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

March 1, 1983

Docket Nos. 50-280 and 50-281 Posted Amodt.84 to DPR-37

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

Dear Mr. Stewart:

The Commission has issued the enclosed Amendment No. 83 to Facility Operating License No. DPR-32 and Amendment No. 84 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 December 31, 1981.

These amendments revise the Technical Specifications to add Limiting Conditions for Operation and Surveillance Requirements related to containment purge valves. The change requires purge valves to be closed above 200°F, periodic leakage tests, and periodic checks to ensure that the valves are closed.

By letter dated December 7, 1982, the NRC completed it review of NRC Generic Item B-24, review of containment purge and vent, and TMI Action Plan Item II.E.4.2, containment isolation dependability. The December 7, 1982, letter stated that this issue was resolved except for the review and issuance of Technical Specifications. We have reviewed the Technical Specifications submitted by the licensee on December 31, 1982, and have modified them to meet NRC requirements. We have discussed these changes with the licensee and the licensee concurs with the changes. Based on our review of the Technical Specifications, we conclude that they are acceptable as modified.

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 $10 \ \text{CFR §51.5(d)(4)}$, that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of these amendments.

We have concluded, based on the considerations discussed above, that: (1) because the amendments do not involve a significant increase in the probability or consequences of an accident previously evaluated, do not create the possibility of an accident of a type different from any evaluated previously, and do not involve a significant reduction in a margin of safety, the amendments do not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) 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.

A copy of the Notice of Issuance is also enclosed.

Sincerely.

Steven A. Varga, Chief

Operating Reactors Branch #1

Division of Licensing

Enclosures:

- 1. Amendment No. 83 to DPR-32
- 2. Amendment No. 84 to DPR-37
- Notice of Issuance

cc w/enclosures: See next page Mr. W. L. Stewart Virginia Electric and Power Company

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

> Mr. J. L. Wilson, Manager P. O. 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, Virginia 23683

Attorney General 1101 East Broad Street Richmond, Virginia 23219

Mr. James R. Wittine Commonwealth of Virginia State Corporation Commission 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. 83 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 December 31, 1981, 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. <u>Technical Specifications</u>

The Technical Specifications contained in Appendix A, as revised through Amendment No. 83, 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

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

Attachment: Changes to the Technical Specifications

Date of Issuance: March 1, 1983



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

VIRGINIA ELECTRIC AND POWER COMPANY

DOCKET NO. 50-28T

SURRY POWER STATION, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 84 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 December 31, 1981, 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. <u>Technical</u> Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 84, 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

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

Attachment: Changes to the Technical Specifications

Date of Issuance: March 1, 1983

ATTACHMENT TO LICENSE AMENDMENTS

AMENDMENT NO. 83 TO FACILITY OPERATING LICENSE NO. DPR-32 AMENDMENT NO. 84 TO FACILITY OPERATING LICENSE NO. DPR-37 DOCKET NOS. 50-280 AND 50-281

Revise Appendix A as follows:

Remove Pages	Insert Pages
3.8-1	3.8-1
3.8-2	3.8-2
4.1-1a	4.1-1a
4.1-2	4.1-2
4.1-3	4.1-3
4.1-9d	4.1-9d

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 Fig. 3.8-1.
- 5. The containment integrity shall not be violated when the reactor vessel head is unbolted unless a shutdown margin greater than 10 percent k/k is maintained.

- 6. Positive reactivity changes shall not be made by rod drive motion or boron dilution unless the containment integrity is intact.
- 7. The containment isolation valves shall be listed in Tables 3.8-1 and 3.8-2.

B. Internal Pressure

- 1. If the internal air partial pressure rises to a point 0.25 psi above the allowable value of the air partial pressure (TS Fig. 3.8-1), the reactor shall be brought to the hot shutdown condition.
- 2. If the leakage condition cannot be corrected without violating the containment integrity or if the internal partial pressure continues to rise, the reactor shall be brought to the cold shutdown condition utilizing normal operating procedures.
- 3. If the internal pressure falls below 8.25 psia the reactor shall be placed in the cold shutdown condition.
- 4. If the air partial pressure cannot be maintained greater than or equal to 9.0 psia, the reactor shall be brought to the hot shutdown condition.

Basis

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 build-up in the containment if there is a loss-of-coolant accident.

- 2. Each Pressurizer PORV block valve shall be demonstrated operable at least once per 92 days by operating the valve through one complete cycle of full travel.
- 3. The pressurizer water volume shall be determined to be within its limit as defined in Specification 2.3.A.3.a at least once per 12 hours whenever the reactor is not subcritical by at least $1\% \Delta k/k$.
- C. Sampling tests shall be conducted as detailed in Table 4.1-2B.
- D. Whenever containment integrity is not required, only the asterisked items in Table 4.1-1 and 4.1-2A and 4.1-2B are applicable.
- E. Flushing of sensitized stainless steel pipe sections shall be conducted as detailed in TS Table 4.1-3A and 4.1-3B.
- F. The outside containment purge and vent isolation valves and the isolation valve in the steam jet air ejector suction line outside containment shall be determined locked, sealed, or otherwise secured in the closed position at least once per 31 days.
- G. The inside containment purge and vent isolation valves shall be determined locked, sealed or otherwise secured in the closed position each êôld shutdown but not more often than once per 92 days.

H. During or immediately after the flushes required by Specification 4.1.E, water flushed from the pipe section will be analyzed for chloride concentration and fluoride concentration. If either the chloride or fluoride concentration exceeds 0.15 ppm, the flush will be continued or resumed until further samples indicate that the chloride concentration and the fluoride concentration in the sensitized pipe, have been reduced to less than 0.15 ppm.

Basis

Check

Failures such as blown instrument fuses, defective indicators, and faulted amplifiers which result in "upscale" or "downscale" indication can be easily recognized by simple observation of the functioning of an instrument or system. Furthermore, such failures are, in many cases, revealed by alarm or annunciator action, and a periodic check supplements this type of built-in surveillance.

Based on experience in operation of both conventional and nuclear unit systems, when the unit is in operation, the minimum checking frequencies set forth are deemed adequate for reactor and steam system instrumentatation.

Calibration

Calibration shall be performed to ensure the presentation and acquisition of accurate information.

The nuclear flux (power level) channels shall be calibrated daily against a heat balance standard to account for errors induced by changing rod patterns and core physics parameters.

Other channels are subject only to the "drift" errors induced within the instrumentation itself and, consequently, can tolerate longer intervals between calibration. Process systems instrumentation errors resulting from drift within the individual instruments are normally negligible.

During the interval between periodic channel tests and daily check of each channel, a comparison between redundant channels will reveal any abnormal condition resulting from a calibration shift, due to instrument drift of a single channel.

During the periodic channel test, if it is deemed necessary, the channel may be tuned to compensate for the calibration shift. However, it is not expected that this will be required at any fixed or frequent interval.

Thus, minimum calibration frequencies of once-per-day for the nuclear flux (power level) channels, and once each refueling shutdown for the process system channels is considered acceptable.

Testing

The minimum testing frequency for those instrument channels connected to the safety system is based on an average unsafe failure rate of $2/5 \times 10^{-6}$ failure/hr per channel. This is based on operating experience at conventional and nuclear units. An unsafe failure is defined as one which negates channel operability and which, due to its nature, is revealed only when the channel is tested or when it attempts to respond to a proper signal.

TABLE 4.1-2A (CONTINUED)

MINIMUM FREQUENCY FOR EQUIPMENT TESTS

DESCRIPTION

TEST

FREQUENCY

FSAR SECTION REFERENCE

18. Primary Coolant System

Functional

1. Periodic leakage testing (a) on each valve listed in Specification 3.1.C.7a shall be accomplished prior to entering power operation condition after every time the plant is placed in the cold shutdown condition for refueling, after each time the plant is placed in cold shutdown condition for 72 hours if testing has not been accomplished in the preceding 9 months, and prior to returning the valve to service after maintenance, repair or replacement work is performed.

19. Containment Purge MOV Leakage

Functional

Semi-Annual (Unit at power or shutdown)

if purge valves are operated during interval (c)

⁽a) To satisfy ALARA requirements, leakage may be measured indirectly (as from the performance of pressure indicators) if accomplished in accordance with approved procedures and supported by computations showing that the method is capable of demonstrating valve compliance with the leakage criteria.

⁽b) Minimum differential test pressure shall not be below 150 psid.

⁽c) Refer to Section 4.4 for acceptance criteria.

^{*}See Specification 4.1.D.

UNITED STATES NUCLEAR REGULATORY COMMISSION DOCKET NOS. 50-280 AND 50-281

VIRGINIA ELECTRIC AND POWER COMPANY

NOTICE OF ISSUANCE OF AMENDMENTS TO FACILITY OPERATING LICENSES

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 83 to Facility Operating License No. DPR-32 and Amendment No. 84 to Facility Operating License No. DPR-37 issued to Virginia Electric and Power Company (the licensee), which revised Technical Specifications for operation of the Surry Power Station, Unit Nos. 1 and 2, respectively, (the facilities), located in Surry County, Virginia. The amendments are effective as of the date of issuance.

The amendments revise the Technical Specifications to add Limiting Conditions for Operation and Surveillance Requirements related to containment purge valves. The change requires purge valves to be closed above 200°F, periodic leakage tests, and periodic checks to ensure that the valves are closed.

The application for the amendments complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendments. Prior public notice of these amendments do not involve a significant hazards consideration.

The Commission has determined that the issuance of these amendments will not result in any significant environmental impact and that pursuant to 10 CFR \$51.5(d)(4) an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of these amendments.

For further details with respect to this action, see (1) the application for amendments dated December 31, 1981, (2) Amendment Nos. 83 and 84 to License Nos. DPR-32 and DPR-37, and (3) the Commission's letter dated March 1, 1983. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D.C. and at the Swem Library, College of William and Mary, Williamsburg, Virginia 23185. A copy of items (2) and (3) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Director, Division of Licensing.

Dated at Bethesda, Maryland, this 1st day of March, 1983.

FOR THE NUCLEAR REGULATORY COMMISSION

Steven A. Varga, Chief Operating Reactors Branch #1

Division of Licensing