

August 3, 1989

Docket Nos. 50-338  
and 50-339

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Mr. W. L. Stewart  
Senior Vice President - Power  
Virginia Electric and Power Company  
5000 Dominion Blvd.  
Glen Allen, Virginia 23060

Dear Mr. Stewart:

SUBJECT: NORTH ANNA UNITS 1 AND 2 (NA-1&2) - PROPOSED CHANGE TO  
TECHNICAL SPECIFICATIONS (TS) REGARDING SLAVE RELAY TESTING  
(TAC NOS. 73236 AND 73237)

The Commission has forwarded the enclosed "Notice of Consideration of Issuance of Amendments to Facility Operating Licenses and Proposed No Significant Hazards Consideration Determination and Opportunity for Hearing" to the Office of the Federal Register for publication.

This notice relates to your application dated July 12, 1989, as supplemented July 26, 1989, to revise the NA-1&2 TS by revising the definition of slave relay testing and by clarifying the test requirements for Engineered Safeguards Features (ESF) slave relays.

Sincerely,

/s/

Leon B. Engle, Project Manager  
Project Directorate II-2  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Enclosure:  
As stated

cc w/enclosure:  
See next page

LA:PD22  
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Mr. W. L. Stewart  
Virginia Electric & Power Company

North Anna Power Station  
Units 1 and 2

cc:

Mr. William C. Porter, Jr.  
County Administrator  
Louisa County  
P.O. Box 160  
Louisa, Virginia 23093

C. M. G. Buttery, M.D., M.P.H.  
Department of Health  
109 Governor Street  
Richmond, Virginia 23219

Michael W. Maupin, Esq.  
Hunton and Williams  
P. O. Box 1535  
Richmond, Virginia 23212

Regional Administrator, Region II  
U.S. Nuclear Regulatory Commission  
101 Marietta Street N.W., Suite 2900  
Atlanta, Georgia 30323

Mr. W. T. Lough  
Virginia Corporation Commission  
Division of Energy Regulation  
P. O. Box 1197  
Richmond, Virginia 23209

Mr. G. E. Kane, Manager  
North Anna Power Station  
P.O. Box 402  
Mineral, Virginia 23117

Old Dominion Electric Cooperative  
c/o Executive Vice President  
Innsbrook Corporate Center  
4222 Cox Road, Suite 102  
Glen Allen, Virginia 23060

Mr. J. P. O'Hanlon  
Vice President - Nuclear Services  
Virginia Electric and Power Company  
5000 Old Dominion Blvd.  
Glen Allen, Virginia 23060

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

Mr. R. F. Saunders  
Manager - Nuclear Licensing  
Virginia Electric and Power Company  
5000 Old Dominion Blvd.  
Glen Allen, Virginia 23060

Mr. Patrick A. O'Hare  
Office of the Attorney General  
Supreme Court Building  
101 North 8th Street  
Richmond, Virginia 23219

Senior Resident Inspector  
North Anna Power Station  
U.S. Nuclear Regulatory Commission  
Route 2, Box 78  
Mineral, Virginia 23117

UNITED STATES NUCLEAR REGULATORY COMMISSION  
VIRGINIA ELECTRIC AND POWER COMPANY  
DOCKET NOS. 50-338 AND 50-339  
NOTICE OF CONSIDERATION OF ISSUANCE OF AMENDMENTS TO  
FACILITY OPERATING LICENSES AND PROPOSED NO SIGNIFICANT HAZARDS  
CONSIDERATION DETERMINATION AND OPPORTUNITY FOR HEARING

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of amendments to Facility Operating License Nos. NPF-4 and NPF-7, issued to Virginia Electric and Power Company (the licensee) for operation of the North Anna Power Station, Units No. 1 and No. 2 (NA-1&2) located in Louisa County, Virginia.

The proposed changes would revise the NA-1&2 Technical Specifications (TS) 3/4 3.21 and the TS definition of slave relay testing and clarify the testing requirements for Engineered Safeguards Features (ESF) slave relays. The proposed changes would also add a requirement to test the selected ESF protection system slave relays on a quarterly test frequency. This change is consistent with the latest revision of the Westinghouse TS. The proposed changes also exclude from the quarterly testing requirements those relays which satisfy the following criteria: (1) a single failure in the Safeguards Test Cabinet circuitry would cause an inadvertent Reactor Protection System (RPS) or ESF actuation, (2) the test would adversely affect two or more components in one ESF system or two or more ESF systems, and (3) the test would create a transient (reactivity, thermal, or hydraulic) condition on the Reactor Coolant System (RCS).

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These criteria were established following an extensive evaluation of the capability of NA-1&2 to perform online testing of slave relays. The evaluation referenced the material submitted to the NRC dated May 8, 1989, and also included a technical assessment and failure analysis of the installed hardware that would be used for testing the relays. In addition, the system effects, operational impact, and safety significance of testing these relays were evaluated. Based on the results of this evaluation, it was determined that the additional assurance of equipment operability provided by testing all the relays online would be negated by the adverse consequences such that the overall margin of safety would be reduced.

The testing of some slave relays online would require significant plant manipulations, abnormal configurations, and remove from service various equipment for the duration of the relay test. By imposing off-normal plant manipulations and configurations, there exists some increased probability of human error or component malfunction which may lead to more significant events. In addition, the time to complete this type of testing is expected to take several 8-hour shifts, if not more. For example, the testing of one relay would take over 8 hours to perform. If an actual demand was required during this time, some equipment would not be available to perform its intended safety function. The safety implications of this are significant when considering that a single failure on the opposite train could result in a total loss of an ESF safety function. This could also lead to a more safety significant event and could cause the NA-1&2 design basis and accident analysis to be exceeded.

Finally, the additional risk in testing all the slave relays online is not justified by the failure analysis, operational impact, and safety significance since there presently exists adequate design features, sufficient, safe, and proven testing methods, and administrative controls to assure proper equipment operation.

Before issuance of the proposed license amendments, the Commission will have made findings required by the Atomic Energy Act of 1954, as amended (the Act) and the Commission's regulations.

The Commission has made a proposed determination that the request for amendments involves no significant hazards considerations. Under the Commission's regulations in 10 CFR 50.92, this means that operation of the facility in accordance with the proposed amendments would not (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety. A summary of the licensee's evaluation of the above three criteria is provided below:

1. The proposed changes are based on the licensee's evaluation of transients that could occur from testing ESF relays at power. Many of the ESF relay tests presently required by the NA-1&2 TS create a significant potential for transients which is unacceptable to the licensee. The proposed changes would reduce the potential for causing transients that could challenge safety systems when operating NA-1&2 at power. Therefore, the licensee finds that limiting the at-power relay tests to a select group and decreasing the frequency of testing will not involve a significant increase in the probability or consequences of an accident previously

evaluated. In addition, by not testing all of the slave relays at power and placing the plant and equipment in off-normal configurations, the consequences of an accident or the probability of a malfunction would be reduced.

2. The majority of the ESF relays that were evaluated for online testing involved unusual and complex systems manipulations for accomplishing the testing. These system alignments were considered by the licensee to be unusual and potentially unsafe if conducted during power operations. The limited number of relays selected for testing at power were chosen to ensure that the potential impact on plant operations and the possibility of inducing some type of plant transient is minimized. Therefore, the licensee concludes that the requested changes do not create the possibility of a new or different kind of accident previously evaluated. In addition, the licensee finds the proposed changes reduce the possibility of a new or different kind of accident from those accidents previously evaluated.
3. The licensee's evaluation supporting the proposed changes provides a thorough evaluation addressing the overall plant operational margin of safety. The submittal, as proposed, ensures that overall plant operational safety has been preserved and may have been enhanced by the rigorous evaluation of the potential failure modes and consequences related to ESF relay testing while at power. Therefore, the licensee concludes that the margin of safety has not been decreased by the proposed changes. In addition, the testing of only selected relays provides additional assurance of equipment operability without subjecting the unit to adverse conditions such that the overall margin of safety is increased.

Therefore, based on the licensee's evaluation of the proposed changes as presented above, the Commission has made a proposed determination that the amendment request involves no significant hazards considerations.

The Commission is seeking public comments on this proposed determination. Any comments received within 30 days after the date of publication of this notice will be considered in making any final determination. The Commission will not normally make a final determination unless it receives a request for a hearing.

Written comments may be submitted by mail to the Regulatory Publications Branch, Division of Freedom of Information and Publications Services, Office of Administration and Resources Management, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, and should cite the publication date and page number of this FEDERAL REGISTER notice. Written comments may also be delivered to Room P-223, Phillips Building, 7920 Norfolk Avenue, Bethesda, Maryland from 7:30 a.m. to 4:15 p.m. Copies of written comments received may be examined at the NRC Public Document Room, the Gelman Building, 2120 L Street, N.W., Washington, D.C. The filing of requests for hearing and petitions for leave to intervene are discussed below.

By September 8, 1989 , the licensee may file a request for a hearing with respect to issuance of the amendments to the subject facility operating licenses and any person whose interest may be affected by this proceeding and who wishes to participate as a party in the proceeding must file a written petition for leave to intervene. Request for a hearing and petitions for leave to intervene shall be filed in accordance with the Commission's "Rules of Practice for Domestic Licensing Proceedings" in 10 CFR Part 2. If a request for a hearing or petition for leave to intervene is filed by the above

date, the Commission or an Atomic Safety and Licensing Board, designated by the Commission or by the Chairman of the Atomic Safety and Licensing Board Panel, will rule on the request and/or petition and the Secretary or the designated Atomic Safety and Licensing Board will issue a notice of hearing or an appropriate order.

As required by 10 CFR §2.714, a petition for leave to intervene shall set forth with particularity the interest of the petitioner in the proceeding, and how that interest may be affected by the results of the proceeding. The petition should specifically explain the reasons why intervention should be permitted with particular reference to the following factors: (1) the nature of the petitioner's right under the Act to be made party to the proceeding; (2) the nature and extent of the petitioner's property, financial, or other interest in the proceeding; and (3) the possible effect of any order which may be entered in the proceeding on the petitioner's interest. The petition should also identify the specific aspect(s) of the subject matter of the proceeding as to which petitioner wishes to intervene. Any person who has filed a petition for leave to intervene or who has been admitted as a party may amend the petition without requesting leave of the Board up to fifteen (15) days prior to the first prehearing conference scheduled in the proceeding, but such an amended petition must satisfy the specificity requirements described above.

Not later than fifteen (15) days prior to the first prehearing conference scheduled in the proceeding, a petitioner shall file a supplement to the petition to intervene which must include a list of the contentions which are sought to be litigated in the matter, and the bases for each contention set forth with reasonable specificity. Contentions shall be limited to matters



within the scope of the amendments under consideration. A petitioner who fails to file such a supplement which satisfies these requirements with respect to at least one contention will not be permitted to participate as a party.

Those permitted to intervene become parties to the proceeding, subject to any limitations in the order granting leave to intervene, and have the opportunity to participate fully in the conduct of the hearing, including the opportunity to present evidence and cross-examine witnesses.

If a hearing is requested, the Commission will make a final determination on the issue of no significant hazards considerations. The final determination will serve to decide when the hearing is held.

If the final determination is that the request for amendments involves no significant hazards considerations, the Commission may issue the amendments and make it effective, notwithstanding the request for a hearing. Any hearing held would take place after issuance of the amendments.

If a final determination is that the amendments involve significant hazards considerations, any hearing held would take place before the issuance of any amendments.

Normally, the Commission will not issue the amendments until the expiration of the 30-day notice period. However, should circumstances change during the notice period such that failure to act in a timely way would result, for example, in derating or shutdown of the facility, the Commission may issue the license amendments before the expiration of the 30-day notice period, provided that its final determination is that the amendments involve no significant hazards considerations. The final determination will consider all public and State comments received. Should the Commission take

this action, it will publish a notice of issuance and provide for opportunity for a hearing after issuance. The Commission expects that the need to take this action will occur very infrequently.

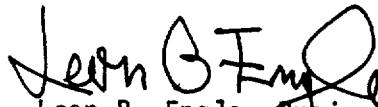
A request for a hearing or a petition for leave to intervene must be filed with the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: Docketing and Service Branch, or may be delivered to the Commission's Public Document Room, the Gelman Building, 2120 L Street, N.W., Washington, DC, by the above date. Where petitions are filed during the last ten (10) days of the notice period, it is requested that the petitioner promptly so inform the Commission by a toll-free telephone call to Western Union at 1-(800) 325-6000 (in Missouri 1-(800) 342-6700). The Western Union operator should be given Datagram Identification Number 3737 and the following message addressed to Herbert N. Berkow: (petitioner's name and telephone number), (date petition was mailed), (plant name), and (publication date and page number of this FEDERAL REGISTER notice). A copy of the petition should also be sent to the Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, DC 20555, and to Michael W. Maupin, Esq., Hunton and Williams, P.O. Box 1535, Richmond, Virginia 23212.

Nontimely filings of petitions for leave to intervene, amended petitions, supplemental petitions and/or requests for hearing will not be entertained absent a determination by the Commission, the presiding officer or the Atomic Safety and Licensing Board designated to rule on the petition and/or request, that the petitioner has made a substantial showing of good cause for the granting of a late petition and/or request. That determination will be based upon a balancing of the factors specified in 10 CFR 2.714(a)(1)(i)-(v) and 2.714(d).

For further details with respect to this action, see the application for amendment dated July 12, 1989, as supplemented July 26, 1989, which are available for public inspection at the Commission's Public Document Room, the Gelman Building, 2120 L Street, N.W., Washington, D.C. and at the Local Public Document Room located at the Alderman Library, Manuscripts Department, University of Virginia, Charlottesville, Virginia 22901.

Dated at Rockville, Maryland, this 3rd day of August 1989.

FOR THE NUCLEAR REGULATORY COMMISSION



Leon B. Engle, Project Manager  
Project Directorate II-2  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation