REVISED PAGES - UNIT NO. 1

INSTRUMENTATION

ACCIDENT MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.7   The accident monitoring instrumentation channels shown in Table 3.3-11
           shall be operable.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

           a. As shown in Table 3.3-11.

           b. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.7   Each accident monitoring instrumentation channel shall be demonstrated
           OPERABLE by performance of the CHANNEL CHECK and CHANNEL CALIBRATION -
           operations at the frequencies shown in Table 4.3-11.

TABLE 3.3-11

ACCIDENT MONITORING INSTRUMENTATION

INSTRUMENT	REQUIRED NO. OF CHANNELS	MINIMUM NO. OF CHANNELS	ACTION
1. Reactor Coolant Outlet Temperature - T_{HOT} (Wide Range)	2	1	1, 2
2. Reactor Coolant Inlet Temperature - T_{COLD} (Wide Range)	2	1	1, 2
3. Reactor Coolant Pressure (Wide Range)	2	1	1, 2
4. Pressurizer Water Level	2	1	1, 2
5. Steam Line Pressure	2/Steam Generator	1/Steam Generator	1, 2
6. Steam Generator Water Level (Narrow Range)	2/Steam Generator	1/Steam Generator	1, 2
7. Steam Generator Water Level (Wide Range)	4 (1/Steam Generator)	3 (1/Steam Generator)	1, 2
8. Refueling Water Storage Tank Water Level	2	1	1, 2
9. Boric Acid Tank Solution Level	2 (1/tank)	1 (1/tank)	3
10. Auxiliary Feedwater Flow Rate	4 (1/Steam Generator)	3 (1/Steam Generator)	4, 6
11. Reactor Coolant System Subcooling Margin Monitor	2	1	4, 6 1, 2
12. PORV Position Indicator	2/valve**	1	1, 2

TABLE 3.3-11 (Continued)

ACCIDENT MONITORING INSTRUMENTATION

INSTRUMENT	REQUIRED NO. OF CHANNELS	MINIMUM NO. OF CHANNELS	ACTION
13. PORV Block Valve Position Indicator	2/valve**	1	1, 2
14. Pressurizer Safety Valve Position Indicator	2/valve**	1	1, 2
15. Containment Pressure - Narrow Range	2	1	1, 2
16. Containment Pressure - Wide Range	2	1	1, 2
17. Containment Water Level - Wide Range	2	1	7, 2
18. Core Exit Thermocouples	4/core quadrant	2/core quadrant	1, 2
19. Reactor Vessel Level Instrumentation System (RVLIS)	2	1	7 8 *** 1, 2

~~(*)Total number of channels is considered to be two (2) with one (1) of the channels being manual calculation by licensed control room personnel using data from OPERABLE wide range Reactor Coolant Pressure and Temperature along with Steam Tables as described in ACTION 5.~~

(**)Total number of channels to be two (2) with one (1) of the channels being any one (1) of the following alternate means for determining PORV, PORV Block, or Safety Valve position: Tailpipe Temperatures for the valves, Pressurizer Relief Tank Temperature Pressurizer Relief Tank Level OPERABLE.

INSERT A

INSERT A

(***) Action 8 remains in effect until startup from the 10th refueling outage at which time, PSE&G will install the upgraded RVLIS. Upon expiration, Actions 1 and 2 will apply.

TABLE 3.3-11 (continued)

TABLE NOTATION

ACTION 1   With the number of OPERABLE accident monitoring channels less than the Required Number of Channels shown in Table 3.3-11, restore the inoperable channel(s) to OPERABLE status within 7 days, or be in HOT SHUTDOWN within the next 12 hours.

ACTION 2   With the number of OPERABLE accident monitoring channels less than the Minimum Number of Channels shown in Table 3.3-11, restore the inoperable channel(s) to OPERABLE status within 48 hours or be in HOT SHUTDOWN within the next 12 hours.

ACTION 3   With the number of OPERABLE channels one less than the Required Number of Channels shown in Table 3.3-11, operation may proceed provided that the Boric Acid Tank associated with the remaining OPERABLE channel satisfies all requirements of Specification 3.1.2.8.a.

ACTION 4   With the number of OPERABLE channels one less than the Required Number of Channels shown in Table 3.3-11, operation may proceed provided that an OPERABLE Steam Generator Wide Range Level channel is available as an alternate means of indication for the Steam Generator with no OPERABLE Auxiliary Feedwater Flow Rate channel.

ACTION 5   With the number of OPERABLE channels less than the Required Number of Channels show in Table 3.3-11, operation may proceed provided that Steam Tables are available in the Control Room and the following Required Channels shown in Table 3.3-11 are OPERABLE to provide an alternate means of calculating Reactor Coolant System subcooling margin:

a.   Reactor Coolant Outlet Temperature - T HOT (Wide Range)

b.   Reactor Coolant Pressure (Wide Range)

TABLE 3.3-11 (continued)

TABLE NOTATION

ACTION 6 With the number of OPERABLE channels less than the Minimum Number of channels shown in Table 3.3-11, restore the inoperable channel(s) to OPERABLE status within 7 days, or be in HOT SHUTDOWN within the next 12 hours.

ACTION 7 With the number of OPERABLE channels one less than the Required Number of Channels shown in Table 3.3-11, operation may proceed until the next CHANNEL CALIBRATION (which shall be performed upon the next entry into MODE 5, COLD SHUTDOWN).

ACTION 8 With the number of OPERABLE Channels one less than the Required or ^Minimum number of channels shown in Table 3.3-11, either restore the inoperable channel(s) to OPERABLE status within 48 hours or:

1. Operation may proceed provided the Required Channels shown in Table 3.3-11 for the Reactor Coolant System Subcooling Margin Monitor and the Core Exit Thermocouples are OPERABLE. With the number of OPERABLE channels for the Reactor Coolant System Subcooling Margin Monitor and the Core Exit Thermocouples shown in Table 3.3-11 less than the Required Number of Channels, follow the associated Action Statement, and

2. Restore the system to OPERABLE status at the next scheduled CHANNEL CALIBRATION (which shall be performed upon the next entry into MODE 5, COLD SHUTDOWN).

TABLE 4.3-11

SURVEILLANCE REQUIREMENTS FOR
ACCIDENT MONITORING INSTRUMENTATION

INSTRUMENT	CHANNEL CHECKS	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST
1. Reactor Coolant Outlet Temperature – T_{HOT} (Wide Range)	M	R	NA
2. Reactor Coolant Inlet Temperature – T_{COLD} (Wide Range)	M	R	NA
3. Reactor Coolant Pressure (Wide Range)	M	R	NA
4. Pressurizer Water Level	M	R	NA
5. Steam Line Pressure	M	R	NA
6. Steam Generator Water Level (Narrow Range)	M	R	NA
7. Steam Generator Water Level (Wide Range)	M	R	NA
8. Refueling Water Storage Tank Water Level	M	R	NA
9. Boric Acid Tank Solution Level	M	R	NA
10. Auxiliary Feedwater Flow Rate	SU#	R	NA
11. Reactor Coolant System Subcooling Margin Monitor	M	N/A*	NA

#Auxiliary Feedwater System is used on each startup and flow rate indication is verified at that time.

*The instruments used to develop RCS subcooling margin are calibrated on an 18 month cycle; the monitor

TABLE 4.3-11 (CONTINUED)
SURVEILLANCE REQUIREMENTS FOR
ACCIDENT MONITORING INSTRUMENTATION

INSTRUMENT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST
12. PORV Position Indicator	M	NA	Q
13. PORV Block Valve Position Indicator	M	NA	Q
14. Pressurizer Safety Valve Position Indicator	M	NA	R
15. Containment Pressure - Narrow Range	M	NA	NA
16. Containment Pressure - Wide Range	M	R	NA
17. Containment Water Level - Wide Range	M	R	NA
18. Core Exit Thermocouples	M	R	NA
19. Reactor Vessel Level Instrumentation System (RVLIS)	M	R	NA

REVISED PAGES - UNIT NO. 2

INSTRUMENTATION

ACCIDENT MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.7   The accident monitoring instrumentation channels shown in Table 3.3-11 shall be operable.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

   a.   As shown in Table 3.3-11.

   b.   The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.7   Each accident monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK and CHANNEL CALIBRATION operations at the frequencies shown in Table 4.3-11.

TABLE 3.3-11

ACCIDENT MONITORING INSTRUMENTATION

INSTRUMENT	REQUIRED NO. OF CHANNELS	MINIMUM NO. OF CHANNELS	ACTION
1. Reactor Coolant Outlet Temperature - T_{HOT} (Wide Range)	2	1	1, 2
2. Reactor Coolant Inlet Temperature - T_{COLD} (Wide Range)	2	1	1, 2
3. Reactor Coolant Pressure (Wide Range)	2	1	1, 2
4. Pressurizer Water Level	2	1	1, 2
5. Steam Line Pressure	2/Steam Generator	1/Steam Generator	1, 2
6. Steam Generator Water Level (Narrow Range)	2/Steam Generator	1/Steam Generator	1, 2
7. Steam Generator Water Level (Wide Range)	4 (1/Steam Generator)	3 (1/Steam Generator)	1, 2
8. Refueling Water Storage Tank Water Level	2	1	1, 2
9. Boric Acid Tank Solution Level	2 (1/tank)	1 (1/tank)	3
10. Auxiliary Feedwater Flow Rate	4 (1/Steam Generator)	3 (1/Steam Generator)	4, 6
11. Reactor Coolant System Subcooling Margin Monitor	2**	1	5, 6
12. PORV Position Indicator	2/valve**	1	1, 2

TABLE 3.3-11 (Continued)

ACCIDENT MONITORING INSTRUMENTATION

INSTRUMENT	REQUIRED NO. OF CHANNELS	MINIMUM NO. OF CHANNELS	ACTION
13. PORV Block Valve Position Indicator	2/valve**	1	1, 2
14. Pressurizer Safety Valve Position Indicator	2/valve**	1	1, 2
15. Containment Pressure - Narrow Range	2	1	1, 2
16. Containment Pressure - Wide Range	2	1	1, 2
17. Containment Water Level - Wide Range	2	1	7, 2
18. Core Exit Thermocouples	4/core quadrant	2/core quadrant	1, 2
19. Reactor Vessel Level Instrumentation System (RVLIS)	2	1	~~7,~~ 8 *** 1, 2

(*)Total number of channels is considered to be two (2) with one (1) of the channels being manual calculation by licensed control room personnel using data from OPERABLE wide range Reactor Coolant Pressure and Temperature along with Steam Tables as described in ACTION 5.

(**)Total number of channels to be two (2) with one (1) of the channels being any one (1) of the following alternate means for determining PORV, PORV Block, or Safety Valve position: Tailpipe Temperatures for the valves, Pressurizer Relief Tank Temperature Pressurizer Relief Tank Level OPERABLE.

INSERT A

INSERT A

(***) Action 8 remains in effect until startup from the 6th
refueling outage at which time, PSE&G will install the upgraded
RVLIS. Upon expiration, Actions 1 and 2 will apply.

TABLE 3.3-11 (continued)

TABLE NOTATION

ACTION 1   With the number of OPERABLE accident monitoring channels less than the Required Number of Channels shown in Table 3.3-11, restore the inoperable channel(s) to OPERABLE status within 7 days, or be in HOT SHUTDOWN within the next 12 hours.

ACTION 2   With the number of OPERABLE accident monitoring channels less than the Minimum Number of Channels shown in Table 3.3-11, restore the inoperable channel(s) to OPERABLE status within 48 hours or be in HOT SHUTDOWN within the next 12 hours.

ACTION 3   With the number of OPERABLE channels one less than the Required Number of Channels shown in Table 3.3-11, operation may proceed provided that the Boric Acid Tank associated with the remaining OPERABLE channel satisfies all requirements of Specification 3.1.2.8.a.

ACTION 4   With the number of OPERABLE channels one less than the Required Number of Channels shown in Table 3.3-11, operation may proceed provided that an OPERABLE Steam Generator Wide Range Level channel is available as an alternate means of indication for the Steam Generator with no OPERATABLE Auxiliary Feedwater Flow Rate Channel.

ACTION 5   With the number of OPERABLE channels less than the Required Number of Channels shown in Table 3.3-11, operation may proceed provided that Steam Tables are available in the Control Room and the following Required Channels shown in Table 3.3-11 are OPERABLE to provide an alternate means of calculating Reactor Coolant System subcooling margin:

   a.   Reactor Coolant Outlet Temperature - T_{HOT}
        (Wide Range)

   b.   Reactor Coolant Pressure (Wide Range)

TABLE 3.3-11 (continued)

TABLE NOTATION

ACTION 6   With the number of OPERABLE channels less than the Minimum Number of channels shown in Table 3.3-11, restore the inoperable channel(s) to OPERABLE status within 7 days, or be in HOT SHUTDOWN within the next 12 hours.

ACTION 7   With the number of OPERABLE channels one less than the Required Number of Channels shown in Table 3.3-11, operation may proceed until the next CHANNEL CALIBRATION (which shall be performed upon the next entry into MODE 5, COLD SHUTDOWN).

ACTION 8   With the number of OPERABLE Channels one less than the ^Required or Minimum number of channels shown in Table 3.3-11, either restore the inoperable channel(s) to OPERABLE status within 48 hours or:

1.   Operation may proceed provided the Required Channels shown in Table 3.3-11 for the Reactor Coolant System Subcooling Margin Monitor and the Core Exit Thermocouples are OPERABLE. With the number of OPERABLE channels for the Reactor Coolant System Subcooling Margin Monitor and the Core Exit Thermocouples shown in Table 3.3-11 less than the Required Number of Channels, follow the associated Action Statement, and

2.   Restore the system to OPERABLE status at the next scheduled CHANNEL CALIBRATION (which shall be performed upon the next entry into MODE 5, COLD SHUTDOWN).

TABLE 4.3-11

SURVEILLANCE REQUIREMENTS FOR
ACCIDENT MONITORING INSTRUMENTATION

INSTRUMENT	CHANNEL CHECKS	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST
1. Reactor Coolant Outlet Temperature - T_{HOT} (Wide Range)	M	R	NA
2. Reactor Coolant Inlet Temperature - T_{COLD} (Wide Range)	M	R	NA
3. Reactor Coolant Pressure (Wide Range)	M	R	NA
4. Pressurizer Water Level	M	R	NA
5. Steam Line Pressure	M	R	NA
6. Steam Generator Water Level (Narrow Range)	M	R	NA
7. Steam Generator Water Level (Wide Range)	M	R	NA
8. Refueling Water Storage Tank Water Level	M	R	NA
9. Boric Acid Tank Solution Level	M	R	NA
10. Auxiliary Feedwater Flow Rate	SU#	R	NA
11. Reactor Coolant System Subcooling Margin Monitor	M	N/A*	NA

#Auxiliary Feedwater System is used on each startup and flow rate indication is verified at that time.

*The instruments used to develop RCS subcooling margin are calibrated on an 18 month cycle; the monitor

TABLE 4.3-11 (CONTINUED)
SURVEILLANCE REQUIREMENTS FOR
ACCIDENT MONITORING INSTRUMENTATION

INSTRUMENT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST
12. PORV Position Indicator	M	NA	Q
13. PORV Block Valve Position Indicator	M	NA	Q
14. Pressurizer Safety Valve Position Indicator	M	NA	R
15. Containment Pressure - Narrow Range	M	NA	NA
16. Containment Pressure - Wide Range	M	R	NA
17. Containment Water Level - Wide Range	M	R	NA
18. Core Exit Thermocouples	M	R	NA
19. Reactor Vessel Level Instrumentation System (RVLIS)	M	R	NA