

# Vepco

VIRGINIA ELECTRIC AND POWER COMPANY

December 28, 1979

Mr. James P. O'Reilly, Director  
Office of Inspection and Enforcement  
U.S. Nuclear Regulatory Commission  
Region II  
101 Marietta Street, Suite 3100  
Atlanta, Georgia 30303

Serial No. 1179  
PO/WRC:11r  
Docket No. 50-338  
License No. NPF-4

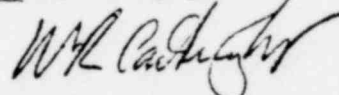
Dear Mr. O'Reilly:

Per telephone request from L. Engle (DOR) and E. Webster (IE:RII), we have enclosed attachments concerning the status of refueling requirements.

The attachments represent identified commitments and does not include requirements (i.e., required equipment to meet LCO's, required surveillance, etc.) that must be met in order to comply with the Technical Specifications.

If questions arise concerning this information please call.

Very truly yours,



W. R. Cartwright  
Station Manager

WRC/11r

Enclosures (3 copies)

cc: Mr. Victor Stello, Director  
Office of Inspection and Enforcement

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NORTH ANNA UNIT 1 REFUELING OUTAGE REQUIREMENTS

ITEM	SOURCE	STATUS	REMARKS
RCS Overpressure Protection	NPF-4 License Amendment 3 Item 2.D(3)f	DC-78-44 field work complete and Technical Review complete by SNSOC. NRC has completed package for review (Kidd).	Before fill and vent. System in use 12-24-79.
Administrative Procedures, Controls and Fire Brigade Program	NPF-4 License Amendment 3 Item 2.D(3)f	Fire Protection Program Implemented 12-21-79	
Containment Isolation Valves Qualified Limit Switches	NPF-4 License Amendment 3 Item 2.D(3)h and NRC Inspection Item 78-14-02	DC-78-70 Hardware complete. One valve needs testing prior to mode 4.	Expect test completion 12-29-79.
Degraded Bus Voltage Scheme	NRC letter of 03-20-79	DC-78-69 field work complete and Technical Review complete by SNSOC. NRC has completed package for review (Kidd).	
Neutron Shielding	LER/RO 78-33 and NRC Inspection Item 78-14-04	DC-79-S07 field work complete and Technical Review complete by SNSOC. NRC review complete	Need to conduct radiation surveys after startup.
Pipe Caps on Spare Containment Penetrations	FSAR LER/RO 78-122 and NRC Inspection Item 79-09-01	DC-79-S10 field work complete and Technical Review complete by SNSOC. NRC review complete	
Control Room Bottled Air System Modification	LER/RO 79-128 and NRC Inspection Item 79-39-03	DC-79-S70 Hardware installed. Testing will be complete prior to Mode 4.	Expect test completion 12-30-79.
ARS Pipe Support Modifications	LER/RO 79-151	DC-79-S72 as known field work complete.	See Vepco letter Serial No. 1152
Obtain Snubber Lockup and Bleed Rate Data	NRC Inspection Item 79-16-04	Complete Data being reviewed by NRC (Kidd).	
Inside Recirc Spray Motor Rearings	LER/RO 79-43 and NRC Inspection Item 79-20-01	Maintenance and testing complete. NRC has completed their review.	

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NORTH ANNA UNIT 1 REFUELING OUTAGE REQUIREMENTS

ITEM	SOURCE	STATUS	REMARKS
Replace Unqualified SOV's in Primary Sampling System	IEB 79-01 LER/RO 79-65 and NRC Inspection Item 79-20-06	DC-79-S50 field work complete and Technical Review complete by SNSOC. NRC has completed package for review (Kidd).	
SW Radiation Monitoring Pumps Tripped during Surveillance Testing	LER/RO 79-133	Pumps were repaired. Need to be tested prior to Mode 4.	Test completion expected 12-31-79.
Seismic Qualification of Central and Safeguards Ventilation Systems	LER/RO 79-149		See Vepco letter Serial No. 1160.
Main Steam Pressure Transmitter Tubing Swapped	LER/RO 79-142	Piping corrected. All ESF Sensors checked that send a signal to SSPS. Complete	
Nonconservative Negative Rate Trip	LER/RO 79-152	Revised station curves. Procedures will be revised on or about 01-02-80	Mode 2 item
Nonconservative Power Distribution and Rod Worths	LER/RO 79-153	Revised station curves. Procedures will be revised on or about 01-02-80.	Mode 2 item
Nonconservative Calculations for Fuel Clad Swelling	LER/RO 79-143	Fq will be limited to 2.10 per Technical Specifications. (Pending OL Amendment for restart)	Mode 2 item and Tech Spec item
CDA and SI Reset	LER/RO 79-141		See Attachment #1.
Repair 1-FW-111 (Leaking)	LER/RO 79-40	Valve checked - no problems found.	
Reactor Trip Breaker P4 Contacts (Testing)	LER/RO 79-138	Testing will be completed prior to Mode 2.	

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NORTH ANNA UNIT 1 REFUELING OUTAGE REQUIREMENTS

ITEM	SOURCE	STATUS	REMARKS
Repair Equipment that did not Function during CDA Functional Test	LER/RO 79-134	Equipment repairs being worked. Equipment will be functionally tested prior to Mode 4.	Testing completion expected 12-31-79.
Repair Equipment that did not Function during SI Functional Test	LER/RO 79-132	Equipment repairs being worked. Equipment will be functionally tested prior to Mode 4.	Testing completion expected 12-31-79.
Repair 1-TS-MS-111A and B	LER/RO 79-117 LER/RO 79-130	Repairs complete.	
Reset RS and QS Timers	LER/RO 79-135	All timers listed in Tech Spec Table 4.8-1 will be reset. Partially complete.	Expect completion 12/31/79.
Quadrant Power Tilt - Inspect Rodlets	LER/RO 79-127	Rodlets were inspected. Package ready for NRC review.	No startup restraint.
Inspect and Repair #2 Reheat Right Steam Stop	LER/RO 79-126	Repair complete. Valve will be tested.	No startup restraint.
FI-1485 Inoperable - Repair Isolation Valves	LER/RO 79-115	Repairs complete.	
Repair 1-RS-P-3A Seal Leak	LER/RO 79-78	Repairs Complete.	
Diesel Generator Muffler Modification	LER/RO 79-5	DC-79-S14 field work complete and Technical Review complete by SNSOC. NRC has completed package for review (Kidd).	
Feedwater Weld Inspections	IEB 79-13	Complete - satisfactory.	

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NORTH ANNA UNIT 1 REFUELING OUTAGE REQUIREMENTS

ITEM	SOURCE	STATUS	REMARKS
Stagnated, Borated Oxygenated Systems Inspection	IEB 79-17	Conducting visual inspections.	
24 Hour Run of Emergency Diesels	IEB 79-23	Testing completed 12-21-79.	
Revise Emergency Operating Procedures	IEB 79-06 Response Vepco letter Ser. No. 709A	Complete.	
AFW Pump Run	NRR letter of 09-28-79	Motor driven pump runs complete. Will complete turbine driven pump run in Mode 3.	
AFW Valve Lineup Independent Verification - Procedure	NRR letter of 09-28-79	Valve lineups revised to require independent verification.	
Natural Circulation Cooling Procedure	Vepco letter Ser. No. 796 of 11-26-79	Included in revised emergency procedures.	
Valve and Operator Weight Verifications	IEB 79-14	DC-79-S74 known field work will be complete about 01-01-80.	
North Anna September 25, 1979 Event 17 Questions	NRC letter of 09-28-79	Response complete 11-26-79.	
Service Water to Charging Pumps Modification	LER/RO 79-8	DC-79-S09 field work complete and Technical Review complete by SNSOC. NRC review complete	
Secondary Chemistry Control	Amendment to NPF-4	Procedures complete.	

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During a review of system operation following the plant trip at North Anna Power Station Unit 1 on September 25, 1979, certain systems were found to operate in a manner inconsistent with the Final Safety Analysis Report (FSAR).

Two areas of concern were discovered. First, protective functions not going to completion following reset of a safeguard signal, and second, safeguards equipment automatically returning to the nonsafety mode following reset of the safeguards actuation signal.

This was reported to the NRC in LER 79-141.

The following systems have been or will be modified prior to Unit 1 startup from the present refueling shutdown:

1. Control Room Air Operated Dampers (AOD). Prior to the modification the normally open AOD's would close on receipt of a Safety Injection (SI) signal and reopen when the SI signal was reset. The system will be modified such that the SI signal will be "sealed in" and the dampers must be reset by a separate reset switch.
2. Iodine Filter Bank Air Operated Dampers. Prior to the modification the AOD's would divert air to the filter banks on receipt of a Containment Depressurization Actuation (CDA) signal and would return to the nonsafety position when the CDA signal was reset. The system will be modified such that the CDA signal will be "sealed in" and the dampers must be reset by the control switch.
3. Safeguards Area Air Operated Dampers. Prior to the modification, the AOD's would divert air to the filter banks on receipt of a Containment Depressurization Actuation (CDA) signal and would return to the non-safety position when the CDA signal was reset. The system will be modified such that the CDA signal will be "sealed in" and the dampers must be reset by the control switch.
4. Inside/Outside Recirculation Spray Pumps. Prior to the modification a CDA signal would start these pumps following a time delay, should the CDA signal be reset before the expiration of the time delay the pumps would not start. The system will be modified such that the CDA signal will be "sealed in" and the control switches for the pumps must be reset to prevent operation of the system.
5. Containment Recirculation Cooling Fans. Prior to the modification the fans would trip on receipt of a CDA signal and would restart when the CDA signal was reset. The system will be modified such that the fans will not restart when the CDA signal is reset.

The following systems are not going to be modified during this refueling shutdown. Design modifications for some systems will be implemented pending further study. Procedures will be modified so that plant safety will not be affected.

1. Service Water to Recirculation Spray Heat Exchanger Radiation Monitoring Sample Pumps.

At present a CDA signal will start these pumps following a time delay. Should the CDA signal be reset before the expiration of the time delay the pumps will not start.

A modification shall be implemented to correct this problem. After this modification, the signal will go to completion unless CDA signal is reset and control switch is placed in the "STOP" position.

Until the change is implemented, a precaution will be added to station procedures stating that reset of CDA should not be accomplished until the control switch for the sample pumps are placed in the "START" position.

2. Control Rod Drive Cooling Fans.

At present a CDA signal will stop the fans. Once the CDA is reset, the previously operating fans (three maximum) would restart.

A modification shall be implemented to correct this problem. After this modification, the fans will remain "locked out" following CDA until the CDA signal is reset and a switch for the individual fan is reset.

Until this design change is implemented, a precaution will be added to station procedures stating that reset of CDA should not be accomplished until the control switches for the control rod drive fans are placed in the "OFF" position.

3. Turbine Driven Auxiliary Feedwater Pump Steam Supply Valves.

At present an SI signal will open these valves to admit steam to the auxiliary feedwater pump. When the SI signal is reset the SI signal to the valves is also reset. The valves remain open because the main feedwater pumps (which were previously tripped by the SI signal) provide the open signal.

An additional "seal in" will be added to the valve control circuit such that when SI is reset the valve will remain open regardless of the status of the main feedwater pumps.

4. Service Water Supply to Containment Air Cooling Coils (MOV-SW110A, B, MOV-SW114A, B, TV-SW101A, B).

The above valves will close upon receipt of a CDA signal,

should the service water mode selector switch be in the "service water" position. When the CDA signal is reset, the valves will reopen. The cooling coils are normally cooled by chilled water (CD).

Since the service water mode of containment cooling has not and is not presently planned to be utilized, the valves should be closed and power removed. Any use of this mode of cooling would have to be under strict administrative control.

A precaution will be added to station procedures stating that the service water mode control switch should be in the "NORMAL" position prior to reset of CDA.

5. Air Removal to Containment (TV-SV102-1, TV-SV103).

The above trip valves are containment isolation valves. They are both normally closed and are opened upon receipt of a high-high radioactivity level from the main condenser air ejectors. Normally, non-condensables from the condenser are vented to the atmosphere out a high-high radioactivity level shifts the venting into the containment. A containment isolation signal will close these valves. Upon resetting the containment isolation signal, the valves will reopen if the condenser high-high radioactivity signal is still present. Since there is a very remote possibility of this situation developing (i.e. chances of both primary to secondary leak with a LOCA in the containment are very slim), and since there is a check valve inside the containment which would still isolate the containment when required, no change to this system is planned.