



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

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

Amendment No. 45  
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 August 15, 1989 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.

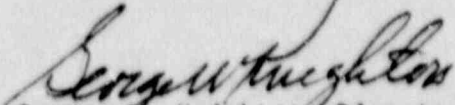
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-80 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 45, 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 at the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



George W. Knighton, Director  
Project Directorate V  
Division of Reactor Projects - III,  
IV, V and Special Projects  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: October 20, 1989



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

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

Amendment No. 44  
License No. DPR-82

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Pacific Gas & Electric Company (the licensee), dated August 15, 1989 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.

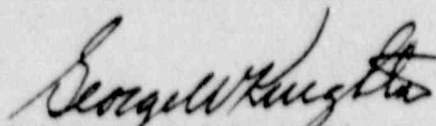
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-82 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 44, 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 at the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



George W. Knighton, Director  
Project Directorate V  
Division of Reactor Projects - III,  
IV, V and Special Projects  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: October 20, 1989

ATTACHMENT TO LICENSE AMENDMENT NOS. 45 AND 44  
FACILITY OPERATING LICENSE NOS. DPR-80 and DPR-82  
DOCKET NOS. 50-275 AND 50-323

Replace the following pages of the Appendix "A" Technical Specifications with the attached pages. The revised pages are identified by Amendment number and contain vertical lines indicating the areas of change. Overleaf pages are also included, as appropriate.

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## DEFINITIONS

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### THERMAL POWER

1.37 THERMAL POWER shall be the total reactor core heat transfer rate to the reactor coolant.

### TRIP ACTUATING DEVICE OPERATIONAL TEST

1.38 A TRIP ACTUATING DEVICE OPERATIONAL TEST shall consist of operating the Trip Actuating Device and verifying OPERABILITY of alarm, interlock and/or trip functions. The TRIP ACTUATING DEVICE OPERATIONAL TEST shall include adjustment, as necessary, of the Trip Actuating Device such that it actuates at the required Setpoint within the required accuracy.

### UNIDENTIFIED LEAKAGE

1.39 UNIDENTIFIED LEAKAGE shall be all leakage which is not IDENTIFIED LEAKAGE or CONTROLLED LEAKAGE.

### UNRESTRICTED AREA

1.40 An UNRESTRICTED AREA shall be any area at or beyond the SITE BOUNDARY access to which is not controlled by the licensee for purposes of protection of individuals from exposure to radiation and radioactive materials, or any area within the SITE BOUNDARY used for residential quarters or for industrial, commercial, institutional, and/or recreational purposes.

### VENTILATION EXHAUST TREATMENT SYSTEM

1.41 A VENTILATION EXHAUST TREATMENT SYSTEM shall be any system designed and installed to reduce gaseous radioiodine or radioactive material in particulate form in effluents by passing ventilation or vent exhaust gases through charcoal adsorbers and/or HEPA filters for the purpose of removing iodines or particulates from the gaseous exhaust stream prior to the release to the environment. Such a system is not considered to have any effect on noble gas effluents. Engineered Safety Features Atmospheric Cleanup Systems are not normally considered to be VENTILATION EXHAUST TREATMENT SYSTEM components.

### VENTING

1.42 VENTING 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 not provided or required during VENTING. Vent, used in system names, does not imply a VENTING process.

### CORE OPERATING LIMITS REPORT

1.43 The CORE OPERATING LIMITS REPORT is the unit-specific document that provides core operating limits for the current operating reload cycle. These cycle-specific core operating limits shall be determined for each reload cycle in accordance with Specification 6.9.1.8. Unit operation within these operating limits is addressed in individual specifications.

TABLE 1.1  
FREQUENCY NOTATION

<u>NOTATION</u>	<u>FREQUENCY</u>
S	At least once per 12 hours.
D	At least once per 24 hours.
W	At least once per 7 days.
M	At least once per 31 days
Q	At least once per 92 days.
SA	At least once per 184 days.
R	At least once per 18 months.
S/U	Prior to each reactor startup.
P	Completed prior to each release.
N.A.	Not applicable.

## REACTIVITY CONTROL SYSTEMS

### 3/4.1.3 MOVABLE CONTROL ASSEMBLIES

#### GROUP HEIGHT

#### LIMITING CONDITION FOR OPERATION

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3.1.3.1 All full-length shutdown and control rods shall be OPERABLE and positioned within  $\pm 12$  steps (indicated position) of their group demand position.

APPLICABILITY: MODES 1\* and 2\*.

#### ACTION:

- a. With one or more full-length rods inoperable due to being immovable as a result of excessive friction or mechanical interference or known to be untrippable, determine that the SHUTDOWN MARGIN requirement of Specification 3.1.1.1 is satisfied within 1 hour and be in HOT STANDBY within 6 hours.
- b. With one full-length rod trippable but inoperable due to causes other than addressed by ACTION a., above, or misaligned from its group demand height by more than  $\pm 12$  steps (indicated position), POWER OPERATION may continue provided that within 1 hour:
  1. The rod is restored to OPERABLE status within the above alignment requirements, or
  2. The rod is declared inoperable and the remainder of the rods in the group with the inoperable rod are aligned to within  $\pm 12$  steps of the inoperable rod while maintaining the rod sequence and insertion limits of Specification 3.1.3.6. The THERMAL POWER level shall be restricted pursuant to Specification 3.1.3.6 during subsequent operation, or
  3. The rod is declared inoperable and the SHUTDOWN MARGIN requirement of Specification 3.1.1.1 is satisfied. POWER OPERATION may then continue provided that:
    - a) A reevaluation of each accident analysis of Table 3.1-1 is performed within 5 days; this reevaluation shall confirm that the previously analyzed results of these accidents remain valid for the duration of operation under these conditions;
    - b) THE SHUTDOWN MARGIN requirement of Specification 3.1.1.1 is determined at least once per 12 hours;

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\*See Special Test Exceptions Specifications 3.10.2 and 3.10.3.

## REACTIVITY CONTROL SYSTEMS

### LIMITING CONDITION FOR OPERATION

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#### ACTION (Continued)

- c) A power distribution map is obtained from the movable incore detectors and  $F_Q(Z)$  and  $F_{\Delta H}^N$  are verified to be within their limits within 72 hours; and
  - d) The THERMAL POWER level is reduced to less than or equal to 75% of RATED THERMAL POWER within the next hour and within the following 4 hours the High Neutron Flux Trip Setpoint is reduced to less than or equal to 85% of RATED THERMAL POWER.
- c. With more than one rod trippable but inoperable due to causes other than addressed by ACTION a above, PCWER OPERATION may continue provided that:
- 1. Within 1 hour, the remainder of the rods in the bank(s) with the inoperable rods are aligned to within  $\pm 12$  steps of the inoperable rods while maintaining the rod sequence and insertion limits of Specification 3.1.3.6. The THERMAL POWER level shall be restricted pursuant to Specification 3.1.3.6 during subsequent operation, and
  - 2. The inoperable rods are restored to OPERABLE status within 72 hours.
- d. With more than one rod misaligned from its group demand position by more than  $\pm 12$  steps (indicated position), be in HOT STANDBY within 6 hours.

#### SURVEILLANCE REQUIREMENTS

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4.1.3.1.1 The position of each full-length rod shall be determined to be within the group demand limit by verifying the individual rod positions at least once per 12 hours except during time intervals when the Rod Position Deviation Monitor is inoperable, then verify the group positions at least once per 4 hours.

4.1.3.1.2 Each full-length rod not fully inserted in the core shall be determined to be OPERABLE by movement of at least 10 steps in any one direction at least once per 31 days.

## REACTIVITY CONTROL SYSTEMS

### SHUTDOWN ROD INSERTION LIMIT

#### LIMITING CONDITION FOR OPERATION

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3.1.3.5 All shutdown rods shall be limited in physical insertion as specified in the CORE OPERATING LIMITS REPORT (COLR).

APPLICABILITY: MODES 1\* and 2\*#.

ACTION:

With a maximum of one shutdown rod inserted beyond the insertion limit specified in the COLR, except for surveillance testing pursuant to Specification 4.1.3.1.2, within 1 hour either:

- a. Restore the rod to within the insertion limits specified in the COLR, or
- b. Declare the rod to be inoperable and apply Specification 3.1.3.1.

#### SURVEILLANCE REQUIREMENTS

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4.1.3.5 Each shutdown rod shall be determined to be within the insertion limits specified in the COLR

- a. Within 15 minutes prior to withdrawal of any rods in Control Banks A, B, C or D during an approach to reactor criticality, and
- b. At least once per 12 hours thereafter.

\*See Special Test Exceptions Specifications 3.10.2 and 3.10.3.

#With  $K_{eff}$  greater than or equal to 1.



REACTIVITY CONTROL SYSTEMS

CONTROL ROD INSERTION LIMITS

LIMITING CONDITION FOR OPERATION

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3.1.3.6 The control banks shall be limited in physical insertion as specified in the CORE OPERATING LIMITS REPORT (COLR).

APPLICABILITY: MODES 1\* and 2\*#.

ACTION:

With the control banks inserted beyond the insertion limits, except for surveillance testing pursuant to Specification 4.1.3.1.2:

- a. Restore the control banks to within the limits within 2 hours, or
- b. Reduce THERMAL POWER within 2 hours to less than or equal to that fraction of RATED THERMAL POWER which is allowed by the group position using the insertion limits specified in the COLR, or
- c. Be in at least HOT STANDBY within 6 hours.

SURVEILLANCE REQUIREMENTS

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4.1.3.6 The position of each control bank shall be determined to be within the insertion limits at least once per 12 hours except during time intervals when the rod insertion limit monitor is inoperable, then verify the individual rod positions at least once per 4 hours.

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\*See Special Test Exceptions Specifications 3.10.2 and 3.10.3.

#With  $K_{eff}$  greater than or equal to 1.

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### 3/4.2 POWER DISTRIBUTION LIMITS

#### 3/4.2.1 AXIAL FLUX DIFFERENCE

##### LIMITING CONDITIONS FOR OPERATION

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3.2.1 The indicated AXIAL FLUX DIFFERENCE (AFD) shall be maintained within the limits specified in the CORE OPERATING LIMITS REPORT (COLR).

APPLICABILITY: MODE 1 ABOVE 50 PERCENT RATED THERMAL POWER\*.

ACTION:

- a. With the indicated AXIAL FLUX DIFFERENCE outside of the limits specified in the COLR,
  1. Either restore the indicated AFD to within the limits within 15 minutes, or
  2. Reduce THERMAL POWER to less than 50% of RATED THERMAL POWER within 30 minutes and reduce the Power Range Neutron Flux - High Trip setpoints to less than or equal to 55 percent of RATED THERMAL POWER within the next 4 hours.
- b. THERMAL POWER shall not be increased above 50% of RATED THERMAL POWER unless the indicated AFD is within the limits specified in the COLR.

##### SURVEILLANCE REQUIREMENTS

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4.2.1.1 The indicated AXIAL FLUX DIFFERENCE shall be determined to be within its limits during POWER OPERATION above 50 percent of RATED THERMAL POWER by:

- a. Monitoring the indicated AFD for each OPERABLE excore channel:
  1. At least once per 7 days when the AFD Monitor Alarm is OPERABLE, and
  2. At least once per hour when the AFD Monitor Alarm is inoperable.

4.2.1.2 The indicated AFD shall be considered outside of its limits when at least 2 OPERABLE excore channels are indicating the AFD to be outside the limits.

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\*See Special Test Exceptions Specification 3.10.2

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## POWER DISTRIBUTION LIMITS

### SURVEILLANCE REQUIREMENTS

4.2.2.1.1 The provisions of Specification 4.0.4 are not applicable.

4.2.2.1.2  $F_Q(z)$  shall be evaluated to determine if  $F_Q(z)$  is within its limits by:

- a. Using the moveable incore detectors to obtain a power distribution map at any THERMAL POWER greater than 5% of RATED THERMAL POWER.
- b. Increasing the measured  $F_Q(z)$  component of the power distribution map by 3% to account for manufacturing tolerances and further increasing the value by 5% to account for measurement uncertainties.
- c. Satisfying the following relationship:

$$F_Q^M(z) \leq \frac{2.45 \times K(z)}{P \times W(z)} \text{ for } P > 0.5$$

$$F_Q^M(z) \leq \frac{2.45 \times K(z)}{W(z) \times 0.5} \text{ for } P \leq 0.5$$

where  $F_Q^M(z)$  is the measured  $F_Q(z)$  increased by the allowances for manufacturing tolerances and measurement uncertainty, 2.45 is the  $F_Q$  limit,  $K(z)$  is given in Figure 3.2-2,  $P$  is the relative THERMAL POWER, and  $W(z)$  is the cycle dependent function that accounts for power distribution transients encountered during normal operation. This function is specified in the CORE OPERATING LIMITS REPORT as per Specification 6.9.1.8.

- d. Measuring  $F_Q^M(z)$  according to the following schedule:
  1. Upon achieving equilibrium conditions after exceeding by 20% or more of RATED THERMAL POWER, the THERMAL POWER at which  $F_Q(z)$  was last determined,\* or
  2. At least once per 31 Effective Full Power Days (EFPD), whichever occurs first.
- e. With measurements indicating

$$\text{maximum } \frac{F_Q^M(z)}{K(z)} \\ \text{over } z$$

has increased since the previous determination of  $F_Q^M(z)$  either of the following actions shall be taken:

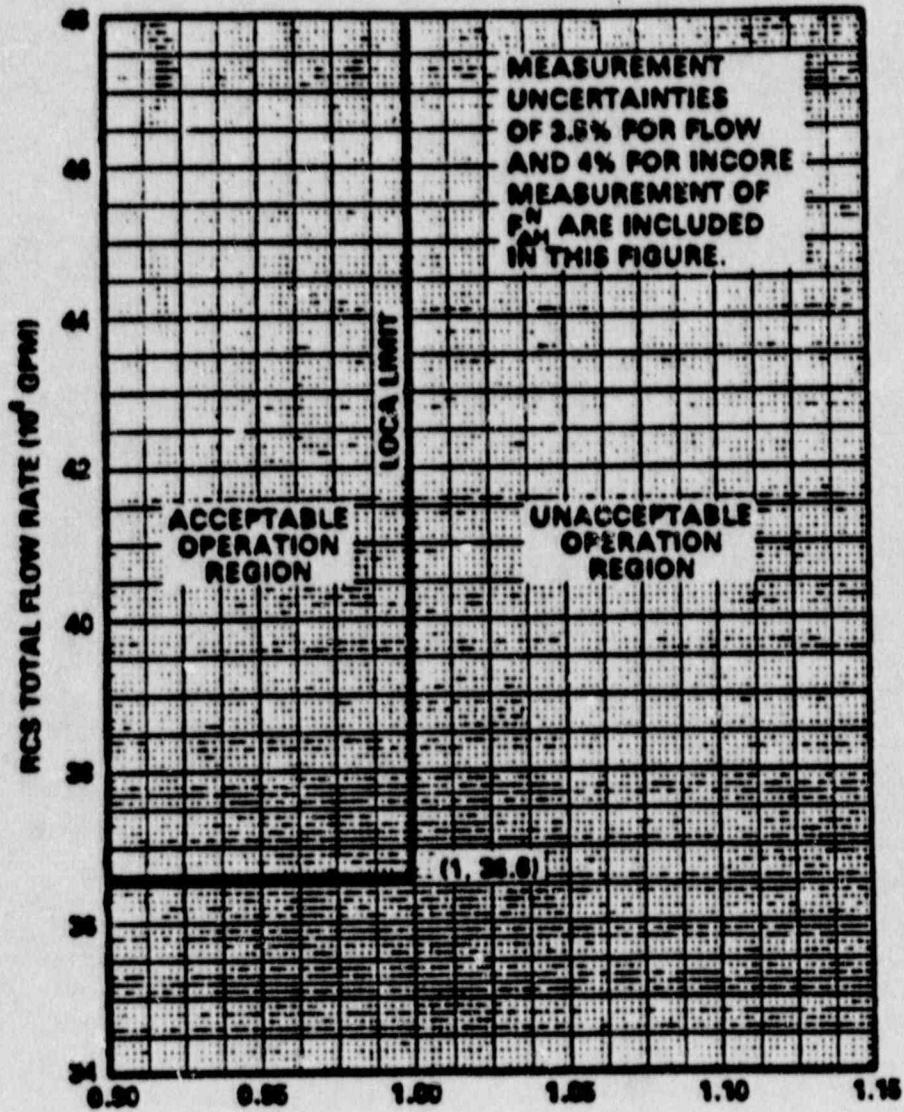
\* During power escalation at the beginning of each cycle, power level may be increased until a power level for extended operation has been achieved and a power distribution map obtained.



POWER DISTRIBUTION LIMITS

SURVEILLANCE REQUIREMENTS (Continued)

- 1)  $F_Q^M(z)$  shall be increased by 2% over that specified in Specification 4.2.2.1.2.c, or
  - 2)  $F_Q^M(z)$  shall be measured at least once per 7 EFPD until two successive maps indicate that  
maximum  $\left(\frac{F_Q^M(z)}{K(z)}\right)$  is not increasing.
- f. With the relationship specified in Specification 4.2.2.1.2.c above not being satisfied:
- 1) Calculate the percent  $F_Q(z)$  exceeds its limit by the following expression:  
$$\left\{ \left( \text{maximum over } z \left[ \frac{F_Q^M(z) \times W(z)}{\frac{2.45}{P} \times K(z)} \right] - 1 \right) \times 100 \text{ for } P \geq 0.5 \right.$$
  
$$\left. \left\{ \left( \text{maximum over } z \left[ \frac{F_Q^M(z) \times W(z)}{\frac{2.45}{0.5} \times K(z)} \right] - 1 \right) \times 100 \text{ for } P < 0.5 \right. \right.$$
  2. Either one of the following actions shall be taken:
    - a) Place the core in an equilibrium condition where the limit in Specification 4.2.2.1.2.c is satisfied. Power level may then be increased provided the AFD limits of Specification 3.2.1 are reduced 1% AFD for each percent  $F_Q(z)$  exceeds its limit, or



$$R = \frac{F^N}{\Delta H} \frac{1}{1.49[1.0 + 0.3(1.0 - P)]}$$

FIGURE 3.2-3b

RCS TOTAL FLOWRATE VERSUS R (UNIT 2)

## POWER DISTRIBUTION LIMITS

### SURVEILLANCE REQUIREMENTS (Continued)

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2. When the  $F_{xy}^C$  is less than or equal to the ( $F_{xy}^{RTP}$ ) limit for the appropriate measured core plane, additional power distribution maps shall be taken and  $F_{xy}^C$  compared to  $F_{xy}^{RTP}$  and  $F_{xy}^L$  at least once per 31 EFPD.
  - e. The  $F_{xy}$  limit for RATED THERMAL POWER ( $F_{xy}^{RTP}$ ) shall be provided for all core planes containing Bank "D" control rods and all unrodded core planes in the CORE OPERATING LIMITS REPORT per Specification 6.9.1.8.
  - f. The  $F_{xy}$  limits of Specification 4.2.2.2e., above, are not applicable in the following core plane regions as measured in percent of core height from the bottom of the fuel:
    1. Lower core region from 0 to 15%, inclusive,
    2. Upper core region from 85 to 100% inclusive,
    3. Grid plane regions at  $17.8 \pm 2\%$ ,  $32.1 \pm 2\%$ ,  $46.4 \pm 2\%$ ,  $60.6 \pm 2\%$  and  $74.9 \pm 2\%$ , inclusive, and
    4. Core plane regions within  $\pm 2\%$  of core height ( $\pm 2.88$  inches) about the bank demand position of the Bank "D" control rods.
  - g. With  $F_{xy}^C$  exceeding  $F_{xy}^L$ , the effects of  $F_{xy}$  on  $F_Q(Z)$  shall be evaluated to determine if  $F_Q(Z)$  is within its limits.
- 4.2.2.2.3 When  $F_Q(Z)$  is measured pursuant to Specification 4.10.2.2, an overall measured  $F_Q(Z)$  shall be obtained from power distribution map and increased by 3% to account for manufacturing tolerances and further increased by 5% to account for measurement uncertainty.

## POWER DISTRIBUTION LIMITS

### BASES

#### HEAT FLUX HOT CHANNEL FACTOR, and RCS FLOWRATE and NUCLEAR ENTHALPY RISE HOT CHANNEL FACTOR (Continued)

When an  $F_Q$  measurement is taken, an allowance for both experimental error and manufacturing tolerance must be made. An allowance of 5% is appropriate for a full core map taken with the incore detector flux mapping system and a 3% allowance is appropriate for manufacturing tolerance.

When RCS flow rate and  $F_{\Delta H}^N$  are measured, no additional allowances are necessary prior to comparison with the limits of Figures 3.2-3a, b and c. Measurement errors of 2.4% for Units 1 and 2 Cycle 4 and after, and 3.5% for Unit 2 Cycle 3 for RCS total flow rate and 4% for  $F_{\Delta H}^N$  have been allowed for in determination of the design DNBR values. For Units 1 and 2 Cycle 4 and after, the 4% is applied to the DNBR limit. For Unit 2 Cycle 3, the 4% is applied to  $F_{\Delta H}^N$ .

The 12-hour periodic surveillance of indicated RCS flow is sufficient to detect only flow degradation which could lead to operation outside the acceptable region of operation shown on Figures 3.2-3a, b, and c.

For Unit 2 Cycle 3, the Peaking Factor,  $F_{xy}(Z)$ , is measured periodically to provide additional assurance that the Hot Channel Factor,  $F_Q(Z)$ , remains within its limit. The  $F_{xy}$  limit for RATED THERMAL POWER ( $F_{xy}^{RTPQ}$ ) as specified in the CORE OPERATING LIMITS REPORT per Specification 6.9.1.8 was determined from expected power control maneuvers over the full range of burnup conditions in the core.

For Units 1 and 2 Cycle 4 and after, the hot channel factor  $F_Q^M(z)$  is measured periodically and increased by a cycle and height dependent power factor appropriate to RAOC operation,  $W(z)$ , to provide assurance that the limit on the hot channel factor  $F_Q(z)$  is met.  $W(z)$  accounts for the effects of normal operation transients and was determined from expected power control maneuvers over the full range of burnup conditions in the core. The  $W(z)$  function for normal operation is specified in the CORE OPERATING LIMITS REPORT per Specification 6.9.1.8.

#### 3/4.2.4 QUADRANT POWER TILT RATIO

The QUADRANT POWER TILT RATIO limit assures that the radial power distribution satisfies the design values used in the power capability analysis. Radial power distribution measurements are made during startup testing and periodically during power operation.

The limit of 1.02 at which corrective action is required provides DNB and linear heat generation rate protection with x-y plane power tilts. The limit of 1.02 was selected to provide an allowance for the uncertainty associated with the indicated power tilt.

## POWER DISTRIBUTION LIMITS

### BASES

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#### 3/4.2.5 DNB PARAMETERS

The limits on the DNB-related parameters assure that each of the parameters are maintained within the normal steady-state envelope of operation assumed in the transient and safety analyses. The limits are consistent with the initial FSAR assumptions and have been analytically demonstrated adequate to maintain a minimum DNBR of 1.30 throughout each analyzed transient.

The 12-hour periodic surveillance of these parameters through instrument readout is sufficient to ensure that the parameters are restored within their limits following load changes and other expected transient operation.

## ADMINISTRATIVE CONTROLS

### SEMIANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT (Continued)

atmospheric stability.\* This same report shall include an assessment of the radiation doses due to the radioactive liquid and gaseous effluents released from the unit or station during the previous calendar year. This same report shall also include an assessment of the radiation doses from radioactive liquid and gaseous effluents to MEMBERS OF THE PUBLIC due to their activities inside the SITE BOUNDARY (Figure 5.1-3) during the report period. All assumptions used in making these assessments, i.e., specific activity, exposure time and location, shall be included in these reports. The meteorological conditions concurrent with the time of release of radioactive materials in gaseous effluents, as determined by sampling frequency and measurement, shall be used for determining the gaseous pathway doses. The assessment of radiation doses shall be performed in accordance with the methodology and parameters in the OFFSITE DOSE CALCULATION PROCEDURE (ODCP).

The Semiannual Radioactive Effluent Release Report to be submitted within 60 days after January 1 of each year shall also include an assessment of radiation doses to the likely most exposed MEMBER OF THE PUBLIC from reactor releases and other nearby uranium fuel cycle sources, including doses from primary effluent pathways and direct radiation, for the previous calendar year to show conformance with 40 CFR Part 190, "Environmental Radiation Protection Standards for Nuclear Power Operation." Acceptable methods for calculating the dose contribution from liquid and gaseous effluents are given in Regulatory Guide 1.109, Rev. 1, October 1977.

The Semiannual Radioactive Effluent Release Reports shall include a list and description of unplanned releases from the site to UNRESTRICTED AREAS of radioactive materials in gaseous and liquid effluents made during the reporting period.

The Semiannual Radioactive Effluent Release Reports shall include any changes made during the reporting period to the PCP, the ERMP, and the ODCP, pursuant to Specifications 6.13 and 6.14, respectively, as well as any major change to Liquid, Gaseous, or Solid Radwaste Treatment Systems pursuant to Specification 6.15. It shall include a listing of new locations for dose calculations and/or environmental monitoring identified by the Land Use Census pursuant to Specification 3.12.2.

The Semiannual Radioactive Effluent Release Reports shall also include the following: an explanation as to why the inoperability of liquid or gaseous effluent monitoring instrumentation was not corrected within the time specified in Specifications 3.3.3.9 or 3.3.3.10, respectively; and description of the events leading to liquid holdup tanks or gas storage tanks exceeding the limits of Specifications 3.11.1.4 or 3.11.2.6, respectively.

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\*In lieu of submission with the Semiannual Radioactive Effluent Release Report, the licensee has the option of retaining this summary of required meteorological data on site in a file that shall be provided to the NRC upon request.

## ADMINISTRATIVE CONTROLS

### 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
  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
  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;