

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

March 26, 1993

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

Serial No.: 93-183
NAPS/JHLR3
Docket No.: 50-339
License No.: NPF-7

Gentlemen:

VIRGINIA ELECTRIC AND POWER COMPANY
NORTH ANNA POWER STATION UNIT NO. 2
REQUEST FOR ENFORCEMENT DISCRETION

This letter requests enforcement discretion for North Anna Unit 2 from a Technical Specification surveillance requirement involving the testing of reactor trip system instrumentation. The need for enforcement discretion was identified during our programmatic review of Technical Specification surveillance requirements as described in our letters to you dated May 14, 1992 (Serial No. 92-281) and September 8, 1992 (Serial No. 92-482). This programmatic review was also described in detail during a February 25, 1993 meeting in the NRC Region II office regarding North Anna self-assessment follow-up activities. A discussion of the affected surveillance requirement and plant systems, basis and duration of the enforcement discretion, requested approval date, safety impact and potential consequences of the proposed action, significant hazards consideration, and environmental consequences are discussed in the following paragraphs. This request was discussed with you on a conference call held March 26, 1993.

DISCUSSION

Technical Specification 4.3.1.1.1, Table 4.3-1, Item 19, requires that the manual Engineered Safety Feature (ESF) functional input to the reactor trip system instrumentation be verified operable every 18 months. On March 25, 1993, at 1526 hours, it was determined that the testing had not been properly performed. The requirements of Technical Specification 4.0.3 were immediately invoked which permits conducting the required surveillance test within the next 24 hours. The 24 hour interval ends at 1526 hours on Friday, March 26, 1993.

Two independent ESF signal paths result in a reactor trip. The first is automatically generated in the Solid State Protection System (SSPS) logic by any of the four automatic safety injection signals. This signal path has been adequately tested at least once per 62 days on a staggered test basis as required by the Technical Specifications.

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The second signal path utilizes the two manual safety injection switches in the Control Room. Each of these switches directly energizes the shunt trip coils of both trains of the reactor trip breakers and bypass breakers. This signal path does not pass through the SSPS logic and is designed as a backup to the automatic circuit. Safety Injection Functional Test procedure, PT-57.4, is used to verify the operability of ESF equipment once every 18 months by manual safety injection initiation. While reviewing PT-57.4, it was determined that the output from one manual safety injection switch to one bypass breaker had not been functionally tested and the output from the redundant manual safety injection switch to both reactor trip breakers and the other bypass breaker had not been tested.

An evaluation was performed to determine the possibility of testing the manual switches for safety injection input from ESF that provide input to the reactor trip breakers during power operation. Testing at power is not practical. The extensive lifting of leads necessary to perform the testing would require entry into Technical Specification 3.0.3 and would render the manual safety injection capability and subsequent reactor trip inoperable. In addition, due to the location of the leads, testing could initiate a reactor trip and/or safety injection.

This surveillance test must be performed while the unit is in a shutdown condition. Therefore, enforcement discretion is requested to allow for continued operation of North Anna Unit No. 2 until the next refueling outage which is currently scheduled to begin in September 1993. Specifically, it is requested that the manual ESF functional test of the safety injection input to the reactor trip breakers be excluded from Technical Specification surveillance requirement 4.3.1.1.1, Table 4.3-1 for the remainder of the operating cycle. NRC approval is requested by 1526 hours on March 26, 1993.

SAFETY IMPACT AND POTENTIAL CONSEQUENCES

Exercising enforcement discretion regarding the requirement to perform the manual ESF functional test of the safety injection input to the reactor trip breakers for the remainder of the operating cycle does not pose a significant safety impact. The circuitry is designed as a backup to the automatic reactor trip and safety injection signals and to the manual reactor trip circuitry. Each of these primary methods for tripping the reactor have been completely and satisfactorily tested in accordance with the Technical Specification surveillance requirements. Also, the testing satisfactorily completed for the manual safety injection circuitry for reactor trip was sufficient to assure that a reactor trip would be obtained even though all functions of the circuitry were not tested. In addition, no credit is taken for the manual ESF functional test of the safety injection input to the reactor trip breakers in the plant's safety analysis. The accident analysis and Emergency Operating Procedures (EOPs) require that the operator verify that a reactor/turbine trip have occurred before initiating a manual safety injection in the event of an emergency. In the event of a failure of the reactor trip circuitry, the EOPs do not utilize the safety injection-reactor trip signal. The operators are directed to shutdown the reactor by manually tripping the reactor using the reactor trip switch or by inserting the control rods. Performing the testing at power is not practical because it would 1) render the manual safety injection capability and subsequent reactor trip inoperable and 2) cause an increased potential for an inadvertent reactor trip and safety injection due to the lifting of leads.

SIGNIFICANT HAZARDS CONSIDERATION

The proposed enforcement discretion for excluding the manual ESF functional test of the safety injection input to the reactor trip breakers, as required by Technical Specification 4.3.1.1.1, Table 4.3-1, Item 19, has been evaluated against the criteria in 10CFR50.92. Based on that evaluation, we have determined that no significant hazards consideration exists. A summary of our evaluation is provided below.

1. The request does not involve a significant increase in the probability or consequences of an accident previously evaluated. No credit is taken for the manual ESF functional test of the safety injection input to the reactor trip breakers in the plant's safety analysis or EOPs. The accident analysis and EOPs require that the operators verify that a reactor/turbine trip have occurred before initiating a manual safety injection in the event of an emergency. Not testing the manual safety injection input to the reactor trip breakers during the interval, until the unit shuts down and enters a refueling outage, does not significantly affect the performance of the reactor trip system. The surveillance test must be performed when the unit is shutdown. Performing the surveillance test during power operation is not practical.
2. The request does not create the possibility of a new or different kind of accident from any accident previously evaluated. Since enforcement discretion of the surveillance requirement will require no hardware modifications (i.e., alterations to the plant configuration), operation of the facility without those surveillance requirements does not create the possibility for any new or different kind of accident which has not already been evaluated in the Updated Final Safety Analysis Report (UFSAR).

Exercising discretion regarding the requirement for performing the manual ESF functional test of the safety injection input to the reactor trip breakers will not result in any physical alteration to any plant system and there will not be a change in the method by which any safety related system performs its function. The design and operation of the reactor trip system remains unchanged.

3. The request does not involve a significant reduction in the margin of safety. The output from one manual safety injection switch to both reactor trip breakers and one bypass breaker, and the output from the redundant manual safety injection switch to one bypass breaker have been functionally tested satisfactorily. In addition, the primary methods for tripping the reactor, which are the automatic reactor trip, the manual reactor trip, and the automatic safety injection circuitry, are fully operable and have been functionally tested satisfactorily in accordance with the Technical Specification surveillance requirements. If manual safety injection is required, EOPs require that the operators manually initiate both trains of safety injection. Therefore, the current testing assures a backup reactor trip signal is generated when the operators manually initiate both trains of safety injection in accordance with the EOPs. In addition, no credit is taken for the manual ESF functional test of the safety injection input to the reactor trip breakers in the plant's safety analysis. The accident analysis and EOPs require that the operator verify that a reactor/turbine trip have occurred before initiating a manual safety injection in the event of an emergency. In the event of a failure of the reactor trip circuitry, the

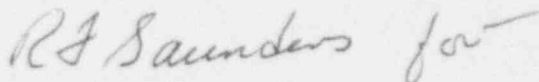
EOPs do not utilize the safety injection-reactor trip signal. The operators are directed to shutdown the reactor by manually inserting the control rods.

ENVIRONMENTAL CONSEQUENCES

NRC's exercise of enforcement discretion will not change the types of any effluents that may be released offsite, nor create a significant increase in individual or cumulative occupational radiation exposure. The request involves only surveillance requirements. Therefore, the consequences of accidents related to or dependent on the manual ESF functional test of the safety injection input to the reactor trip breakers remain unaffected.

This request has been reviewed and approved by the Station Nuclear Safety and Operating Committee. A Technical Specification change will be submitted by March 31, 1993, to exclude the manual ESF functional test of the safety injection input to the reactor trip breakers for the remainder of the North Anna Unit 2 operating cycle. In the event an opportunity prior to North Anna 2's next scheduled refueling outage in September 1993 occurs during which this testing can be safely accomplished, the appropriate test to meet the Technical Specification surveillance requirement will be conducted. If you have any questions or require additional information, please contact us.

Very truly yours,



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