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Docket No. 50-339

Mr. R. H. Leasburg
Vice President - Nuclear Operations
Virginia Electric and Power Company
Post Office Box 26666
Richmond, Virginia 23261

Dear Mr. Leasburg:

The Commission has issued the enclosed Amendment No. 21 to Facility Operating License No. NPF-7 for the North Anna Power Station, Unit No. 2 (NA-2). The amendment revises the implementation date of License Condition 2.C.(10) in response to your letters dated February 19, 1982 (Serial No. 084) and March 15, 1982 (Serial No. 084A). The amendment is effective as of its date of issuance.

The amendment revised the implementation date as specified in License Condition 2.C.(10) from the first to the second refueling outage for installing and having operational the backup overcurrent protection system for containment electrical penetrations. The amendment also provided for Limiting Conditions of Operation in the NA-2 Technical Specifications regarding deenergized circuits specified in your March 15, 1982 letter.

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

Sincerely,

Original signed by

Leon B. Engle, Project Manager
Operating Reactors Branch #3
Division of Licensing

Enclosures:

1. Amendment No. 21 to NPF-7
2. Safety Evaluation
3. Notice of Issuance

cc w/enclosures:
See next page



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DATE	4/12/82	4/12/82	4/12/82	4/14/82	4/ /82	4/15/82	

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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. 21
License No. NPF-7

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The applications for amendment by Virginia Electric and Power Company (the licensee) dated February 19, 1982 and March 15, 1982 comply 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 applications, 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.

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2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraphs 2.C.(2) and 2.C.(10) of Facility Operating License No. NPF-7 are hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 21, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

- (10) No later than October 11, 1980, VEPCO shall submit a design for the backup overcurrent protection system for containment electrical penetration for Commission review and approval. The backup system shall be installed and operational prior to resuming power operation following the second refueling outage.
3. This license amendment is effective as of 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 3, 1982

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 21 TO FACILITY OPERATING LICENSE NO. NPF-7

DOCKET NO. 50-339

Add the following pages to the Appendix "A" Technical Specifications as indicated. The new pages are identified by Amendment number and contain vertical lines indicating the area of change.

Pages

3/4 8-26

3/4 8-27

ELECTRICAL POWER SYSTEMS

NORMALLY DE-ENERGIZED POWER CIRCUITS

LIMITING CONDITION FOR OPERATION

3.8.2.7 All circuits shown in Table 3.8-3 shall be de-energized.

APPLICABILITY: MODES 1, 2, 3, 4.

ACTION:

With one or more of the circuits shown in Table 3.8-3 energized, de-energize the circuit(s) within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.8.2.7 At least once per 31 days, when operating in Modes 1-4, verify that all of the circuits in Table 3.8-3 are de-energized by noting the position of the appropriate circuit breakers.

TABLE 3.8-3

NORMALLY DE-ENERGIZED POWER CIRCUITS

<u>Penetration</u>	<u>DEVICE NUMBER AND LOCATION</u>	<u>LOAD</u>
2C-2 2D-2	480 V SWGR 2H Compartment N-16	Refueling and Maintenance Circuit
2F1-2	480 V MCC 2B1-1 Cubicle B4R	Reactor Cavity Manipulator Crane (2-MH-CR-5)
2F1-2	480 V MCC 2B1-1 Cubicle B4L	Fuel Transfer Control Cabinet (2-EI-CB-92)
2F1-2	480 V MCC 2B1-1 Cubicle C2R	RCC Fixture Change (2-RC-R-18)
11A-2	480 V MCC 2C1-1 Cubicle B3	RC Annulus Crane (2-MH-CR-19)
11B-2	480 V MCC 2C2-1 Cubicle A2R	Stud Tensioner, Portable Crane Receptacle
12E-2	480 V MCC 2B1-2 Cubicle C1L	RC Stage Basket
23C-2	480 V MCC 2B1-2 Cubicle A3	RC Polar Crane (2-MH-CR-01)
4A-2	480 V MCC 2H1-2S Cubicle G2	Loop 3 Hot Leg Stop Vv (MOV-2594) *
4A-2	480 V MCC 2H1-2S Cubicle H2	Loop 3 Cold Leg Stop Vv (MOV-2595)*
4B-2	480 V MCC 2H1-2S Cubicle H3	Loop 2 Hot Leg Stop Vv (MOV-2592)*
4B-2	480 V MCC 2H1-2S Cubicle J1	Loop 2 Cold Leg Stop Vv (MOV-2593)*
11A-2	480 V MCC 2H1-2S Cubicle F3	Loop 2 Bypass Stop Vv (MOV-2586)
11B-2	480 V MCC 2H1-2S Cubicle G1	Loop 3 Bypass Stop Vv (MOV-2587)
21E-2	480 V MCC 2H1-2S Cubicle F1	Loop 1 Bypass Stop Vv (MOV-2585)
22B-2	480 V MCC 2H1-2S Cubicle F2	Loop 1 Hot Leg Stop Vv (MOV-2590)*
22B-2	480 V MCC 2H1-2S Cubicle G3	Loop 1 Cold Leg Stop Vv (MOV-2591)*

* See Special Test Exception 3.10.4



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 21 TO FACILITY OPERATING LICENSE NO. NPF-7
VIRGINIA ELECTRIC AND POWER COMPANY
NORTH ANNA POWER STATION, UNIT NO. 2
DOCKET NO. 50-339

Introduction:

By letters dated February 19, 1982 and March 15, 1982, the Virginia Electric and Power Company (the licensee) requested a change to License Condition 2.C.(10) to Facility Operating License No. NPF-7 for the North Anna Power Station, Unit No. 2 (NA-2). The licensee's requested change would defer the completion of the secondary electrical protection for containment penetrations from the first to the second refueling outage.

License Condition 2.C.(10) to Facility Operating License NPF-7 (full power) issued August 21, 1980 stipulates:

"No later than October 11, 1980, VEPCO shall submit a design for the backup overcurrent protection system for containment electrical penetrations for Commission review and approval. The backup system shall be installed and operational prior to resuming power operation following the first refueling outage."

The licensee has already met the provisions of 2.C.(10) regarding the design for the backup overcurrent protection system for containment electrical penetrations. By letter dated October 10, 1980, the licensee submitted reports for (1) "Electrical Penetration Protection-Power Circuits (Primary and Secondary)" and (2) "Electrical Penetration Protection Control Circuits (Primary and Secondary)."

Our letter to the licensee dated November 10, 1980 stated that the NA-2 electrical fault protection for containment penetrations was in accordance with our requirements as specified in regulatory position C.1 of Regulatory Guide 1.62, Revision 2, "Electrical Penetration Assemblies in Containment Structures for Light Water Cooled Nuclear Power Plants." The basis for our conclusions was so stated in the enclosed Safety Evaluation to our letter.

The licensee's letter of February 19, 1982 stated that the present ten week first refueling outage for NA-2 has become impacted with the extensive time required for installing and testing circuits. In addition, other NRC requirements, all of which must be completed within the confined physical constraints of the NA-2 electrical penetration area and during the first refueling outage, have further impacted completion of required work. Therefore, the licensee has requested that the required implementation date for License Condition 2.C.(10) be extended from the first to the second NA-2 refueling outage.

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Our discussion and evaluation of the licensee's above request is presented below:

Discussion:

The licensee has stated that nine power circuits do not require secondary protection because the circuits are deenergized during Operating Modes 1, 2, 3 and 4 when containment integrity is required. Also an additional 38 control circuits already have adequate protection, and have been reviewed by the NRC staff and found acceptable.

The licensee has determined that the installation and testing time required for the remaining 293 circuits is approximately 25 weeks. The extensive time required is due in part to the quantity of circuits requiring modification and testing and the physical constraints of working in the electrical penetration area. Also, other required modifications in this confined area for the first refueling outage include NUREG-0737 Action Items for a Reactor Vessel Level Indication System, Post Accident Sampling System, and Reactor Vessel Head and Pressurizer Vent System. In addition, work in this area is further impacted by required periodic testing at electrical penetrations and emergency buses specified in the NA-2 Technical Specifications (TS).

Therefore, the licensee has stated that on an approximate basis, thirty (30) percent (88 circuits) will be completed during the first refueling outage; five (5) percent (14 circuits) during the fall 1982 maintenance outage; an additional thirty (30) percent (88 circuits) during cycle 2 power operations; and the final thirty-five (35) percent (103 circuits) completed during the second refueling outage in the spring of 1983.

Evaluation:

Based on the low probability of a Loss-of-Coolant Accident (LOCA) and an electrical penetration fault developing between first and second refueling outages which could threaten the mechanical integrity of an electrical penetration concurrent with failure of the protection device to interrupt the fault, deferment for the completion of the secondary protection of containment electrical penetrations to the second refueling outage is acceptable.

Installation of approximately thirty percent of the secondary protective devices during the first refueling outage and the additional five and thirty percent during the fall 1982 maintenance outage and cycle 2 power operations will provide added assurance with regard to integrity during this period.

In regard to the nine circuits which are normally deenergized, we require that a limiting condition of operation (LCO) be provided in the NA-2 TS to require that these circuits be maintained deenergized during all operating modes except cold shutdown and refueling.

By letter dated March 15, 1982 the licensee submitted a TS change request which complies with our requirements. This item is therefore resolved.

Based on the above, we conclude that the licensee has complied with the stipulations of License Condition 2.C.(10) to the extent practicable at this time and has shown good cause for requesting relief from the implementation clause of License Condition 2.C.(10).

We further conclude that for the period of time for which relief is granted, implementation will continue on an ongoing basis and thus provide additional assurance regarding secondary protection for the NA-2 containment electrical penetrations.

Therefore, License Condition 2.C.(10) is hereby revised to state that the completion date for the backup overcurrent protection system shall be installed and operational prior to resuming power operations following the second refueling outage.

Finally, the NA-2 TS are hereby revised to specify a LCO on the nine deenergized power circuits.

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 3, 1982

Principal Contributors:

J. Lazevnick
L. B. Engle

UNITED STATES NUCLEAR REGULATORY COMMISSIONDOCKET NO. 50-339VIRGINIA ELECTRIC AND POWER COMPANYNOTICE OF ISSUANCE OF AMENDMENT TO FACILITY
OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 21 to Facility Operating License No. NPF-7 issued to the Virginia Electric and Power Company (the licensee) for operation of the North Anna Power Station, Unit No. 2 (the facility) located in Louisa County, Virginia. The amendment is effective as of its date of issuance.

The amendment revises the time required for the licensee to implement modifications specified in License Condition 2.C.(10) regarding secondary protection of containment electrical penetrations. The approved extension in time from the first refueling outage to the second refueling outage is due to the impact of numerous NRC required actions all required to be completed within the physical constraints of the electrical penetration area during the first refueling outage. The amendment also revises the facility technical specifications by specifying Limiting Conditions of Operation for certain deenergized power circuits when containment integrity is required during operating Modes 1, 2, 3 and 4.

The applications for the amendment comply 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 Chapter I, which are set forth in the license amendment. Prior public notice of this amendment was not required since this amendment does not involve a significant hazards consideration.

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The Commission has determined that the issuance of this amendment 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 this amendment.

For further details with respect to this action, see (1) the applications for amendment dated February 19, 1982 and March 15, 1982; (2) Amendment No. 21 to Facility Operating License No. NPF-4; 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 Supervisors 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 3rd day of May, 1982.

FOR THE NUCLEAR REGULATORY COMMISSION



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