



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

PACIFIC GAS AND ELECTRIC COMPANY
DIABLO CANYON NUCLEAR POWER PLANT, UNIT NO. 1
DOCKET NO. 50-275
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 67
License No. DPR-80

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Pacific Gas & Electric Company (the licensee) dated May 23, 1991, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-80 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 67, are hereby incorporated in the license. Pacific Gas & Electric Company shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan, except where otherwise stated in specific license conditions.

3. This license amendment becomes effective as of the date of its issuance and is to be fully implemented within 90 days of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Harry Rood for

Theodore R. Quay, Director
Project Directorate V
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of issuance: January 22, 1992



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

PACIFIC GAS AND ELECTRIC COMPANY
DIABLO CANYON NUCLEAR POWER PLANT, UNIT NO. 2
DOCKET NO. 50-323
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 66
License No. DPR-82

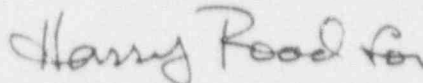
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 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-82 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 66, are hereby incorporated in the license. Pacific Gas & Electric Company shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan, except where otherwise stated in specific license conditions.

3. This license amendment becomes effective as of the date of its issuance and is to be fully implemented within 90 days of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Theodore R. Quay, Director
Project Directorate V
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: January 22, 1992

ATTACHMENT TO LICENSE AMENDMENT NOS. 67 AND 66

FACILITY OPERATING LICENSE NOS. DPR-80 AND DPR-82

DOCKET NOS. 50-275 AND 50-323

Revise Appendix A Technical Specifications by removing the pages identified below and inserting the enclosed pages. The revised pages are identified by the captioned amendment number and contain marginal lines indicating the area of change. Overleaf pages are also included, as appropriate.

<u>REMOVE PAGE</u>	<u>INSERT PAGE</u>
ii	ii
vii	vii
xiii	xiii
xviii	xviii
xxii	xxii
xxiii	xxiii
1-3	1-3
1-5	1-5
1-6	1-6
---	1-7a
3/4 3-25	3/4 3-25
3/4 3-37	3/4 3-37
3/4 3-59	3/4 3-59
3/4 3-60	3/4 3-60
3/4 3-61 thru 3/4 3-69	---
3/4 11-1	3/4 11-1
3/4 11-2	3/4 11-2
3/4 11-3	3/4 11-3
3/4 11-4 thru 3/4 11-18	---
3/4 12-1 thru 3/4 12-13	3/4 12-1
B3/4 3-4	B3/4 3-4
B3/4 3-5	B3/4 3-5
B3/4 11-1 thru B3/4 11-8	B3/4 11-1
B3/4 12-1 thru B3/4 12-2	B3/4 12-1
6-15a	6-15a
---	6-15b
6-17	6-17
6-18	6-18
6-19	6-19
6-20	6-20
6-21	6-21
6-22	6-22
6-23	6-23
6-24	---
6-25	---

INDEX

DEFINITIONS

<u>SECTION</u>	<u>PAGE</u>
<u>1.0 DEFINITIONS</u>	
1.1 ACTION.....	1-1
1.2 ACTUATION LOGIC TEST.....	1-1
1.3 ANALOG CHANNEL OPERATIONAL TEST.....	1-1
1.4 AXIAL FLUX DIFFERENCE.....	1-1
1.5 CHANNEL CALIBRATION.....	1-1
1.6 CHANNEL CHECK.....	1-1
1.7 CHANNEL FUNCTIONAL TEST.....	1-2
1.8 CONTAINMENT INTEGRITY.....	1-2
1.9 CONTROLLED LEAKAGE.....	1-2
1.10 CORE ALTERATIONS.....	1-2
1.11 DOSE EQUIVALENT I-131.....	1-3
1.12 \bar{E} - AVERAGE DISINTEGRATION ENERGY.....	1-3
1.13 ENGINEERED SAFETY FEATURES RESPONSE TIME.....	1-3
1.14 ENVIRONMENTAL RADIOLOGICAL MONITORING PROCEDURE.....	1-3
1.15 FREQUENCY NOTATION.....	1-3
1.16 GASEOUS RADWASTE SYSTEM.....	1-3
1.17 IDENTIFIED LEAKAGE.....	1-4
1.18 MASTER RELAY TEST.....	1-4
1.19 MEMBER(S) OF THE PUBLIC.....	1-4
1.20 OFFSITE DOSE CALCULATION PROCEDURE.....	1-4
1.21 OPERABLE - OPERABILITY.....	1-4
1.22 OPERATIONAL MODE - MODE.....	1-5
1.23 PHYSICS TESTS.....	1-5
1.24 PRESSURE BOUNDARY LEAKAGE.....	1-5
1.25 PROCESS CONTROL PROGRAM.....	1-5
1.26 PURGE - PURGING.....	1-5
1.27 QUADRANT POWER TILT RATIO.....	1-5
1.28 RATED THERMAL POWER.....	1-5
1.29 REACTOR TRIP SYSTEM RESPONSE TIME.....	1-6
1.30 REPORTABLE EVENT.....	1-6

INDEX

DEFINITIONS

<u>SECTION</u>	<u>PAGE</u>
<u>DEFINITIONS (Continued)</u>	
1.31 SHUTDOWN MARGIN.....	1-6
1.32 SITE BOUNDARY.....	1-6
1.33 SLAVE RELAY TEST.....	1-6
1.34 Deleted	
1.35 SOURCE CHECK.....	1-6
1.36 STAGGERED TEST BASIS.....	1-6
1.37 THERMAL POWER.....	1-7
1.38 TRIP ACTUATING DEVICE OPERATIONAL TEST.....	1-7
1.39 UNIDENTIFIED LEAKAGE.....	1-7
1.40 UNRESTRICTED AREA.....	1-7
1.41 VENTILATION EXHAUST TREATMENT SYSTEM.....	1-7
1.42 VENTING.....	1-7
1.43 CORE OPERATING LIMITS REPORT.....	1-7
1.44 RADIOLOGICAL MONITORING AND CONTROLS PROGRAM.....	1-7a
TABLE 1.1 FREQUENCY NOTATION.....	1-8
TABLE 1.2 OPERATIONAL MODES.....	1-9

INDEX

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

<u>SECTION</u>	<u>Page</u>
<u>3/4.3 INSTRUMENTATION (continued)</u>	
Chlorine Detection Systems.....	3/4 3-54
Fire Detection Instrumentation.....	3/4 3-55
TABLE 3.3-11 FIRE DETECTION INSTRUMENTS.....	3/4 3-56
Explosive Gas Monitoring Instrumentation.....	3/4 3-59
3/4.3.4 TURBINE OVERSPEED PROTECTION.....	3/4 3-60
<u>3/4.4 REACTOR COOLANT SYSTEM</u>	
3/4.4.1 REACTOR COOLANT LOOPS AND COOLANT CIRCULATION	
Startup and Power Operation.....	3/4 4-1
Hot Standby.....	3/4 4-2
Hot Shutdown.....	3/4 4-3
Cold Shutdown - Loops Filled.....	3/4 4-5
Cold Shutdown - Loops Not Filled.....	3/4 4-6
3/4.4.2 SAFETY VALVES	
Shutdown.....	3/4 4-7
Operating.....	3/4 4-8
3/4.4.3 PRESSURIZER.....	3/4 4-9
3/4.4.4 RELIEF VALVES.....	3/4 4-10
3/4.4.5 STEAM GENERATORS.....	3/4 4-11

INDEX

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

<u>SECTION</u>	<u>PAGE</u>
<u>3/4.4 REACTOR COOLANT SYSTEM (continued)</u>	
TABLE 4.4-1 MINIMUM NUMBER OF STEAM GENERATORS TO BE INSPECTED DURING INSERVICE INSPECTION.....	3/4 4-16
TAB. 4.4-2 STEAM GENERATOR TUBE INSPECTION.....	3/4 4-17
3/4.4.6 REACTOR COOLANT SYSTEM LEAKAGE	
Leakage Detection Systems.....	3/4 4-18
Operational Leakage.....	3/4 4-19
TABLE 3.4-1 REACTOR COOLANT SYSTEM PRESSURE ISOLATION VALVES.....	3/4 4-21
3/4.4.7 CHEMISTRY.....	3/4 4-22
TABLE 3.4-2 REACTOR COOLANT SYSTEM CHEMISTRY LIMITS.....	3/4 4-23
TABLE 4.4-3 REACTOR COOLANT SYSTEM CHEMISTRY LIMITS SURVEILLANCE REQUIREMENTS.....	3/4 4-24
3/4.4.8 SPECIFIC ACTIVITY.....	3/4 4-25
FIGURE 3.4-1 DOSE EQUIVALENT I-131 REACTOR COOLANT SPECIFIC ACTIVITY LIMIT VERSUS PERCENT OF RATED THERMAL POWER WITH THE REACTOR COOLANT SPECIFIC ACTIVITY > 1 μ CI/GRAM DOSE EQUIVALENT I-131.....	3/4 4-27
TABLE 4.4-4 REACTOR COOLANT SPECIFIC ACTIVITY SAMPLE AND ANALYSIS PROGRAM.....	3/4 4-28
3/4.4.9 PRESSURE/TEMPERATURE LIMITS.....	3/4 4-30
FIGURE 3.4-2 REACTOR COOLANT SYSTEM HEATUP LIMITATIONS - APPLICABLE UP TO 8 EFY.....	3/4 4-31
FIGURE 3.4-3 REACTOR COOLANT SYSTEM COOLDOWN LIMITATIONS - APPLICABLE UP TO 8 EFY.....	3/4 4-32
Pressurizer.....	3/4 4-34
Overpressure Protection Systems.....	3/4 4-35
3/4.4.10 STRUCTURAL INTEGRITY.....	3/4 4-37
3/4.4.11 REACTOR VESSEL HEAD VENTS.....	3/4 4-38

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 11-1
3/4.11.2 GASEOUS EFFLUENTS	
Explosive Gas Mixture.....	3/4 11-2
Gas Storage Tanks.....	3/4 11-3

]

]

]

INDEX

BASES

<u>SECTION</u>	<u>PAGE</u>
<u>3/4.0 APPLICABILITY</u>	B 3/4 0-1
<u>3/4.1 REACTIVITY CONTROL SYSTEMS</u>	
3/4.1.1 BORATION CONTROL.....	B 3/4 1-1
3/4.1.2 BORATION SYSTEMS.....	B 3/4 1-2
3/4.1.3 MOVABLE CONTROL ASSEMBLIES.....	B 3/4 1-3
<u>3/4.2 POWER DISTRIBUTION LIMITS</u>	B 3/4 2-1
3/4.2.1 AXIAL FLUX DIFFERENCE.....	B 3/4 2-1
3/4.2.2 and 3/4.2.3 HEAT FLUX HOT CHANNEL FACTOR, and RCS FLOW RATE AND NUCLEAR ENTHALPY RISE HOT CHANNEL FACTOR.....	B 3/4 2-2
3/4.2.4 QUADRANT POWER TILT RATIO.....	B 3/4 2-5
3/4.2.5 DNB PARAMETERS.....	B 3/4 2-6
<u>3/4.3 INSTRUMENTATION</u>	
3/4.3.1 and 3/4.3.2 REACTOR TRIP SYSTEM and ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION.....	B 3/4 3-1
3/4.3.3 MONITORING INSTRUMENTATION.....	B 3/4 3-2
3/4.3.4 TURBINE OVERSPEED PROTECTION.....	B 3/4 3-5
<u>3/4.4 REACTOR COOLANT SYSTEM</u>	
3/4.4.1 REACTOR COOLANT LOOPS AND COOLANT CIRCULATION.....	B 3/4 4-1
3/4.4.2 SAFETY VALVES.....	B 3/4 4-1
3/4.4.3 PRESSURIZER.....	B 3/4 4-2
3/4.4.4 RELIEF VALVES.....	B 3/4 4-2
3/4.4.5 STEAM GENERATORS.....	B 3/4 4-2

INDEX

BASES

<u>SECTION</u>	<u>PAGE</u>
<u>3/4.9 REFUELING OPERATIONS</u>	
3/4.9.1 BORON CONCENTRATION.....	B 3/4 9-1
3/4.9.2 INSTRUMENTATION.....	B 3/4 9-1
3/4.9.3 DECAY TIME.....	B 3/4 9-1
3/4.9.4 CONTAINMENT PENETRATIONS.....	B 3/4 9-1
3/4.9.5 COMMUNICATIONS.....	B 3/4 9-1
3/4.9.6 MANIPULATOR CRANE.....	B 3/4 9-1
3/4.9.7 CRANE TRAVEL - FUEL HANDLING BUILDING.....	B 3/4 9-2
3/4.9.8 RESIDUAL HEAT REMOVAL AND COOLANT CIRCULATION.....	B 3/4 9-2
3/4.9.9 CONTAINMENT VENTILATION ISOLATION SYSTEM.....	B 3/4 9-2
3/4.9.10 and 3/4.9.11 WATER LEVEL - REACTOR VESSEL and SPENT FUEL POOL.....	B 3/4 9-2
3/4.9.12 FUEL HANDLING BUILDING VENTILATION SYSTEM.....	B 3/4 9-3
3/4.9.13 SPENT FUEL SHIPPING CASK MOVEMENT.....	B 3/4 9-3
<u>3/4.10 SPECIAL TEST EXCEPTIONS</u>	
3/4.10.1 SHUTDOWN MARGIN.....	B 3/4 10-1
3/4.10.2 GROUP HEIGHT, INSERTION, AND POWER DISTRIBUTION LIMITS.....	B 3/4 10-1
3/4.10.3 PHYSICS TESTS.....	B 3/4 10-1
3/4.10.4 POSITION INDICATION SYSTEM - SHUTDOWN.....	B 3/4 10-2

INDEX

BASES

<u>SECTION</u>	<u>PAGE</u>
<u>3/4.11 RADIOACTIVE EFFLUENTS</u>	
3/4.11.1 LIQUID EFFLUENTS.....	B 3/4 11-1
3/4.11.2 GASEOUS EFFLUENTS.....	B 3/4 11-1

INDEX

ADMINISTRATIVE CONTROLS

<u>SECTION</u>	<u>PAGE</u>
<u>6.1 RESPONSIBILITY</u>	6-1
<u>6.2 ORGANIZATION</u>	
6.2.1 OFFSITE.....	6-1
6.2.2 PLANT STAFF.....	6-1
TABLE 6.2-1 MINIMUM SHIFT CREW COMPOSITION.....	6-4
6.2.3 ONSITE SAFETY REVIEW GROUP (OSRG)	
Function.....	6-6
Composition.....	6-6
Responsibilities.....	6-6
6.2.4 SHIFT TECHNICAL ADVISOR.....	6-6
<u>6.3 PLANT STAFF QUALIFICATIONS</u>	6-6
<u>6.4 TRAINING</u>	6-7
<u>6.5 REVIEW AND AUDIT</u>	
6.5.1 PLANT STAFF REVIEW COMMITTEE (PSRC)	
Function.....	6-7
Composition.....	6-7
Alternates.....	6-7
Meeting Frequency.....	6-7
Quorum.....	6-7
Responsibilities.....	6-8
Records.....	6-9

INDEX

ADMINISTRATIVE CONTROLS

<u>SECTION</u>	<u>PAGE</u>
<u>6.5 REVIEW AND AUDIT (Continued)</u>	
6.5.2 GENERAL OFFICE NUCLEAR PLANT REVIEW AND AUDIT COMMITTEE (GONPRAC)	
Function.....	6-9
Composition.....	6-10
Alternates.....	6-10
Consultants.....	6-10
Meeting Frequency.....	6-10
Quorum.....	6-10
Review.....	6-10
Audits.....	6-11
Records.....	6-12
<u>6.6 REPORTABLE EVENT ACTION</u>	6-12
<u>6.7 SAFETY LIMIT VIOLATION</u>	6-13
<u>6.8 PROCEDURES AND PROGRAMS</u>	6-13
<u>6.9 REPORTING REQUIREMENTS</u>	
6.9.1 ROUTINE REPORTS.....	6-16
Startup Reports.....	6-16
Annual Reports.....	6-16
Annual Radiological Environmental Operating Report.....	6-17
Semiannual Radioactive Effluent Release Report.....	6-18
Monthly Operating Report.....	6-18
CORE OPERATING LIMITS REPORT.....	6-18
6.9.2 SPECIAL REPORTS.....	6-19
<u>6.10 RECORD RETENTION</u>	6-19
<u>6.11 RADIATION PROTECTION PROGRAM</u>	6-21
<u>6.12 HIGH RADIATION AREA</u>	6-21

INDEX

ADMINISTRATIVE CONTROLS

<u>SECTION</u>	<u>PAGE</u>
6.13 <u>PROCESS CONTROL PROGRAM (PCP)</u>	6-22
6.14 <u>RADIOLOGICAL MONITORING AND CONTROLS PROGRAM (RMCP), OFFSITE DOSE CALCULATION PROCEDURE (ODCP) and ENVIRONMENTAL RADIOLOGICAL MONITORING PROCEDURE (ERMP)</u>	6-23

DEFINITIONS

DOSE EQUIVALENT I-131

- 1.11 DOSE EQUIVALENT I-131 shall be that concentration of I-131 (microcuries/gram) which alone would produce the same thyroid dose as the quantity and isotopic mixture of I-131, I-132, I-133, I-134, and I-135 actually present. The thyroid dose conversion factors used for this calculation shall be those listed in Table III of TID-14844, "Calculation of Distance Factors for Power and Test Reactor Sites," or Table E-1 of NRC Regulatory Guide 1.109, Revision 1, October 1977.

E - AVERAGE DISINTEGRATION ENERGY

- 1.12 \bar{E} shall be the average (weighted in proportion to the concentration of each radionuclide in the sample) of the sum of the average beta and gamma energies per disintegration (MeV/d) for the radionuclides in the sample.

ENGINEERED SAFETY FEATURES RESPONSE TIME

- 1.13 The ENGINEERED SAFETY FEATURES (ESF) RESPONSE TIME shall be that time interval from when the monitored parameter exceeds its ESF actuation Setpoint at the channel sensor until the ESF equipment is capable of performing its safety function (i.e., the valves travel to their required positions, pump discharge pressures reach their required values, etc.). Times shall include diesel generator starting and sequence loading delays where applicable.

ENVIRONMENTAL RADIOLOGICAL MONITORING PROCEDURE

- 1.14 The ENVIRONMENTAL RADIOLOGICAL MONITORING PROCEDURE (ERMP) shall contain a description of sample locations, types of sample locations, methods and frequency of analysis, and reporting requirements.

FREQUENCY NOTATION

- 1.15 The FREQUENCY NOTATION specified for the performance of Surveillance Requirements shall correspond to the intervals defined in Table 1.1.

GASEOUS RADWASTE SYSTEM

- 1.16 A GASEOUS RADWASTE SYSTEM shall be any system designed and installed to reduce radioactive gaseous effluents by collecting Reactor Coolant System offgases from the Reactor Coolant System and providing for delay or holdup for the purpose of reducing the total radioactivity prior to release to the environment.

DEFINITIONS

IDENTIFIED LEAKAGE

1.17 IDENTIFIED LEAKAGE shall be:

- a. Leakage, except CONTROLLED LEAKAGE, into closed systems, such as pump seal or valve packing leaks that are captured and conducted to a sump or collecting tank, or
- 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 Coolant System.

MASTER RELAY TEST

1.18 A MASTER RELAY TEST shall be the energization of each master relay and verification of OPERABILITY of each relay. The MASTER RELAY TEST shall include a continuity check of each associated slave relay.

MEMBER(S) OF THE PUBLIC

1.19 MEMBER(S) OF THE PUBLIC shall include all persons who are not occupationally associated with the plant. This category does not include employees of the licensee, 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 PROCEDURE

1.20 The OFFSITE DOSE CALCULATION PROCEDURE (ODCP) shall contain the methodology and parameters used in the calculation of offsite doses due to radioactive gaseous and liquid effluents and in the calculation of gaseous and liquid effluent monitoring Alarm/Trip Setpoints.

OPERABLE - OPERABILITY

1.21 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, electric power, 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).

DEFINITIONS

OPERATIONAL MODE - MODE

- 1.22 An OPERATIONAL MODE (i.e., MODE) shall correspond to any one inclusive combination of core reactivity condition, power level and average reactor coolant temperature specified in Table 1.2.

PHYSICS TESTS

- 1.23 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 14.0 of the FSAR, (2) authorized under the provisions of 10 CFR 50.59, or (3) otherwise approved by the Commission.

PRESSURE BOUNDARY LEAKAGE

- 1.24 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

- 1.25 The PROCESS CONTROL PROGRAM (PCP) shall contain the current formulas, sampling, analyses, tests, 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 and Federal and State regulations, burial ground requirements, and other requirements governing the disposal of solid radioactive waste.

PURGE - PURGING

- 1.26 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

- 1.27 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

- 1.28 RATED THERMAL POWER shall be a total reactor core heat transfer rate to the reactor coolant of 3338 Mwt for Unit 1 and 3411 Mwt for Unit 2.

DEFINITIONS

REACTOR TRIP SYSTEM RESPONSE TIME

1.29 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

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

SHUTDOWN MARGIN

1.31 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

1.32 SITE BOUNDARY shall be that line as shown in Figure 5.1-3.

SLAVE RELAY TEST

1.33 A SLAVE RELAY TEST shall be the energization of each slave relay and verification of OPERABILITY of each relay. The SLAVE RELAY TEST shall include a continuity check, as a minimum, of associated testable actuation devices.

1.34 Deleted

SOURCE CHECK

1.35 A 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

1.36 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, and
- b. The testing of one system, subsystem, train or other designated component at the beginning of each subinterval.

DEFINITIONS

RADIOLOGICAL MONITORING AND CONTROLS PROGRAM

- 1.44 The RADIOLOGICAL MONITORING AND CONTROLS PROGRAM (RMCP) shall 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 Semiannual Radioactive Effluent Release Reports required by Specifications 6.9.1.5 and 6.9.1.6.

TABLE 3.3-4 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION TRIP SETPOINTS

<u>FUNCTIONAL UNIT</u>	<u>TRIP SETPOINT</u>	<u>ALLOWABLE VALUES</u>
3. Containment Isolation (Continued)		
c. Containment Ventilation Isolation		
1) Automatic Actuation Logic and Actuation Relays	N.A.	N.A.
2) Plant Vent Noble Gas Activity-High (RM-14A and 14B)	Per the ODCP	
3) Safety Injection	See Item 1. above for all Safety Injection Trip Setpoints and Allowable Values.	
4. Steam Line Isolation		
a. Manual	N.A.	N.A.
b. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.
c. Containment Pressure-High-High	< 22 psig	< 24 psig
d. Steam Flow in Two Steam Lines-High	< A function defined as follows: A Δp corresponding to 40% of full steam flow between 0% and 20% load and then a Δp increasing linearly to a Δp corresponding to 110% of full steam flow at full load.	< A function defined as follows: A Δp corresponding to 44% of full steam flow between 0% and 20% load and then a Δp increasing linearly to a Δp corresponding to 111.5% of full steam flow at full load.
Coincident With Either		
1) T_{avg} -Low-Low, or	$\geq 543^{\circ}F$	$\geq 540.2^{\circ}$
2) Steam Line Pressure-Low	≥ 600 psig	≥ 580 psig

DIABLO CANYON - UNITS 1 & 2

3/4 3-25

Amendment Nos. 87 and 86, 67 and 66

TABLE 3.3-4 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION TRIP SETPOINTS

<u>FUNCTIONAL UNIT</u>	<u>TRIP SETPOINT</u>	<u>ALLOWABLE VALUES</u>
5. Turbine Trip and Feedwater Isolation		
a. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.
b. Steam Generator Water level-High-High	< 67% of narrow range Instrument span each steam generator.	< 68% of narrow range Instrument span each steam generator.
6. Auxiliary Feedwater		
a. Manual	N.A.	N.A.
b. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.
c. Steam Generator Water Level-Low-Low	>7.2% of narrow range Instrument span each steam generator.	>6.2% of narrow range Instrument span each steam generator.
d. Undervoltage - RCP	≥ 8050 volts	≥ 7935 volts
e. Safety Injection	See Item 1. above for all Safety Injection Trip Setpoints and Allowable Values.	

DIABLO CANYON - UNITS 1 & 2

3/4 3-26

Amendment Nos. 34 and 33
Cancellation Letter 66 4-11-80Revised
4/11/89

TABLE 3.3-6

RADIATION MONITORING INSTRUMENTATION FOR PLANT OPERATIONS

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ALARM/TRIP SETPOINT</u>	<u>ACTION</u>
1. Fuel Storage Area				
a. Spent Fuel Pool	1	*	≤ 75 mR/hr	39 & 32**
b. New Fuel Storage	1	*	≤ 15 mR/hr	30 & 32**
2. Control Room Ventilation Mode Change	2***	All	≤ 2 mR/hr	34
3. Containment				
a. Gaseous Activity				
1) Containment Ventilation Isolation (RM-14A or 14B)	1	6	Per the ODCP	33
2) RCS Leakage	1	1, 2, 3, 4	N.A.	31
b. Particulate Activity				
RCS Leakage	1	1, 2, 3, 4	N.A.	31

*With fuel in the spent fuel pool or new fuel storage vault.

**With irradiated fuel in the spent fuel pool.

***One channel for each normal intake to the Control Room Ventilation System (common to both units).

TABLE 3.3-6 (Continued)

ACTION STATEMENTS

- ACTION 30 - With less than the Minimum Channels OPERABLE requirement, operation may continue for up to 30 days provided an appropriate portable continuous monitor with the same Alarm Setpoint or an individual qualified in radiation protection procedures with a radiation dose rate monitoring device is provided in the fuel storage pool area. Restore the inoperable monitors to OPERABLE status within 30 days or suspend all operations involving fuel movement in the fuel storage pool areas.
- ACTION 31 - With the number of OPERABLE channels less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.4.6.1. The provisions of Specification 3.0.4 are not applicable.
- ACTION 32 - With the number of OPERABLE channels less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.9.12.
- ACTION 33 - With the number of OPERABLE channels less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.9.9.
- ACTION 34 - With the number of OPERABLE channels less than required by the Minimum Channels OPERABLE requirement, within 1 hour initiate and maintain operation of the Control Room Ventilation System in a recirculation mode with the HEPA filter and charcoal adsorber bank in operation.

INSTRUMENTATION

EXPLOSIVE GAS EFFLUENT MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.9 Deleted

3.3.3.10 The explosive gas monitoring instrumentation channels (ANR-75 or ANR-76) shall be OPERABLE with their Alarm/Trip Setpoints set to ensure that the limits of Specification 3.11.2.5 are not exceeded.

APPLICABILITY: During GASEOUS RADWASTE SYSTEM operation.

ACTION:

- a. With an explosive gas monitoring instrumentation channel (ANR-75 or ANR-76) Alarm/Trip Setpoint less conservative than required by the above specification, declare the channel inoperable and follow action b. below.
- b. With only one OPERABLE explosive gas monitoring instrumentation channel, operation of this system may continue for up to 14 days. After 14 days or with no channels OPERABLE, operation of this system may continue provided grab samples are collected at least once per 4 hours and analyzed within the following 4 hours
- c. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.9 Deleted

4.3.3.10.1 Each explosive gas monitoring instrumentation channel shall be demonstrated OPERABLE by performance of a daily CHANNEL CHECK and a monthly CHANNEL FUNCTIONAL TEST.

4.3.3.10.2 Each explosive gas monitoring instrumentation channel shall be demonstrated OPERABLE by performance of a quarterly CHANNEL CALIBRATION. The CHANNEL CALIBRATION shall include the use of standard gas samples containing a nominal:

- a. Two volume percent oxygen, balance nitrogen, and
- b. Four volume percent oxygen, balance nitrogen.

INSTRUMENTATION

3/4.3.4 TURBINE OVERSPEED PROTECTION

LIMITING CONDITION FOR OPERATION

3.3.4.1 At least one Turbine Overspeed Protection System shall be OPERABLE.

APPLICABILITY: MODES 1, 2 and 3 (during turbine operation).

ACTION:

- a. With one stop valve or one control valve per high pressure turbine steam line inoperable or with one reheat stop valve or one reheat intercept valve per low pressure turbine steam line inoperable, restore the inoperable valve(s) to OPERABLE status within 72 hours, or isolate the turbine from the steam supply within the next 6 hours.
- b. With the above required Turbine Overspeed Protection System otherwise inoperable, within 6 hours isolate the turbine from the steam supply.

SURVEILLANCE REQUIREMENTS

4.3.4.1.1 The provisions of Specification 4.0.4 are not applicable.

4.3.4.1.2 The above required Turbine Overspeed Protection System shall be demonstrated OPERABLE:

- a. At least once per quarter by cycling and direct observation of the movement of each of the following valves through at least one complete cycle from the running position:
 - 1) Four high pressure turbine stop valves,
 - 2) Four high pressure turbine control valves,
 - 3) Six low pressure turbine reheat stop valves, and
 - 4) Six low pressure turbine reheat intercept valves.
- b. At least once per 18 months by performance of a CHANNEL CALIBRATION on the Turbine Overspeed Protection Systems.
- c. At least once per 40 months by disassembling at least one of each of the above valves and performing a visual and surface inspection of valve seats, disks and stems and verifying no unacceptable flaws or corrosion.

RADIOACTIVE EFFLUENTS

LIQUID HOLDUP TANKS

LIMITING CONDITION FOR OPERATION

3.11.1.1 - 3.11.1.3 Deleted

3.11.1.4 The quantity of radioactive material contained in any temporary outdoor tanks shall be limited to less than or equal to 10 curies, excluding tritium and dissolved or entrained noble gases.

APPLICABILITY: At all times.

ACTION:

- a. With the quantity of radioactive material in any of the temporary outdoor tanks exceeding the above limit, immediately suspend all additions of radioactive material to the tank, within 48 hours reduce the tank contents to within the limit, and describe the events leading to this condition in the next Semiannual Radioactive Effluent Release Report, pursuant to Specification 6.9.1.6.
- b. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.1.1 - 4.11.1.3 Deleted

4.11.1.4 The quantity of radioactive material contained in each of the temporary outdoor tanks shall be determined to be within the above limit by analyzing a representative sample of the tank's contents at least once per 7 days when radioactive materials are being added to the tank.

RADIOACTIVE EFFLUENTS

EXPLOSIVE GAS MIXTURE

LIMITING CONDITION FOR OPERATION

3.11.2.1 - 3.11.2.4 Deleted

3.11.2.5 The concentration of oxygen in the GASEOUS RADWASTE SYSTEM shall be limited to less than or equal to 2% by volume whenever the hydrogen concentration exceeds 4% by volume.

APPLICABILITY: At all times.

ACTION:

- a. With the concentration of oxygen in the GASEOUS RADWASTE SYSTEM greater than 2% by volume but less than or equal 4% by volume, reduce the oxygen concentration to the above limits within 48 hours.
- b. With the concentration of oxygen in the GASEOUS RADWASTE SYSTEM greater than 4% by volume and the hydrogen concentration greater than 4% by volume, immediately suspend all additions of waste gases to the system and reduce the concentration of oxygen to less than or equal to 4% by volume, then take ACTION a., above.
- c. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.2.1 - 4.11.2.4 Deleted

4.11.2.5 The concentration of hydrogen* and oxygen in the GASEOUS RADWASTE SYSTEM shall be determined to be within the above limits by monitoring the waste gases in the GASEOUS RADWASTE SYSTEM with the hydrogen and continuous oxygen monitors required OPERABLE by Table 3.3-13 of Specification 3.3.3.10.

*If monitoring of the waste gases for hydrogen is not performed, the hydrogen concentration shall be assumed to be greater than 4% by volume.

RADIOACTIVE EFFLUENTS

GAS STORAGE TANKS

LIMITING CONDITION FOR OPERATION

3.11.2.6 The quantity of radioactivity contained in each gas decay tank shall be limited to less than or equal to 10^5 curies noble gases (considered as Xe-133 equivalent).

APPLICABILITY: At all times.

ACTION:

- a. With the quantity of radioactive material in any gas decay tank exceeding the above limit, immediately suspend all additions of radioactive material to the tank, within 48 hours reduce the tank contents to within the limit, and describe the events leading to this condition in the next Semiannual Radioactive Effluent Release Report, pursuant to Specification 5.9.1.6.
- b. The provisions of Specification 3.0.3 are not applicable.

3.11.3 Deleted

3.11.4 Deleted

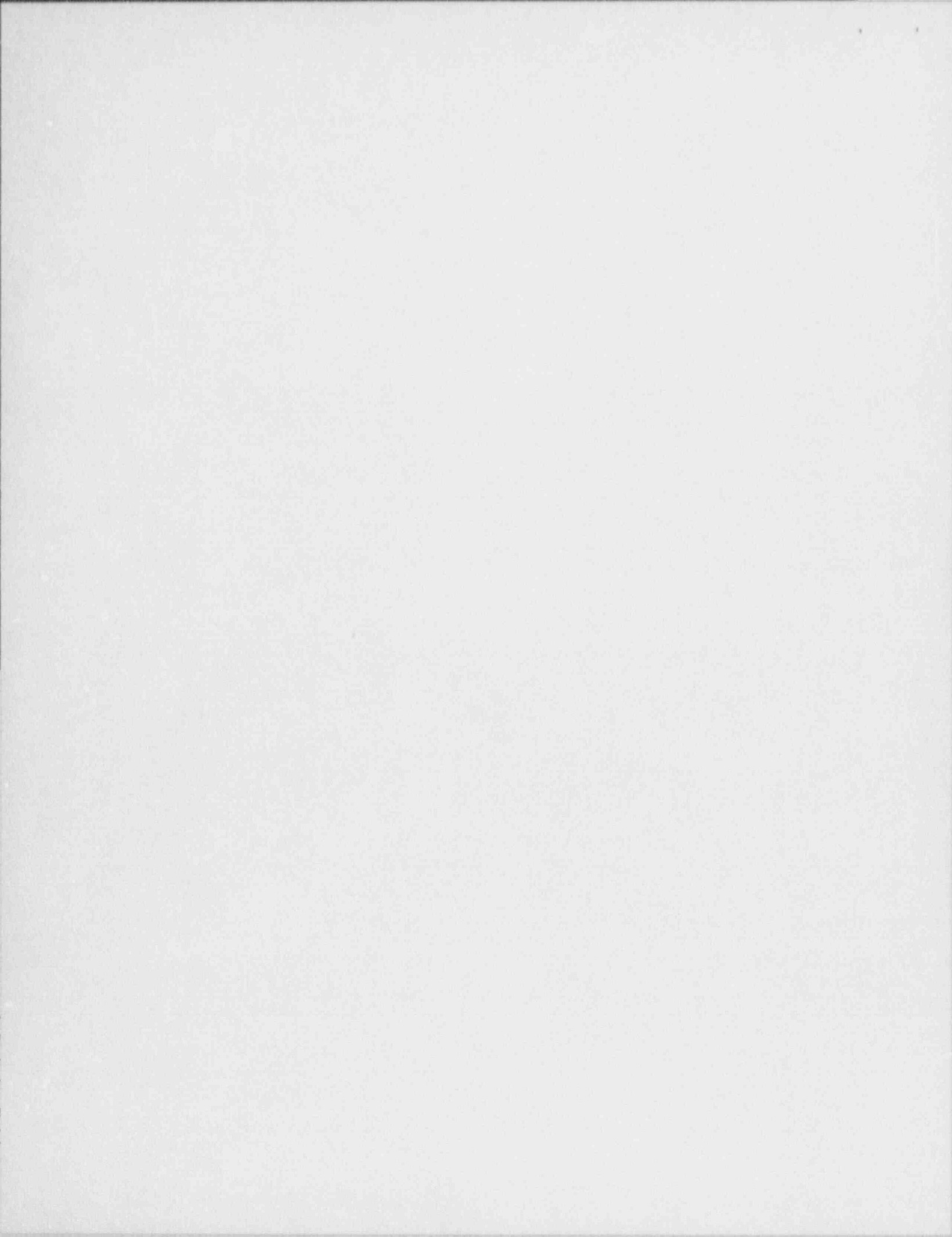
SURVEILLANCE PEQUIREMENTS

4.11.2.6 The quantity of radioactive material contained in each gas decay tank shall be determined to be within the above limit at least once per 24 hours when radioactive materials are being added to the tank.

4.11.3 Deleted

4.11.4 Deleted

3/4.12 Deleted in its entirety.



INSTRUMENTATION

BASES

3/4.3.3.3 SEISMIC INSTRUMENTATION

The OPERABILITY of the seismic instrumentation ensures that sufficient capability is available to promptly determine the magnitude of a seismic event and evaluate the response of those features important to safety. This capability is required to permit comparison of the measured response to that used in the design basis for the facility to determine if plant shutdown is required pursuant to Appendix A of 10 CFR Part 100. The instrumentation is consistent with the recommendations of Regulatory Guide 1.12, "Instrumentation for Earthquakes."

3/4.3.3.4 METEOROLOGICAL INSTRUMENTATION

The OPERABILITY of the meteorological instrumentation ensures that sufficient meteorological data is available for estimating potential radiation doses to the public as a result of routine or accidental release of radioactive materials to the atmosphere. This capability is required to evaluate the need for initiating protective measures to protect the health and safety of the public and is consistent with the recommendations of Regulatory Guide 1.23, "Onsite Meteorological Programs," February 1972.

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 Criterion 19 of 10 CFR Part 50.

3/4.3.3.6 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. The normal plant instrument channels specified are suitable for use as post-accident instruments. This capability is consistent with the recommendations of Regulatory Guide 1.97, Revision 3, "Instrumentation for Light-Water-Cooled Nuclear Power Plants to Assess Plant Conditions During and Following an Accident," May 1983, and NUREG-0737, "Clarification of TMI Action Plan Requirements," November 1980.

3/4.3.3.7 CHLORINE DETECTION SYSTEMS

The OPERABILITY of the Chlorine Detection System ensures that sufficient capability is available to promptly detect and initiate protective action in the event of an accidental chlorine release. This capability is required to protect control room personnel and is consistent with the recommendations of Regulatory Guide 1.95, "Protection of Nuclear Power Plant Control Room Operators Against an Accidental Chlorine Release," February 1975.

INSTRUMENTATION

BASES

3/4.3.3.8 FIRE DETECTION INSTRUMENTATION

The OPEPABILITY of the detection instrumentation ensures that adequate warning capability is available for prompt detection of fires. This capability is required in order to detect and locate fires in their early stages. Prompt detection of fires will reduce the potential for damage to safety-related equipment and is an integral element in the overall facility Fire Protection Program.

In the event that a portion of the fire detection instrumentation is inoperable, the establishment of frequent fire patrols in the affected areas is required to provide detection capability until the inoperable instrumentation is restored to OPERABILITY.

Since the fire detectors installed in the plant are nonseismic, an inspection will be performed following a seismic event to detect any fires.

3/4.3.3.9 RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

Section relocated to RMCP.

INSTRUMENTATION

BASES

3/4.3.3.10 EXPLOSIVE GAS MONITORING INSTRUMENTATION

The explosive gas instrumentation is provided for monitoring (and controlling) the concentrations of potentially explosive gas mixtures in the GASEOUS RADWASTE SYSTEM.

3/4.3.4 TURBINE OVERSPEED PROTECTION

This specification is provided to ensure that the turbine overspeed protection instrumentation and the turbine speed control valves are OPERABLE and will protect the turbine from excessive overspeed. Protection from turbine excessive overspeed is required since excessive overspeed of the turbine could generate potentially damaging missiles which could impact and damage safety related components, equipment or structures.

The quarterly valve test frequency required by Specification 4.3.4.1.2a, is based on Diablo Canyon operating experience and the results of an evaluation documented in WCAP-11525, "Probabilistic Evaluation of Reduction in Turbine Valve Test Frequency," June 1987. The evaluation shows that for Diablo Canyon the probability of turbine missile generation is within the NRC acceptance criteria (letter from C. E. Rossi, USNRC, to J. A. Martin, Westinghouse, dated February 2, 1987) for turbine valve test intervals up to seven months.

RADIOACTIVE EFFLUENTS

BASES

3/4.11.1 LIQUID EFFLUENTS

- 3/4.11.1.1 Relocated to RMCP.
- 3/4.11.1.2 Relocated to RMCP.
- 3/4.11.1.3 Relocated to RMCP.

3/4.11.1.4 LIQUID HOLDUP TANKS

The tanks listed in this specification include all those outdoor radwaste 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.

Restricting the quantity of radioactive material contained in the specified tanks provides assurance that in the event of an uncontrolled release of the tank's 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 Relocated to RMCP.
- 3/4.11.2.2 Relocated to RMCP.
- 3/4.11.2.3 Relocated to RMCP.
- 3/4.11.2.4 Relocated to RMCP.

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 GASEOUS RADWASTE 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.

3/4.11.2.6 GAS STORAGE TANKS

The tanks included in this specification are those tanks for which the quantity of radioactivity contained is not limited directly or indirectly by another Technical Specification. Restricting the quantity of radioactivity contained in each gas storage tank provides assurance that in the event of an uncontrolled release of the tank's contents, the resulting whole body exposure to a MEMBER OF THE PUBLIC at the nearest SITE BOUNDARY will not exceed 0.5 rem. This is consistent with Standard Review Plan 11.3, Branch Technical Position ETSB 11-5, "Postulated Radioactive Releases Due to a Waste Gas System Leak or Failure," in NUREG-0800, July 1981.

3/4.11.3 Deleted

3/4.11.4 Deleted

B 3/4.12 Deleted in its entirety.

ADMINISTRATIVE CONTROLS

PROCEDURES AND PROGRAMS (Continued)

c. Secondary Water Chemistry

A program for monitoring of secondary water chemistry to inhibit steam generator tube degradation. This program shall include:

- 1) Identification of a sampling schedule for the critical variables and control points for these variables,
- 2) Identification of the procedures used to measure the values of the critical variables,
- 3) Identification of process sampling points, including monitoring the discharge of the condensate pumps for evidence of condenser in-leakage,
- 4) Procedures for the recording and management of data,
- 5) Procedures defining corrective actions for all off-control point chemistry conditions, and
- 6) A procedure identifying: (a) the authority responsible for the interpretation of the data, and (b) the sequence and timing of administrative events required to initiate corrective action.

c. Backup Method for Determining Subcooling Margin

A program which will ensure the capability to accurately monitor the Reactor Coolant System subcooling margin. This program shall include the following:

- 1) Training of personnel, and
- 2) Procedures for monitoring.

e. Postaccident Sampling

A program which will ensure the capability to obtain and analyze reactor coolant, radioactive iodines and particulates in plant gaseous effluents, and containment atmosphere samples under accident conditions. The program shall include the following:

- 1) Training of personnel,
Procedures for sampling and analysis, and
Provisions for maintenance of sampling and analysis equipment.

ADMINISTRATIVE CONTROLS

PROCEDURES AND PROGRAMS (Continued)

f. Containment Polar and Turbine Building Cranes

A program which will ensure that: 1) the position of the containment polar cranes precludes jet impingement from a postulated pipe rupture; and 2) the operation of the turbine building cranes is consistent with the restrictions associated with the current Hosgri seismic analysis of the turbine building. This program shall include the following:

- 1) Training of personnel, and
- 2) Procedures for the containment polar and turbine building cranes operation.

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 MEMBERS OF THE PUBLIC from radioactive effluents as low as reasonably achievable. The program (1) shall be contained in the RMCP, (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 requirements and setpoint determination in accordance with the methodology in the ODCP,
- 2) Limitations on the concentrations of radioactive material released in liquid effluents to UNRESTRICTED AREA conforming to 10 CFR Part 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 ODCP.
- 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 AREA 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 ODCP at least every 31 days,

ADMINISTRATIVE CONTROLS

PROCEDURES AND PROGRAMS (Continued)

- 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 31 -day period would exceed 2 percent 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 area 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 MEMBERS 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, and
- 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.

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 RMCP, (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 ERMP,
- 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 this 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 the environmental sample matrices are performed as part of the quality assurance program for environmental monitoring.

ADMINISTRATIVE CONTROLS

6.9 REPORTING REQUIREMENTS

ROUTINE REPORTS

6.9.1 In addition to the applicable reporting requirements of Title 10, Code of Federal Regulations, the following reports shall be submitted to the NRC in accordance with 10 CFR 50.4.

STARTUP REPORTS

6.9.1.1 A summary report of plant startup and power escalation testing shall be submitted following: (1) receipt of an operating license, (2) amendment to the license involving a planned increase in power level, (3) installation of fuel that has a different design or has been manufactured by a different fuel supplier, and (4) modifications that may have significantly altered the nuclear, thermal, or hydraulic performance of the plant.

6.9.1.2 The initial Startup Report shall address each of the startup tests identified in Chapter 14 of the FSAR and shall include a description of the measured values of the operating conditions or characteristics obtained during the test program and a comparison of these values with design predictions and specifications. Any corrective actions that were required to obtain satisfactory operation shall also be described. Any additional specific details required in license conditions based on other commitments shall be included in this report. Subsequent Startup Reports shall address startup tests that are necessary to demonstrate acceptability of the change and/or modification.

6.9.1.3 Startup Reports shall be submitted within: (1) 90 days following completion of the startup test program, (2) 90 days following resumption or commencement of commercial power operation, or (3) 9 months following initial criticality, whichever is earliest. If the Startup Report does not cover all three events (i.e., initial criticality, completion of Startup Test Program, and resumption or commencement of commercial power operation), supplementary reports shall be submitted at least every three months until all three events have been completed.

ANNUAL REPORTS*

6.9.1.4 Annual Reports covering the activities of the unit as described below during the previous calendar year shall be submitted prior to March 31 of each year. The initial report shall be submitted prior to March 31 of the year following initial criticality.

Reports required on an annual basis shall include a tabulation on an annual basis of the number of station, utility and other personnel (including contractors) receiving exposures greater than 100 mrem/yr and their associated man

*A single submittal may be made for a multiple-unit plant. The submittal should combine those sections that are common to all units at the plant.

ADMINISTRATIVE CONTROLS

ANNUAL REPORTS (Continued)

rem exposure according to work and job functions,* e.g., reactor operations and surveillance, inservice inspection, routine maintenance, special maintenance (describe maintenance), waste processing, and refueling. The dose assignment to various duty functions may be estimates based on pocket dosimeter, TLD, or film badge measurements. Small exposures totalling less than 20% of the individual total dose need not be accounted for. In the aggregate, at least 80% of the total whole body dose received from external sources shall be assigned to specific major work functions.

The results of specific activity analysis in which the primary coolant exceeded the limits of Specification 3.4.8 will be included in the annual report. The following information shall be included: (1) reactor power history starting 48 hours prior to the first sample in which the limit was exceeded; (2) results of the last isotopic analysis for radioiodine performed prior to exceeding the limit, results of analysis while limit was exceeded and results of one analysis after the radioiodine activity was reduced to less than limit. Each result should include date and time of sampling and the radioiodine concentrations; (3) clean-up system flow history starting 48 hours prior to the first sample in which the limit was exceeded; (4) graph of the I-131 concentration and one other radioiodine isotope concentration in microcuries per gram as a function of time for the duration of specific activity above the steady-state level; and (5) the time duration when the specific activity of the primary coolant exceeded the radioiodine limit.

ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT**

6.9.1.5 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 RMCP and (2) Sections IV.B.2, IV.B.3, and IV.C of Appendix I to 10 CFR Part 50.

*This tabulation supplements the requirements of 10 CFR 20.407.

**A single submittal may be made for a multiple unit plant.

ADMINISTRATIVE CONTROLS

SEMIANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT*

6.9.1.6 The Semiannual Radioactive Effluent Release Report covering the operation of the unit during the previous 6 months of operation shall be submitted within 60 days after January 1 and July 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 objectives outlined in the RMCP and PCP, (2) in conformance with 10 CFR 50.36a and Section IV.B.1 Appendix i to 10 CFR Part 50.

MONTHLY OPERATING REPORT

6.9.1.7 Routine reports of operating statistics and shutdown experience, including documentation of all challenges and failures to the PORVs or safety valves, shall be submitted on a monthly basis to the NRC in accordance with 10 CFR 50.4, no later than the 15th of each month following the calendar month covered by the report.

CORE OPERATING LIMITS REPORT

- 6.9.1.8.a Core operating limits shall be established and documented in the CORE OPERATING LIMITS REPORT before each reload cycle or any remaining part of a reload cycle for the following:
1. Shutdown Rod Insertion Limits for Specification 3/4.1.3.5,
 2. Control Rod Insertion Limits for Specification 3/4.1.3.6,
 3. Axial Flux Difference for Specification 3/4.2.1,
 4. Heat Flux Hot Channel Factor - $F_Q(z)$ (Surveillance Requirement $W(z)$ of Specification 3/4.2.2), and Q
 5. Heat Flux Hot Channel Factor - $F_Q(z)$ (Surveillance Requirement F_{xy} of Specification 3/4.2.2.2).
- b. The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC in:
1. WCAP-10216-P-A, Relaxation of Constant Axial Offset Control F_Q Surveillance Technical Specification, June 1983 (Westinghouse Proprietary),
 2. WCAP-9272-P-A, Westinghouse Reload Safety Evaluation Methodology, July 1985 (Westinghouse Proprietary), and

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

ADMINISTRATIVE CONTROLS

3. WCAP-8385, Power Distribution Control and Load Following Procedures, September 1974 (Westinghouse Proprietary).
- c. The core operating limits shall be determined so that all applicable limits (e.g., fuel thermal-mechanical limits, core thermal-hydraulic limits, ECCS limits, nuclear limits such as SHUTDOWN MARGIN, and transient and accident analysis limits) of the safety analysis are met.
- d. The CORE OPERATING LIMITS REPORT, including any mid-cycle revisions or supplements thereto, shall be provided, upon issuance for each reload cycle, to the NRC Document Control Desk, with copies to the Regional Administrator and Resident Inspector.

SPECIAL REPORTS

6.9.2 Special reports shall be submitted to the NRC in accordance with 10 CFR 50.4 within the time period specified for each report.

6.10 RECORD RETENTION

In Addition to the applicable record retention requirements of Title 10, Code of Federal Regulations, the following records shall be retained for at least the minimum period indicated.

- 6.10.1 The following records shall be retained for at least 5 years:
 - a. Records and logs of unit operation covering time interval at each power level;
 - b. Records and logs of principal maintenance activities, inspections, repair and replacement of principal items of equipment related to nuclear safety;
 - c. ALL REPORTABLE EVENTS;

ADMINISTRATIVE CONTROLS

RECORD RETENTION (Continued)

- d. Records of surveillance activities, inspections and calibrations required by these Technical Specifications;
- e. Records of changes made to procedures required by Specification 6.8.1;
- f. Records of radioactive shipments;
- g. Records of sealed source and fission detector leak tests and results; and
- h. Records of annual physical inventory of all sealed source material of record.

6.10.2 The following records shall be retained for the duration of the unit Operating License:

- a. Records and drawing changes reflecting unit design modifications made to systems and equipment described in the Final Safety Analysis Report;
- b. Records of new and irradiated fuel inventory, fuel transfers and assembly burnup histories;
- 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 unit 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 unit 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. Records of reviews performed for changes made to procedure or equipment or reviews of tests and experiments pursuant to 10 CFR 50.59;
- k. Records of meetings of the PSRC and NSOC;

ADMINISTRATIVE CONTROLS

RECORD RETENTION (Continued)

- l. Records of analyses required by the Radiological Environmental Monitoring Program;
- m. Records of the service lives of all hydraulic and mechanical snubbers required by Specification 3.7.7 including the date at which the service life commences and associated installation and maintenance records; and
- n. Records of secondary water sampling and water quality.
- o. Records of reviews performed for changes made to the RADIOLOGICAL MONITORING AND CONTROLS PROGRAM, OFFSITE DOSE CALCULATION PROCEDURE, ENVIRONMENTAL RADIOLOGICAL MONITORING PROCEDURE, 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.

6.12 HIGH RADIATION AREA

6.12.1 Pursuant to paragraph 20.203(c)(5) of 10 CFR Part 20, in lieu of the "control device" or "alarm signal" required by paragraph 20.203(c)(2) each high radiation area, as defined in 10 CFR Part 20, in which the intensity of radiation is equal to or less than 1000 mR/h at 45 cm (18 in.) from the radiation source or from any surface which the radiation penetrates shall be barricaded and conspicuously posted as a high radiation area and entrance thereto shall be controlled by requiring issuance of work permits for radiation (WPR). Individuals qualified in radiation protection procedures (e.g., Health Physics Technician) or personnel continuously monitored by such individuals may be exempt from the WPR issuance requirement during the performance of their assigned duties in high radiation areas with exposure rates equal to or less than 1000 mR/h, provided they are otherwise following plant radiation protection procedures for entry into such high radiation areas. Any individual or group of individuals permitted to enter such areas shall be provided with or accompanied by one or more of the following:

- a. A radiation monitoring device which continuously indicates the radiation dose rate in the area; or
- b. A radiation monitoring device which continuously integrates the radiation dose rate in the area and alarms when a preset integrated dose is received. Entry into such areas with this monitoring device may be made after the dose rate levels in the area have been established and personnel have been made knowledgeable of them; or

ADMINISTRATIVE CONTROLS

HIGH RADIATION AREA (Continued)

- c. An individual qualified in radiation protection procedures with a radiation dose rate monitoring device, who is responsible for providing positive control over the activities within the area and shall perform periodic radiation surveillance at the frequency specified by the Radiation Protection Manager in the WPR.

6.12.2 In addition to the requirements of Specification 6.12.1, areas accessible to personnel with radiation levels greater than 1000 mR/h at 45 cm (18 in.) from the radiation source or from any surface which the radiation penetrates shall be provided with locked doors to prevent unauthorized entry, and the keys shall be maintained under the administrative control of the Shift Foreman on duty and/or health physics supervision. Doors shall remain locked except during periods of access by personnel under an approved WPR which shall specify the dose rate levels in the immediate work areas and the maximum allowable stay time for individuals in that area. In lieu of the stay time specification of the WPR, direct or remote (such as closed circuit TV cameras) continuous surveillance may be made by personnel qualified in radiation protection procedures to provide positive exposure control over the activities being performed within the area.

For individual high radiation areas accessible to personnel with radiation levels of greater than 1000 mR/h that are located within large areas, such as PWR containment, where no enclosure exists for purposes of locking, and where no enclosure can be reasonably constructed around the individual area, that individual area shall be barricaded, conspicuously posted, and a flashing light shall be provided as a warning device.

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:

- a. Shall be documented and records of reviews performed shall be retained as required by Specification 6.10.2.o. This documentation shall contain:
 - 1) Sufficient information to support the change together with the appropriate analyses or evaluations justifying the change(s) and
 - 2) 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.
- b. Shall become effective after review and acceptance by the PSRC and the approval of the Plant Manager.

ADMINISTRATIVE CONTROLS

6.14 RADIOLGICAL MONITORING AND CONTROLS PROGRAM (RMCP), OFFSITE DOSE CALCULATION PROCEDURE (ODCP) and ENVIRONMENTAL RADIOLOGICAL MONITORING PROCEDURE (ERMP)

6.14.1 The RMCP, ODCP and ERMP shall be approved by the Commission prior to implementation.

6.14.2 Changes to the RMCP, ODCP, and ERMP:

- a. Shall be documented and records of reviews performed shall be retained as required by Specification 6.10.2.o. This documentation shall contain:
 - 1) Sufficient information to support the change together with the appropriate analyses or evaluations justifying the change(s) and
 - 2) 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.
- b. Shall become effective after review and acceptance by the PSRC and the approval of the Plant Manager.
- c. Shall be submitted to the Commission in the form of a complete, legible copy of the entire RMCP, ODCP and ERMP as part of or concurrent with the Semiannual Radioactive Effluent Release Report for the period of the report in which any change to the RMCP, ODCP or ERMP 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.