

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
SR 3.3.4.1.2 Perform CHANNEL CALIBRATION. The Allowable Values shall be: a. TSV Closure: $\leq 7\%$ closed; and b. TCV Fast Closure, Trip Oil Pressure—Low: ≥ 465 psig.	18 months
SR 3.3.4.1.3 Perform LOGIC SYSTEM FUNCTIONAL TEST, including breaker actuation.	18 months
SR 3.3.4.1.4 Verify TSV Closure and TCV Fast Closure, Trip Oil Pressure—Low Functions are not bypassed when THERMAL POWER is $\geq 40\%$ RTP.	18 months
SR 3.3.4.1.5 -----NOTES----- 1. Breaker interruption time may be assumed from the most recent performance of SR 3.3.4.1.7 2. The STAGGERED TEST BASIS Frequency shall be determined on a per Function basis. ----- Verify the EOC-RPT SYSTEM RESPONSE TIME is within limits.	18 months on a STAGGERED TEST BASIS
SR 3.3.4.1.6 Determine RPT breaker interruption time.	60 months

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Pages of the Technical Specification Bases

BASES

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SR 3.3.4.1.4 (continued)

inoperable. Alternatively, the bypass channel can be placed in the conservative condition (nonbypass). If placed in the nonbypass condition, this SR is met and the channel considered OPERABLE.

The Frequency of 18 months has shown that channel bypass failures between successive tests are rare.

SR 3.3.4.1.5

This SR ensures that the individual channel response times are less than or equal to the maximum values assumed in the accident analysis. The EOC-RPT SYSTEM RESPONSE TIME acceptance criteria are included in applicable plant procedures. ← *INSERT*

~~A Note to the Surveillance states that breaker interruption time may be assumed from the most recent performance of SR 3.3.4.1.6. This is allowed since the time to open the contacts after energization of the trip coil and the arc suppression time are short and do not appreciably change, due to the design of the breaker opening device and the fact that the breaker is not routinely cycled.~~

EOC-RPT SYSTEM RESPONSE TIME tests are conducted on an 18 month STAGGERED TEST BASIS. ~~Note 2~~ requires STAGGERED TEST BASIS Frequency to be determined on a per Function basis. This is accomplished by testing all channels of one Function every 18 months on an alternating basis such that both Functions are tested every 36 months. This Frequency is based on the logic interrelationships of the various channels required to produce an EOC-RPT signal. Response times cannot be determined at power because operation of final actuated devices is required. Therefore, this Frequency is consistent with the typical industry refueling cycle and is based upon plant operating experience, which shows that random failures of instrumentation components that cause serious response time degradation, but not channel failure, are infrequent occurrences.

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@ Section 3.3.4.1.5

The EOC-RPT SYSTEM RESPONSE TIME includes an assumed RPT breaker interruption time of 95 milliseconds. The assumed RPT breaker interruption time is validated by the performance of periodic contact gap measurements and high potential tests on each breaker in accordance with plant procedures at least once per 36 months.

BASES (continued)

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(continued)

SR 3.3.4.1.6

This SR ensures that the RPT breaker interruption time is provided to the EOC-RPT SYSTEM RESPONSE TIME test. Breaker Interruption time is defined as Breaker Response time plus Arc Suppression time. Breaker Response is the time from application of voltage to the trip coil until the main contacts separate. Arc Suppression is the time from main contact separation until the complete suppression of the electrical arc across the open contacts. The 60 month frequency of the testing is based on the difficulty of performing the test and the reliability of the circuit breakers.

REFERENCES

1. USAR, Section 7.6.1.8.
2. USAR, Section 5.2.2.
3. USAR, Sections 15.1.1, 15.1.2, and 15.1.3.
4. USAR, Sections 15.2.2, 15.2.3, and 15.2.5.
5. USAR, Sections 15.3.2 and 15.3.3.
6. GENE-770-06-1, "Bases for Changes To Surveillance Test Intervals And Allowed Out-Of-Service Times For Selected Instrumentation Technical Specifications," February 1991.