

## **ATTACHMENT 2**

### **MARKED UP PAGES FOR PROPOSED CHANGES TO TECHNICAL SPECIFICATIONS**

## **PLANT SYSTEMS**

### **3/4.7.4 ESSENTIAL COOLING WATER SYSTEM**

#### **LIMITING CONDITION FOR OPERATION**

3.7.4<sup>(1)</sup> At least three independent essential cooling water loops shall be OPERABLE.

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

ACTION:

With only two essential cooling water loops OPERABLE, restore at least three 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 three essential cooling water 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;
- b. At least once per 18 months during shutdown, by verifying that:
  - 1) Each automatic valve servicing safety-related equipment actuates to its correct position on a Safety Injection, ECW pump start, screen wash booster pump start and essential chiller start test signals, as applicable,
  - 2) Each Essential Cooling Water pump starts automatically on a Safety Injection or a Loss of Offsite Power test signal, and
  - 3) Each screen wash booster pump and the traveling screen start automatically on a Safety Injection test signal.

<sup>(1)</sup> See Special Test Exception 3.10.8. One Time Only April 10, 1996 - May 15, 1996.

### 3/4.8 ELECTRICAL POWER SYSTEMS

#### 3/4.8.1 A.C. SOURCES

##### OPERATING

##### LIMITING CONDITION FOR OPERATION

3.8.1.1<sup>(11)</sup> As a minimum, the following A.C. electrical power sources shall be OPERABLE:

- a. Two physically independent circuits between the offsite transmission network and the onsite Class 1E Distribution System<sup>(1)</sup>, and
- b. Three separate and independent standby diesel generators, each with a separate fuel tank containing a minimum volume of 60,500 gallons of fuel.

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

##### ACTION:

- a. With one offsite circuit of the above-required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter. Restore the offsite circuit to OPERABLE status within 72 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- b. With a standby diesel generator inoperable, demonstrate the OPERABILITY of the above-required A.C. offsite sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter. If the standby diesel generator became inoperable due to any cause other than an inoperable support system, an independently testable component or preplanned preventive maintenance or testing, demonstrate the OPERABILITY of the remaining OPERABLE standby diesel generators by performing Surveillance Requirement 4.8.1.1.2.a.2) for each such standby diesel generator, separately, within 8 hours, unless it can be demonstrated there is no common mode failure for the remaining diesel generator(s). Restore the inoperable standby diesel generator to OPERABLE status within 72 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- c. With one offsite circuit of the above-required A.C. electrical power sources and one standby diesel generator inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Specification 4.8.1.1.1.a. within 1 hour and at least once per 8 hours thereafter; and if the standby diesel generator became inoperable due to any cause other than an inoperable support system, an independently testable component or preplanned preventive

## ELECTRICAL POWER SYSTEMS

### LIMITING CONDITION FOR OPERATION

#### ACTION (Continued)

maintenance or testing, demonstrate the OPERABILITY of the remaining OPERABLE standby diesel generators by performing Surveillance Requirement 4.8.1.1.2a.2) within 8 hours, unless it can be demonstrated there is no common mode failure for the remaining diesel generator(s); restore at least one of the inoperable sources to OPERABLE status within 12 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Restore at least two offsite circuits and three standby diesel generators OPERABLE status within 72 hours from the time of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

- d. With one standby diesel generator inoperable in addition to ACTION b. or c. above, verify that:
1. All required systems, subsystems, trains, components, and devices that depend on the remaining OPERABLE diesel generator as a source of emergency power are also OPERABLE, and
  2. When in MODE 1, 2, or 3, the steam-driven auxiliary feedwater pump is OPERABLE.

If these conditions are not satisfied within 2 hours be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

- e. With two of the above required offsite A.C. circuits inoperable, restore at least one of the inoperable offsite sources to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours. With only one offsite source restored, restore at least two offsite circuits to OPERABLE status within 72 hours from time of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- f. With two or three of the above required standby diesel generators inoperable, demonstrate the OPERABILITY of two offsite A.C. circuits by performing the requirements of Specification 4.8.1.1.1a. within 1 hour and at least once per 8 hours thereafter; restore at least two standby diesel generators to OPERABLE status within 2 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Restore at least three standby diesel generators to OPERABLE status within 72 hours from time of initial loss or be in least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

## ELECTRICAL POWER SYSTEMS

### SURVEILLANCE REQUIREMENTS

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- 4.8.1.1.1 Each of the above required independent circuits between the offsite transmission network and the Onsite Class 1E Distribution System shall be:
- a. Determined OPERABLE at least once per 7 days by verifying correct breaker alignments, indicated power availability, and
  - b. Demonstrated OPERABLE at least once per 18 months during shutdown by transferring the unit power supply from the normal circuit to each of the alternate circuits.
- 4.8.1.1.2 Each standby diesel generator shall be demonstrated OPERABLE:<sup>(2)</sup> <sup>(10)</sup>
- a. In accordance with the frequency specified in Table 4.8-1 on a STAGGERED TEST BASIS by:
    - 1) Verifying the fuel level in its associated fuel tank,
    - 2) Verifying the diesel starts from standby condition and accelerates to 600 rpm (nominal) in less than or equal to 10 seconds.<sup>(3)</sup> The generator voltage and frequency shall be  $4160 \pm 416$  volts and  $60 \pm 1.2$  Hz within 10 seconds<sup>(3)</sup> after the start signal. The diesel generator shall be started for this test by using one of the following signals:
      - a) Manual, or
      - b) Simulated loss-of-offsite power by itself, or
      - c) Simulated loss-of-offsite power in conjunction with a Safety Injection test signal, or
      - d) A Safety Injection test signal by itself.
    - 3) Verifying the generator is synchronized, loaded to 5000 to 5500 kW, and operates with a load of 5000 to 5500 kW for at least 60 minutes,<sup>(4)(6)</sup> and
    - 4) Verifying the standby diesel generator is aligned to provide standby power to the associated emergency busses.
  - b. At least once per 31 days and after each operation of the diesel where the period of operation was greater than or equal to 1 hour by checking for and removing accumulated water from its associated fuel tank;
  - c. Maintain properties of new and stored fuel oil in accordance with the Fuel Oil Monitoring Program.

SPECIFICATION NOTATIONS (Continued)

4.8.1.1.2a.2 and 4.8.1.1.2a.3 and four tests in accordance with the 184-day testing requirements of Surveillance Requirements 4.8.1.1.2a.2 and 4.8.1.1.2a.3. If this criterion is not satisfied during the first series of tests, any alternate criterion to be used to transvalue the failure count to zero requires NRC approval.

- (9) The associated test frequency shall be maintained until seven consecutive failure free demands have been performed and the number of failures in the last 20 valid demands has been reduced to one.
- (10) Credit may be taken for events that satisfy any of these Surveillance Requirements.
- (11) See Special Test Exception 3.10.8. One Time Only April 10, 1996 - May 15, 1996.



**3/4.10 SPECIAL TEST EXCEPTIONS** One Time Only April 10, 1996 - May 15, 1996.

**3/4.10.8 DIESEL OPERABILITY EXCEPTION - MODES 1, 2, 3 & 4**

**LIMITING CONDITION FOR OPERATION (LCO)**

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- 3.10.8 The requirements of Specification 3/4.7.4 and LCOs supported by this Specification may be suspended for 7 days/train/cycle AND Specification 3/4.8.1.1 may be suspended for 21 days/train/cycle provided:
- a. The requirements for two (2) of the onsite power sources specified in Specification 3.8.1.1.b AND the two (2) supporting ECW loops specified in Specification 3.7.4 are OPERABLE;
  - b. The circuits required by Specification 3.8.1.1.a are OPERABLE;
  - c. The equipment specified in ACTION 3.8.1.1.d is OPERABLE;
  - d. The circuit between the 138 kV offsite transmission network, via the Emergency Transformer, and the onsite Class 1E Distribution System shall be functional and available;
  - e. The technical support center diesel generator and the positive displacement pump are functional and available;
  - f. Planned maintenance on the equipment specified in ACTION 3.8.1.1.d is suspended;
  - g. Maintenance activities in the switchyard which could directly cause a loss of offsite power event will be prohibited unless required to ensure the continued reliability and availability of the offsite power sources.

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

**DIESEL OPERABILITY EXCEPTION - MODES 1, 2, 3 & 4**

**LIMITING CONDITION FOR OPERATION (LCO)**

**ACTION:**

- a. With any specified condition(s) not met, then restore the specified condition(s) within 24 hours or place the unit in the following MODE, as applicable,;
    1. At least HOT STANDBY within the next 6 hours,
    2. At least HOT SHUTDOWN within the next 6 hours, and
    3. At least COLD SHUTDOWN within the next 24 hours.
  - b. With both of the required onsite power sources, as described in LCO 3.10.8.a, inoperable, perform the requirements of Specification 4.10.8.1 within 1 hour and restore at least one standby diesel generator to OPERABLE status within 2 hours or place the unit in the following MODE, as applicable,;
    1. At least HOT STANDBY within the next 6 hours,
    2. At least HOT SHUTDOWN within the next 6 hours, and
    3. At least COLD SHUTDOWN within the next 24 hours.
- OR
- c. With any specified condition(s) not met, then exit this Special Test Exception and enter the appropriate Technical Specification Action Statement.

**SURVEILLANCE REQUIREMENTS**

- 4.10.8.1 Perform Surveillance Requirements 4.8.1.1.1.a for the Standby and Auxiliary Transformers at least once per 8 hours.
- 4.10.8.2 Verify Emergency Transformer breaker alignment correct and indicated power available at least once per 8 hours.



### **3/4.10 SPECIAL TEST EXCEPTIONS**

#### **BASES**

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#### **3/4.10.8 DIESEL OPERABILITY EXCEPTION - MODES 1, 2, 3 & 4**

This Special Test Exception (STE) permits an essential cooling water loop to be inoperable for a cumulative 7 days per train per fuel cycle and a standby diesel generator to be inoperable for a cumulative 21 days per train per fuel cycle. In both cases, it is intended that if the essential cooling water is inoperable, the associated standby diesel generator is also inoperable. This exception is to be used for planned maintenance and testing only if all of the necessary compensatory actions are in place.

The controlling of work in the switchyard is intended to prevent a loss of offsite power caused by human error or equipment malfunction during a high risk evolution. The types of activities that will be prohibited are any relay calibration or adjustment, work on either the north or south bus, work on the main, auxiliary or standby transformers, unless these types of activities are required to prevent a loss of offsite power due to equipment degradation or failure. Normal maintenance activities on components that have been isolated from the buses and that do not have the ability to cause a loss of offsite power due to human error or equipment malfunction will be allowed under strict control by the Unit 1 Shift Supervisor.

If any condition of the LCO is not met during the time a standby diesel generator and/or the essential cooling water is inoperable under this special test exception, a maximum of 24 hours would be permitted to restore the condition before a plant shutdown or exiting the special test exception is required. In addition, a risk assessment must be performed in accordance with the South Texas Project Configuration Risk Management Program (CRMP). Based on the results of the assessment, the 24 hour allowed outage time may be further restricted. The intention of this action is to allow a component in one of the other two trains to be inoperable for 24 hours, if the risk assessment determines 24 hours is acceptable, during this special test exception. If unable to return the inoperable equipment to operable status within the 24 hour time limit or if the time limit determined by the risk assessment is shorter, actions must be taken in accordance with the STE and the CRMP.

The CRMP specifies the process for assessing and monitoring changes in core damage probability or large early release probability while in certain planned and unplanned maintenance configurations. Large Early Release Probability (LERP) is defined as a large (>3") and early containment failure or bypass that possess a significant potential for short term health impact. Early containment failure includes failures occurring before or within 2 hours of reactor vessel breach and before the effective implementation of the off-site emergency response and protective actions. Generally, the CRMP process is initiated once a planned maintenance schedule has been approved for a selected period of time (typically one work week). The planned maintenance schedule is evaluated to identify the plant configurations that result from the scheduled work activities. A risk profile for the selected time period is then generated by quantifying the PSA for each identified plant configuration. Risk thresholds are used to determine when management/supervisory oversight or compensatory actions are warranted.

### 3/4.10 SPECIAL TEST EXCEPTIONS

#### BASES

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#### 3/4.10.8 DIESEL OPERABILITY EXCEPTION - MODES 1, 2, 3 & 4

The purpose of this exception is to allow pre-planned testing and maintenance of the standby diesel generator and the essential cooling water and to allow credit for the performance of surveillances prescribed in SR 4.8.1.1.2 while in Modes 1, 2, 3 and 4. The STE is not intended to be used as a means to start planned outage maintenance prior to the start of the planned outage. As much as is practical, the plant should be maintained in a steady state condition for the duration of the STE. Time permitting, evolutions, including mode changes, should be evaluated in accordance with the CRMP.

The emergency transformer will be administratively dedicated to the ESF bus with the inoperable standby diesel generator. This means that the breaker alignment will enable the emergency transformer to supply power to the affected bus if a loss of offsite power were to occur. It is also intended to allow the use of the emergency transformer to supply any ESF bus during a loss of offsite power if the Shift Supervisor determines this is necessary. No pre-planned maintenance will be performed on the technical support center diesel, the positive displacement pump or the emergency transformer during the use of this STE. In addition the Shift Supervisor will control all work that is performed in the switchyard in accordance with established station procedures.

The analytical basis for the STE is a combination of deterministic and probabilistic methods. From a deterministic, design basis perspective, STP maintains the capability to mitigate most design basis events with one of its three ESF trains. This is a condition that is conservatively postulated to result from an accident while the STE is in effect with a loss of off-site power and a subsequent failure of one of the remaining ESF diesel generators and assumed failure of the emergency transformer.

Since maintenance and testing activities are explicitly included in the PSA analysis, it is possible to determine the impact of equipment outages on the probability of core damage or radiological release events for those systems and components within the scope of the PSA. Generally, the impact of unavailable equipment is seen as a reduction in the defense-in-depth which causes an increase in probability of core damage or radiological release. The time and duration of planned equipment outages can be assessed and incorporated into the PSA analysis. The incremental risk associated with the STE has been determined to be small, which is attributable to the redundancy and capability of the STP design as noted above. The CRMP provides the process for controlling plant configurations to keep the risk acceptably small.

**ATTACHMENT 3**

**LISTING OF ALL DOCKETED INFORMATION FOR  
PROPOSED AMENDMENT**

- Reference:
1. Letter from T. H. Cloninger to the Nuclear Regulatory Commission Document Control Desk dated May 1, 1995 (ST-HL-AE-5076)
  2. Letter from T. H. Cloninger to the Nuclear Regulatory Commission Document Control Desk dated August 28, 1995 (ST-HL-AE-5141)
  3. Letter from D. A. Leazar to the Nuclear Regulatory Commission Document Control Desk dated November 22, 1995 (ST-HL-AE-5208)
  4. Letter from T. H. Cloninger to the Nuclear Regulatory Commission Document Control Desk dated December 19, 1995 (ST-HL-AE-5259)
  5. Letter from D. A. Leazar to the Nuclear Regulatory Commission Document Control Desk dated January 4, 1996 (ST-HL-AE-5261)
  6. Letter from D. A. Leazar to the Nuclear Regulatory Commission Document Control Desk dated January 8, 1996 (ST-HL-AE-5271)
  7. Letter from D. A. Leazar to the Nuclear Regulatory Commission Document Control Desk dated January 8, 1996 (ST-HL-AE-5272)
  8. Letter from D. A. Leazar to the Nuclear Regulatory Commission Document Control Desk dated January 23, 1996 (ST-HL-AE-5280)