

Table 3.1-1 (Cont'd)

Scram Number (a)	Source of Scram Trip Signal	Operable Channels Required Per Trip System (b)	Scram Trip Setting	Source of Scram Signal is Required to be Operable Except as Indicated Below
12	Turbine Stop Valve Closure	4	≤10% valve closure from full open Tech Spec 2.1.A.3.	Automatically bypassed when turbine steam flow is below that corresponding to 30% of rated thermal power as measured by turbine first stage pressure.

Notes for Table 3.1-1

- a. The column entitled "Scram Number" is for convenience so that a one-to-one relationship can be established between items in Table 3.1-1 and items in Table 4.1-1.
- b.1. There shall be two operable or tripped trip systems for each potential scram signal. If the number of operable channels cannot be met for one of the trip systems, the inoperable channel(s) or the associated trip system shall be tripped.
- b.2. One instrument channel may be inoperable for up to 6 hours to perform required surveillances prior to entering other applicable actions, provided at least one operable channel in the same trip system is monitoring that parameter.

HATCH - UNIT 1
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3.1-6

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Notes for Table 3.2-1

- a. The column entitled "Ref. No." is only for convenience so that a one-to-one relationship can be established between lines in Table 3.2-1 and items in Table 4.2-1.
- b.1. Primary containment integrity shall be maintained at all times prior to withdrawing control rods for the purpose of going critical, when the reactor is critical, or when the reactor water temperature is above 212°F and fuel is in the reactor vessel except while performing low-power physics tests at atmospheric pressure at power levels not to exceed 5 MWt, or performing an inservice vessel hydrostatic or leakage test.

When primary containment integrity is required, there shall be two operable or tripped trip systems for each function.

When performing inservice hydrostatic or leakage testing on the reactor vessel with the reactor coolant temperature above 212°F, reactor vessel water level instrumentation associated with the low low (Level 2) trip requires two operable or tripped channels. The drywell pressure trip is not required because primary containment integrity is not required.

- b.2. One instrument channel may be inoperable for up to 6 hours to perform required surveillances prior to entering other applicable actions.
- c.1. With the number of operable channels less than required by the Minimum Operable Channels per Trip System requirement for one trip system, either
1. place the inoperable channel(s) in the tripped condition* within 12 hours
 - OR
 2. take the action required by Table 3.2-1.

*With a design providing only one channel per trip system, an inoperable channel need not be placed in the tripped condition where this would cause the Trip Function to occur. In these cases, the inoperable channel shall be restored to operable status within 2 hours or the action required by Table 3.2-1 for that Trip Function shall be taken.

- c.2. One instrument channel may be inoperable for up to 6 hours to perform required surveillances prior to entering other applicable actions.
- d. The valves associated with each Group isolation are given in Table 3.7-1.
- e. Prior to the hydrogen injection system startup and with reactor power greater than 20% rated power, the normal full power radiation trip/alarm setpoints may be changed based on calculated expected radiation levels during hydrogen injection system operation. Associated trip/alarm setpoints may be adjusted during injection based on either calculations or measurements of actual radiation levels resulting from hydrogen injection. Following a reactor startup, a background radiation level will be determined and the associated trip/alarm setpoints adjusted within a 72-hour period. The radiation level shall be determined and associated trip/alarm setpoints shall be set within 24 hours of re-establishing normal radiation levels after a reduction in, or a completion of, hydrogen injection and prior to establishing reactor power levels below 20% of rated power.
- f. The high differential flow signal to the RWCU isolation valves may be bypassed for up to 2 hours during periods of system restoration, maintenance, or testing.

Table 3.2-8 (cont.)

Ref. No. (a)	Instrument	Trip Condition Nomenclature	Required Operable Channels per Trip System (b)	Trip Setting	Action to be taken if there are not two operable or tripped trip systems	Remarks
5.	Main Steam Line Radiation Monitor	Hi	2	≤ 3 times normal full power background (e)	Isolate the mechanical vacuum pump and the gland seal condenser exhauster	One trip per trip logic system will isolate the mechanical vacuum pump and the gland seal condenser exhauster.

- a. The column entitled "Ref. No." is only for convenience so that a one-to-one relationship can be established between items in Table 3.2-8 and items in Table 4.2-8.
- b.1. Whenever the systems are required to be operable, there shall be two operable or tripped trip systems. If this cannot be met, the indicated action shall be taken.
- b.2. One instrument channel may be inoperable for up to 6 hours to perform required surveillances prior to entering other applicable actions.
- c. In the event that both off-gas post treatment radiation monitors become inoperable, the reactor shall be placed in the Cold Shutdown within 24 hours unless one monitor is sooner made operable, or adequate alternative monitoring facilities are available.
- d. From and after the date that one of the two off-gas post treatment radiation monitors is made or found to be inoperable, continued reactor power operation is permissible during the next fourteen days (the allowable repair time), provided that the inoperable monitor is tripped.
- e. Prior to the hydrogen injection system startup and with reactor power greater than 20% rated power, the normal full power radiation trip/alarm setpoints may be changed based on calculated expected radiation levels during hydrogen injection system operation. Associated trip/alarm setpoints may be adjusted during injection based on either calculations or measurements of actual radiation levels resulting from hydrogen injection. Following a reactor startup, a background radiation level will be determined and the associated trip/alarm setpoints adjusted within a 72-hour period. The radiation level shall be determined and associated trip/alarm setpoints shall be set within 24 hours of re-establishing normal radiation levels after a reduction in, or a completion of, hydrogen injection and prior to establishing reactor power levels below 20% of rated power.

TABLE 3.3.1-1 (Continued)

REACTOR PROTECTION SYSTEM INSTRUMENTATION

- ACTION 9 - In OPERATIONAL CONDITION 1 or 2, be in at least HOT SHUTDOWN within 6 hours.
- In OPERATIONAL CONDITION 3 or 4, lock the reactor mode switch in the Shutdown position within 1 hour.
- In OPERATIONAL CONDITION 5, suspend all operations involving CORE ALTERATIONS or positive reactivity changes and fully insert all insertable control rods within 1 hour.

TABLE NOTATIONS

- a. Deleted.
- b. The "shorting links" shall be removed from the RPS circuitry during CORE ALTERATIONS and shutdown margin demonstrations performed in accordance with Specification 3.10.3.
- c. The IRM scrams are automatically bypassed when the reactor vessel mode switch is in the Run position and all APRM channels are OPERABLE and on scale.
- d. An APRM channel is inoperable if there are less than 2 LPRM inputs per level or less than 11 LPRM inputs to an APRM channel.
- e. These functions are not required to be OPERABLE when the reactor pressure vessel head is unbolted or removed.
- f. This function is automatically bypassed when the reactor mode switch is in other than the Run position.
- g. This function is not required to be OPERABLE when PRIMARY CONTAINMENT INTEGRITY is not required.
- h. With any control rod withdrawn. Not applicable to control rods removed per Specification 3.9.11.1 or 3.9.11.2.
- i. These functions are bypassed when turbine first stage pressure is $\leq 250^*$ psig, equivalent to THERMAL POWER less than 30% of RATED THERMAL POWER.
- j. (Deleted)

*Initial setpoint. Final setpoint to be determined during startup testing.

TABLE 3.3.2-1 (Continued)

ISOLATION ACTUATION INSTRUMENTATION

ACTION

- ACTION 20 - Be in at least HOT SHUTDOWN within 6 hours and in COLD SHUTDOWN within the next 30 hours.
- ACTION 21 - Be in at least STARTUP with the main steam line isolation valves closed within 2 hours or be in at least HOT SHUTDOWN within 6 hours and in COLD SHUTDOWN within the next 30 hours.
- ACTION 22 - Be in at least STARTUP within 2 hours.
- ACTION 23 - Be in at least STARTUP with the Group 1 isolation valves closed within 2 hours or in at least HOT SHUTDOWN within 6 hours.
- ACTION 24 - Establish SECONDARY CONTAINMENT INTEGRITY with the standby gas treatment system operating within one hour.
- ACTION 25 - Isolate the reactor water cleanup system.
- ACTION 26 - Close the affected system isolation valves and declare the affected system inoperable.
- ACTION 27 - Verify power availability to the bus at least once per 12 hours or close the affected system isolation valves and declare the affected system inoperable.
- ACTION 28 - Close the shutdown cooling supply and reactor vessel head spray isolation valves unless reactor steam dome pressure \leq 145 psig.
- ACTION 29 - Either close the affected isolation valves within 24 hours or be in HOT SHUTDOWN within the next 6 hours and in COLD SHUTDOWN within the next 30 hours.
- ACTION 30 - Trip and isolate the mechanical vacuum pump and isolate the reactor water sample valves.

NOTES

- * Actuates the standby gas treatment system.
- ** When handling irradiated fuel in the secondary containment.
- *** When performing inservice hydrostatic or leak testing with the reactor coolant temperature above 212° F.
- a. See Specification 3.6.3, Table 3.6.3-1 for valves in each valve group.
- b. Deleted.

TABLE 3.3.6.7-1 (SHEET 2 OF 2)

MCRECS ACTUATION INSTRUMENTATION

ACTION

ACTION 52 - Take the ACTION required by Specification 3.3.3.

ACTION 53 - Take the ACTION required by Specification 3.3.2.

ACTION 54 -

- a. With one of the required radiation monitors inoperable, restore the monitor to OPERABLE status within 7 days or, within the next 6 hours, initiate and maintain operation of the MCRECS in the pressurization mode of operation.
- b. With no radiation monitors OPERABLE, within 1 hour initiate and maintain operation of the MCRECS in the pressurization mode of operation.
- c. The provisions of Specification 3.0.4 are not applicable.

NOTES

* When handling irradiated fuel in secondary containment.

a. (Deleted)

b. With a design providing only one channel per trip system, an inoperable channel need not be placed in the tripped condition where this would cause the Trip Function to occur. In these cases, the inoperable channel shall be restored to OPERABLE status within 12 hours or the ACTION required by Table 3.3.6.7-1 for that Trip Function shall be taken.

c. Actuates the MCRECS in the control room pressurization mode.

d. (Deleted)

e. (Deleted)

TABLE 4.3.6.7-1

MCRECS ACTUATION INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>TRIP FUNCTION</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>CHANNEL CALIBRATION</u>	<u>OPERATIONAL CONDITIONS IN WHICH SURVEILLANCE REQUIRED</u>
1. Reactor Vessel Water Level - Low Low Low (Level 1)	S	Q	R	1, 2, 3
2. Drywell Pressure - High	S	Q	R	1, 2, 3
3. (Deleted)				
4. Main Steam Line Flow - High	S	Q	R	1, 2, 3
5. Refueling Floor Area Radiation - High	S	Q ^(a)	Q	1, 2, 3, 5 *
6. Control Room Air Inlet Radiation - High	NA	Q ^(a)	R	1, 2, 3, 5, *

* When handling irradiated fuel in the secondary containment.

a. Instrument alignment using a standard current source.