

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

July 28, 1989

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United States Nuclear Regulatory Commission
Region II
101 Marietta Street, N.W.
Suite 2900

Serial No. 89-082B
SPS/CMM
Docket No. 50-281
License No. DPR-37

Gentlemen:

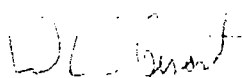
VIRGINIA ELECTRIC AND POWER COMPANY
SURRY POWER STATION UNIT 2
OPERATIONAL READINESS ASSURANCE PROGRAM
REQUEST FOR NRC CONCURRENCE

Pursuant to our discussions and the technical meeting held at your Region II offices on July 20, 1989, the scope of the Unit 2 Operational Readiness Program is provided in Attachment 1. Specifically, Attachment 1 provides the proposed Unit 2 plan for system walkdowns, electrical separation and logic testing. The completion of the Unit 2 restart plans outlined herein will provide the basis for a final resolution of Items 6 and 7 of the March 9, 1989 Confirmation of Action Letter with respect to Unit 2 restart.

The information in this letter supersedes the Unit 2 program scope outlined in our letter dated July 7, 1989 (Serial No. 89-082A).

Should you have any questions, please contact us.

Very truly yours,



W. L. Stewart
Senior Vice President - Power

Attachment

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

Mr. W. E. Holland
NRC Senior Resident Inspector
Surry Power Station

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ATTACHMENT 1

UNIT 2
OPERATIONAL READINESS
ASSURANCE PROGRAM

UNIT 2 OPERATIONAL READINESS ASSURANCE PROGRAM

System Walkdowns

Objective

To ensure that equipment is located in the proper train in accordance with the station drawings. In addition, the walkdown process includes identification and evaluation of apparent discrepant conditions involving equipment structural arrangement, integrity and identification.

Unit 2 Walkdown Program

The Unit 2 motor operated valves that may be required to operate for mitigating the consequences of an accident, as identified by a review of the emergency procedures, have been verified to be located in the proper train. Common system walkdowns were completed prior to Unit 1 restart. Approximately 40% of the Unit 2 walkdowns are complete. Prior to a Unit 2 restart, the systems in containment will be examined by walkdown.

Discrepancies identified to date and by the in-containment walkdowns will be dispositioned in accordance with Engineering Work Request (EWR) 88-584.

The safety related systems outside of containment will be prioritized and walkdowns will be performed by system engineers under a new station procedure and completed by December 31, 1989.

Electrical Separation Verification Testing

Objective

To ensure that train separation exists for safeguards equipment with respect to its source of electrical power.

Unit 2 Testing

The 4160/480V Switchgear and 480V MCCs, 120 VAC vital bus panels and 125 VDC panels will not be completely de-energized during Unit 2 testing. De-energizing the 4160/480V buses is not required based on previous bus outages using approved procedures. These procedures are based on and validate the electrical one line diagrams which show that train separation exists. With both units in cold shutdown, electrical separation verification testing was more readily achievable. With Unit 1 at power, the unit would be placed in various Technical Specification Limiting Conditions for Operation such as the loss of auxiliary feedwater cross connect capability and one train of heat tracing which is powered from Unit 2 J Bus.

The basic testing process is outlined below:

- For 120 VAC vital bus panels, each breaker will be cycled on/off to verify the loads.
- For 125 VDC panels, the breakers will not be cycled. An initial DC voltage will be taken at each test point. The battery powering that DC bus will then be placed on an equalizing charge and the voltage measured to ensure an appropriate increase has occurred at each test point. Opposite train DC bus voltage and ESF circuits will be monitored to ensure voltage does not change.

The Unit 2 test scope will only be performed on the "B" train (2J) this outage. The research phase of a test procedure for "A" train (2H) will be completed prior to Unit startup and testing will be performed at the next refueling outage. Drawing changes identified during the test procedure research will be completed 90 days after Unit 2 startup.

Pump and valve breaker power supply verification testing will be conducted on a representative sample selected from both "A" and "B" trains. The sample will consist of 60 components. Zero discrepancies within the sample will provide a 95% confidence level that less than 5% discrepancies exist for the population. The sample size will be increased if discrepancies are found.

Logic Testing

Objective

The purpose of these Special Tests (STs) is to functionally test the operation of Safeguards equipment after the manual injection of an Engineered Safeguards Feature (ESF) signal (Hi Hi CLS, Hi CLS, SI) and bus undervoltage (UV) signal. The UV signal is injected at different times to ensure that the load sequencing modification operates properly and does not affect the original design of the safeguards equipment.

Unit 2 ESF Testing

- ESF Actuation With Instantaneous Bus UV

The test consists of an ESF actuation with an instantaneous bus undervoltage. During this test the Emergency Diesel Generator (EDG) starts and picks up the emergency bus load. Pump breakers are placed in the test position and therefore do not actually run.

- ESF Actuation With Five Minute UV Delay

The test consists of an ESF actuation with an UV signal five minutes later. During this test, the pumps are run in the recirculation mode except for the Inside Recirculation Spray Pumps. The EDG starts and picks up the emergency bus load after the UV signal.