

Docket File



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

May 14, 1981

Docket Nos. 50-338
and 50-339



Mr. J. H. Ferguson
Executive Vice President - Power
Virginia Electric and Power Company
Post Office Box 26666
Richmond, Virginia 23261

Dear Mr. Ferguson:

The Commission has issued the enclosed Amendment Nos. 28 and 9 to Facility Operating License Nos. NPF-4 and NPF-7 for North Anna Power Station, Unit Nos. 1 and 2 (NA-1&2). The amendments consists of changes to the Technical Specifications in response to your application transmitted by letter dated July 30, 1980. These amendments are effective within 3 days from the date of issuance.

The amendments revise the channel functional test frequency for the Loss of Power Circuitry from 31 days to a bi-monthly interval. The amendments also require that the steam jet air ejector isolation valves be closed in Modes 1, 2, 3 and 4.

The requested change in your July 30, 1980 letter regarding corporate management reorganization will be included in the issuance of a separate forthcoming amendment which will address the Administrative Controls of the Technical Specifications for NA-1&2.

Copies of the related Safety Evaluation and the Notice of Issuance are also enclosed.

Sincerely,

Robert A. Clark, Chief
Operating Reactors Branch #3
Division of Licensing

Enclosures:

1. Amendment No. 28 to NPF-4
2. Amendment No. 9 to NPF-7
3. Safety Evaluation
4. Notice of Issuance

cc w/enclosures:
See next page

8105210 492

P

*CP
1*

Virginia Electric and Power Company

cc:

Richard M. Foster, Esquire
Musick, Williamson, Schwartz,
Leavenworth & Cope, P.C.
P. O. Box 4579
Boulder, Colorado 80306

Michael W. Maupin, Esquire
Hunton, Williams, Gay and Gibson
P. O. Box 1535
Richmond, Virginia 23212

Alderman Library
Manuscripts Department
University of Virginia
Charlottesville, Virginia 22901

Mr. Edward Kube
Board of Supervisors
Louisa County Courthouse
P. O. Box 27
Louisa, Virginia 23093

Ellyn R. Weiss, Esquire
Sheldon, Harman, Roisman and Weiss
1725 I Street, N.W. Suite 506
Washington; D. C. 20005

Mr. W. R. Cartwright, Station Manager
P. O. Box 402
Mineral, Virginia 23117

Mr. Anthony Gambardella
Office of the Attorney General
11 South 12th Street - Room 308
Richmond, Virginia 23219

Mr. Edward Webster
Resident Inspector/North Anna
c/o U.S.N.R.C.
Route 2, Box 78A
Mineral, Virginia 23117

Mrs. June Allen
North Anna Environmental Coalition
1105-C Olive Street
Greensboro, North Carolina 27401

Mr. James Torson
501 Leroy
Socorro, New Mexico 87891

Mrs. Margaret Dietrich
Route 2, Box 568
Gordonsville, Virginia 22042

Mr. James C. Dunstance
State Corporation Commission
Commonwealth of Virginia
Blandon Building
Richmond, Virginia 23209

Director, Criteria and Standards Division
Office of Radiation Programs (ANR-460)
U.S. Environmental Protection Agency
Washington, D. C. 20460

U.S. Environmental Protection Agency
Region III Office
ATTN: EIS COORDINATOR
Curtis Building
6th and Walnut Streets
Philadelphia, Pennsylvania 19106

Mr. Paul W. Purdom
Environmental Studies Institute
Drexel University
32nd and Chestnut Streets
Philadelphia, Pennsylvania 19104

Atomic Safety and Licensing
Appeal Board Panel
U.S. Nuclear Regulatory Commission
Washington, D. C. 20555

cc w/enclosure(s) and incoming
dat: 7/3/80

Commonwealth of Virginia
Council of the Environment
903 Ninth Street Office Building
Richmond, Virginia 23129



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

VIRGINIA ELECTRIC AND POWER COMPANY

DOCKET NO. 50-338

NORTH ANNA POWER STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 28
License No. NPF-4

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Virginia Electric and Power Company (the licensee) dated July 30, 1980, 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.

8105210494

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.D.(2) of Facility Operating License No. NPF-4 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 28, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective within 3 days from the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Robert A. Clark, Chief
Operating Reactors Branch #3
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: May 14, 1981

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 28 TO FACILITY OPERATING LICENSE NO. NPF-4

DOCKET NO. 50-338

Replace the following pages of the Appendix "A" Technical Specifications with the enclosed pages as indicated. The revised pages are identified by Amendment number and contain vertical lines indicating the area of change. The corresponding overleaf pages are also provided to maintain document completeness.

Pages

3/4 3-33

3/4 6-37

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
5. TURBINE TRIP AND FEEDWATER ISOLATION				
a. Steam Generator Water Level--High-High	S	R	M	
6. AUXILIARY FEEDWATER PUMPS				
a. Steam Generator Water Level--Low-Low	S	R	M	1, 2, 3, 4
b. S.I.	See 1 above (all S.I. Surveillance Requirements)			
c. Station Blackout	N.A.	R	N.A	1, 2, 3, 4
d. Main Feedwater Pump Trip	N.A.	N.A	R	1, 2
7. LOSS OF POWER 4.16 KV Emergency Bus				
a. Loss of Voltage	N.A.	R	M(2)	1, 2, 3
b. Degraded Voltage	N.A.	R	M(2)	1, 2, 3

TABLE 4.3-2 (Continued)

TABLE NOTATION

- (1) Manual actuation switches shall be tested at least once per 18 months during shutdown. All other circuitry associated with manual safeguards actuation shall receive a CHANNEL FUNCTIONAL TEST at least once every other 31 days.
- (2) Each train or logic channel shall be tested at least every other 31 days.
- (3) The CHANNEL FUNCTIONAL TEST shall include exercising the transmitter by applying either a vacuum or pressure to the appropriate side of the transmitter.

CONTAINMENT SYSTEMS

3/4.6.5 SUBATMOSPHERIC PRESSURE CONTROL SYSTEM

STEAM JET AIR EJECTOR

LIMITING CONDITION FOR OPERATION

3.6.5.1 The inside and outside isolation valves in the steam jet air ejector suction line shall be closed.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

With the inside or outside isolation valve in the steam jet air ejector suction line not closed, restore the valve to the closed position within 1 hour or be in HOT SHUTDOWN within the next 12 hours.

SURVEILLANCE REQUIREMENTS

4.6.5.1.1 The steam jet air ejector suction line outside isolation valve shall be determined to be in the closed position by a visual inspection prior to increasing the Reactor Coolant System temperature above 200°F and at least once per 31 days thereafter if the valve is not locked, sealed or otherwise secured in the closed position.

4.6.5.1.2 The steam jet air ejector suction line inside isolation valve shall be determined to be in the closed position prior to increasing the Reactor Coolant System temperature above 200°F.



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

VIRGINIA ELECTRIC AND POWER COMPANY

DOCKET NO. 50-339

NORTH ANNA POWER STATION, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. g
License No. NPF-7

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Virginia Electric and Power Company (the licensee) dated July 30, 1980, 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 in paragraph 2.C.(2) of Facility Operating License No. NPF-7 and paragraph 2.C.(2) is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 9, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

- (a) The written procedures required by Technical Specification 6.8.1 for the Technical Specifications listed below shall be implemented within 30 days after the date of this license:

4.3.2.1.3 Items 10 and 11 of Table 3.3-5
4.3.3.6
4.4.3.2.1
4.4.3.2.2
4.4.6.2.2

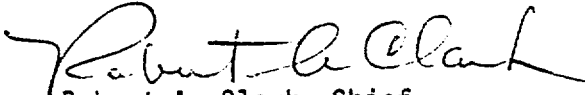
The required surveillance shall be completed before the end of the first surveillance interval.

- (b) The end of the current surveillance period for the Surveillance Requirements listed below may be extended beyond the time limit specified by Technical Specification 4.0.2.a. In each case, the required surveillance shall be completed by the revised due date. After May 31, 1981 the plant shall not be operated in Modes 1, 2, 3, or 4 until the Surveillance Requirements listed below have been completed. Upon accomplishment of the surveillance, the provisions of Technical Specification 4.0.2.a shall apply.

Specification 4.8.2.3.2.d
4.8.2.4.2

3. This license amendment is effective within 3 days from the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION


Robert A. Clark, Chief
Operating Reactors Branch #3
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: May 14, 1981

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 9 TO FACILITY OPERATING LICENSE NO. NPF-7

DOCKET NO. 50-339

Replace the following pages of the Appendix "A" Technical Specifications with the enclosed pages as indicated. The revised pages are identified by Amendment number and contain vertical lines indicating the area of change. The corresponding overleaf pages are also provided to maintain document completeness.

Pages

3/4 3-36

3/4 6-36

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
4. STEAM LINE ISOLATION				
a. Manual	N.A.	N.A.	R	1, 2, 3
b. Automatic Actuation Logic	N.A.	N.A.	M(2)	1, 2, 3
c. Containment Pressure-- Intermediate High-High	S	R	M(3)	1, 2, 3
d. Steam Flow in Two Steam Lines--High Coincident with T _{avg} -- Low-Low or Steam Line Pressure--Low	S	R	M	1, 2, 3
5. TURBINE TRIP AND FEEDWATER ISOLATION				
a. Steam Generator Water Level--High-High	S	R	M	1, 2, 3
6. AUXILIARY FEEDWATER PUMPS				
a. Manual	N.A.	N.A.	M(1)	1, 2, 3
b. Automatic Actuation Logic	N.A.	N.A.	M(2)	1, 2, 3
c. Steam Generator Water	S	R	M	1, 2, 3
d. S.I.	See 1 above (all S.I. Surveillance Requirements)			
e. Station Blackout	N.A.	R	N.A.	1, 2, 3
f. Main Feedwater Pump Trip	N.A.	N.A.	R	1, 2

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
7. LOSS OF POWER				
a. 4.16 kv Emergency Bus Undervoltage (Loss of Voltage)	N.A.	R	M(2)	1, 2, 3, 4
b. 4.16 kv Emergency Bus Undervoltage (Degraded Voltage)	N.A.	R	M(2)	1, 2, 3, 4

CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- c. After every 720 hours of charcoal adsorber operation by verifying within 31 days after removal that a laboratory analysis of representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978.
- d. At least once per 18 months by:
 - 1. Verifying that the pressure drop across the HEPA filter and charcoal adsorber assembly is less than 8.5 inches Water Gauge while operating the filter train at a flow rate of 300 cfm \pm 10%.
- e. After each complete or partial replacement of a HEPA filter bank by verifying that the HEPA filter banks remove greater than or equal to 99% of the DOP when they are tested in-place in accordance with ANSI N510-1975 while operating the system at a flow rate of 300 cfm \pm 10%.
- f. After each complete or partial replacement of a charcoal adsorber bank by verifying that the charcoal adsorbers remove greater than or equal to 99% of a halogenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with ANSI N510-1975 while operating the system at a flow rate of 300 cfm \pm 10%.

CONTAINMENT SYSTEMS

3/4.6.5 SUBATMOSPHERIC PRESSURE CONTROL SYSTEM

STEAM JET AIR EJECTOR

LIMITING CONDITION FOR OPERATION

3.6.5.1 The inside and outside isolation valves in the steam jet air ejector suction line shall be closed.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

With the inside or outside isolation valve in the steam jet air ejector suction line not closed, restore the valve to the closed position within 1 hour or be in HOT SHUTDOWN within the next 12 hours.

SURVEILLANCE REQUIREMENTS

4.6.5.1.1 The steam jet air ejector suction line outside isolation valve shall be determined to be in the closed position by a visual inspection prior to increasing the Reactor Coolant System temperature above 200°F and at least once per 31 days thereafter if the valve is not locked, sealed or otherwise secured in the closed position.

4.6.5.1.2 The steam jet air ejector suction line inside isolation valve shall be determined to be in the closed position prior to increasing the Reactor Coolant System temperature above 200°F.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 28 AND NO. 9 TO

FACILITY OPERATING LICENSE NOS. NPF-4 AND NPF-7

VIRGINIA ELECTRIC AND POWER COMPANY

NORTH ANNA POWER STATION, UNITS NO. 1 AND NO. 2

DOCKET NOS. 50-338 AND 50-339

Introduction:

By letter dated July 30, 1980, the Virginia Electric and Power Company, (the licensee) requested an amendment in the form of changes to the Technical Specifications for Facility Operating Licenses NPF-4 and NPF-7 for the North Anna Power Station, Unit Nos. 1 and 2 (NA-1&2).

The requested changes involve: (1) channel functional testing for loss of power circuitry, (2) consistency in the Technical Specifications for the steam jet air ejector isolation valves, and (3) changes in the Technical Specifications regarding the licensee's management reorganization.

Because of the many occurring changes in the licensee's management reorganization after the July 30, 1980 request, these changes were held in abeyance until all of the management reorganization change requests were received for our evaluation.

We have now reviewed and evaluated the licensee's management reorganization and these matters will be issued in a separate, forthcoming amendment addressing the Administrative Controls, Section 6 of the Technical Specifications for NA-1&2.

Therefore, this safety evaluation addresses only the licensee's requested changes regarding items 1 and 2 above.

Discussion:

(1.) Channel Functional Testing for Loss of Power Circuitry:

Technical Specification 4.3.2.1.1 for NA-1&2 requires that a channel functional test be performed on a monthly basis for the Loss of Power circuitry.

The Loss of Power Circuitry at NA-1&2 has been designed to detect a total loss of offsite power or a degraded voltage condition. After initiation and a suitable time delay, emergency loads are separated from the offsite power source and loaded onto the onsite power system.

The licensee has requested a change in Table 4.3-2, Items 7a and 7b, to revise the existing requirement which specifies the performance of a channel functional test every 31 days. The change would require the performance of a channel functional test for each logic channel on a bi-monthly basis.

(2.) Steam Jet Air Ejector Isolation Valves:

By letter dated November 28, 1978, the NRC identified a number of concerns with containment purging during normal plant operations. By letter dated October 29, 1978 the NRC requested an interim commitment from licensees to limit purging and venting during normal operation.

Our review and evaluation of these matters identified a conflict in the applicability of Technical Specification 3.6.1.1 and 3.6.5.1. Technical Specification 3.6.1.1 requires that primary containment integrity be maintained when operating in Modes 4, 3, 2 and 1 (Hot Shutdown, Hot Standby, Startup and Power Operation, respectively). Technical Specification 3.6.5.1 requires that the steam jet air ejector isolation valves be closed when operating in Modes 1, 2, and 3, thus conflicting with Technical Specification 3.6.1.1.

We identified our concern to the licensee, and by letter dated July 30, 1980, the licensee proposed a change to Technical Specification 3.6.5.1 which would require the steam jet air ejector valves be closed in Modes 1, 2, 3 and 4.

Evaluation:

(1) The licensee's requested change to perform a channel functional test on a bi-monthly basis for each logic channel for Items 7a and 7b is consistent with the frequency interval stipulated for other logic testing specified in Table 4.3.2, Engineered Safety Feature Activation System Instrumentation Requirements. This change will enable the licensee to incorporate the surveillance procedures for the logic testing required in Table 4.3.2 and thus obtain a more complete evaluation of safety system logic operation on a bi-monthly basis. On this basis, we find the proposed change to be acceptable.

(2) The licensee has responded to our concern regarding containment purging and isolation during normal plant operations. The deletion of operation of the steam jet air ejector system during Mode 4 will remove a potential path of containment leakage in the unlikely event of a loss-of-coolant-accident (LOCA) in Mode 4 operation. On this basis we find the proposed change to be acceptable.

Environmental Consideration

We have determined that the amendment does 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 amendment involves an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 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 this amendment.

Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered and does not involve a significant decrease in a safety margin, the amendment does 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 this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Date: May 14, 1981

UNITED STATES NUCLEAR REGULATORY COMMISSIONDOCKET NOS. 50-338 AND 50-339VIRGINIA ELECTRIC AND POWER COMPANYNOTICE OF ISSUANCE OF AMENDMENTS TO FACILITY
OPERATING LICENSES

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendments No. 28 and No. 9 to Facility Operating License Nos. NPF-4 and NPF-7 issued to the Virginia Electric and Power Company (the licensee) which revised Technical Specifications for operation of the North Anna Power Station, Units No. 1 and No. 2 (the facility) located in Louisa County, Virginia. The amendments are effective within 3 days from the date of issuance.

The amendments revise the channel functional test frequency for Loss of Power Circuitry from 31 days to a bi-monthly interval and require the steam jet air ejector isolation valves to be closed in Modes 1, 2, 3 and 4.

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 was not required since these amendments do not involve a significant hazards consideration.

8105210499

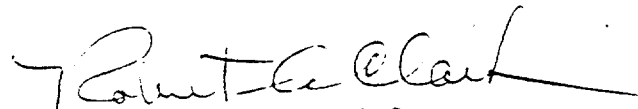
- 2 -

The Commission has determined that the issuance of the 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 July 30, 1980; (2) Amendment No. 28 and No. 9 to Facility Operating Licenses No. NPF-4 and NPF-7 and (3) the Commission's related Safety Evaluation. These items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D. C. 20555 and at the Board of Supervisor's Office, Louisa County Courthouse, Louisa, Virginia 23093 and at the Alderman Library, Manuscripts Department, University of Virginia, Charlottesville, Virginia 22901. A copy of items (2) and (3) may be obtained upon request to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Licensing.

Dated at Bethesda, Maryland this 14th day of May, 1981.

FOR THE NUCLEAR REGULATORY COMMISSION



Robert A. Clark, Chief
Operating Reactors Branch #3
Division of Licensing