

NUCLEAR REGULATORY COMMISSION

PACIFIC GAS AND ELECTRIC COMPANY

DIABLO CANYON NUCLEAR POWER PLANT, UNIT 1

DOCKET NO. 50-275

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 43 License No. DPR-80

- 1. The Nuclear Regulatory Commission (the Commission) has found that:
 - The application for amendment by Pacific Gas & Electric Company (the licensee) dated March 20, 1989, as supplemented by letter dated June 29, 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;
 - 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;
 - 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.

factordingly, 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-BO 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. 43, 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: Charges to the Technical Specifications

Date of Issuance: July 19, 1989



NUCLEAR REGULATORY COMMISSION WASHINGTON D. C. 20866

PACIFIC GAS AND ELECTRIC COMPANY DIABLO CANYON NUCLEAR POWER PLANT, UNIT 2

DOCKET NO. 50-323

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 42 License No. DPR-82

- . The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Pacific Gas & Electric Company (the licensee) dated March 20, 1989, as supplemented by letter dated June 29, 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 1;
 - E. 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.

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. 42, 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 K. Knighton Director Project Directorate V

Division of Reactor Projects - 111.

IV. V and Special Projects

Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: July 19, 1989

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.

Remove Page	Insert Page
6-5	6-5
6-6	6-6
6-7	6-7
6-10	6-10
6-16	6-16
6-20	6-20*

The following pages are reissued without change to provide pages printed on too sides throughout Section ϵ .

6-1 through 6-4 6-8 6-9 6-12 through 6-15a 6-17 6-18 6-23 6-24

* Note: There are two insert pages numbered 6-20. The first one is applicable until the end of Cycle 3 for Unit 1. The second one is applicable thereafter. The first page numbered 6-20 should be replaced with the second page numbered 6-20 when Amendments 37 and 36 become effective.

6 1 RESPONSIBILITY

- 6.1.1 The Plant Manager shall be responsible for overall plant operation and shall delegate in writing the succession to this responsibility during his absence.
- 6.1.2 The Shift Supervisor (or during his absence from the Control Room, a designated individual) shall be responsible for the Control Room Command function. A management directive to this effect signed by the Vice President, Nuclear Power Generation shall be reissued to all plant personnel on an annual basis.

6.2 ORGANIZATION

6.2.1 OFFSITE AND ONSITE ORGANIZATIONS

Onsite and offsite organizations shall be established for plant operation and corporate management, respectively. The onsite and offsite organizations shall include the positions for activities affecting the safety of the nuclear power plant.

- Lines of authority, responsibility, and communication shall be established and defined for the highest management levels through intermediate levels to and including all operating organization positions. These relationships shall be documented and updated, as appropriate, in the form of organization charts, functional descriptions of departmental responsibilities and relationships, and job descriptions for key personnel positions, or in equivalent forms of documentation. These requirements shall be documented in the FSAR Update.
- b. The Plant Manager shall be responsible for overall unit safe operation and shall have control over those onsite activities necessary for safe operation and maintenance of the plant.
- The Vice President Nuclear Power Generation shall have corporate responsibilities for overall plant nuclear safety and shall take any measures needed to ensure acceptable performance of the staff in operating, maintaining, and providing technical support to the plant to ensure nuclear safety.
- d. The individuals who train the operating staff and those who carry out health physics and quality assurance functions may report to the appropriate onsite manager; however, they shall have sufficient organizational freedom to ensure their independence from operating pressures.

6.2.2 PLANT STAFF

- a. Each on duty shift shall be composed of at least the minimum shift crew composition shown in Table 6.2-1:
- b. At least one licensed Operator shall be in the control room when fuel is in the reactor. In addition, while the unit is in MODE 1, 2, 3 or 4, at least one licensed Senior Operator shall be in the Control Room;
- c. A Health Physics Technician* shall be on site when fuel is in the reactor;

^{*}The Health Physics Technician and Fire Brigade composition may be less than the minimum requirements for a period of time not to exceed 2 hours in order to accommodate unexpected absence provided immediate action is taken to fill the required positions.

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TABLE 6.2-1

MINIMUM SHIFT CREW COMPOSITION

PESITION .	NUMBER OF INDIVIDUALS REQUIRED TO FILL POSITION		
	BOTH UNITS IN MODE 1, 2, 3, OR 4	BOTH UNITS IN MODE 5 OR 6 OR DEFUELED	ONE UNIT IN MODE 1, 2, 3 OR 4 ONE UNIT IN MODE 5 OR 6 OR DEFUELED
\$\$	1	1	
SOL	1	noneb	1
OT	3.6	2.	3.
AD	3.	3.6	3.
478	1.	none	1*

SS - Shift Supervisor with a Senior Operators License

SOL - Individual with a Senior Operator License

OL - Individual with an Operator License

A0 - Auxiliary Operator

STA - Shift Technical Advisor

The Shift Crew Composition may be one less than the minimum requirements of Table 6.2-1 for a period of time not to exceed 2 hours in order to accommodate unexpected absence of on duty shift crew members provided immediate action is taken to restore the Shift Crew Composition to within the minimum requirements of Table 6.2-1. This provision does not permit any shift crew position to be unmanned upon shift change due to an oncoming shift crewman being late or absent.

During any absence of the Shift Supervisor from the control room while the unit is in MODE 1, 2, 3 or 4, an individual (other than the Shift Technical Advisor) with a valid Senior Operator license shall be designated to assume the control room command function. During any absence of the Shift Supervisor from the control room while the unit is in MODE 5 or 6, an individual with a valid Senior Operator or Operator license shall be designated to assume the control room command function.

At least one of the required individuals must be assigned to the designated position for each unit.

At least one licensed Senior Operator or licensed Senior Operator Limited to Fuel Handling must be present during Core Alterations on either unit, who has no other concurrent responsibilities.

^{*}The STA position shall be manned in MODES 1, 2, 3, and 4 unless the Shift Supervisor or the individual with a Senior Operator license meets the qualifications for the STA as required by the NRC.

FLANT STAFF (Continued)

- c. All CORE ALTERATIONS shall be observed and directly supervised by either a licensed Senior Operator or Senior Operator Limited to Fuel Handling who has no other concurrent responsibilities during this operation;
- e. A site Fire Brigade of at least five members* shall be maintained onsite at all times. The Fire Brigade shall not include the Shift Supervisor and the two other members of the minimum shift crew necessary for safe shutdown of the unit and any personnel required for other essential functions during a fire emergency;
- f. Administrative procedures shall be developed and implemented to limit the working hours of plant staff who perform safety-related functions: e.g., licensed Senior Operators, licensed Operators, Health Physicists, auxiliary operators, and key maintenance personnel.

Adequate shift coverage shall be maintained without routine heavy use of overtime. The objective shall be to have operating personnel work a nominal 40-hour week while the unit is operating. However, in the event that unforeseen problems require substantial amounts of overtime to be used, or during extended periods of shutdown for refueling, major maintenance or major plant modifications, on a temporary basis, the following guidelines shall be followed:

- 1) An individual should not be permitted to work more than 16 hours straight, excluding shift turnover time;
- 2) An individual should not be permitted to work more than 16 hours in any 24-hour period, nor more than 24 hours in any 48-hour period, nor more than 72 hours in any 7-day period, all excluding shift turnover time;
- 3) A break of at least 8 hours should be allowed between work periods, including shift turnover time; and
- Except during extended shutdown periods, the use of overtime should be considered on an individual basis and not for the entire staff on a shift.

Any deviation from the above guidelines shall be authorized by the Plant Manager or his designee, or higher levels of management, in accordance with established procedures and with documentation of the basis for granting the deviation. Controls shall be included in the procedures such that individual overtime shall be reviewed monthly by the Plant Manager or his designee to assure that excessive hours have not been assigned. Routine deviation from the above guidelines is not authorized; and

g. The Operations Manager shall hold a senior reactor operator license.

^{*}The Health Physics Technician and Fire Brigade composition may be less than the minimum requirements for a period of time not to exceed 2 hours in order to accommodate unexpected absence provided immediate action is taken to fill the required positions.

6.2.3 DNSITE SAFETY REVIEW GROUP (OSRG)

FUNCTION.

6.2.3.1 The OSRG shall function to examine plant operating characteristics. NRC issuances, industry advisories, REPORTABLE EVENTS and other sources of plant design and operating experience information, including plants of similar design, which may indicate areas for improving plant safety. The OSRG shall make detailed recommendations for revised procedures, equipment modifications, maintenance activities, operations activities or other means of improving plant safety to the Manager, Nuclear Operations Support.

COMPOSITION

6.2.3.2 The DSRG shall be composed of at least five engineers located on site.

RESPONSIBILITIES

6.2.3.3 The DSRG shall be responsible for maintaining surveillance of plant activities to provide independent verification* that these activities are performed correctly and that human errors are reduced as much as practical.

£.2.4 SHIFT TECHNICAL ADVISOR

6.2.4 The Shift Technical Advisor shall provide advisory technical support to the Shift Supervisor in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operation of the plant.

6.3 PLANT STAFF QUALIFICATIONS

Each member of the plant staff shall meet or exceed the minimum qualifications of ANSI/ANS 3.1-1978 for comparable positions, except for the Radiation Protection Manager who shall meet or exceed the qualifications of Regulatory Guide 1.8, Revision 2, April 1987 for Radiation Protection Manager. The licensed Operators and Senior Operators shall also meet or exceed the minimum qualifications of 10 CFR Part 55 and the supplemental requirements specified in Section A of Enclosure 1 of the March 28, 1980 NRC letter to all licensees.

^{*}Not responsible for sign-off function.

E.4 TRAINING

6.4 A retraining and replacement training program for the plant staff shall be maintained under the direction of a designated member of the facility staff and shall meet or exceed the requirements and recommendations of Section 5.5 of ANSI N18.1-1971 and 10 CFR Part 55.

6.5 REVIEW AND AUDIT

6.5.1 TECHNICAL REVIEW AND CONTROL

ACTIVITIES

6.5.1.1 Each procedure and program required by Specification 6.8 and other procedures, tests, and experiments that affect nuclear safety, and changes thereto, shall be prepared by a qualified individual/group. Each such procedure, test, and experiment, and changes thereto, shall be reviewed by an individual/group other than the individual/group which prepared the procedure, test, or experiment, or changes thereto, but who may be from the same organization as the individual/group which prepared the procedure, test, or experiment, or changes thereto.

6.5.1.2 Individuals responsible for reviews performed in accordance with Specifications 6.5.1.1 shall be previously designated by the Plant Manager to perform such reviews. Such designation shall include the disciplines or procedure categories for which each individual is qualified. Each individual designated to perform these reviews shall have at least 3 years of related experience and a baccalaureate degree in engineering or a related field, or shall have at least 8 years of related experience.

6.5.2 PLANT STAFF REVIEW COMMITTEE (PSRC)

FUNCTION

6.5.2.1 The Plant Staff Review Committee shall function to advise the Plant Manager on all matters related to nuclear safety.

COMPOSITION

6.5.2.2 The PSRC shall be chaired by the Plant Manager and shall be composed of a minimum of 8 senior plant management individuals whose responsibilities include the functional areas of: operations, maintenance, radiation protection, support services, technical services, and quality control. All members shall be appointed in writing by the PSRC Chairman. The qualifications of each PSRC member shall meet or exceed the requirements and recommendations of Section 4.7 of ANSI/ANS 3.1-1978.

ALTERNATES

6.5.2.3 The Chairman may designate in writing other regular members who may serve as the Acting Chairman of PSRC meetings. All alternate members shall be appointed in writing by the PSRC Chairman. Alternates may be designated for specific PSRC members and shall have expertise in the same general area as the regular PSRC member they represent. No more than two alternates shall participate as voting members in PSRC activities at any one time.

MEETING FREQUENCY

f.E.2.4 The PSRC shall meet at least once per calendar month and as convened to the PSRC Chairman or his designated alternate.

DUDRUM

6.5.2.5 The minimum quorum of the PSRC necessary for the performance of the PSRC responsibility and authority provisions of these Technical Specifications shall be a majority (more than one-half) of the members of the PSRC. For purposes of the quorum, this majority shall include the Chairman or his designated alternate and no more than two alternate members.

FESPONSIELLITIES

6.5.2.6 The Plant Staff Review Committee shall be responsible for:

- Review of: (2) Administrative procedures, Security Plan implementing procedures, Emergency Plan implementing procedures, and changes thereto; (2) the safety evaluations for: (a) changes to procedures and (b) tests or experiments completed under the provision of 10 CFR 50.59, to verify that such actions do not constitute an unreviewed safety question and (3) proposed procedures or changes thereto that have been initially determined to constitute an unreviewed safety question or require a change to the Technical Specifications;
- b. Review of all proposed changes to Appendix "A" Technical Specifications;
- c. Review of all proposed changes or modifications to plant systems or ecuipment that affect nuclear safety;
- Investigation of all violations of the Technical Specifications including the preparation and forwarding of reports covering evaluation and recommendations to prevent recurrence to the Vice President, Nuclear Power Generation and to the Chairman of the General Office Nuclear Plant Review and Audit Committee; the investigation shall include an assessment of the safety significance of each violation.
- e Review of all REPORTABLE EVENTS;
- f. Review of plant operations to detect potential nuclear safety hazards;
- Performance of special reviews, investigations or analyses and reports thereon as requested by the Chairman of the General Office Nuclear Plant Review and Audit Committee;
- h. Review of the Security Plan and implementing procedures and shall submit recommended changes to the Chairman of the General Office Nuclear Plant Review and Audit Committee or the Plant Manager, as appropriate;
- i. Review of the Emergency Plan and implementing procedures and shall submit recommended changes to the Chairman of the General Office Nuclear Plant Review and Audit Committee or the Plant Manager, as appropriate;
- j. Review of any accidental, unplanned, or uncontrolled radioactive release including the preparation and forwarding of reports covering evaluation, recommendations and disposition of the corrective action to prevent recurrence to the Vice President, Nuclear Power Generation and to GONPRAC; and
- k. Review of changes to the PROCESS CONTROL PROGRAM, ODCP, ERMP, and the Radwaste Treatment Systems.

FISPONSIBILITIES (Continued)

6.5.2.7 The Flant Staff Review Committee shall:

- Recommend to the Plant Manager written approval or disapproval of items considered under Specification 6.5.2.6a. through d. above;
- b. Render determinations in writing with regard to whether or not each item considered under Specification 6.5.2.6a. through e. above constitutes an unreviewed safety question; and
- Provide written notification within 24 hours to the Vice President, Nuclear Power Generation and the General Office Nuclear Plant Review and Audit Committee of disagreement between the PSRC and the Plant Manager; however, the Plant Manager shall have responsibility for resolution of such disagreements pursuant to Specification 6.1.1 above.

RECORDS

6.5.2.8 The Flant Staff Review Committee shall maintain written minutes of each PSRC meeting that, at a minimum, document the results of all PSRC activities performed under the responsibility and authority provisions of these Technical Specifications. Copies shall be provided to the Vice President, butlear Power Generation and the General Office Nuclear Plant Review and Audit Committee.

6.5.3 GENERAL OFFICE NUCLEAR PLANT REVIEW AND AUDIT COMMITTEE (GONPRAC)

FUNCTION

- 6.5.3.1 The General Office Nuclear Plant Review and Audit Committee shall function to provide independent review and audit of designated activities in the areas of:
 - a. Nuclear power plant operations.
 - b. Nuclear engineering,
 - c. Chemistry and radiochemistry,
 - d. Metallurgy,
 - e. Instrumentation and control.
 - f. Radiological safety,
 - g. Mechanical and electrical engineering, and
 - h. Quality assurance practices.

GDNPRAC shall report to and advise the President on those areas of responsibility specified in Specifications 6.5.3.7 and 6.5.3.8.

CONTOSITION

f.E.3.2 GONPRAC shall be composed of the following:

Chairman: Vice President, Nuclear Power Generation

Vice Chairman: Assistant to the Vice President, Nuclear Power

Generation

Member: Manager, Nuclear Engineering and Construction Services

Member: Manager, Quality Assurance

Member: Manager, Nuclear Operations Support Member: Chief Mechanical and Nuclear Engineer

Member: Manager, Station Construction

Member: Director, Nuclear Regulatory Affairs

Member: Director, Nuclear Administration and Support Services

Member: Plant Manager, Diablo Canyon Power Plant

ALTERNATES

6.6.3.3 All alternate members shall be appointed in writing by the GONPRAC Chairman to serve on a temporary basis; however, no more than two alternates shall participate as voting members in GONPRAC activities at any one time.

CONSULTANTS

6.5.3.4 Consultants shall be utilized as determined by the GONPRAC Chairman to provide expert advice to GONPRAC.

MEETING FREQUENCY

6.5.3.5 GONPRAC shall meet at least once per calendar quarter during the initial year of plant operation following fuel loading and at least once per 6 months thereafter.

QUORUM

6.5.3.6 A quorum of GONPRAC necessary for the performance of the GONPRAC review and audit functions of these Technical Specifications shall consist of the Chairman or his designated alternate and at least four GONPRAC members including alternates. No more than a minority of the quorum shall have line responsibility for operation of the plant.

REVIEW

6.5.3.7 GONPRAC shall review:

a. The safety evaluations for: (1) changes to procedures, equipment or systems, and (2) tests or experiments completed under the provision of 10 CFR 50.59, to verify that such actions did not constitute an unreviewed safety question;

Hille (Continues)

- Proposed changes to procedures, equipment or systems which involve an unreviewed safety question as defined in 10 CFR 50.59;
- Proposed tests or experiments which involve an unreviewed safety question as defined in 10 CFR 50.59:
- d. Proposed changes to Technical Specifications or this Operating License;
- e. Violations of Codes, regulations, orders. Technical Specifications, license requirements, or of internal procedures or instructions having nuclear safety significance;
- Significant operating abnormalities or deviations from normal and expected performance of plant equipment that affect nuclear safety;
- E. ATT REPORTABLE EVENTS:
- h. All recognized indications of an unanticipated deficiency in some aspect of design or operation of safety related structures, systems, or components that could affect nuclear safety; and
- Reports and meetings minutes of the Plant Staff Review Committee and the Onsite Safety Review Group.

A 5

6.5.3.8 Audits of plant activities shall be performed under the cognizance of GDNPRAD. These audits shall encompass:

- The conformance of plant operation to provisions contained within the Technical Specifications and applicable license conditions at least once per 12 months;
- b. The performance, training and qualifications of the entire plant staff at least once per 12 months;
- The results of actions taken to correct deficiencies occurring in plant equipment, structures, systems or method of operation that affect nuclear safety at least once per 6 months;
- d. The performance of activities required by the Operational Quality Assurance Program to meet the criteria of Appendix B, 10 CFR Part 50, at least once per 24 months;
- e. The fire protection program and implementing procedures at least once per 24 months by qualified personnel;

A.IITS (Continued)

- The fire protection equipment and program implementation at least once per 12 months utilizing either a qualified offsite licensee fire protection engineer or an outside independent fire protection consultant. An outside independent fire protection consultant shall be used at least every third year:
- 9. Any other area of plant operation considered appropriate by GONPRAC or the President;
- h. The Radiological Environmental Monitoring Program and the results thereof at least once per 12 months;
- The DDCP and ERMP and implementing procedures at Teast once per 24 months;
- j. The PROCESS CONTROL PROGRAM and implementing procedures for processing and packaging of radioactive wastes at least once per 24 months; and
- k. The performance of activities required by the Quality Assurance Program for effluent and environmental monitoring at least once per 12 months.

RECORDS

- 6.5.3.5 Records of GDNPRAC activities shall be prepared, approved and distributed as indicated below:
 - a. Minutes of each GONPRAC meeting shall be prepared, approved and forwarded to the President within 14 working days following each meeting;
 - b. Reports of reviews encompassed by Specification 6.5.3.7 above, shall be prepared, approved and forwarded to the President within 14 working days following completion of the review; and
 - c. Audit reports encompassed by Specification 6.5.3.8 above, shall be forwarded to the President and to the management positions responsible for the areas audited within 30 days after completion of the audit.

6.6 REPORTABLE EVENT ACTION

- 6.6. The following actions shall be taken for REPORTABLE EVENTS:
 - a. The Commission shall be notified and a report submitted pursuant to the requirements of 10 CFR 50.73; and

REPORTABLE EVENT ACTION (Continued)

b. Each REPORTABLE EVENT shall be reviewed by the PSRC and the results of this review submitted to GONPRAC and the Vice President, Nuclear Power Generation.

6.7 SAFETY LIMIT VIOLATION

- 6.7 The following actions shall be taken in the event a Safety Limit is violated:
 - a. The NRC Operations Center shall be notified by telephone as soon as possible and in all cases within 1 hour. The President and GONPRAC shall be notified within 24 hours;
 - b. A Safety Limit Violation Report shall be prepared. The report shall be reviewed by the PSRC. This report shall describe: (1) applicable circumstances preceding the violation, (2) effects of the violation upon unit components, systems or structures, and (3) corrective action taken to prevent recurrence;
 - c. The Safety Limit Violation Report shall be submitted to the Commission, GDNPRAC and the President within 14 days of the violation; and
 - d. Critical operation of the unit shall not be resumed until authorized by the Commission.

E E PROCEDURES AND PROGRAMS

- 6.8.1 Written procedures shall be established, implemented and maintained covering the activities referenced below:
 - a. The applicable procedures recommended in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978;
 - b. The emergency operating procedures required to implement the requirements of NUREG-0737 and Supplement 1 to NUREG-0737 as stated in Generic Letter No. 82-33;
 - c. Security Plan implementation;
 - d. Emergency Plan implementation;
 - e. PROCESS CONTROL PROGRAM implementation;
 - f. ODCP and ERMP implementation; and
 - g. Quality Assurance Program for effluent and environmental monitoring.

PICCEDURES AND PROGRAMS (Continued)

6.8.2 Each procedure of Specification 6.8.1 above, and changes thereto, and all proposed tests and experiments that affect nuclear safety shall be approved prior to implementation by the Plant Manager or by a technically qualified manager who reports directly to the Plant Manager, as previously designated by the Plant Manager. Prior to approval, the Plant Manager or designated manager shall ensure that all necessary reviews and cross-disciplinary reviews, if appropriate, have been completed. If deemed necessary, such cross-disciplinary reviews shall be performed by the appropriate designated plant review personnel. Administrative procedures, procedures implementing the Security Plan, Emergency Plan, and Process Control Program, the ODCP and ERMP, and changes thereto, shall be reviewed by the PSRC and approved by the Plant Manager prior to implementation. Each procedure of Specification 6.8.1 above shall be reviewed periodically as set forth in administrative procedures.

6.8.3 Temporary changes to procedures of Specification 6.8.1 above may be made provided:

- a. The intent of the original procedure is not altered;
- The change is approved by two members of the plant management staff, at least one of whom holds a Senior Operator license on the unit affected; and
- The change is documented, reviewed and approved by the Plant Manager, or by a technically qualified manager who reports directly to the flant Manager as previously designated by the Plant Manager, within 14 days of implementation.

f. 5.4 The following programs shall be established, implemented, and maintained:

a. Reactor Coolant Sources Dutside Containment

A program to reduce leakage from those portions of systems outside containment that could contain highly radioactive fluids during a serious transient or accident to as low as practical levels. The systems include portions of the Recirculation Spray System, Safety Injection System, Chemical and Volume Control System, Residual Heat Removal System, RCS Sample System, and Liquid and Gaseous Radwaste Treatment Systems. The program shall include the following:

- Preventive maintenance and periodic visual inspection requirements, and
- Integrated leak test requirements for each system at refueling cycle intervals or less.

b. In-Plant Radiation Monitoring

A program which will ensure the capability to accurately determine the airborne iodine concentration in vital areas under accident conditions. This program shall include the following:

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

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:

- Identification of a sampling schedule for the critical variables and control points for these variables.
- 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. Eackup 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,
- 2) Procedures for sampling and analysis, and
- 3) Provisions for maintenance of sampling and analysis equipment.

ITTELLES 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 Hospri seismic analysis of the turbine building. This program shall include the following:

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

6.9 REPORTING REQUIREMENTS

ROUT: NE 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 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 resemption 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.

ANN.4_ 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 BD% 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 Routine Annual Radiological Environmental Operating Reports covering the operation of the unit during the previous calendar year shall be submitted prior to May 1 of each year. The initial report shall be submitted prior to May 1 of the year following initial criticality.

The Annual Radiological Environmental Operating Reports shall include summaries, interpretations, and an analysis of trends of the results of the radiological environmental surveillance activities for the report period, including a comparison with preoperational studies, operational controls (as appropriate), and previous environmental surveillance reports and an assessment of the observed impacts of the plant operation on the environment. The reports shall also include the results of land use censuses required by Specification 3.12.2.

The Annual Radiological Environmental Operating Reports shall include the results of analysis of all radiological environmental samples and of all environmental radiation measurements taken during the period pursuant to the locations specified in tables and figures in the ERMP as well as summarized and tabulated results of these analyses and measurements in the format of the table in the Radiological Assessment Branch Technical Position Revision 1, November 1979. In the event that some results are not available for inclusion with the report, the report shall be submitted noting and explaining the reasons for the missing results. The missing data shall be submitted as soon as possible in a supplementary report.

^{*}This tabulation supplements the requirements of 10 CFR 20.407.

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

ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT (Continued)

The reports shall also include the following: a summary description of the Radiological Environmental Monitoring Program; at least two legible maps* covering all sampling locations keyed to a table giving distances and directions from the centerline of one reactor; the results of licensee participation in the Interlaboratory Comparison Program and the corrective action taken if the specified program is not being performed as required by Specification 3.12.3; reason for not conducting the Radiological Environmental Monitoring Program as required by Specification 3.12.1, and discussion of all deviations from the sampling schedule of Table 3.12-1; discussion of environmental sample measurements that exceed the reporting levels of Table 3.12-2 but are not the result of plant effluents, pursuant to ACTION b. of Specification 3.12.1; and discussion of all analyses in which the LLD required by Table 4.12-1 was not achievable.

SEMIANNUAL RADIDACTIVE EFFLUENT RELEASE REPORT**

6.9.1.6 Routine Semiannual Radioactive Effluent Release Reports 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 period of the first report shall begin with the date of initial criticality.

The Semiannual Radioactive Effluent Release Reports shall include a summary of the quantities of radioactive liquid and gaseous effluents and solid waste released from the unit as outlined in Regulatory Guide 1.21, "Measuring, Evaluating, and Reporting Radioactivity in Solid Wastes and Releases of Radioactive Materials in Liquid and Gaseous Effluents from Light-Water-Cooled Nuclear Power Plants," Revision 1, June 1974, with data summarized on a quarterly basis following the format of Appendix B thereof. For solid wastes, the format for Table 3 in Appendix B shall be supplemented with three additional categories; class of solid wastes (as defined by 10 CFR Part 61), type of container (e.g., LSA, Type A, Type B, Large Quantity) and SOLIDIFICATION agent or absorbent (e.g., cement, urea formaldehyde).

The Semiannual Radioactive Effluent Release Report to be submitted within 60 days after January 1 of each year shall include an annual summary of hourly meteorological data collected over the previous year. This annual summary may be either in the form of an hour-by-hour listing on magnetic tape of wind speed, wind direction, atmospheric stability, and precipitation (if measured), or in the form of joint frequency distributions of wind speed, wind direction, and

^{*}One map shall cover stations near the SITE BOUNDARY; a second shall include the more distant stations.

^{**}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.

SEMIANNUAL RADIDACTIVE 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 61 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.

^{*}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.

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.

RADIAL PEAKING FACTOR LIMIT REPORT

6.9.1.8 The F_{xy} limits for RATED THERMAL POWER (F_{xy}^{RTP}) shall be provided to the NRC in accordance with 10 CFR 50.4 for all core planes containing Bank "D" control rods and all unrodded core planes at least 60 days prior to each cycle initial criticality. In the event that the limit would be submitted at some other time during core life, it will be submitted 60 days prior to the date the limit would become effective unless otherwise exempted by the Commission. This report is not required for the initial cycle.

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.

E.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.

- £.10.1 The following records shall be retained for at least 5 years:
 - Records and logs of unit operation covering time interval at each power level;
 - Records and logs of principal maintenance activities, inspections, repair and replacement of principal items of equipment related to nuclear safety;
 - c. All REPORTABLE EVENTS:

SEMIANNUAL RADIDACTIVE 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 affluent 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.

^{*}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.

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.

PEAKING FACTOR LIMIT REPORT

6.9.1.8 The f_{xy} limits for RATED THERMAL POWER (f_{xy}^{RTP}) shall be provided to the NRC in accordance with 10 CFR 50.4 for all core planes containing Bank "D" control rods and all unrodded core planes at least 60 days prior to each cycle initial criticality. In the event that the limit would be submitted at some other time during core life, it will be submitted 60 days prior to the date the limit would become effective unless otherwise exempted by the Commission. This report is not required for the initial cycle.

The W(z) function for Load Follow operation shall be established for at least each reload core and shall be maintained available at the plant. The limits shall be established and implemented on a time scale consistent with normal procedural changes. The analytical methods used to generate the W(z) function shall be those previously reviewed and approved by the NRC.* If changes to these methods are deemed necessary they will be evaluated in accordance with 10 CFR 50.59 and submitted to the NRC for review and approval prior to their use if the change is determined to involve an unreviewed safety question or if such a change would require amendment of previously submitted documentation.

A report containing the W(z) function, as a function of core height (and burnup if applicable), shall be provided to the NRC in accordance with 10 CFR 50.4 within 30 days of their implementation.

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;
 - Records and logs of principal maintenance activities, inspections, repair and replacement of principal items of equipment related to nuclear safety;
 - C. All REPORTABLE EVENTS;

^{*}WCAP-B3B5 "Power Distribution Control and Load Following Procedures." WCAP-9272-A "Westinghouse Reload Safety Evaluation Methodology," and WCAP-10216-P-A "Relaxation of Constant Axial Offset Control/F Surveillance Technical Specification."

FIG- RADIATION AREA (Continued)

- Ar 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 activiated 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 Licensee initiated changes to the PCP:
 - a. Shall be submitted to the Commission in the Semiannual Radioactive Effluent Release Report for the period in which the change(s) was made. This submittal shall contain:
 - Sufficiently detailed information to totally support the rationale for the change without benefit of additional or supplemental information;
 - A determination that the change did not reduce the overall conformance of the solidified waste product to existing criteria for solid wastes; and
 - Documentation of the fact that the change has been reviewed and found acceptable by the PSRC.
 - b. Shall become effective upon review and acceptance by the PSRC.

12 OFFSITE DOSE CALCULATION PROCEDURE (ODCP) and ENVIRONMENTAL RADIOLOGICAL

- 6.14.1 The ODCP and ERMP shall be approved by the Commission prior to implementation.
- 6.14.2 Licensee-initiated changes to the ODCP and/or ERMP:
 - a. Shall be submitted to the Commission in the Semiannual Radioactive Effluent Release Report for the period in which the change(s) was made effective. This submittal shall contain:
 - Sufficiently detailed information to totally support the rationale for the change without benefit of additional or supplemental information. Information submitted should consist of a package of those pages of the ODCP and/or ERMP to be changed with each page numbered and provided with an approval and date box, together with appropriate analyses or evaluations justifying the change(s);
 - A determination that the change will not reduce the accuracy or reliability of dose calculations or setpoint determinations; and
 - 3) Documentation of the fact that the change has been reviewed and found acceptable by the PSRC.
 - 5. Shall become effective upon review and acceptance by the PSRC.

6.15 MAJOR CHANGES TO LIQUID, GASEOUS, AND SOLID RADWASTE TREATMENT SYSTEMS*

- 6.15.1 Licensee initiated major changes to the Radwaste Treatment Systems (liquid, gaseous and solid):
 - a. Shall be reported to the Commission in the Semiannual Radioactive Effluent Release Report for the period in which the evaluation was reviewed by the PSRC. The discussion of each change shall contain:
 - A summary of the evaluation that led to the determination that the change could be made in accordance with 10 CFR 50.59;
 - Sufficient detailed information to totally support the reason for the change without benefit of additional or supplemental information;
 - A detailed description of the equipment, components and processes involved and the interfaces with other plant systems;

^{*}The licensee may choose to submit the information called for in this Specification as part of the annual FSAR update.