

TABLE 3.3-1 (Continued)

TABLE NOTATION

- \* With the reactor trip system breakers in the closed position, the control rod drive system capable of rod withdrawal, and fuel in the reactor vessel.
- \*\* The channel(s) associated with the protective functions derived from the out of service Reactor Coolant Loop shall be placed in the tripped condition.
- # The provisions of Specification 3.0.4 are not applicable.
- ## High voltage to detector may be de-energized above the P-6 (Block of Source Range Reactor Trip) setpoint.

ACTION STATEMENTS

ACTION 1 - With the number of OPERABLE channels one less than required by the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 48 hours or be in HOT STANDBY within the next 6 hours and/or open the reactor trip breakers.

ACTION 2 - With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:

- a. The inoperable channel is placed in the tripped condition within 1 hour.
- b. The Minimum Channels OPERABLE requirement is met; however, one additional channel may be bypassed for up to 2 hours for surveillance testing per Specification 4.3.1.1. *4.3.1.1.1*
- c. Either, THERMAL POWER is restricted to less than or equal to 75% of RATED THERMAL POWER and the Power Range, Neutron Flux trip setpoint is reduced to less than or equal to 85% of RATED THERMAL POWER within 4 hours; or, the QUADRANT POWER TILT RATIO is monitored at least once per 12 hours.
- d. The QUADRANT POWER TILT RATIO, as indicated by the remaining three detectors, is verified consistent with the normalized symmetric power distribution obtained by using the movable incore detectors in the four pairs of symmetric thimble locations at least once per 12 hours when THERMAL POWER is greater than 75% of RATED THERMAL POWER.

*THERE IS NO 4.3.1.1 or 4.3.2.1*

TABLE 3.3-1 (Continued)

ACTION 8 - With less than the Minimum Number of Channels OPERABLE, declare the interlock inoperable and verify that all affected channels of the functions listed below are OPERABLE or apply the appropriate ACTION statement(s) for those functions. Functions to be evaluated are:

a. Source Range Reactor Trip.

b. Reactor Trip

Low Reactor Coolant Loop Flow (2 loops)  
Undervoltage  
Underfrequency  
Turbine Trip  
Pressurizer Low Pressure  
Pressurizer High Level

c. Reactor Trip

Low Reactor Coolant Loop Flow (1 loop)

d. Reactor Trip

Intermediate Range  
Low Power Range  
Source Range

ACTION 9 - With a channel associated with an operating loop inoperable, restore the inoperable channel to OPERABLE status within 2 hours or be in HOT STANDBY within the next 6 hours; however, one channel associated with an operating loop may be bypassed for up to 2 hours for surveillance testing per Specification 4.3.1.1.

ACTION 10 - With one channel inoperable, restore the inoperable channel to OPERABLE status within 2 hours or reduce THERMAL POWER to below the P-8 (Block of Low Reactor Coolant Pump Flow) setpoint, within the next 2 hours. Operation below the P-8 (Block of Low Reactor Coolant Pump Flow) setpoint, may continue pursuant to ACTION 11.

ACTION 11 - With less than the Minimum Number of Channels OPERABLE, operation may continue provided the inoperable channel is placed in the tripped condition within 1 hour.

ACTION 12 - With the number of OPERABLE channels one less than required by the Minimum Channels OPERABLE requirement, be in at least HOT STANDBY within 6 hours; however, one channel may be bypassed for up to 1 hour for surveillance testing per Specification 4.3.1.1 provided the other channel is OPERABLE.

TABLE 4.3-1 (Continued)

## REACTOR TRIP SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
15. Steam/Feedwater Flow Mismatch and Low Steam Generator Water Level	S	R	M	1, 2
16. Undervoltage - Reactor Coolant Pumps	N.A.	R	M	1
17. Underfrequency - Reactor Coolant Pumps	N.A.	R	M	1
18. Turbine Trip				
A. Low Fluid Oil Pressure	N.A.	N.A.	S/U(1)	1
B. Turbine Stop Valve Closure	N.A.	N.A.	S/U(1)	1
19. Safety Injection Input from ESF	N.A.	N.A.	M(4)	1, 2
20. Reactor Trip Breaker	N.A.	N.A.	M(5) and S/U(1)	1, 2, and *
21. Automatic Trip Logic	N.A.	N.A.	M(5)	1, 2, and *
22. Reactor Trip System Interlocks				
A. Intermediate Range Neutron Flux, P-6	N.A.	R	S/U (8)	2, and *
B. Power Range Neutron Flux, P-7	N.A.	R	S/U (8)	1
C. Power Range Neutron Flux, P-8	N.A.	R	S/U (8)	1
D. Power Range Neutron Flux, P-10	N.A.	R	S/U (8)	1, 2
E. Turbine Impulse Chamber Pressure, P-13	N.A.	R	S/U (8)	1
G. X. Reactor Trip, P-4	N.A.	R	S/U (8)	1, 2, and *
F. Power Range Neutron Flux, P-9	N.A.	R	S/u (8)	1

SEQUOYAH - UNIT 2

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THIS CHANGE WAS OMITTED FROM ERO.

TABLE 3.3-3 (Continued)

TABLE NOTATION

- # Trip function may be bypassed in this MODE below P-11 (Pressurizer Pressure Block of Safety Injection) setpoint.  
## Trip function may be bypassed in this MODE below P-12 ( $T_{avg}$  Block of Safety Injection) setpoint.  
### The channel(s) associated with the protective functions derived from the out of service Reactor Coolant Loop shall be placed in the tripped mode.  
\* The provisions of Specification 3.0.4 are not applicable.

ACTION STATEMENTS

- ACTION 15 - With the number of OPERABLE Channels one less than the Total Number of Channels, be in HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours; however, one channel may be bypassed for up to 1 hour for surveillance testing per Specification ~~4.3.2.1~~ provided the other channel is OPERABLE. **4.3.2.1.1**
- ACTION 16 - With the number of OPERABLE Channels one less than the Total Number of Channels, operation may proceed until performance of the next required CHANNEL FUNCTIONAL TEST, provided the inoperable channel is placed in the tripped condition within 1 hour.
- ACTION 17 - With a channel associated with an operating loop inoperable, restore the inoperable channel to OPERABLE status within 2 hours or be in at least HOT SHUTDOWN within the following 12 hours; however, one channel associated with an operating loop may be bypassed for up to 2 hours for surveillance testing per Specification ~~4.3.2.1~~. **4.3.2.1.1**
- ACTION 18 - With the number of OPERABLE Channels one less than the Total Number of Channels, operation may proceed provided the inoperable channel is placed in the bypassed condition and the Minimum Channels OPERABLE requirement is demonstrated within 1 hour; one additional channel may be bypassed for up to 2 hours for surveillance testing per Specification ~~4.3.2.1~~. **4.3.2.1.1**
- ACTION 19 - With less than the Minimum Channels OPERABLE, operation may continue provided the containment ventilation isolation valves are maintained closed.
- ACTION 20 - With the number of OPERABLE Channels one less than the Total Number of Channels, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

TABLE 3.3-3 (Continued)

- ACTION 21 - With the number of OPERABLE Channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:
- a. The inoperable channel is placed in the tripped condition within 1 hour.
  - b. The Minimum Channels OPERABLE requirements is met; however, one additional channel may be bypassed for up to 2 hours for surveillance testing per Specification ~~4.3.2.1~~ 4.3.2.1.1
- ACTION 22 - With less than the Minimum Number of Channels OPERABLE, declare the interlock inoperable and verify that all affected channels of the functions listed below are OPERABLE or apply the appropriate ACTION statement(s) for those functions. Functions to be evaluated are:
- a. Safety Injection  
Pressurizer Pressure
  - b. Safety Injection  
High Steam Line Flow  
Steam Line Isolation  
High Steam Line Flow  
Steam Dump
  - c. Turbine Trip  
Steam Generator Level High-High  
Feedwater Isolation  
Steam Generator Level High-High
- ACTION 23 - With the number of OPERABLE channels one less than the Total Number of Channels, be in at least HOT STANDBY within 6 hours and in at least HOT SHUTDOWN within the following 6 hours; however, one channel may be bypassed for up to 1 hour for surveillance testing per Specification ~~4.3.2.1~~ 4.3.2.1.1
- ACTION 24 - With the number of OPERABLE channels one less than the Total Number of Channels, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within 6 hours and in at least HOT SHUTDOWN within the following 6 hours.
- ACTION 25 - With the number of OPERABLE channels one less than the Total Number of Channels, restore the inoperable channel to OPERABLE status within 48 hours or declare the associated valve inoperable and take the ACTION required by Specification 3.7.1.5.

## CONTAINMENT SYSTEMS

### 3/4.6.6 VACUUM RELIEF VALVES

#### LIMITING CONDITION FOR OPERATION

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3.6.6 The primary containment vacuum relief valves shall be OPERABLE with an actuation set point of less than or equal to 0.1 psid.

APPLICABILITY: MODES 1, 2, 3 and 4.

#### ACTION:

With one primary containment vacuum relief valve inoperable, restore the valve to OPERABLE status within 4 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

#### SURVEILLANCE REQUIREMENTS

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4.6.6 No additional Surveillance Requirements other than those required by Specification 4.0.5.

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