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

PACIFIC GAS AND ELECTRIC COMPANY

DOCKET NO. 50-133

HUMBOLDT BAY POWER PLANT UNIT NO. 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 18
License No. DPR-7

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Pacific Gas and Electric Company (the licensee) dated October 20, 1978, as supplemented January 24, 1979, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and 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 rules and 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 C.2. of Facility Operating License No. DPR-7 is hereby amended to read as follows:

   2. Technical Specifications

      The Technical Specifications contained in Appendix A, as revised through Amendment No. 18, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Thomas A. Ippolito, Chief
Operating Reactors Branch #3
Division of Operating Reactors

Attachment:
Changes to the Technical
Specifications

Date of Issuance: July 13, 1979

ATTACHMENT TO LICENSE AMENDMENT NO. 18

FACILITY OPERATING LICENSE NO. DPR-7

DOCKET NO. 50-133

Revise Appendix A as follows:

Remove the following pages and replace with identically numbered pages:

III-8
III-9
III-11
V-8
VI-7a
IX-4a
IX-5
IX-8
IX-9
IX-10
IX-19

Changes on the revised pages are shown by marginal lines.

b. The system may be taken out of service for the purpose of maintenance or testing but shall be returned to service as soon as practical.

c. Leakage rates shall be determined on a continuous basis. If evaluation of leakage rate trend data from the monitoring system indicates that leakage is increasing, efforts shall be made to locate and correct the source(s) of leakage.

d. If extrapolation of the monitoring system measured leakage rate exceeds the operational leakage rate, corrective repair shall be made as soon as practical. Leakage rate extrapolation from monitoring system pressure shall be based on the November 1965 tests results as given below:

	Test Pressure	Extrapolation Factor from Test Pressure to 10 psig
Dry Well	20 inches of water	4.3
Suppression Chamber	10 inches of water	8.9

e. The maximum partial pressure of dry gas shall not exceed the following limits during operation of the leakage rate monitoring system:

(a) Dry Well 16.0 psia

(b) Suppression Chamber 15.7 psia

5. Penetration Closure Testing

a. Access Penetrations - Leakage tests shall be made on the dry well top and bottom heads, and the suppression chamber access penetrations by pressurizing to 25 psig with air between the double "O" ring seals. These tests shall be made prior to each power operation startup if these heads have been opened and reclosed. The sum of the leakage rates from these penetration closures shall be less than 15% of the operational leakage rate limit given in this Section.

b. Isolation Valves - During periods of sustained power operation, the main steam, coolant cleanup supply and return, and emergency condenser steam supply motor operated isolation valves shall be exercised (partially closed and reopened) at least once each month.

During each regularly scheduled refueling outage, isolation valves shall be tested for proper operation and tightness as described below. Prior to the tightness tests, the isolation valves shall be closed by the normal mode of actuation without any preliminary exercise or adjustments.

The main steam, coolant cleanup supply and return, and emergency condenser steam supply and condensate return motor operated isolation valves shall be tested functionally for proper automatic operation (described in Section VI), and for closure within the design time specified in A-1 of this Section. All other manual, motor operated, air operated and solenoid operated isolation valves shall be tested for proper operation.

operated on recirculation at least once each month during periods of power operation. The automatic initiation of the system shall be functionally tested during each regularly scheduled refueling outage.

One of the plant fire protection system pumps may be temporarily removed because of maintenance at any time during operation, provided that both core spray pumps are operable, except that the diesel-powered fire pump must be operable whenever the emergency propane-powered generator is required to be operable (refer to Section VI-B.7.a.)

c. Reactor Vent Valves - The reactor vent valves shall be functionally tested during each regularly scheduled refueling outage.

8. Refueling Building Testing - The refueling building shall be tested to demonstrate that the air in-leakage rate is less than 134 cfm when the building is under a negative pressure of at least ¼ inch of water. Testing shall be performed during refueling or power operation at the following times: (a) prior to removal of the reactor head following power operation, (b) after any opening of the railroad door, and (c) after maintenance which may have affected any of the refueling building penetration closure seals. If not required for these reasons, the test shall be performed at least once each month.

9. Refueling Building Ventilation System - A functional test of the automatic operation of the refueling building ventilation system as described in A-5 of this Section III shall be conducted prior to each regularly scheduled refueling outage.

10. Containment Requirements - The following definitions shall apply to containment requirements:

a. Reactor System Containment - The condition existing when the reactor vessel and associated systems are closed so as to provide containment of irradiated fuel within the reactor core.

b. Pressure Suppression Containment - The condition existing when all dry well and suppression chamber penetrations are in the positions listed in Tables III-1 and III-2. Operating limits and requirements for pressure suppression containment are that (1) the master ventilation control switch normally shall be set in the "Normal Operation" position, (2) the suppression pool water level shall be in the range of 17.0 to 19.0 feet (5.0 to 7.0 feet vent pipe submergence), (3) the suppression pool bulk water temperature shall be less than 90°F and, (4) the temperature of the gas entering the dry well cooler(s) shall be less than 175°F.

shall only be done after the core shutdown margin has been demonstrated. Until such time as the rod and/or drive has been replaced and checked for proper operation, the master reactor switch shall be in the "servicing" position.

g. Abnormal Behavior of the Control Rod System - In the event of any abnormal behavior of the control rod system, an immediate and thorough investigation shall be made to determine the cause and safety significance of the occurrence. The reactor shall be shut down unless it is determined by the investigation that any malfunction which has occurred does not impair the ability to control the reactor and that the impairment of the performance of additional components of the control rod system is not imminent.

3. Liquid Poison System - The liquid poison system shall be available for operation at all times during refueling and power operation. The reactor shall be shut down immediately in any situation where the poison worth of the system is known to be less than the minimum permissible value or where the ability of the systems to inject poison into the reactor is in doubt. Operating limits shall be as follows:

Minimum usable solution boron content (to be annunciated by low level alarm), pounds of boron	100
Maximum solution concentration, % by weight sodium pentaborate	40
Minimum solution temperature above saturation temperature (to be annunciated by low temperature alarm), °F	5
Minimum nitrogen pressure (to be annunciated by low pressure alarm), psig	1300

The poison injection valves shall be exercised at least once each month during periods of refueling and power operation. When the reactor is in the hot, operating condition, local manual operation of poision injection valves during exercising, which would prevent remote control room operation of the system, shall be permissible provided the personnel performing the tests are in communication with the control room.

(a) Description of the effort, progress, and schedule relating to restoration of the normal sources of power,

(b) Description of the increased surveillance and administrative controls in effect to assure the safety of continued operation of Unit No. 3, and

(c) Description and safety significance of anomalous performance of any systems or components relating to Unit No. 3 or its operating power sources, unexplained changes in operating variables of the reactor, and indication of a change in the integrity of the containment or the primary coolant boundary.

Any significant changes of the information supplied in (a), (b), or (c) shall be immediately transmitted to I&E Region V.

b. The ability of Unit Nos. 1 and 2 to carry house load in the event that these units are separated from the system shall be tested at least once every five years (one of the units shall be tested each 2-½ years). Such tests shall normally be performed under initial conditions of rated load on the Unit. An in-service trip of a unit from initial conditions of greater than 50% load shall also be considered as a test.

c. The ability of the 2.4 kV bus of Unit No. 3 to automatically transfer from its house transformer to the Plant 60 kV bus shall be tested for proper transfer operation during each regularly scheduled refueling outage.

d. The transfer of the emergency 480 volt a-c shall be tested for proper operation as specified in VI.A.7b at least once each month. This transfer shall be functionally tested with all loads connected so as to simulate emergency operation during each regularly scheduled refueling outage.

e. The ability of the d-c system to supply the emergency short-term load for the safe shutdown of the reactor shall be tested during each regularly scheduled refueling outage.

b. Membership

The Plant Staff Review Committee shall be composed of the following members of the Plant Staff who have responsibility in the areas of 1) operations, 2) electrical maintenance, 3) mechanical maintenance, 4) instrument and control maintenance, 5) radiation protection, 6) nuclear engineering, and 7) quality control.

Plant Superintendent (Chairman)
Supervisor of Operations
Power Plant Engineer
Power Production Engineer (Nuclear Engineer)
Chemical and Radiation Protection Engineer
Quality Control Supervisor

c. Alternates

1) In the absence of a regular member, the Chairman may designate an alternate from the plant staff to carry out review functions.

2) The Chairman shall designate a regular member to serve as chairman in his absence.

d. Meeting Frequency

Once per calendar month and at other times at the call of the Chairman.

e. Quorum

A quorum shall consist of four regular members or three regular members and an alternate.

f. Responsibilities

1) Review proposed normal, abnormal and emergency operating procedures, maintenance procedures and proposed changes thereto; and any other proposed procedures or changes thereto involving the safety related aspects of safety related equipment.

2) Review all proposed tests and experiments that affect nuclear safety.

3) Review proposed changes to the Technical Specifications prior to their implementation.

4) Review of all proposed changes or modifications to safety related systems or equipment.

5) Investigation of any violation of the Technical Specifications and preparation and forwarding of a report to the Manager of Steam Generation covering their evaluation and recommendations to prevent recurrence.

6) Review plant operating and maintenance experience to assure safe and efficient operation of the Unit.

7) Biennial review of the Plant Security Plan and implementing procedures to determine the need for changes in the Plan or its implementing procedure.

8) Biennial review of the Site Emergency Plan and its implementing procedures to determine the need for changes in the Plan or its implementing procedures.

g. Authority

1) Recommend to the Plant Superintendent approval or disapproval of proposals reviewed under item f. (1) thru (4) above.

c) Proposed changes in the technical specifications or license amendments relating to nuclear safety prior to implementation of the change or amendment.

d) Violations, deviations, and reportable occurrences such as:

(1) Violations of applicable codes, regulations, orders, technical specifications, license requirements, or internal procedures or instructions having nuclear safety significance on facility operation;

(2) Significant operating abnormalities, deviations from normal or expected performance of plant safety-related structures, systems, or components; and

(3) All events which are required by regulations or Technical Specifications to be reported to the NRC in writing within 24 hours.

Review of events covered under this paragraph shall include timely reporting to appropriate members of Company management on the results of any investigations made, and the recommendations resulting from such investigations to prevent or reduce the probability of recurrence of the event.

e) Reports and meeting minutes of the Plant Staff Review Committee.

f) Communications with the NRC concerned with the nuclear power plants.

g) Any other matter involving safe operation of the Company's nuclear power plants which a Committee member deems appropriate for Committee consideration, or which is referred to the Committee by a Plant Superintendent, A General Office department, or the President's Nuclear Advisory Committee.

2) It is a function of the Committee to provide Company management with assurance that nuclear plant operations conform to laws and regulations, license provisions, and internal Company rules and policy related to nuclear safety. To accomplish this, the Committee shall:

a) Review and evaluate audits conducted by those Company Departments having auditing responsibility. The overall audit program shall be in conformance with the requirements of Section 4.5 of ANSI N18.7 - 1976 as amplified by Section C.4 of Revision 2 of Regulatory Guide 1.33 dated February 1978.

b) At its discretion, perform audits itself employing either the entire Committee or parts thereof, as appropriate.

c) Perform or otherwise arrange for an independent fire protection and loss prevention inspection and audit at least annually utilizing either qualified off-site Company personnel or an outside fire protection firm.

d) Perform or otherwise arrange for an audit of the Plant Fire Protection Program and implementing procedures at least once per 24 months.

e) Arrange for an inspection and audit of the fire protection and loss prevention program by an outside qualified fire consultant at intervals no greater than 3 years.

f) Perform or otherwise arrange for accomplishing other auditing activities as may be directed by the Senior Vice President, Engineering and Construction.

g) Recommend management approval for employing consultants to conduct audits whenever necessary.

h) Report its findings, conclusions and recommendations to Company management.

i. Records

Records of GCNPRAC activities shall be prepared, approved and distributed as indicated below:

1) Written minutes of each meeting shall be prepared, formally approved and distributed to Committee members, to the Company officers to whom the Committee members report, and to the President's Nuclear Advisory Committee. Copies of the minutes shall be retained as specified in Subsection J.2.1.

2) Reports of audits and other Committee activities shall be distributed to Senior Vice President, the Vice President-Electric Operations, the President's Nuclear Advisory Committee, other affected management personnel, and others as directed.

E. REPORTABLE OCCURRENCES ACTION

The following action shall be taken in the event of a reportable occurrence:

1. The Commission shall be notified and/or a report submitted pursuant to the requirements of Section IX.1.2 of these Technical Specifications.

c. Actions to be taken to correct specific and foreseen potential malfunctions of systems or components, including suspected primary system leaks and abnormal reactivity changes.

d. Emergency conditions involving potential or actual release of radioactivity.

e. Abnormal and emergency operation of the reactor and of all systems and components.

f. Plant Security Plan implementation.

2. All procedures described in 1. above, and changes thereto, shall be reviewed by the Plant Staff Review Committee and approved by the Plant Superintendent prior to implementation, except as provided in 3. and 4. below.

3. Rules shall be established which provide methods by which temporary changes to approved procedures can be made, including the designation of those persons authorized to approve such changes. Temporary changes, which clearly do not change the intent of the approved procedure from the standpoint of nuclear safety, may be approved by two members of the plant management staff, at least one whom holds a senior operator license. Such changes shall be documented and, if appropriate, incorporated in the next revision of the affected procedure.

4. In the event of an emergency not covered by an approved procedure, operations personnel shall be instructed to take action so as to minimize personnel injury and damage to the facility.

G. SITE EMERGENCY PLAN

The Site Emergency Plan shall provide the necessary prearrangement and organization of personnel to deal effectively with emergencies at the Plant so as to minimize radiation exposure to Plant personnel and the general public. The plan shall describe the specific duties of Plant personnel in the event of an accident or any unplanned incident producing high radiation levels. Periodic drills shall be performed to assure that all plant personnel are thoroughly familiar with the plan.

H. OPERATIONAL TESTING OF NUCLEAR SAFEGUARDS SYSTEMS

Procedures for testing of safety system components, monitors, and other equipment having a potential safeguard function shall be as described in Sections III through VIII. These tests and the frequency of testing are listed in Table IX-1, Operational Testing of Nuclear Safeguards Systems. Each Operational Test shall be performed within the specified time interval with:

1. A maximum allowable extension not to exceed 25% of the test interval.

2. A total interval time for any 3 consecutive test intervals not to exceed 3.25 times the specified test interval.

Appropriate tests shall also be performed following maintenance on these systems which could impair their operation.

TABLE IX-1 OPERATIONAL TESTING OF NUCLEAR & PROCESS SYSTEMS [A]

Type of Test	Interval Between Testing Times[1]		Procedure for Testing, Section Reference
Control rod system - exercise rods at least one notch	Daily during periods of sustained power operation		V-B-2
Gas treatment system check	Daily during periods of sustained refueling operation		VIII-B-3
Emergency condenser vent, liquid radwaste, refueling building isolation and stack monitors source check	One week		VII-B-3,4,5 and 6
Emergency 480 volt a-c system emergency transfer scheme operation	One month		VI-B-7
Stack gas monitors calibration check	One month		VII-B-2
Refueling building leakage rate test	One month	during periods of operation	III-B-6
Liquid poison injection system - exercise valves	One month	during periods of operation	V-B-3
Gas treatment system check	One month	during periods of power operation	VIII-B-3
Dry well automatically-initiated, motor-operated isolation valves exercising	One month	during periods of power operation	III-B-3
Air ejector off-gas monitors calibration check	One month	during periods of power operation	VII-B-1
Core spray pump operation	One month	during periods of power operation	III-B-7
Pivot fire protection system pump operation	One month	during periods of power operation	III-B-7
Control rod system - exercise rods by inserting and withdrawing	One month operation	during periods of sustained power	V-B-2
Refueling building isolation monitors calibration and automatic function check	One quarter		VII-B-3
Area monitors calibration check	One quarter		VII-B-4
Liquid waste vent monitor calibration check	One quarter		VII-B-4
Air ejector off-gas monitoring system automatic operation functional check, and off-gas isolation valve exercising	One quarter	during power operation	VII-B-1, VIII-B-4
Emergency condenser vent monitor calibration check	One quarter	during power operation	VII-B-1
Dry well top and bottom access head joints and suppression chamber access opening leakage tests	Prior to each power operation startup if those penetrations have been opened and resolved		III-B-5
Control rod coupling integrity check	Prior to each refueling operation and during each approach to criticality		V-B-2
Refueling building ventilation system automatic operation functional test	Prior to each regularly scheduled refueling outage		III-B-9
Reactor reactor switch functional test	Prior to each regularly scheduled refueling outage		VI-B-3
Dry well and suppression chamber isolation valve functional test and leakage test	During each regularly scheduled refueling outage		III-B-5
Core spray system automatic operation functional test	During each regularly scheduled refueling outage		III-B-7
Low pressure core flooding system automatic operation functional test	During each regularly scheduled refueling outage		III-B-7
Control rod system performance tests	During each regularly scheduled refueling outage		V-B-2
Control rod withdrawal permissive system functional test	During each regularly scheduled refueling outage		VI-B-4
Scram, dry well isolation valve closure and core cooling initiation sensors and circuits functional test	During each regularly scheduled refueling outage		VI-B-1
Refueling building high differential pressure protective system functional test	During each regularly scheduled refueling outage		VI-B-5
Emergency condenser control system functional test	During each regularly scheduled refueling outage		VI-B-4
Dry well and suppression chamber vacuum breaker tests	During each regularly scheduled refueling outage		III-B-5
Reactor safety valves test	During each regularly scheduled refueling outage		IV-B-3
Emergency 480 volt a-c system emergency transfer scheme load test	During each regularly scheduled refueling outage		VI-B-7
125 volt d-c system load test	During each regularly scheduled refueling outage		VI-B-7
2.4 kv bus automatic transfer scheme	During each regularly scheduled refueling outage		VI-B-7
Dry well and suppression chamber integrated leakage test	5 years	(See Section III-B-6)	III-B-1
Unit Nos. 1 and 2 trip tests to demonstrate ability to carry house load	5 years		VI-B-7

[A] See Section IX-E