

INDEX

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

| <u>SECTION</u> | <u>PAGE</u> |
|--|-------------|
| <u>3/4.2</u> <u>POWER DISTRIBUTION LIMITS</u> | |
| 3/4.2.1 AXIAL FLUX DIFFERENCE | 3/4 2-1 |
| 3/4.2.2 HEAT FLUX HOT CHANNEL FACTOR | 3/4 2-5 |
| 3/4.2.3 NUCLEAR ENTHALPY HOT CHANNEL FACTOR | 3/4 2-9 |
| 3/4.2.4 QUADRANT POWER TILT RATIO | 3/4 2-11 |
| 3/4.2.5 DNB PARAMETERS | 3/4 2-13 |
| | |
| <u>3/4.3</u> <u>INSTRUMENTATION</u> | |
| 3/4.3.1 REACTOR TRIP SYSTEM INSTRUMENTATION | 3/4 3-1 |
| 3/4.3.2 ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION | 3/4 3-14 |
| 3/4.3.3 MONITORING INSTRUMENTATION | |
| Radiation Monitoring Instrumentation | 3/4 3-35 |
| Movable Incore Detectors | 3/4 3-39 |
| Remote Shutdown Instrumentation | 3/4 3-46 |
| Accident Monitoring Instrumentation | 3/4 3-53 |
| Radioactive Liquid Effluent Monitoring Instrumentation | 3/4 3-58 |
| Radioactive Gaseous Effluent Oxygen Monitoring Instrumentation | 3/4 3-64 |
| 3/4.3.4 DELETED | |

Df04

INDEX

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

| <u>SECTION</u> | <u>PAGE</u> |
|--|-------------|
| <u>3/4.11</u> <u>RADIOACTIVE EFFLUENTS</u> | |
| 3/4.11.1 LIQUID EFFLUENTS | |
| Liquid Holdup Tanks | 3/4 11-7 |
| 3/4.11.2 GASEOUS EFFLUENTS | |
| Explosive Gas Mixture | 3/4 11-15 |
| 3/4.11.3 Deleted | 3/4 11-17 |
| 3/4.11.4 Deleted | 3/4 11-18 |
| <u>3/4.12</u> <u>Deleted</u> | |

INDEX

BASES

| <u>SECTION</u> | <u>PAGE</u> |
|--|-------------|
| <u>3/4.11</u> <u>RADIOACTIVE EFFLUENTS</u> | |
| 3/4.11.1 LIQUID EFFLUENTS | .B 3/4 11-1 |
| 3/4.11.2 GASEOUS EFFLUENTS | .B 3/4 11-3 |
| 3/4.11.3 Deleted | .B 3/4 11-6 |
| 3/4.11.4 Deleted | .B 3/4 11-7 |
| <u>3/4.12</u> <u>Deleted</u> | |

DEFINITIONS

- b. Leakage into the containment atmosphere from sources that are both specifically located and known either not to interfere with the operation of leakage detection systems or not to be PRESSURE BOUNDARY LEAKAGE, or
- c. Reactor coolant system leakage through a steam generator to the secondary system.

MEMBER(S) OF THE PUBLIC

1.16 MEMBER(S) OF THE PUBLIC shall be all those persons who are not occupationally associated with the plant. This category does not include employees of PSE&G, its contractors, or vendors. Also excluded from this category are persons who enter the site to service equipment or to make deliveries. This category does include persons who use portions of the site for recreational, occupational, or other purposes not associated with the plant.

OFFSITE DOSE CALCULATION MANUAL (ODCM)

1.17 The OFFSITE DOSE CALCULATION MANUAL (ODCM) shall contain the methodology and parameters used in the calculation of offsite doses resulting from radioactive gaseous and liquid effluents, in the calculation of gaseous and liquid effluent monitoring Alarm/Trip setpoints, and in the conduct of the Environmental Radiological Monitoring Program. The ODCM shall also contain (1) the Radioactive Effluent controls and Radiological Environmental Monitoring programs required by Section 6.8.4 and (2) descriptions of the information that should be included in the Annual Radiological Environmental Operating and Annual Radioactive Effluent Release Reports required by Specifications 6.9.1.7 and 6.9.1.8 respectively.

OPERABLE - OPERABILITY

1.18 A system, subsystem, train, component or device shall be OPERABLE or have OPERABILITY when it is capable of performing its specified function(s), and when all necessary attendant instrumentation, controls, a normal and an emergency electrical power source, cooling or seal water, lubrication or other auxiliary equipment that are required for the system, subsystem, train, component or device to perform its function(s) are also capable of performing their related support function(s).

OPERATIONAL MODE - MODE

1.19 An OPERATIONAL MODE (ie., MODE) shall correspond to any one inclusive combination of core reactivity condition, power level and average reactor coolant temperature specified in Table 1.1.

DEFINITIONS

PHYSICS TESTS

1.20 PHYSICS TESTS shall be those tests performed to measure the fundamental nuclear characteristics of the reactor core and related instrumentation and 1) described in Chapter 14 of the Updated FSAR, 2) authorized under the provisions of 10CFR50.59, or 3) otherwise by the Commission.

PRESSURE BOUNDARY LEAKAGE

1.21 PRESSURE BOUNDARY LEAKAGE shall be leakage (except steam generator tube leakage) through a non-isolable fault in a Reactor Coolant System component body, pipe wall or vessel wall.

PROCESS CONTROL PROGRAM (PCP)

1.22 The PROCESS CONTROL PROGRAM (PCP) shall contain the current formulas, sampling, analyses, test, and determinations to be made to ensure that processing and packaging of solid radioactive wastes based on demonstrated processing of actual or simulated wet solid wastes will be accomplished in such a way as to assure compliance with 10 CFR Parts 20, 61, and 71, State regulations, burial ground requirements, and other requirements governing the disposal of radioactive waste.

PURGE - PURGING

1.23 PURGE or PURGING shall be the controlled process of discharging air or gas from a confinement to maintain temperature, pressure, humidity, concentration, or other operating condition, in such a manner that replacement air or gas is required to purify the confinement.

QUADRANT POWER TILT RATIO

1.24 QUADRANT POWER TILT RATIO shall be the ratio of the maximum upper excore detector calibrated output to the average of the upper excore detector calibrated outputs, or the ratio of the maximum lower excore detector calibrated output to the average of the lower excore detector calibrated outputs, whichever is greater. With one excore detector inoperable, the remaining three detectors shall be used for computing the average.

RATED THERMAL POWER

1.25 RATED THERMAL POWER shall be a total reactor core heat transfer rate to the reactor coolant of 3411 MWt.

DEFINITIONS

REACTOR TRIP SYSTEM RESPONSE TIME

1.26 The REACTOR TRIP SYSTEM RESPONSE TIME shall be the time interval from when the monitored parameter exceeds its trip setpoint at the channel sensor until loss of stationary gripper coil voltage.

REPORTABLE EVENT

1.27 A REPORTABLE EVENT shall be any of those conditions specified in Section 50.73 to 10CFR Part 50.

SHUTDOWN MARGIN

1.28 SHUTDOWN MARGIN shall be the instantaneous amount of reactivity by which the reactor is subcritical or would be subcritical from its present condition assuming all full length rod cluster assemblies (shutdown and control) are fully inserted except for the single rod cluster assembly of highest reactivity worth which is assumed to be FULLY WITHDRAWN.

SITE BOUNDARY

1.29 The SITE BOUNDARY shall be that line beyond which the land is not owned, leased, or otherwise controlled by the licensee, as shown in Figure 5.1-3, and which defines the exclusion area as shown in Figure 5.1-1.

SOLIDIFICATION

1.30 Not Used

SOURCE CHECK

1.31 SOURCE CHECK shall be the qualitative assessment of channel response when the channel sensor is exposed to a source of increased radioactivity.

STAGGERED TEST BASIS

1.32 A STAGGERED TEST BASIS shall consist of:

- a. A test schedule for (n) systems, subsystems, trains, or other designated components obtained by dividing the specified test interval into (n) equal subintervals.

INSTRUMENTATION

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.8 The radioactive liquid effluent monitoring instrumentation channels shown in Table 3.3-12 shall be OPERABLE to ensure that the limits of ODCM Control 3.11.1.1 are not exceeded.

APPLICABILITY: At all times.

ACTION:

- a. Not Used
- b. With less than the minimum number of radioactive liquid effluent monitoring instrumentation channels OPERABLE, take the ACTION shown in Table 3.3-12. Exert best efforts to return the instrument to OPERABLE status within 30 days and, if unsuccessful, explain in the next annual radioactive effluent release report why the inoperability was not corrected in a timely manner.
- c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.8 Each radioactive liquid effluent monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK, CHANNEL CALIBRATION, and CHANNEL FUNCTIONAL TEST operations at the frequencies shown in Table 4.3-12.

TABLE 3.3-12

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

| <u>INSTRUMENT</u> | <u>MINIMUM CHANNELS OPERABLE</u> | <u>ACTION</u> |
|--|--|---------------|
| 1. Not Used | | |
| 2. Not Used | | |
| 3. Not Used | | |
| 4. TANK LEVEL INDICATING DEVICES | | |
| a. Temporary Outside Storage Tanks as Required | 1 | 30 |

TABLE NOTATION

ACTION 26 - Not Used

ACTION 27 - Not Used

ACTION 28 - Not Used

ACTION 29 - Not Used

ACTION 30 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, liquid additions to this tank may continue for up to 30 days provided the tank liquid level is estimated during all liquid additions to the tank.

TABLE 4.3-12

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

| <u>INSTRUMENT</u> | <u>CHANNEL</u> <u>CHECK</u> | <u>SOURCE</u> <u>CHECK</u> | <u>CHANNEL</u> <u>CALIBRATION</u> | <u>CHANNEL</u> <u>FUNCTIONAL</u> <u>TEST</u> |
|--|--------------------------------|-------------------------------|--------------------------------------|--|
| 1. Not Used | | | | |
| 2. Not Used | | | | |
| 3. Not Used | | | | |
| 4. TANK LEVEL INDICATING DEVICES** | | | | |
| a. Temporary Outside Storage Tanks as Required | D* | N.A. | R | Q |

TABLE NOTATION

* During liquid additions to the tank.

** If tank level indication is not provided, verification will be done by visual inspection.

Pages 3/4 3-61 Through 3/4 3-63 Intentionally Blank

INSTRUMENTATION

RADIOACTIVE GASEOUS EFFLUENT OXYGEN MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.9 The radioactive gaseous effluent oxygen monitoring instrumentation channels shown in Table 3.3-13 shall be OPERABLE with their alarm/trip setpoints set to ensure that the limits of Specification 3.11.2.5 are not exceeded.

APPLICABILITY: As shown in Table 3.3-13

ACTION:

- a. With a radioactive gaseous effluent oxygen monitoring instrumentation channel alarm/trip setpoint less conservative than required by the above specification, declare the channel inoperable and take the ACTION shown in Table 3.3-13.
- b. With less than the minimum number of radioactive gaseous effluent oxygen monitoring instrumentation channels OPERABLE, take the ACTION shown in Table 3.3-13. Exert best efforts to return the instrument to OPERABLE status within 30 days and, if unsuccessful, prepare and submit a Special Report pursuant to Specification 6.9.2 to explain why the inoperability was not corrected in a timely manner.
- c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.9 Each radioactive gaseous effluent oxygen monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK, CHANNEL CALIBRATION, and CHANNEL FUNCTIONAL TEST operations at the frequencies shown in Table 4.3-13.

TABLE 3.3-13

RADIOACTIVE GASEOUS EFFLUENT OXYGEN MONITORING INSTRUMENTATION

| <u>INSTRUMENT</u> | <u>MINIMUM CHANNELS OPERABLE</u> | <u>APPLICABILITY</u> | <u>ACTION</u> |
|----------------------------|--|----------------------|---------------|
| 1. WASTE GAS HOLDUP SYSTEM | | | |
| a. Not Used | | | |
| b. Oxygen Monitor | 1 | ** | 35 |

TABLE NOTATION

ACTION 31 - Not Used

ACTION 32 - Not Used

ACTION 33 - Not Used

ACTION 34 - Not Used

ACTION 35 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, operation of the waste gas holdup system may continue provided grab samples are collected at least once per 24 hours and analyzed within the following 4 hours.

ACTION 36 - Not Used

* Not Used.

** During waste gas holdup system operation.

TABLE 4.3-13

RADIOACTIVE GASEOUS EFFLUENT OXYGEN MONITORING INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

| <u>INSTRUMENT</u> | <u>CHANNEL CHECK</u> | <u>CHANNEL CALIBRATION</u> | <u>CHANNEL FUNCTIONAL TEST</u> | <u>MODES IN WHICH SURVEILLANCE REQUIRED</u> |
|----------------------------|--------------------------|--------------------------------|--|---|
| 1. WASTE GAS HOLDUP SYSTEM | | | | |
| a. Not Used | | | | |
| b. Oxygen Monitor | D | Q(4) | M | ** |

TABLE NOTATION

(1) Not Used

(2) Not Used

(3) Not Used

(4) The CHANNEL CALIBRATION shall include the use of standard gas samples containing a nominal:

1. One volume percent oxygen, balance nitrogen, and

2. Four volume percent oxygen, balance nitrogen.

* Not Used

** During waste gas holdup system operation.

This Page Intentionally Blank
Pages 3/4 3-68 and 3/4 3-69 Deleted

3/4.11 RADIOACTIVE EFFLUENTS

3/4.11.1 Deleted

Pages 3/4 11-2 through 3/4 11-4 Intentionally Blank

RADIOACTIVE EFFLUENTS

3/4.11.1.2 Deleted

RADIOACTIVE EFFLUENTS

3/4.11.1.3 Deleted

RADIOACTIVE EFFLUENTS

3/4.11.2.1 Deleted

Pages 3/4 11-9 through 3/4 11-11 Intentionally Blank

RADIOACTIVE EFFLUENTS

3/4.11.2.2 Deleted

RADIOACTIVE EFFLUENTS

3/4.11.2.3 Deleted

RADIOACTIVE EFFLUENTS

3/4.11.2.4 Deleted

SOLID RADIOACTIVE WASTE

3/4.11.3. Deleted

RADIOACTIVE EFFLUENTS

3/4.11.4 Deleted

This Page Intentionally Blank

3/4.12 Deleted

This Page Intentionally Blank
Pages 3/4 12-3 through 3/4 12-13 Deleted

3/4.3.3.5 REMOTE SHUTDOWN INSTRUMENTATION

The OPERABILITY of the remote shutdown instrumentation ensures that sufficient capability is available to permit shutdown and maintenance of HOT STANDBY of the facility from locations outside of the control room. This capability is required in the event control room habitability is lost and is consistent with General Design Criteria 19 of 10 CFR 50.

3/4.3.3.6 THIS SECTION DELETED

3/4.3.3.7 ACCIDENT MONITORING INSTRUMENTATION

The OPERABILITY of the accident monitoring instrumentation ensures that sufficient information is available on selected plant parameters to monitor and assess these variables following an accident. This capability is consistent with the Recommendations of Regulatory Guide 1.97, "Instrumentation for Light-Water-Cooled Nuclear Power Plants to Assess Plant Conditions During and Following an Accident," December 1975.

3/4.3.3.8 RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

The purpose of tank level indicating devices is to assure the detection and control of leaks that if not controlled could potentially result in the transport of radioactive materials to UNRESTRICTED AREAS.

INSTRUMENTATION
BASES

3/4.3.3.9 RADIOACTIVE GASEOUS EFFLUENT OXYGEN MONITORING INSTRUMENTATION

The radioactive gaseous effluent oxygen monitoring instrumentation is provided to monitor the concentrations of potentially explosive gas mixtures in the waste gas holdup system. The OPERABILITY and use of this instrumentation is consistent with the requirements of General Design Criteria 60 and 63 of Appendix A to 10 CFR Part 50.

3/4.11 RADIOACTIVE EFFLUENTS

BASES

3/4.11.1 LIQUID EFFLUENTS

3/4.11.1.1 Deleted

3/4.11.1.2 Deleted

RADIOACTIVE EFFLUENTS

BASES

3/4.11.1.3 Deleted

3/4.11.1.4 LIQUID HOLDUP TANKS

The tanks listed in this specification include all those outdoor tanks that are not surrounded by liners, dikes, or walls capable of holding the tank contents and that do not have tank overflows and surrounding area drains connected to the liquid radwaste treatment system.

RADIOACTIVE EFFLUENTS

BASES

Restricting the quantity of radioactive material contained in the specified tanks provides assurance that in the event of an uncontrolled release of the tanks' contents, the resulting concentrations would be less than the limits of 10 CFR Part 20, Appendix B, Table II, Column 2, at the nearest potable water supply and the nearest surface water supply in an UNRESTRICTED AREA.

3/4.11.2 GASEOUS EFFLUENTS

3/4.11.2.1 Deleted

RADIOACTIVE EFFLUENTS

BASES

3/4.11.2.2 Deleted

3/4.11.2.3 Deleted

RADIOACTIVE EFFLUENTS

BASES

3/4.11.2.4 Deleted

RADIOACTIVE EFFLUENTS

BASES

3/4.11.2.5 EXPLOSIVE GAS MIXTURE

This specification is provided to ensure that the concentration of potentially explosive gas mixtures contained in the waste gas holdup system is maintained below the flammability limits of hydrogen and oxygen. Maintaining the concentration of hydrogen and oxygen below their flammability limits provides assurance that the releases of radioactive materials will be controlled in conformance with the requirements of General Design Criterion 60 of Appendix A to 10 CFR Part 50.

3/4.11.3 Deleted

RADIOACTIVE EFFLUENTS

BASES

3/4.11.4 Deleted

RADIOACTIVE EFFLUENTS

BASES

3/4.12 Deleted

This Page Intentionally Blank

ADMINISTRATIVE CONTROLS

following testing in accordance with this program, the leakage rate acceptance criteria are less than or equal to $0.6 L_a$ for Type B and Type C tests and less than or equal to $0.75 L_a$ for Type A tests;

- b. Air lock testing acceptance criteria are:
- 1) Overall air lock leakage rate is less than or equal to $0.05 L_a$ when tested at greater than or equal to P_a ,
 - 2) Seal leakage rate less than or equal to $0.01 L_a$ per hour when the gap between the door seals is pressurized to 10.0 psig.

Test frequencies and applicable extensions will be controlled by the Primary Containment Leakage Rate Testing Program.

The provisions of Specification 4.0.3 will be applied to the Primary Containment Leakage Rate Testing Program.

6.8.4.g Radioactive Effluent Controls Program

A program shall be provided conforming with 10 CFR 50.36a for the control of radioactive effluents and for maintaining the doses to the MEMBERS OF THE PUBLIC from radioactive effluents as low as reasonably achievable. The program (1) shall be contained in the ODCM, (2) shall be implemented by operating procedures, and (3) shall include remedial actions to be taken whenever the program limits are exceeded. The program shall include the following elements:

- 1) Limitations on the operability of radioactive liquid and gaseous monitoring instrumentation including surveillance tests and setpoint determination in accordance with the methodology in the ODCM,
- 2) Limitations on the concentrations of radioactive material released in liquid effluents to UNRESTRICTED AREAS conforming to 10 CFR 20, Appendix B, Table II, Column 2,
- 3) Monitoring, sampling, and analysis of radioactive liquid and gaseous effluents in accordance with 10 CFR 20.106 and with the methodology and parameters in the ODCM,
- 4) Limitations on the annual and quarterly doses or dose commitment to a MEMBER OF THE PUBLIC from radioactive materials in liquid effluents released from each unit to UNRESTRICTED AREAS conforming to Appendix I to 10 CFR Part 50,
- 5) Determination of cumulative and projected dose contributions from radioactive effluents for the current calendar quarter and current calendar year in accordance with the methodology and parameters in the ODCM at least every 31 days.
- 6) Limitations on the operability and use of the liquid and gaseous effluent treatment systems to ensure that the appropriate portions of these systems are used to reduce releases of radioactivity when the projected doses in a 92-day period would exceed a suitable fraction of the guidelines for the annual dose or dose commitment conforming to Appendix I to 10 CFR Part 50,

- 7) Limitations on the dose rate resulting from radioactive material released in gaseous effluents to areas beyond the SITE BOUNDARY conforming to the doses associated with 10 CFR Part 20, Appendix B, Table II, Column 1,
- 8) Limitations on the annual and quarterly air doses resulting from noble gases released in gaseous effluents from each unit to areas beyond the SITE BOUNDARY conforming to Appendix I to 10 CFR Part 50,
- 9) Limitations on the annual and quarterly doses to a MEMBER OF THE PUBLIC from Iodine-131, Iodine-133, tritium, and all radionuclides in particulate form with half-lives greater than 8 days in gaseous effluents released from each unit to areas beyond the SITE BOUNDARY conforming to Appendix I to 10 CFR Part 50,
- 10) Limitations on the annual dose or dose commitment to any MEMBER OF THE PUBLIC due to releases of radioactivity and to radiation from uranium fuel cycle sources conforming to 40 CFR Part 190.

6.8.4.h Radiological Environmental Monitoring Program

A program shall be provided to monitor the radiation and radionuclides in the environs of the plant. The program shall provide (1) representative measurements of radioactivity in the highest potential exposure pathways, and (2) verification of the accuracy of the effluent monitoring program and modeling of environmental exposure pathways. The program shall (1) be contained in the ODCM, (2) conform to the guidance of Appendix I to 10 CFR Part 50, and (3) include the following:

- 1) Monitoring, sampling, analysis, and reporting of radiation and radionuclides in the environment in accordance with the methodology and parameters in the ODCM,
- 2) A Land Use Census to ensure that changes in the use of areas at and beyond the SITE BOUNDARY are identified and that modifications to the monitoring program are made if required by the results of the census, and
- 3) Participation in a Interlaboratory Comparison Program to ensure that independent checks on the precision and accuracy of the measurements of radioactive materials in environmental sample matrices are performed as part of the quality assurance program for environmental monitoring.

ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT*

6.9.1.7 The Annual Radiological Environmental Operating Report covering the operation of the unit during the previous calendar year shall be submitted before May 1 of each year. The report shall include summaries, interpretations, and analysis of trends of the results of the Radiological Environmental Monitoring Program for the reporting period. The material provided shall be consistent with the objectives outlined in (1) the ODCM and (2) Sections IV.B.2, IV.B.3, and IV.C of Appendix I to 10 CFR 50.

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT*

6.9.1.8 The Annual Radioactive Effluent Release Report covering the operation of the unit during the previous 12 months of operation shall be submitted before May 1 of each year. The report shall include a summary of the quantities of radioactive liquid and gaseous effluents and solid waste released from the unit. The material provided shall be (1) consistent with the objective outlined in the ODCM and PCP and (2) in conformance with 10 CFR 50.36a and Section IV.B.1 of Appendix I to 10 CFR 50.

* A single submittal may be made for a multiple unit station. The submittal should combine those sections that are common to all units at the station; however, for units with separate radwaste systems, the submittal shall specify the releases of radioactive material from each unit.

This Page Intentionally Blank

6.9.1.9 CORE OPERATING LIMITS REPORT (COLR)

- a. Core operating limits shall be established prior to each reload cycle, or prior to any remaining portion of a reload cycle, and shall be documented in the COLR for the following:
 1. Moderator Temperature Coefficient Beginning of Life (BOL) and End of Life (EOL) limits and 300 ppm surveillance limit for Specification 3/4.1.1.4,
 2. Control Bank Insertion Limits for Specification 3/4.1.3.5,
 3. Axial Flux Difference Limits and target band for Specification 3/4.2.1,
 4. Heat Flux Hot Channel Factor, F_q , its variation with core height, $K(z)$, and Power Factor Multiplier PF_{xy} , Specification 3/4.2.2, and
 5. Nuclear Enthalpy Hot Channel Factor, and Power Factor Multiplier, PF_H for Specification 3/4.2.3.
- b. The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC, specifically those described in the following documents:
 1. WCAP-9272-P-A, Westinghouse Reload Safety Evaluation Methodology, July 1985 (W Proprietary), Methodology for Specifications listed in 6.9.1.9.a. Approved by Safety Evaluation dated May 28, 1985.

ADMINISTRATIVE CONTROLS

- c. Records of radiation exposure for all individuals entering radiation control areas.
- d. Records of gaseous and liquid radioactive material released to the environs.
- e. Records of transient or operational cycles for those facility components identified in Table 5.7-1.
- f. Records of reactor tests and experiments.
- g. Records of training and qualification for current members of the plant staff.
- h. Records of in-service inspections performed pursuant to these Technical Specifications.
- i. Records of Quality Assurance activities required by the QA Manual.
- j. DELETED
- k. Records of SORC meetings and activities of the Nuclear Review Board (and activities of its predecessor, the Offsite Safety Review (OSR) staff.)
- l. Records for Environmental Qualification which are covered under the provisions of Paragraph 6.16.
- m. Records of the service lives of all hydraulic and mechanical snubbers including the date at which the service life commences and associated installation and maintenance records.
- n. Records of secondary water sampling and water quality.
- o. Records of analyses required by the radiological environmental monitoring program which would permit evaluation of the accuracy of the analysis at a later date. This should include procedures effective at specified times and QA records showing that these procedures were followed.
- p. Records of reviews performed for changes made to the OFFSITE DOSE CALCULATION MANUAL and the PROCESS CONTROL PROGRAM.

6.11 RADIATION PROTECTION PROGRAM

Procedures for personnel radiation protection shall be prepared consistent with the requirements of 10 CFR Part 20 and shall be approved, maintained and adhered to for all operations involving personnel radiation exposure.

such that a major portion of the body could receive in one hour a dose in excess of 1000 mrem that are located within large areas, such as PWR containment, where no enclosure exists for purposes of locking, and no enclosure can be reasonably constructed around the individual areas, then that area shall be roped off, conspicuously posted and a flashing light shall be activated as a warning device. In lieu of the stay time specification of the RWP, direct or remote (such as use of closed circuit TV cameras) continuous surveillance may be made by personnel qualified in radiation protection procedures to provide positive exposure control over the activities within the area.

6.13 PROCESS CONTROL PROGRAM (PCP)

6.13.1 The PCP shall be approved by the Commission prior to implementation.

6.13.2 Changes to the PCP:

1. Shall be documented and records of review performed shall be retained as required by Specification 6.10.3p. This documentation shall contain:
 - a) Sufficient information to support the change together with the appropriate analyses or evaluations justifying the change(s) and
 - b) A determination that the change will maintain the overall conformance of the solidified waste product to existing requirements of Federal, State, or other applicable regulations.
2. Shall become effective after review and acceptance by the SORC and the approval of the Plant Manager.

ADMINISTRATIVE CONTROLS

6.14 OFFSITE DOSE CALCULATION MANUAL (ODCM)

6.14.1 The ODCM shall be approved by the Commission prior to implementation.

6.14.2 Changes to the ODCM:

1. Shall be documented and records of reviews performed shall be retained as required by Specification 6.10.3p. This documentation shall contain:

a) Sufficient information to support the change together with the appropriate analyses or evaluations justifying the change(s) and

b) A determination that the change will maintain the level of radioactive effluent control required by 10 CFR 20.106, 40 CFR Part 190, 10 CFR 50.36a, and Appendix I to 10 CFR Part 50 and not adversely impact the accuracy or reliability of effluent, dose, or setpoint calculations.

2. Shall become effective after review and acceptance by the SORC and the approval of the Plant Manager.

3. Shall be submitted to the Commission in the form of a complete, legible copy of the entire ODCM as a part of or concurrent with the Annual Radioactive Effluent Release Report for the period of the report in which any change to the ODCM was made. Each change shall be identified by markings in the margin of the affected pages, clearly indicating the area of the page that was changed, and shall indicate the date (e.g. month/year) the change was implemented.

6.15 MAJOR CHANGES TO RADIOACTIVE LIQUID, GASEOUS AND SOLID WASTE TREATMENT SYSTEMS

6.15.1 Licensee initiated major changes to the radioactive waste system (liquid, gaseous and solid):

1. Shall be reported to the Commission in the UFSAR for the period in which the evaluation was reviewed by (SORC). The discussion of each change shall contain:

a. A summary of the evaluation that led to the determination that the change could be made in accordance with 10CFR50.59;

b. Sufficient detailed information to totally support the reason for the change without benefit of additional or supplemental information;

INDEX

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

| <u>SECTION</u> | <u>PAGE</u> |
|---|-------------|
| <u>3/4.2 POWER DISTRIBUTION LIMITS</u> | |
| 3/4.2.1 AXIAL FLUX DIFFERENCE | 3/4 2-1 |
| 3/4.2.2 HEAT FLUX HOT CHANNEL FACTOR | 3/4 2-5 |
| 3/4.2.3 NUCLEAR ENTHALPY HOT CHANNEL FACTOR..... | 3/4 2-9 |
| 3/4.2.4 QUADRANT POWER TILT RATIO | 3/4 2-13 |
| 3/4.2.5 DNB PARAMETERS | 3/4 2-16 |
| | |
| <u>3/4.3 INSTRUMENTATION</u> | |
| 3/4.3.1 REACTOR TRIP SYSTEM INSTRUMENTATION | 3/4 3-1 |
| 3/4.3.2 ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION | 3/4 3-14 |
| 3/4.3.3 MONITORING INSTRUMENTATION | |
| Radiation Monitoring Instrumentation | 3/4 3-38 |
| Movable Incore Detectors | 3/4 3-42 |
| Remote Shutdown Instrumentation | 3/4 3-43 |
| Accident Monitoring Instrumentation | 3/4 3-50 |
| Radioactive Liquid Effluent Monitoring Instrumentation | 3/4 3-53 |
| Radioactive Gaseous Effluent Oxygen Monitoring Instrumentation | 3/4 3-59 |
| 3/4.3.4 DELETED | |

INDEX

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

| <u>SECTION</u> | <u>PAGE</u> |
|-------------------------------------|-------------|
| <u>3/4.11 RADIOACTIVE EFFLUENTS</u> | |
| 3/4.11.1 LIQUID EFFLUENTS | |
| Liquid Holdup Tanks | 3/4 11-7 |
| 3/4.11.2 GASEOUS EFFLUENTS | |
| Explosive Gas Mixture | 3/4 11-15 |
| 3/4.11.3 Deleted | 3/4 11-17 |
| 3/4.11.4 Deleted | 3/4 11-18 |
| <u>3/4.12 Deleted</u> | |

INDEX

BASES

| <u>SECTION</u> | <u>PAGE</u> |
|--|-------------|
| <u>3/4.11</u> <u>RADIOACTIVE EFFLUENTS</u> | |
| 3/4.11.1 LIQUID EFFLUENTS | B 3/4 11-1 |
| 3/4.11.2 GASEOUS EFFLUENTS | B 3/4 11-3 |
| 3/4.11.3 Deleted | B 3/4 11-6 |
| 3/4.11.4 Deleted | B 3/4 11-7 |
| | |
| <u>3/4.12</u> Deleted | |

DEFINITIONS

- b.. Leakage into the containment atmosphere from sources that are both specifically located and known either not to interfere with the operation of leakage detection systems or not to be PRESSURE BOUNDARY LEAKAGE, or
- c. Reactor coolant system leakage through a steam generator to the secondary system.

MEMBER(S) OF THE PUBLIC

1.16 MEMBER(S) OF THE PUBLIC shall be all those persons who are not occupationally associated with the plant. This category does not include employees of PSE&G, its contractors, or vendors. Also excluded from this category are persons who enter the site to service equipment or to make deliveries. This category does include persons who use portions of the site for recreational, occupational, or other purposes not associated with the plant.

OFFSITE DOSE CALCULATION MANUAL (ODCM)

1.17 The OFFSITE DOSE CALCULATION MANUAL (ODCM) shall contain the methodology and parameters used in the calculation of offsite doses resulting from radioactive gaseous and liquid effluents, in the calculation of gaseous and liquid effluent monitoring Alarm/Trip Setpoints, and in the conduct of the Environmental Radiological Monitoring Program. The ODCM shall also contain (1) the Radioactive Effluent controls and Radiological Environmental Monitoring programs required by Section 6.8.4 and (2) descriptions of the information that should be included in the Annual Radiological Environmental Operating and Annual Radioactive Effluent Release Reports required by Specifications 6.9.1.7 and 6.9.1.8 respectively.

OPERABLE - OPERABILITY

1.18 A system, subsystem, train, component or device shall be OPERABLE or have OPERABILITY when it is capable of performing its specified function(s), and when all necessary attendant instrumentation, controls, a normal and an emergency electrical power source, cooling or seal water, lubrication or other auxiliary equipment that are required for the system, subsystem, train, component or device to perform its function(s) are also capable of performing their related support function(s).

OPERATIONAL MODE - MODE

1.19 An OPERATIONAL MODE (ie. MODE) shall correspond to any one inclusive combination of core reactivity condition, power level and average reactor coolant temperature specified in Table 1.1.

DEFINITIONS

PHYSICS TESTS

1.20 PHYSICS TESTS shall be those tests performed to measure the fundamental nuclear characteristics of the reactor core and related instrumentation and 1) described in Chapter 14 of the Updated FSAR, 2) authorized under the provisions of 10CFR50.59, or 3) otherwise by the Commission.

PRESSURE BOUNDARY LEAKAGE

1.21 PRESSURE BOUNDARY LEAKAGE shall be leakage (except steam generator tube leakage) through a non-isolable fault in a Reactor Coolant System component body, pipe wall or vessel wall.

PROCESS CONTROL PROGRAM (PCP)

1.22 The PROCESS CONTROL PROGRAM (PCP) shall contain the current formulas, sampling, analyses, test, and determinations to be made to ensure that processing and packaging of solid radioactive wastes based on demonstrated processing of actual or simulated wet solid wastes will be accomplished in such a way as to assure compliance with 10 CFR Parts 20, 61, and 71, State regulations, burial ground requirements, and other requirements governing the disposal of radioactive waste.

PURGE - PURGING

1.23 PURGE or PURGING shall be the controlled process of discharging air or gas from a confinement to maintain temperature, pressure, humidity, concentration, or other operating condition, in such a manner that replacement air or gas is required to purify the confinement.

QUADRANT POWER TILT RATIO

1.24 QUADRANT POWER TILT RATIO shall be the ratio of the maximum upper excore detector calibrated output to the average of the upper excore detector calibrated outputs, or the ratio of the maximum lower excore detector calibrated output to the average of the lower excore detector calibrated outputs, whichever is greater. With one excore detector inoperable, the remaining three detectors shall be used for computing the average.

RATED THERMAL POWER

1.25 RATED THERMAL POWER shall be a total reactor core heat transfer rate to the reactor coolant of 3411 Mwt.

DEFINITIONS

REACTOR TRIP SYSTEM RESPONSE TIME

1.26 The REACTOR TRIP SYSTEM RESPONSE TIME shall be the time interval from when the monitored parameter exceeds its trip setpoint at the channel sensor until loss of stationary gripper coil voltage.

REPORTABLE EVENT

1.27 A REPORTABLE EVENT shall be any of those conditions specified in Section 50.73 to 10CFR Part 50.

SHUTDOWN MARGIN

1.28 SHUTDOWN MARGIN shall be the instantaneous amount of reactivity by which the reactor is subcritical or would be subcritical from its present condition assuming all full length rod cluster assemblies (shutdown and control) are fully inserted except for the single rod cluster assembly of highest reactivity worth which is assumed to be FULLY WITHDRAWN.

SITE BOUNDARY

1.29 The SITE BOUNDARY shall be that line beyond which the land is not owned, leased, or otherwise controlled by the licensee, as shown in Figure 5.1-3, and which defines the exclusion area as shown in Figure 5.1-1.

SOLIDIFICATION

1.30 Not Used

SOURCE CHECK

1.31 SOURCE CHECK shall be the qualitative assessment of channel response when the channel sensor is exposed to a source of increased radioactivity.

STAGGERED TEST BASIS

1.32 A STAGGERED TEST BASIS shall consist of:

- a. A test schedule for (n) systems, subsystems, trains, or other designated components obtained by dividing the specified test interval into (n) equal subintervals.

INSTRUMENTATION

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.8 The radioactive liquid effluent monitoring instrumentation channels shown in Table 3.3-12 shall be OPERABLE to ensure that the limits of ODCM Control 3.11.1.1 are not exceeded.

APPLICABILITY: At all times.

ACTION:

- a. Not Used
- b. With less than the minimum number of radioactive liquid effluent monitoring instrumentation channels OPERABLE, take the ACTION shown in Table 3.3-12. Exert best efforts to return the instrument to OPERABLE status within 30 days and, if unsuccessful, explain in the next annual radioactive effluent release report why the inoperability was not corrected in a timely manner.
- c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.8 Each radioactive liquid effluent monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK, CHANNEL CALIBRATION, and CHANNEL FUNCTIONAL TEST operations at the frequencies shown in Table 4.3-12.

TABLE 3.3-12

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

| <u>INSTRUMENT</u> | <u>MINIMUM CHANNELS OPERABLE</u> | <u>ACTION</u> |
|--|--|---------------|
| 1. Not Used | | |
| 2. Not Used | | |
| 3. Not Used | | |
| 4. TANK LEVEL INDICATING DEVICES | | |
| a. Temporary Outside Storage Tanks as Required | 1 | 30 |

TABLE NOTATION

ACTION 26 - Not Used

ACTION 27 - Not Used

ACTION 28 - Not Used

ACTION 29 - Not Used

ACTION 30 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, liquid additions to this tank may continue for up to 30 days provided the tank liquid level is estimated during all liquid additions to the tank.

ACTION 31 - Not Used

TABLE 4.3-12
RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

| INSTRUMENT | CHANNEL CHECK | SOURCE CHECK | CHANNEL CALIBRATION | CHANNEL FUNCTIONAL TEST |
|--|------------------|-----------------|------------------------|-------------------------------|
| 1. Not Used | | | | |
| 2. Not Used | | | | |
| 3. Not Used | | | | |
| 4. TANK LEVEL INDICATING DEVICES** | | | | |
| a. Temporary Outside Storage Tanks as Required | D* | N.A. | R | Q |

TABLE NOTATION

* During liquid additions to the tank.

** If tank level indication is not provided, verification will be done by visual inspection.

Pages 3/4 3-56 through 3/4 3-58 Intentionally Blank

INSTRUMENTATION

RADIOACTIVE GASEOUS EFFLUENT OXYGEN MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.9 The radioactive gaseous effluent oxygen monitoring instrumentation channels shown in Table 3.3-13 shall be OPERABLE with their alarm/trip setpoints set to ensure that the limits of Specification 3.11.2.5 are not exceeded.

APPLICABILITY: As shown in Table 3.3-13

ACTION:

- a. With a radioactive gaseous effluent oxygen monitoring instrumentation channel alarm/trip setpoint less conservative than required by the above specification, declare the channel inoperable and take the action shown in Table 3.3-13.
- b. With less than the minimum number of radioactive gaseous effluent oxygen monitoring instrumentation channels OPERABLE, take the ACTION shown in Table 3.3-13. Exert best efforts to return the instrument to OPERABLE status within 30 days and, if unsuccessful, prepare and submit a special report pursuant to Specification 6.9.2 to explain why the inoperability was not corrected in a timely manner.
- c. The provisions of Specifications 3.0.3 and 3.0.4, are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.9 Each radioactive gaseous effluent monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK, CHANNEL CALIBRATION, AND CHANNEL FUNCTIONAL TEST operations at the frequencies shown in Table 4.3-13.

TABLE 3.3-13
RADIOACTIVE GASEOUS EFFLUENT OXYGEN MONITORING INSTRUMENTATION

| INSTRUMENT | MINIMUM CHANNELS OPERABLE | APPLICABILITY | ACTION |
|----------------------------|---------------------------------|---------------|--------|
| 1. WASTE GAS HOLDUP SYSTEM | | | |
| a. Not Used | | | |
| b. Oxygen Monitor | 1 | ** | 35 |

TABLE NOTATION

ACTION 31 - Not Used

ACTION 32 - Not Used

ACTION 33 - Not Used

ACTION 34 - Not Used

ACTION 35 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, operation of the waste gas holdup system may continue provided grab samples are collected at least once per 24 hours and analyzed within the following 4 hours.

ACTION 36 - Not Used

* Not Used

** During waste gas holdup system operation.

TABLE 4.3-13
RADIOACTIVE GASEOUS EFFLUENT OXYGEN MONITORING INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

| INSTRUMENT | CHANNEL CHECK | CHANNEL CALIBRATION | CHANNEL FUNCTIONAL TEST | MODES IN WHICH SURVEILLANCE REQUIRED |
|----------------------------|------------------|------------------------|-------------------------------|--|
| 1. WASTE GAS HOLDUP SYSTEM | | | | |
| a. Not Used | | | | |
| b. Oxygen Monitor | D | Q(4) | M | ** |

TABLE NOTATION

- (1) Not Used
- (2) Not Used
- (3) Not Used
- (4) The CHANNEL CALIBRATION shall include the use of standard gas samples containing a nominal:
 - 1. One volume percent oxygen, balance nitrogen, and
 - 2. Four volume percent oxygen, balance nitrogen.

* Not Used

** During waste gas holdup system operation.

This Page Intentionally Blank
Pages 3/4 3-63 through 3/4 3-64 Deleted

3/4.11 RADIOACTIVE EFFLUENTS

3/4.11.1 Deleted

Pages 3/4 11-2 through 3/4 11-4 Intentionally Blank

RADIOACTIVE EFFLUENTS

3/4.11.1.2 Deleted

RADIOACTIVE EFFLUENTS

3/4.11.1.3 Deleted

RADIOACTIVE EFFLUENTS

3/4.11.2.1 Deleted

Pages 3/4 11-9 through 3/4 11-11 Intentionally Blank

RADIOACTIVE EFFLUENTS

3/4.11.2.2 Deleted

RADIOACTIVE EFFLUENTS

3/4.11.2.3 Deleted

RADIOACTIVE EFFLUENTS

3/4.11.2.4 Deleted

RADIOACTIVE EFFLUENTS

3/4.11.3 Deleted

RADIOACTIVE EFFLUENTS

3/4.11.4 Deleted

This Page Intentionally Blank

3/4.12 Deleted

This Page Intentionally Blank
Pages 3/4 12-3 through 3/4 12-13 Deleted

3/4.3.3.8 RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

The purpose of tank level indicating devices is to assure the detection and control of leaks that if not controlled could potentially result in the transport of radioactive materials to UNRESTRICTED AREAS.

3/4.3.3.9 RADIOACTIVE GASEOUS EFFLUENT OXYGEN MONITORING INSTRUMENTATION

The radioactive gaseous effluent oxygen monitoring instrumentation is provided to monitor the concentrations of potentially explosive gas mixtures in the waste gas holdup system. The OPERABILITY and use of this instrumentation is consistent with the requirements of General Design Criteria 60 and 63 of Appendix A to 10 CFR Part 50.

3/4.3.4 Deleted

3/4.11 RADIOACTIVE EFFLUENTS

BASES

3/4.11.1 LIQUID EFFLUENTS

3/4.11.1.1 Deleted

3/4.11.1.2 Deleted

RADIOACTIVE EFFLUENTS

BASES

3/4.11.1.3 Deleted

3/4.11.1.4 LIQUID HOLDUP TANKS

The tanks listed in this specification include all those outdoor tanks that are not surrounded by liners, dikes, or walls capable of holding the tank contents and that do not have tank overflows and surrounding area drains connected to the liquid radwaste treatment system.

RADIOACTIVE EFFLUENTS

BASES

Restricting the quantity of radioactive material contained in the specified tanks provides assurance that in the event of an uncontrolled release of the tanks' contents, the resulting concentrations would be less than the limits of 10 CFR Part 20, Appendix B, Table II, Column 2, at the nearest potable water supply and the nearest surface water supply in an UNRESTRICTED AREA.

3/4.11.2 GASEOUS EFFLUENTS

3/4.11.2.1 Deleted

RADIOACTIVE EFFLUENTS

BASES

3/4.11.2.2 Deleted

3/4.11.2.3 Deleted

RADIOACTIVE EFFLUENTS

BASES

3/4.11.2.4 Deleted

RADIOACTIVE EFFLUENTS

BASES

3/4.11.2.5 EXPLOSIVE GAS MIXTURE

This specification is provided to ensure that the concentration of potentially explosive gas mixtures contained in the waste gas holdup system is maintained below the flammability limits of hydrogen and oxygen. Maintaining the concentration of hydrogen and oxygen below their flammability limits provides assurance that the releases of radioactive materials will be controlled in conformance with the requirements of General Design Criterion 60 of Appendix A to 10 CFR Part 50.

3/4.11.3 Deleted

RADIOACTIVE EFFLUENTS

BASES

3/4.11.4 Deleted

RADIOACTIVE EFFLUENTS

BASES

3/4.12 Deleted

This Page Intentionally Blank

ADMINISTRATIVE CONTROLS

acceptance criteria are less than or equal to $0.6 L_a$ for Type B and Type C tests and less than or equal to $0.75 L_a$ for Type A tests;

- b. Air lock testing acceptance criteria are:
- 1) Overall air lock leakage rate is less than or equal to $0.05 L_a$ when tested at greater than or equal to P_a ,
 - 2) Seal leakage rate less than or equal to $0.01 L_a$ per hour when the gap between the door seals is pressurized to 10.0 psig.

Test frequencies and applicable extensions will be controlled by the Primary Containment Leakage Rate Testing Program.

The provisions of Specification 4.0.3 will be applied to the Primary Containment Leakage Rate Testing Program.

6.8.4.g Radioactive Effluent Controls Program

A program shall be provided conforming with 10 CFR 50.36a for the control of radioactive effluents and for maintaining the doses to the MEMBERS OF THE PUBLIC from radioactive effluents as low as reasonably achievable. The program (1) shall be contained in the ODCM, (2) shall be implemented by operating procedures, and (3) shall include remedial actions to be taken whenever the program limits are exceeded. The program shall include the following elements:

- 1) Limitations on the operability of radioactive liquid and gaseous monitoring instrumentation including surveillance tests and setpoint determination in accordance with the methodology in the ODCM,
- 2) Limitations on the concentrations of radioactive material released in liquid effluents to UNRESTRICTED AREAS conforming to 10 CFR 20, Appendix B, Table II, Column 2,
- 3) Monitoring, sampling, and analysis of radioactive liquid and gaseous effluents in accordance with 10 CFR 20.106 and with the methodology and parameters in the ODCM,
- 4) Limitations on the annual and quarterly doses or dose commitment to a MEMBER OF THE PUBLIC from radioactive materials in liquid effluents released from each unit to UNRESTRICTED AREAS conforming to Appendix I to 10 CFR Part 50,
- 5) Determination of cumulative and projected dose contributions from radioactive effluents for the current calendar quarter and current calendar year in accordance with the methodology and parameters in the ODCM at least every 31 days.
- 6) Limitations on the operability and use of the liquid and gaseous effluent treatment systems to ensure that the appropriate portions of these systems are used to reduce releases of radioactivity when the projected doses in a 92-day period would exceed a suitable fraction of the guidelines for the annual dose or dose commitment conforming to Appendix I to 10 CFR Part 50,

ADMINISTRATIVE CONTROLS

- 7) Limitations on the dose rate resulting from radioactive material released in gaseous effluents to areas beyond the SITE BOUNDARY conforming to the doses associated with 10 CFR Part 20, Appendix B, Table II, Column 1,
- 8) Limitations on the annual and quarterly air doses resulting from noble gases released in gaseous effluents from each unit to areas beyond the SITE BOUNDARY conforming to Appendix I to 10 CFR Part 50,
- 9) Limitations on the annual and quarterly doses to a MEMBER OF THE PUBLIC from Iodine-131, Iodine-133, tritium, and all radionuclides in particulate form with half-lives greater than 8 days in gaseous effluents released from each unit to areas beyond the SITE BOUNDARY conforming to Appendix I to 10 CFR Part 50,
- 10) Limitations on the annual dose or dose commitment to any MEMBER OF THE PUBLIC due to releases of radioactivity and to radiation from uranium fuel cycle sources conforming to 40 CFR Part 190.

6.8.4.h Radiological Environmental Monitoring Program

A program shall be provided to monitor the radiation and radionuclides in the environs of the plant. The program shall provide (1) representative measurements of radioactivity in the highest potential exposure pathways, and (2) verification of the accuracy of the effluent monitoring program and modeling of environmental exposure pathways. The program shall (1) be contained in the ODCM, (2) conform to the guidance of Appendix I to 10 CFR Part 50, and (3) include the following:

- 1) Monitoring, sampling, analysis, and reporting of radiation and radionuclides in the environment in accordance with the methodology and parameters in the ODCM,
- 2) A Land Use Census to ensure that changes in the use of areas at and beyond the SITE BOUNDARY are identified and that modifications to the monitoring program are made if required by the results of the census, and
- 3) Participation in a Interlaboratory Comparison Program to ensure that independent checks on the precision and accuracy of the measurements of radioactive materials in environmental sample matrices are performed as part of the quality assurance program for environmental monitoring.

ADMINISTRATIVE CONTROLS

ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT*

6.9.1.7 The Annual Radiological Environmental Operating Report covering the operation of the unit during the previous calendar year shall be submitted before May 1 of each year. The report shall include summaries, interpretations, and analysis of trends of the results of the Radiological Environmental Monitoring Program for the reporting period. The material provided shall be consistent with the objectives outlined in (1) the ODCM and (2) Sections IV.B.2, IV.B.3, and IV.C of Appendix I to 10 CFR 50.

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT*

6.9.1.8 The Annual Radioactive Effluent Release Report covering the operation of the unit during the previous 12 months of operation shall be submitted before May 1 of each year. The report shall include a summary of the quantities of radioactive liquid and gaseous effluents and solid waste released from the unit. The material provided shall be (1) consistent with the objective outlined in the ODCM and PCP and (2) in conformance with 10 CFR 50.36a and Section IV.B.1 of Appendix I to 10 CFR 50.

* A single submittal may be made for a multiple unit station. The submittal should combine those sections that are common to all units at the station; however, for units with separate radwaste systems, the submittal shall specify the releases of radioactive material from each unit.

This Page Intentionally Blank

ADMINISTRATIVE CONTROLS

6.9.1.9 CORE OPERATING LIMITS REPORT (COLR)

1. Core operating limits shall be established prior to each reload cycle, or prior to any remaining portion of a reload cycle, and shall be documented in the COLR for the following:
 1. Moderator Temperature Coefficient Beginning of Life (BOL) and End of Life (EOL) limits and 300 ppm surveillance limit for Specification 3/4.1.1.3,
 2. Control Bank Insertion Limits for Specification 3/4.1.3.5,
 3. Axial Flux Difference Limits and target band for Specification 3/4.2.1,
 4. Heat Flux Hot Channel Factor, F_Q , its variation with core height, $K(z)$, and Power Factor Multiplier PF_{xy} , Specification 3/4.2.2, and
 5. Nuclear Enthalpy Hot Channel Factor, and Power Factor Multiplier, $PF_{\Delta H}$ for Specification 3/4.2.3.
- b. The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC, specifically those described in the following documents:
 1. WCAP-9272-P-A, Westinghouse Reload Safety Evaluation Methodology, July 1985 (W Proprietary), Methodology for Specifications listed in 6.9.1.9.a. Approved by Safety Evaluation dated May 28, 1985.

ADMINISTRATIVE CONTROLS

- c. Records of radiation exposure for all individuals entering radiation control areas.
- d. Records of gaseous and liquid radioactive material released to the environs.
- e. Records of transient or operational cycles for those facility components identified in Table 5.7-1.
- f. Records of reactor tests and experiments.
- g. Records of training and qualification for current members of the plant staff.
- h. Records of in-service inspections performed pursuant to these Technical Specifications.
- i. Records of Quality Assurance activities required by the QA Manual.
- j. DELETED
- k. Records of SORC meetings and activities of the Nuclear Review Board (and activities of its predecessor, the Offsite Safety Review (OSR) staff).
- l. Records for Environmental Qualification which are covered under the provisions of Paragraph 2.C(7) and 2.C(8) of Facility Operating License DPR-75.
- m. Records of the service lives of all hydraulic and mechanical snubbers including the date at which the service life commences and associated installation and maintenance records.
- n. Records of secondary water sampling and water quality.
- o. Records of analyses required by the radiological environmental monitoring program which would permit evaluation of the accuracy of the analysis at a later date. This should include procedures effective at specified times and QA records showing that these procedures were followed.
- p. Records of reviews performed for changes made to the OFFSITE DOSE CALCULATION MANUAL and the PROCESS CONTROL PROGRAM.

6.11 RADIATION PROTECTION PROGRAM

Procedures for personnel radiation protection shall be prepared consistent with the requirements of 10 CFR Part 20 and shall be approved, maintained and adhered to for all operations involving personnel radiation exposure.

such that a major portion of the body could receive in one hour a dose in excess of 1000 mrem that are located within large areas, such as PWR containment, where no enclosure exists for purposes of locking, and no enclosure can be reasonably constructed around the individual areas, then that area shall be roped off, conspicuously posted and a flashing light shall be activated as a warning device. In lieu of the stay time specification of the RWP, direct or remote (such as use of closed circuit TV cameras) continuous surveillance may be made by personnel qualified in radiation protection procedures to provide positive exposure control over the activities within the area.

6.13 PROCESS CONTROL PROGRAM (PCP)

6.13.1 The PCP shall be approved by the Commission prior to implementation.

6.13.2 Changes to the PCP:

1. Shall be documented and records of review performed shall be retained as required by Specification 6.10.3p. This documentation shall contain:

a) Sufficient information to support the change together with the appropriate analyses or evaluations justifying the change(s) and

b) A determination that the change will maintain the overall conformance of the solidified waste product to existing requirements of Federal, State, or other applicable regulations.

2. Shall become effective after review and acceptance by the SORC and the approval of the Plant Manager.

6.14 OFFSITE DOSE CALCULATION MANUAL (ODCM)

6.14.1 The ODCM shall be approved by the Commission prior to implementation.

6.14.2 Changes to the ODCM:

1. Shall be documented and records of reviews performed shall be retained as required by Specification 6.10.3p. This documentation shall contain:
 - a) Sufficient information to support the change together with the appropriate analyses or evaluations justifying the change(s) and
 - b) A determination that the change will maintain the level of radioactive effluent control required by 10 CFR 20.106, 40 CFR Part 190, 10 CFR 50.36a, and Appendix I to 10 CFR Part 50 and not adversely impact the accuracy or reliability of effluent, dose, or setpoint calculations.
2. Shall become effective after review and acceptance by the SORC and the approval of the Plant Manager.
3. Shall be submitted to the Commission in the form of a complete, legible copy of the entire ODCM as a part of or concurrent with the Annual Radioactive Effluent Release Report for the period of the report in which any change to the ODCM was made. Each change shall be identified by markings in the margin of the affected pages, clearly indicating the area of the page that was changed, and shall indicate the date (e.g. month/year) the change was implemented.

6.15 MAJOR CHANGES TO RADIOACTIVE LIQUID, GASEOUS AND SOLID WASTE TREATMENT SYSTEMS

6.15.1 Licensee initiated major changes to the radioactive waste system (liquid, gaseous and solid):

1. Shall be reported to the Commission in the UFSAR for the period in which the evaluation was reviewed by (SORC). The discussion of each change shall contain:
 - a. A summary of the evaluation that led to the determination that the change could be made in accordance with 10CFR50.59;
 - b. Sufficient detailed information to totally support the reason for the change without benefit of additional or supplemental information;