

**Attachment 2**

**Completed Version of Proposed Changes  
North Anna Unit 1**

**Virginia Electric and Power Company**

9205070006 920501  
PDR ADOCK 05000338  
PDR

## PLANT SYSTEMS

### 3/4.7.4 SERVICE WATER SYSTEM

#### 3/4.7.4.1 SERVICE WATER SYSTEM - OPERATING

##### LIMITING CONDITION FOR OPERATION

3.7.4.1 Two service water loops (shared with Unit 2) shall be OPERABLE with each loop consisting of:

- a. Two OPERABLE service water pumps (excluding auxiliary service water pumps) with their associated normal and emergency power supplies, and
- b. An OPERABLE flow path capable of providing cooling for OPERABLE plant components and transferring heat to the service water reservoir.

APPLICABILITY: Either Unit in MODES 1, 2, 3, or 4.

ACTION:

- a. With one service water pump inoperable, within 72 hours throttle component cooling heat exchanger flows, in accordance with approved operating procedures, to ensure the remaining service water pumps are capable of providing adequate flow to the recirculation spray heat exchangers. The provisions of Specification 3.0.4 are not applicable once component cooling heat exchangers flows are throttled.
- b. With two service water pumps inoperable, perform ACTION 3.7.4.1.a within 1 hour and restore at least one service water pump to OPERABLE status within 72 hours, or place both units in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- c. With one service water loop inoperable, except as provided in ACTION 3.7.4.1.a, restore the inoperable loop to OPERABLE status within 72 hours, or place both units in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- d. The allowable time that one of the two service water loops can be inoperable as specified in ACTION 3.7.4.1.c may be extended beyond 72 hours up to 168 hours as part of service water system upgrades\* provided 3 out of 4 service water pumps (the third service water pump does not require auto start capability) and 2 out of 2 auxiliary service water pumps have been OPERABLE since initial entry into the action statement and remain OPERABLE during the extended action statement or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

\* Isolation of one service water loop for up to 168 hours is permitted only as part of service water system upgrades. System upgrades include modification and maintenance activities associated with the installation of new discharge headers and spray arrays, mechanical and chemical cleaning of service water piping and valves, pipe repair and replacement, valve repair and replacement, installation of corrosion mitigation measures and inspection of and repairs to buried piping interior coatings and pump or valve house components.

**Attachment 3**

**Completed Version of Proposed Changes  
North Anna Unit 2**

**Virginia Electric and Power Company**

## PLANT SYSTEMS

### 3/4.7.4 SERVICE WATER SYSTEM

#### 3/4.7.4.1 SERVICE WATER SYSTEM - OPERATING

##### LIMITING CONDITION FOR OPERATION

---

- 3.7.4.1 Two service water loops (shared with Unit 1) shall be OPERABLE with each loop consisting of:
- Two OPERABLE service water pumps (excluding auxiliary service water pumps) with their associated normal and emergency power supplies, and
  - An OPERABLE flow path capable of providing cooling for OPERABLE plant components and transferring heat to the service water reservoir.

APPLICABILITY: Either Unit in MODES 1, 2, 3, or 4.

- ACTION:
- With one service water pump inoperable, within 72 hours throttle component cooling heat exchanger flows, in accordance with approved operating procedures, to ensure the remaining service water pumps are capable of providing adequate flow to the recirculation spray heat exchangers. The provisions of Specification 3.0.4 are not applicable once component cooling heat exchangers flows are throttled.
  - With two service water pumps inoperable, perform ACTION 3.7.4.1.a within 1 hour and restore at least one service water pump to OPERABLE status within 72 hours, or place both units in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
  - With one service water loop inoperable, except as provided in ACTION 3.7.4.1.a, restore the inoperable loop to OPERABLE status within 72 hours, or place both units in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
  - The allowable time that one of the two service water loops can be inoperable as specified in ACTION 3.7.4.1.c may be extended beyond 72 hours up to 168 hours as part of service water system upgrades\* provided 3 out of 4 service water pumps (the third service water pump does not require auto start capability) and 2 out of 2 auxiliary service water pumps have been OPERABLE since initial entry into the action statement and remain OPERABLE during the extended action statement or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

\* Isolation of one service water loop for up to 168 hours is permitted only as part of service water system upgrades. System upgrades include modification and maintenance activities associated with the installation of new discharge headers and spray arrays, mechanical and chemical cleaning of service water piping and valves, pipe repair and replacement, valve repair and replacement, installation of corrosion mitigation measures and inspection of and repairs to buried piping interior coatings and pump or valve house components.

**Attachment 4**

**10 CFR 50.92, No Significant Hazards Consideration**

**North Anna Units 1 and 2**

**Virginia Electric and Power Company**

## No Significant Hazards Considerations Evaluation

The proposed change described herein is being made to Technical Specification 3.7.4.1.a, "Service Water System - Operating." The current Technical Specification action statement permits operation with one service water pump inoperable if flows to the component cooling water heat exchangers are throttled to ensure the remaining service water pumps deliver design basis flows to the recirculation spray heat exchangers. Since design basis flows are met upon completion of throttling the component cooling water heat exchanger flows, progression through modes would not be outside the design basis. However, Specification 3.0.4 does not permit mode changes once an action statement is entered. The proposed change will allow progression through modes once throttling of the component cooling water heat exchanger flows has been accomplished by stating that Specification 3.0.4 is not applicable.

License Amendment Nos. 152 and 136 for North Anna Units 1 and 2, respectively, were issued on December 13, 1991 for the service water system to ensure that the design basis for the system is met. Action Statement 3.7.4.1.a in these amendments allowed continued operation for an unlimited time period provided throttling of component cooling heat exchanger flows, to ensure design basis flows to the recirculation spray heat exchangers, was completed. Currently, mode changes would not be permitted under Specification 3.0.4 even though the design basis is met.

Generic Letter (GL) 89-07, "Sections 3.0 and 4.0 of the Standard Technical Specifications on the Applicability of Limiting Conditions for Operation and Surveillance Requirements," was issued to address Technical Specification improvements. One issue addressed by the generic letter involved the unnecessary restrictions on mode changes by Specification 3.0.4. The NRC acknowledges, in GL 89-07, that Specification 3.0.4 unduly restricts operation when conformance to the action statement provides an acceptable level of safety for continued operation. The generic letter states the following:

For an LCO that has Action Requirements permitting continued operation for an unlimited period of time, entry into an operational mode or other specified condition of operation should be permitted in accordance with the requirements for an LCO. The restriction on a change in operational modes or other specified conditions should apply only where the Action Requirements establish a specified time interval in which the LCO must be met or a shutdown of the facility would be required.

Therefore, making 3.0.4 not applicable in Action Statement 3.7.4.1.a would be consistent with the stated NRC position.

The proposed change would permit mode changes while in Action Statement 3.7.4.1.a by stating that Specification 3.0.4 is not applicable once service water flows to the component cooling heat exchangers are throttled.

Action Statement 3.7.4.1.a requires component cooling heat exchanger service water flows to be throttled, within 72 hours, if one of the four required normal service water pumps becomes inoperable. This action ensures that the normal service water pumps

remain capable of providing design basis flows to the recirculation spray heat exchangers and allows design basis flows to be delivered by two normal service water pumps with the failure of the third operable normal service water pump. The unit can remain in this action statement for an indefinite period of time. Other action statements within this Technical Specification address multiple failures.

The proposed change would also allow operational flexibility to perform periodic maintenance on a service water pump or its associated normal or emergency power supply. During this period of time, the requirements of Action Statement 3.7.4.1.a would be complied with without unduly restricting mode changes.

It has been determined that the proposed changes do not involve a significant hazards consideration as defined in 10 CFR 50.92. This determination was based on the following points.

1. **The proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.** The proposed change has no adverse impact upon potential accident probability or consequence. The proposed change will allow progression through modes upon conformance with the action statement which ensures the design basis is met. Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

Likewise, the consequences of the accidents will not increase as a result of the proposed Technical Specification change.

2. **The proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.** The proposed change will allow progression through modes upon conformance with the action statement which ensures the design basis is met. Therefore, the proposed change will not create the possibility of a new or different kind of accident from any accident previously evaluated in the UFSAR.
3. **The proposed change does not involve a significant reduction in a margin of safety.** The results of the UFSAR accident analyses continue to bound operation under the proposed change. The proposed change will allow progression through modes upon conformance with the action statement which ensures the design basis is met. Therefore, the margins of safety are maintained without reduction.

Based on the above significant hazards consideration evaluation, Virginia Electric and Power Company concludes that the activities associated with this proposed Technical Specification change satisfies the no significant hazards consideration standards of 10 CFR 50.92(c) and, accordingly, a no significant hazards consideration finding is justified.