containment integrity requirements when the reactor head is unbolted and the shutdown margin is less than 5% delta k/k, and during positive reactivity additions by rod drive motion or boron dilutions.

Containment integrity would be required above 200° F, when the head is unbolted with less than 5% delta k/k, and during positive reactivity additions by rod drive motion or boron dilutions.

During operation, if containment integrity is violated due to an inoperable automatic isolation valve or an inoperable air lock, new action statements would impose the general requirements of TS 3.0.1. These action statements would define the allowed outage times and the required operator actions. These actions are consistent with the NRC Standard Technical Specifications (STS).

STS require containment integrity in Modes 1, 2, 3, and 4. In Mode 6, during core alterations or irradiated fuel movement, direct release paths are required to be isolated or capable of automatic isolation. In Mode 5, during cold shutdown, there are no requirements for containment integrity related to reactivity changes. However, during both cold shutdown and refueling conditions, administrative controls require additional shutdown margins beyond the TS requirements, thus providing further conservatism. Also, during reduced inventory operation and when specific penetrations are opened, a containment closure team is established to close these penetrations in the event of a loss of residual heat removal (RHR). In addition, during refueling operations, the TS require that direct release paths be isolated or be capable of automatic closure to ensure that the consequences of a fuel handling accident would be bounded by previously analyzed scenarios and related acceptance limits.

Containment integrity is not required to mitigate consequences of any reactivity transient postulated for cold shutdown or refueling. An inadvertent boron dilution during cold shutdown or refueling conditions would

be precluded by isolating unborated water sources in accordance with TS 3.2.F. Also, an uncontrolled rod withdrawal from a subcritical condition would be terminated by the source range high neutron flux trip prior to challenging fuel clad integrity.

The existing action statement associated with containment air partial pressure establishes a pressure range of greater than 0.25 psia before operator action is required. The revised action statement allows 1 hour to restore the air partial pressure to the specified limits before requiring the unit in hot shutdown within the next 6 hours and cold shutdown within the following 30 hours. The proposed 1-hour period to reestablish the allowable air partial pressure allows for an orderly evaluation and eliminates an immediate entry into TS 3.0.1, which would require an immediate and unnecessary plant shutdown. This change does not alter the operation of barriers, nor does it reduce the level of protection. Also, it is consistent with the requirements of the STS.

Other changes delete the containment isolation valve tables (Tables 3.8-1 and 3.8-2) from the TS, and establish an action statement for violation of the containment integrity. These changes are consistent with the ongoing Technical Specification Improvement Program and the guidance in GL 91-08. The Updated Final Safety Analysis Report (UFSAR) and the station procedures provide a list of the containment isolation valves. TS Section 4.4 establishes the testing requirements which are in agreement with 10 CFR Part 50, Appendix J, and UFSAR Section 5.5. Also, the containment design is subject to the design controls required by 10 CFR 50.59 evaluation prior to any modification. Further, the UFSAR is updated in accordance with the requirements of 10 CFR 50.71, and changes to the station procedures are subject to the controls stated in TS Section 6.4.

The following changes are being made for consistency:

1. The notes in Figure 3.8-1 that are also specified in the body of TS 3.8 are being deleted to avoid possible confusion with other redundant requirements.

2. The action statement for the containment ventilation purge system isolation valves is being changed to require the valves to be locked, sealed, or secured when the reactor coolant system exceeds 200° F.

3. The change to TS Section 3.10 clarifies the containment isolation requirements for refueling operations and is consistent with the STS.

4. The new surveillance requirements in TS Section 4.1 ensure that inoperable or nonautomatic containment isolation valves are maintained in their correct position.

5. Additional discussion in the Bases is provided to address controls necessary for intermittent operation of normally closed or sealed isolation valves following the guidance of GL 91-08.

6. Other editorial changes are being made for consistency with STS and UFSAR.

4.0 SUMMARY

On the basis of its review of the above items, the staff concludes that the licensee has met the guidance of NUREG-0452 and GL 91-08. Accordingly, the staff finds that the proposed changes have no adverse impact on safety and are, therefore, acceptable.

5.0 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.

6.0 ENVIRONMENTAL CONSIDERATION

These amendments change a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC 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 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 (57 FR 32578). 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.

7.0 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.

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