

(1) Maximum Power Level

PSEG Nuclear LLC is authorized to operate the facility at a steady state reactor core power level not in excess of 3459 megawatts (one hundred percent of rated core power).

(2) Technical Specifications

The technical Specifications contained in Appendices A and B, as revised through Amendment No. 272 are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

(3) Deleted per Amendment 22, 11-20-79

(4) Less than Four Loop Operation

PSEG Nuclear LLC shall not operate the reactor at power levels above P-7 (as defined in Table 3.3-1 of Specification 3.3.1.1 of Appendix A to this license) with less than four (4) reactor coolant loops in operation until safety analyses for less than four loop operation at power levels above P-7 has been granted by the Commission by Amendment of this license.

(5) PSEG Nuclear LLC shall implement and maintain in effect all provisions of the approved fire protection program as described in the Updated Final Safety Analysis Report, and as approved in the NRC Safety Evaluation Report dated November 20, 1979, and its supplements, subject to the following provision:

PSEG Nuclear LLC may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

POWER DISTRIBUTION LIMITS

SURVEILLANCE REQUIREMENTS

- 4.2.2.1 The provisions of Specification 4.0.4 are not applicable.
- 4.2.2.2 F_{xy} shall be evaluated to determine if $F_0(Z)$ is within its limit by:
- a. Using the movable incore detectors to obtain a power distribution map:
 1. When THERMAL POWER is $\leq 25\%$, but $> 5\%$ of RATED THERMAL POWER, or
 2. When the Power Distribution Monitoring System (PDMS) is inoperable;and increasing the Measured $F_0(Z)$ by the applicable manufacturing and measurement uncertainties as specified in the COLR.
 - b. Using the PDMS or the moveable incore detectors when THERMAL POWER is $> 25\%$ of RATED THERMAL POWER, and increasing the measured $F_0(Z)$ by the applicable manufacturing and measurement uncertainties as specified in the COLR.
 - c. Comparing the F_{xy} computed (F_{xy}^C) obtained in b, above to:
 1. The F_{xy} limits for RATED THERMAL POWER (F_{xy}^{RTP}) for the appropriate measured core planes given in e and f below, and
 2. The relationship:
$$F_{xy}^L = F_{xy}^{RTP} [1 + PF_{xy} (1 - P)]$$
where F_{xy}^L is the limit for fractional THERMAL POWER operation expressed as a function of F_{xy}^{RTP} , PF_{xy} is the power factor multiplier for F_{xy} in the COLR, and P is the fraction of RATED THERMAL POWER at which F_{xy} was measured.
 - d. Remeasuring F_{xy} according to the following schedule:
 1. When F_{xy}^C is greater than the F_{xy}^{RTP} limit for the appropriate measured core plane but less than the F_{xy}^L relationship, additional core power distribution measurements shall be taken and F_{xy}^C compared to F_{xy}^{RTP} and F_{xy}^L :
 - a) Either within 24 hours after exceeding by 20% of RATED THERMAL POWER or greater, the THERMAL POWER at which F_{xy}^C was last determined, or

TABLE 3.3-6
RADIATION MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ALARM/TRIP SETPOINT</u>	<u>MEASUREMENT RANGE</u>	<u>ACTION</u>
1. AREA MONITORS					
a. Fuel Storage Area	1	*	≤15 mR/hr	10 ⁻¹ -10 ⁴ mR/hr	19
2. PROCESS MONITORS					
a. Containment					
1) Gaseous Activity					
a) Purge & Pressure - 1# Vacuum Relief Isolation		1,2,3,4&5	per ODCM Control 3.3.3.9	10 ¹ -10 ⁶ cpm	23
b) RCS Leakage Detection	1	1,2,3&4	N/A	10 ¹ -10 ⁶ cpm	20
2) Air Particulate Activity					
a) (NOT USED)					
b) RCS Leakage Detection	1	1,2,3&4	N/A	10 ¹ -10 ⁶ cpm	20

* With fuel in the storage pool or building.

The plant vent noble gas monitor may also function in this capacity when the purge/pressure-vacuum relief isolation valves are open.

Table 4.3-3
RADIATION MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNELS CHECKS</u>	<u>SOURCE CHECKS</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
1. AREA MONITORS					
a. Fuel Storage Area	S	M	R	Q	*
2. PROCESS MONITORS					
a. Containment Monitors					
1) Gaseous Activity					
a) Purge & Pressure Vacuum Relief Isolation	S	M	R	Q	1, 2, 3, 4 & 5
b) RCS Leakage Detection	S	M	R	Q	1, 2, 3 & 4
2) Air Particulate Activity					
a) (NOT USED)					
b) RCS Leakage Detection	S	M	R	Q	1, 2, 3 & 4

*With fuel in the storage pool or building.

TABLE 3.3-11 (CONTINUED)

ACCIDENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>REQUIRED NO. OF CHANNELS</u>	<u>MINIMUM NO. OF CHANNELS</u>	<u>ACTION</u>
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	7, 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	8, 9
20. Containment High Range Accident Radiation Monitor	2	2	10

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

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 one RVLIS channel inoperable, restore the RVLIS channel to OPERABLE status within 30 days, or submit a special report in accordance with Specification 6.9.4.
- ACTION 9 With both RVLIS channels inoperable, restore one channel to OPERABLE status within 7 days or submit a special report in accordance with Specification 6.9.4.
- ACTION 10 With the number of OPERABLE Channels less than required by the minimum channels OPERABLE requirements, initiate the preplanned alternate method of monitoring the appropriate parameter within 72 hours, and:
- 1) either restore the inoperable Channel(s) to OPERABLE status within 7 days of the event, or
 - 2) prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within 14 days following the event outlining the actions taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.

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

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>
12. PORV Position Indicator	M	N.A.	R
13. PORV Block Valve Position Indicator	M	N.A.	Q*
14. Pressurizer Safety Valve Position Indicator	M	N.A.	R
15. Containment Pressure - Narrow Range	M	R	N.A.
16. Containment Pressure - Wide Range	M	R	N.A.
17. Containment Water Level - Wide Range	M	R**	N.A.
18. Core Exit Thermocouples	M	R	N.A.
19. Reactor Vessel Level Instrumentation System (RVLIS)	M	R	N.A.
20. Containment High Range Accident Radiation Monitor	S	R	Q

*Unless the block valve is closed in order to meet the requirements of Action b, or c in specification 3.4.3.

** A one-time extension to this surveillance requirement is granted during fuel cycle thirteen allowing Unit 1 operations to continue to the thirteenth refueling outage (1R13). The surveillance is to be completed at the appropriate time during the 1R13 outage, prior to the unit returning to Mode 4 upon outage completion.

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 253, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

(3) Special Low Power Test Program

PSE&G shall complete the training portion of the Special Low Power Test Program in accordance with PSE&G's letter dated September 5, 1980 and in accordance with the Commission's Safety Evaluation Report "Special Low Power Test Program", dated August 22, 1980 (See Amendment No. 2 to DPR-75 for the Salem Nuclear Generating Station, Unit No. 2) prior to operating the facility at a power level above five percent.

Within 31 days following completion of the power ascension testing program outlined in Chapter 13 of the Final Safety Analysis Report, PSE&G shall perform a boron mixing and cooldown test using decay heat and Natural Circulation. PSE&G shall submit the test procedure to the NRC for review and approval prior to performance of the test. The results of this test shall be submitted to the NRC prior to starting up following the first refueling outage.

(4) Initial Test Program

PSE&G shall conduct the post-fuel loading initial test program (set forth in Chapter 13 of the Final Safety Analysis Report, as amended) without making any major modifications of this program unless modifications have been identified and have received prior NRC approval. Major modifications are defined as:

- (a) Elimination of any test identified in Chapter 13 of the Final Safety Analysis Report, as amended, as essential;
- (b) Modification of test objectives, methods or acceptance criteria for any test identified in Chapter 13 of the Final Safety Analysis Report, as amended, as essential;
- (c) Performance of any test at a power level different by more than five percent of rated power from there described; and

TABLE 3.3-6
RADIATION MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ALARM/TRIP SETPOINT</u>	<u>MEASUREMENT RANGE</u>	<u>ACTION</u>
1. AREA MONITORS					
a. Fuel Storage Area	1	*	≤15 mR/hr	10 ⁻¹ -10 ⁴ mR/hr	23
2. PROCESS MONITORS					
a. Containment					
1) Gaseous Activity					
a) Purge & Pressure Vacuum Relief Isolation	1#	1,2,3,4&5	per ODCM Control 3.3.3.9	10 ¹ -10 ⁶ cpm	26
b) RCS Leakage Detection	1	1,2,3&4	N/A	10 ¹ -10 ⁶ cpm	24
2) Air Particulate Activity					
a) (NOT USED)					
b) RCS Leakage Detection	1	1,2,3&4	N/A	10 ¹ -10 ⁶ cpm	24

* With fuel in the storage pool or building.

The plant vent noble gas monitor may also function in this capacity when the purge/pressure-vacuum relief isolation valves are open.

TABLE 4.3-3
RADIATION MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

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1. AREA MONITORS					
a. Fuel Storage Area	S	M	R	Q	*
2. PROCESS MONITORS					
a. Containment Monitors					
1) Gaseous Activity					
a) Purge & Pressure Vacuum Relief Isolation	S	M	R	Q	1, 2, 3, 4 & 5
b) RCS Leakage Detection	S	M	R	Q	1, 2, 3 & 4
2) Air Particulate Activity					
a) (NOT USED)					
b) RCS Leakage Detection	S	M	R	Q	1, 2, 3 & 4

*With fuel in the storage pool or building.

TABLE 3.3-11 (Continued)

ACCIDENT MONITORING INSTRUMENTATION

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15. Containment Pressure - Narrow Range	2	1	1, 2
16. Containment Pressure - Wide Range	2	1	7, 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	8, 9
20. Containment High Range Accident Radiation Monitor	2	2	10

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

TABLE 3.3-11 (continued)

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- 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.
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- 1) either restore the inoperable Channel(s) to OPERABLE status within 7 days of the event, or
 - 2) prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within 14 days following the event outlining the actions taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.

TABLE 4.3-11 (Continued)
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ACCIDENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>CHANNEL CHECKS</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>
12. PORV Position Indicator	M	N.A.	R
13. PORV Block Valve Position Indicator	M	N.A.	Q*
14. Pressurizer Safety Valve Position Indicator	M	N.A.	R
15. Containment Pressure - Narrow Range	M	R	N.A.
16. Containment Pressure - Wide Range	M	R	N.A.
17. Containment Water Level - Wide Range	M	R	N.A.
18. Core Exit Thermocouples	M	R	N.A.
19. Reactor Vessel Level Instrumentation System (RVLIS)	M	R	N.A.
20. Containment High Range Accident Radiation Monitor	S	R	Q

* Unless the block valve is closed in order to meet the requirements of Action b, or c in specification 3.4.5.