

ULNRC-03626

ATTACHMENT 1

TECHNICAL SPECIFICATION CHANGES

Current Page 3/4 7-12
ITS Bases Page B 3.7-46
ITS Bases Page B 3.7-47

9708130228 970808
PDR ADOCK 05000483
P PDR

PLANT SYSTEMS

3/4.7.4 ESSENTIAL SERVICE WATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.4 At least two independent essential service water (ESW) loops shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

With only one ESW loop OPERABLE, restore at least two ESW loops to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.7.4 At least two ESW loops shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that each valve (manual, power-operated, or automatic) servicing safety-related equipment that is not locked, sealed, or otherwise secured in position, is in its correct position. In addition, at least once per 31 days, an ANALOG CHANNEL OPERATIONAL TEST of the differential pressure instrumentation for automatic isolation of the ESW to the air compressors shall be performed;

b. At least once per 18 months during shutdown, by verifying that:

1) Each automatic valve servicing safety-related equipment or isolating the non-nuclear safety-related portion of the system actuates to its correct position on a Loss-of-Power or Safety-Injection test signal and on a simulated High Differential Pressure test signal; and

2)# Each ESW System pump starts automatically on a Safety Injection, Low Suction Pressure (AFW pumps) and Loss-of-Power test signal, and during shutdown on a Low Suction Pressure (AFW pumps).

c. At least once per 18 months during shutdown, by performing a CHANNEL CALIBRATION of the differential pressure instrumentation for automatic isolation of the ESW to the air compressors.

#The specified 18 month frequency may be waived for Cycle I provided the surveillance is performed prior to restart following the first refueling outage or June 1, 1986, whichever occurs first. The provisions of Specification 4.0.2 are reset from performance of this surveillance.

BASES (continued)

SURVEILLANCE
REQUIREMENTS

SR 3.7.8.1

This SR is modified by a Note indicating that the isolation of the ESW components or systems may render those components inoperable, but does not affect the OPERABILITY of the ESW system.

Verifying the correct alignment for manual, power operated, and automatic valves in the ESW system flow path servicing safety related components provides assurance that the proper flow paths exist for ESW system operation.

This SR does not apply to valves that are locked, sealed, or otherwise secured in position, since they are verified to be in the correct position prior to being locked, sealed, or secured. This SR does not require any testing or valve manipulation; rather, it involves verification that those valves capable of being mispositioned are in the correct position. This SR does not apply to valves that cannot be inadvertently misaligned, such as check valves.

The 31 day Frequency is based on engineering judgment, and is consistent with the procedural controls governing valve operation, and ensures correct valve positions.

SR 3.7.8.2

This SR verifies proper automatic operation of the ESW system valves servicing safety related components or isolating the nonsafety related components on an actual or simulated actuation signal. These actuation signals include Loss of Power, SIS, Low AFW Suction Pressure, and High Differential Pressure. The ESW system is a standby emergency system that cannot be fully actuated as part of normal testing. This Surveillance is not required for valves that are locked, sealed, or otherwise secured in the required position under administrative controls. The 18 month Frequency is based on ~~the need to perform this Surveillance under the conditions that apply during a unit outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power.~~ Operating experience has shown that these components usually pass the Surveillance

*engineering judgment
and has been shown
to be acceptable
through operating
experience.*

(continued)

BASES

SURVEILLANCE
REQUIREMENTS

SR 3.7.8.2 (continued)

when performed at the 18 month Frequency. Therefore, the Frequency is acceptable from a reliability standpoint.

SR 3.7.8.3

The ESW pump start on Low AFW Suction Pressure

This SR verifies proper automatic operation of the ESW system pumps on an actual or simulated actuation signal. These actuation signals include SIS, Low AFW Suction Pressure, and Loss of Power. The ESW system is a standby emergency system that cannot be fully actuated as part of normal testing during normal operation. The 18 month Frequency is based on ~~the need to~~ perform this Surveillance under the conditions that apply during a unit outage and the potential for an unplanned transient if the surveillance were performed with the reactor at power. Operating experience has shown that these components usually pass the Surveillance when performed at the 18 month Frequency. Therefore, the Frequency is acceptable from a reliability standpoint.

Engineering judgment and has been shown to be acceptable through operating experience

has is performed

REFERENCES

1. FSAR, Section 9.2.1, Essential Service Water System.
 2. FSAR, Section 6.2, Containment Systems.
 3. FSAR, Section 5.4.7, Residual Heat Removal System.
-

ULNRC-93626

ATTACHMENT 2

SIGNIFICANT HAZARDS EVALUATION

SIGNIFICANT HAZARDS EVALUATION

INTRODUCTION

This proposed amendment revises Technical Specification (TS) 3/4.7.4 "Essential Service Water System" by removing the requirement to perform Surveillance Requirements 4.7.4.b and 4.7.4.c during shutdown.

BACKGROUND

The Essential Service Water (ESW) System consists of two separate, 100% capacity, safety-related, cooling water trains. Each train consists of a self cleaning strainer, prelube tank, one 100% capacity pump, piping, valving, and instrumentation. The pumps and valves are remote and manually aligned, except in the unlikely event of a loss of coolant accident. The pumps are automatically started upon receipt of a safety injection signal, low suction pressure to the auxiliary feedwater (AFW) pumps, or loss of offsite power. Upon receipt of one of these signals, the automatically actuated essential valves are aligned to their post-accident positions as required. The ESW System also provides emergency makeup to the spent fuel pool and Component Cooling Water System and is the backup water supply to the Auxillary Feedwater System.

The ESW System provides a heat sink for the removal of process and operating heat from safety-related components during a design basis accident or transient. During normal operation, and a normal shutdown, the ESW System also provides this function for various safety-related and nonsafety-related components and receives coolant flow from the nonsafety-related Service Water System. The ESW System is testable through the full operational sequence that brings the system into operation for reactor shutdown and for LOCAs, including operation of applicable portions of the protection system and the transfer between normal and standby power sources.

TS Surveillance Requirement 4.7.4 requires the ESW loops to be demonstrated OPERABLE at least once per 18 months during shutdown, by 1) verifying proper operation of the ESW System automatic valves servicing safety-related equipment or isolating the non-nuclear safety-related portion of the system on a Loss-of-Power or Safety Injection test signal and on a simulated High Differential Pressure test signal (SR 4.7.4.b.1), 2) verifying each ESW pump starts automatically

on a Safety Injection, Low Suction Pressure (to the AFW pumps) and Loss-of-Power test signal (SR 4.7.4.b.2), and 3) performance of a Channel Calibration of the differential pressure instrumentation for automatic isolation of the ESW to the air compressors (SR 4.7.4.c). Only the ESW System pump start on a Low Suction Pressure to the AFW pumps actually needs to be performed during shutdown. There is no impact on the functionality of the ESW System do to performance of these surveillances online or shutdown.

The fact that portions of these surveillances were conducted on-line in violation of TS was reported in LER 96-007 (Reference 2). This practice has been discontinued pending approval of this amendment request. The ESW surveillances are considered current and valid.

We determined that testing portions of the ESW System on-line (excluding those devices whose operation would cause plant upset) was acceptable if:

- (a) The test procedures do not involve the potential for damage to any plant equipment.
- (b) The test procedures minimize the potential for accidental tripping of the plant.
- (c) The provisions for on-line testing minimize complication of the actuation circuits so that their reliability is not degraded.

Since the above criteria have been satisfied for the portions of Surveillance Requirements 4.7.4.b and 4.7.4.c to be tested on-line, there are no adverse effects associated with on-line testing. The surveillance that does not meet the above criteria (SR 4.7.4.b.2, Low Suction Pressure to the AFW pumps) is and will continue to be performed during shutdown.

EVALUATION

This license amendment request revises TS Surveillance Requirements 4.7.4.b.1, 4.7.4.b.2 and 4.7.4.c by removing the requirement to perform portions of the surveillances during shutdown.

The proposed change does not involve a significant hazards consideration because operation of Callaway Plant in accordance with this change would not:

1. Involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed change to TS has no adverse impact on the probability of occurrence or the consequences of an accident. The proposed amendment does not change or alter the design assumptions for the systems or components used to mitigate the consequences of an accident and the methodologies used in the accident analysis remain unchanged. The operating limits and the radiological consequences will not be changed. No design basis accidents will be affected by this change since the required TS surveillances will continue to be performed on an 18 month frequency.

Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Create the possibility of a new or different kind of accident from any previously evaluated.

All design and performance criteria continue to be met and no new failure mechanisms have been identified. The proposed change does not affect the design or operation of any system or component in the plant since the required TS surveillances will continue to be performed on an 18 month frequency. The safety functions of the related structures, systems or components are not changed in any manner, nor is the reliability of any structure, system or component reduced. Conducting these surveillances online will not increase the possibility of plant transients. Since the safety functions and reliability are not adversely affected, the proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Involve a significant reduction in a margin of safety.

The proposed change will not affect or change a safety limit or affect plant operations since the required TS surveillances will continue to be performed on an 18 month frequency. This change will not reduce the margin of safety assumed in the accident analysis nor reduce any margin of safety as defined in the basis for any TS.

Conclusion

Based upon the preceding information, it has been determined that the proposed changes do not involve a significant increase in the probability or consequences of an accident

previously evaluated, create the possibility of a new or different kind of accident from any accident previously evaluated, or involve a significant reduction in a margin of safety. Therefore it is concluded that the proposed changes meet the requirements of 10CFR50.92(c) and do not involve a significant hazards consideration.

ULNRC-03626

ATTACHMENT 3

ENVIRONMENTAL CONSIDERATION

ENVIRONMENTAL CONSIDERATION

This proposed amendment revises the Surveillance Requirements of Technical Specification (TS) 3/4.7.4 "Essential Service water System" by removing the requirement to perform Surveillance Requirements 4.7.4.b and 4.7.4.c during shutdown.

The proposed amendment involves changes with respect to the use of facility components located within the restricted area, as defined in 10 CFR 20, and changes surveillance requirements. Union Electric has determined that the proposed amendment does not involve:

- (1) A significant hazard consideration, as discussed in Attachment 2 of this amendment application;
- (2) A significant change in the types or significant increase in the amounts of any effluents that may be released offsite;
- (3) A significant increase in individual or cumulative occupational radiation exposure.

Accordingly, the proposed amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this amendment.