May 28, 1996

Mr. Gregory M. Rueger
Pacific Gas and Electric Company
NPG - Mail Code A10D
P. O. Box 770000
San Francisco, California 94177

SUBJECT: ISSUANCE OF AMENDMENTS FOR DIABLO CANYON NUCLEAR POWER PLANT, UNIT NO. 1 (TAC NO. M95139) AND UNIT NO. 2 (TAC NO. M95140)

Dear Mr. Rueger:

The Commission has issued the enclosed Amendment No. 113 to Facility Operating License No. DPR-80 and Amendment No. 111 to Facility Operating License No. DPR-82 for the Diablo Canyon Nuclear Power Plant, Unit Nos. 1 and 2, respectively. The amendments consist of changes to the Technical Specifications (TS) in response to your application dated April 3, 1996.

These amendments revise the combined Technical Specifications (TS) for the Diablo Canyon Nuclear Power Plant, Unit Nos. 1 and 2 to revise Technical Specifications 3/4.7.5, "Control Room Ventilation System;" 3/4.7.6, "Auxiliary Building Safeguards Air Filtration System;" and 3/4.9.12, "Fuel Handling Building Ventilation System" to clarify the testing methodology utilized by PG&E to determine the operability of the charcoal and high efficiency particulate air (HEPA) filters in the engineering safeguards features (ESF) air handling units at the Diablo Canyon Nuclear Power Plant (DCPP).

A copy of the related Safety Evaluation is enclosed. The Notice of Issuance will be included in the Commission's next biweekly Federal Register notice.

Sincerely,

Original Signed By

100029

Steven D. Bloom, Project Manager
Project Directorate IV-2
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Docket Nos. 50-275
and 50-323

Enclosures: 1. Amendment No. 113 to DPR-80
2. Amendment No. 111 to DPR-82
3. Safety Evaluation

cc w/encls: See next page

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Docket File	CGrimes, 011E22
PUBLIC	JBianchi, WCFO (2)
PDIV-2 Reading	GHill (4), T5C3
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WBateman	DChamberlain, RIV
KPerkins, WCFO	CAM (SE)
SBloom	EPeyton
JKilcrease, RIV	
TMarsh	

DOCUMENT NAME: DC95139.AMD

OFC	PDIV-2/LA	PDIV-2/PM	NRR:SPLB	OGC
NAME	EPeyton	SBloom:ye	TMarsh	RBachmann
DATE	4/29/96	4/30/96	5/2/96	5/8/96

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

PACIFIC GAS AND ELECTRIC COMPANY

DOCKET NO. 50-275

DIABLO CANYON NUCLEAR POWER PLANT, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 113
License No. DPR-80

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

   A. The application for amendment by Pacific Gas and Electric Company (the licensee) dated April 3, 1996, 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 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.

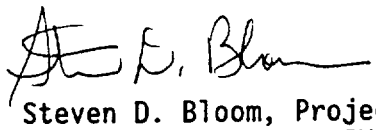
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-80 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 113 , are hereby incorporated in the license. Pacific Gas and 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 is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Steven D. Bloom, Project Manager
Project Directorate IV-2
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: May 28, 1996

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

PACIFIC GAS AND ELECTRIC COMPANY

DOCKET NO. 50-323

DIABLO CANYON NUCLEAR POWER PLANT, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 111
License No. DPR-82

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

   A. The application for amendment by Pacific Gas and Electric Company (the licensee) dated April 3, 1996, 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 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.

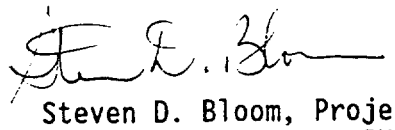
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-82 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 111 , are hereby incorporated in the license. Pacific Gas and 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 is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Steven D. Bloom, Project Manager
Project Directorate IV-2
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: May 28, 1996

ATTACHMENT TO LICENSE AMENDMENTS

AMENDMENT NO. 113 TO FACILITY OPERATING LICENSE NO. DPR-80

AND AMENDMENT NO. 111 TO FACILITY OPERATING LICENSE NO. DPR-82

DOCKET NOS. 50-275 AND 50-323

Revise Appendix A Technical Specifications by removing the pages identified below and inserting the enclosed pages. The revised pages are identified by Amendment number and contain marginal lines indicating the areas of change. The corresponding overleaf pages are also provided to maintain document completeness.

REMOVE	INSERT
3/4 7-14	3/4 7-14
3/4 7-17	3/4 7-17
3/4 9-13	3/4 9-13
3/4 9-14	3/4 9-14
B 3/4 7-10	B 3/4 7-10
B 3/4 7-11	B 3/4 7-11
B 3/4 9-3	B 3/4 9-3

3/4.7.5 CONTROL ROOM VENTILATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.5.1 The Control Room Ventilation System* shall be OPERABLE** with two separate trains with each train consisting of one main supply fan, one filter booster fan, one pressurization supply fan and one HEPA Filter and Charcoal Adsorber System.

APPLICABILITY: All MODES.

ACTION:

MODES 1, 2, 3, and 4:

With one Control Room Ventilation System train inoperable, restore the inoperable train to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

MODES 5 and 6:

a. With one Control Room Ventilation System train inoperable, restore the inoperable train to OPERABLE status within 7 days or initiate and maintain operation of the OPERABLE Control Room Ventilation System train in the recirculation mode.

b. With both Control Room Ventilation System trains inoperable, or with the OPERABLE Control Room Ventilation System required to be in the recirculation mode by ACTION a. not capable of being powered by an OPERABLE emergency power source, suspend all operations involving CORE ALTERATIONS or positive reactivity changes.

SURVEILLANCE REQUIREMENTS

4.7.5.1 Each Control Room Ventilation System train shall be demonstrated OPERABLE:

a. At least once per 12 hours by verifying that the control room air temperature is less than or equal to 120°F;

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*The Control Room Ventilation System is common to both units.
**The system may be considered OPERABLE with no chlorine monitors, provided no bulk chlorine gas is stored within the SITE BOUNDARY.

SURVEILLANCE REQUIREMENTS (Continued)

b. At least once per 31 days by:

1) Initiating flow through the HEPA Filter And Charcoal Adsorber System and verifying that either redundant set of booster and pressurization supply fans operate for at least 10 continuous hours with the heaters operating,

2) Verifying that each Ventilation System redundant fan is aligned to receive electrical power from a separate OPERABLE vital bus, and

3) Starting (unless already operating) each main supply fan, booster fan, and pressurization supply fan, and verifying that it operates for 1 hour.

c. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire, or chemical release in any ventilation zone communicating with the system by:

1) Verifying that the cleanup system satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 1% and uses the test procedure guidance in ANSI N510-1980, and the system flow rate is 2100 cfm ± 10%;

2) Verifying within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of ASTM D3803-1989 at 70% R.H. for a methyl iodide penetration of less than 1%; and

3) Verifying a system flow rate of 2100 cfm ± 10% during system operation when tested in accordance with ANSI N510-1980.

d. After 720 hours of charcoal adsorber operation, by verifying, within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of ASTM D3803-1989 at 70% R.H. for a methyl iodide penetration of less than 1%;

SURVEILLANCE REQUIREMENTS (Continued)

1) Verifying that the cleanup system satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 1% and uses the test procedure guidance in ANSI N510-1980, and the system flow rate is 73,500 cfm ± 10%;

2) Verifying, within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of ASTM D3803-1989 at 70% R.H. for a methyl iodide penetration of less than 6%; and

3) Verifying a system flow rate of 73,500 cfm ± 10% during system operation when tested in accordance with ANSI N510-1980.

c. After every 720 hours of charcoal adsorber operation, by verifying, within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of ASTM D3803-1989 at 70% R.H. for a methyl iodide penetration of less than 6%;

d. At least once per 18 months by:

1) Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is less than 3.7 inches Water Gauge while operating the system at a flow rate of 73,500 cfm ± 10%,

2) Verifying that flow is established through the HEPA filter and charcoal adsorber bank on a Safety Injection test signal, and

3) Verifying that the heaters dissipate 50 ± 5 kW when tested in accordance with ANSI N510-1980.

4) Verifying that leakage through the Auxiliary Building Safeguards Air Filtration System Dampers M2A and M2B is less than or equal to 5 cfm when subjected to a Constant Pressure or Pressure Decay Leak Rate Test in accordance with ASME N510-1989. The test pressure for the leak rate test shall be based on a maximum operating pressure as defined in ASME N510-1989, of 8 inches water gauge.

SURVEILLANCE REQUIREMENTS (Continued)

e. After each complete or partial replacement of a HEPA filter bank, by verifying that the cleanup system satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 1% in accordance with ANSI N510-1980 for a DOP test aerosol while operating the system at a flow rate of 73,500 cfm ± 10%; and

f. After each complete or partial replacement of a charcoal adsorber bank, by verifying that the cleanup system satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 1% in accordance with ANSI N510-1980 for a halogenated hydrocarbon test gas while operating the system at a flow rate of 73,500 cfm ± 10%.

REFUELING OPERATIONS

3/4.9.12 FUEL HANDLING BUILDING VENTILATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.9.12 Two Fuel Handling Building Ventilation Systems shall be OPERABLE.

APPLICABILITY: Whenever irradiated fuel is in the spent fuel pool.

ACTION:

a. With one Fuel Handling Building Ventilation System inoperable, fuel movement within the spent fuel pool or crane operation with loads over the spent fuel pool may proceed provided the OPERABLE Fuel Handling Building Ventilation System is capable of being powered from an OPERABLE emergency power source and is in operation and discharging through at least one train of HEPA filters and charcoal adsorbers.

b. With no Fuel Handling Building Ventilation System OPERABLE, suspend all operations involving movement of fuel within the spent fuel pool or crane operation with loads over the spent fuel pool until at least one Fuel Handling Building Ventilation System is restored to OPERABLE status.

c. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.9.12 The above required Fuel Handling Building Ventilation Systems shall be demonstrated OPERABLE:

a. At least once per 31 days by initiating flow through the HEPA filters and charcoal adsorbers and verifying that the system operates for at least 15 minutes;

b. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire, or chemical release in any ventilation zone communicating with the system by:

1) Visually verifying that, with the system operating at a flow rate of 35,750 cfm ± 10% and exhausting through the HEPA filters and charcoal adsorbers, the damper valve M-29 is closed;

2) Verifying that the cleanup system satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 1% and uses the test procedures guidance in ANSI N510-1980, and the system flow rate is 35,750 cfm ± 10%;

SURVEILLANCE REQUIREMENTS (Continued)

3) Verifying, within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of ASTM D3803-1989 at 95% R.H. for a methyl iodide penetration of less than 4.3%; and

4) Verifying a system flow rate of 35,750 cfm ± 10% during system operation when tested in accordance with ANSI N510-1980.

c. After every 720 hours of charcoal adsorber operation by verifying within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of ASTM D3803-1989 at 95% R.H. for a methyl iodide penetration of less than 4.3%;

d. At least once per 18 months by:

1) Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is less than 4.1 inches Water Gauge while operating the system at a flow rate of 35,750 cfm ± 10%,

2) Verifying that on a high radiation test signal, the system automatically starts (unless already operating) and directs its exhaust flow through the HEPA filters and charcoal adsorber banks, and

3) Verifying that the system maintains the spent fuel storage pool area at a negative pressure of greater than or equal to 1/8 inch Water Gauge relative to the outside atmosphere during system operation.

e. After each complete or partial replacement of a HEPA filter bank, by verifying that the cleanup system satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 1% in accordance with ANSI N510-1980 for a DOP test aerosol while operating the system at a flow rate of 35,750 cfm ± 10%; and

f. After each complete or partial replacement of a charcoal adsorber bank, by verifying that the cleanup system satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 1% in accordance with ANSI N510-1980 for a halogenated hydrocarbon test gas while operating the system at a flow rate of 35,750 cfm ± 10%.

3/4.7.1.7 MAIN FEEDWATER REGULATING, BYPASS AND ISOLATION VALVES (Continued)

or feedwater line rupture, thereby limiting the Reactor Coolant System cooldown and limiting the total energy release to the containment; or (2) a feedwater system malfunction, thereby limiting Reactor Coolant System cooldown.

The analysis of excessive RCS heat removal due to a feedwater system malfunction assumes that a control system malfunction or operator error causes a MFRV and associated bypass valve to open fully, resulting in a step increase in feedwater flow to one steam generator. The analysis assumes a feedwater isolation signal is generated by a high-high steam generator level. Feedwater isolation is assumed to occur as a result of the MFRV and associated bypass valve closing as a result of the feedwater isolation signal.

Rupture of a steam line is analyzed to calculate the response of the reactor core and to determine the resulting mass and energy releases. Two separate analyses are performed since conservative assumptions for the core response analysis are different than the conservative assumptions for the mass and energy release analysis. The core response analysis credits feedwater isolation as a result of the safety injection signal which results in a feedwater isolation signal. Feedwater isolation is assumed to occur as a result of closure of all MFRVs and MFRV bypass valves.

The mass and energy release analysis consists of several cases. The analysis assumes feedwater isolation occurs as a result of the safety injection signal which results in a feedwater isolation signal. Some cases are analyzed that assume a MFRV fails and feedwater isolation occurs as a result of closure of the MFIV. For cases with other single failure assumptions, feedwater isolation is assumed to occur as a result of closure of all MFRVs and MFRV bypass valves.

The core response and mass and energy releases that would result from a rupture of a main feedwater line are bounded by the analyses of the rupture of a main steam line.

The OPERABILITY of the MFIVs, MFRVs, and MFRV bypass valves within the closure time of the surveillance requirements is consistent with the assumptions used in the safety analyses. When these valves are closed, they are performing their safety function.

The APPLICABILITY of this specification is MODES 1, 2, and 3. The basis for this is that in MODES 1 and 2 there is significant energy and in MODE 3 there may be significant energy in the Steam Generators. With significant energy in the Steam Generators the valves are needed for isolation of the Steam Generators in the event of a secondary system pipe rupture.

The ACTION statement requires that an inoperable valve either be restored to an OPERABLE condition or closed within 4 hours. Closing the valve fulfills the safety function of feedwater isolation so the ACTION Statement can be

3/4.7.1.7 MAIN FEEDWATER REGULATING, BYPASS AND ISOLATION VALVES (Continued)

exited. If a MFRV or a MFRV bypass valve is inoperable, another option is available to isolate the inoperable valve with at least one closed valve within 4 hours. This option is not available for the MFIVs since the MFIVs are in the Class I feedwater piping and there are no other valves, other than check valves, in the Class I piping that could be closed to isolate the Class I portion of the feedwater line.

3/4.7.3 VITAL COMPONENT COOLING WATER SYSTEM

The OPERABILITY of the Vital Component Cooling Water System ensures that sufficient cooling capacity is available for continued operation of safety-related equipment during normal and accident conditions. The redundant cooling capacity of this system, assuming a single failure, is consistent with the assumptions used in the safety analyses.

3/4.7.4 AUXILIARY SALTWATER SYSTEM

The OPERABILITY of the Auxiliary Saltwater System ensures that sufficient cooling capacity is available for continued operation of safety-related equipment during normal and accident conditions. The redundant cooling capacity of this system, assuming a single failure, is consistent with the assumptions used in the safety analyses.

3/4.7.5 CONTROL ROOM VENTILATION SYSTEM

The OPERABILITY of the Control Room Ventilation System ensures that: (1) the ambient air temperature does not exceed the allowable temperature for continuous duty rating for the equipment and instrumentation cooled by this system, and (2) the control room will remain habitable for operations personnel during and following all credible accident conditions. The OPERABILITY of this system in conjunction with control room design provisions is based on limiting the radiation exposure to personnel occupying the control room to 5 rem or less whole body, or its equivalent. This limitation is consistent with the requirements of General Design Criterion 19 of Appendix A, 10 CFR Part 50. Operation of the system with the heaters operating to maintain low humidity using automatic control for at least 10 continuous hours in a 31-day period is sufficient to reduce the buildup of moisture on the adsorbers and HEPA filters. ANSI N510-1980 will be used as a procedural guide for surveillance testing, except laboratory testing of charcoal shall be performed in accordance with ASTM D3803-1989.

3/4.7.6 AUXILIARY BUILDING SAFEGUARDS AIR FILTRATION SYSTEM

The OPERABILITY of the Auxiliary Building Safeguards Air Filtration System ensures that radioactive materials leaking from the ECCS equipment within the auxiliary building following a LOCA are filtered prior to reaching the environment. Operation of the system with the heaters operating to maintain low humidity for at least 10 continuous hours in a 31-day period is sufficient to reduce the buildup of moisture on the adsorbers and HEPA filters. The operation of this system and the resultant effect on offsite dosage calculations were assumed in the safety analyses. ANSI N510-1980 will be used as a procedural guide for surveillance testing, except laboratory testing of charcoal shall be performed in accordance with ASTM D3803-1989.

3/4.7.12 ULTIMATE HEAT SINK

The OPERABILITY of the Component Cooling Water (CCW) System and the components that it cools is ensured if the CCW temperature remains equal to or less than 132°F during any condition assumed in the safety analysis. One CCW heat exchanger is required in service when the ocean temperature is 64°F or less. Two CCW heat exchangers are required in service when the ocean temperature is greater than 64°F. If the reactor coolant temperature is less than 350°F (MODE 4), one CCW heat exchanger in service is adequate even if the ocean temperature is greater than 64°F.

3/4.9.9 CONTAINMENT VENTILATION ISOLATION SYSTEM

The OPERABILITY of this system ensures that the containment ventilation penetrations will be automatically isolated upon detection of high radiation levels within the containment. The OPERABILITY of this system is required to restrict the release of radioactive material from the containment atmosphere to the environment.

3/4.9.10 and 3/4.9.11 WATER LEVEL - REACTOR VESSEL and SPENT FUEL POOL

The restrictions on minimum water level ensure that sufficient water depth is available to remove 99% of the assumed 10% iodine gap activity released from the rupture of an irradiated fuel assembly. The minimum water depth is consistent with the assumptions of the safety analysis.

The minimum water level for movement of fuel assemblies (23 feet above the vessel flange) assures that sufficient water depth is maintained above fuel elements being moved to or from the vessel. With the upper internals in place, fuel assemblies and control rods cannot be removed from the vessel. Operations involving the unlatching of control rods with the vessel upper internals in place may proceed with less than 23 feet of water above the vessel flange provided that 23 feet of water (12 feet above the flange) is maintained above all irradiated fuel assemblies within the reactor vessel.

3/4.9.12 FUEL HANDLING BUILDING VENTILATION SYSTEM

The limitations on the Fuel Handling Building Ventilation System ensure that all radioactive material released from an irradiated fuel assembly will be filtered through the HEPA filters and charcoal adsorber prior to discharge to the atmosphere. The OPERABILITY of this system and the resulting iodine removal capacity are consistent with the assumptions of the safety analyses. Transfer of system operation into the iodine removal mode (exhaust through HEPA filters and charcoal adsorbers) is initiated automatically by either the new fuel storage or spent fuel pool area radiation monitors required by Specification 3.3.3. Following installation of the Fuel Handling Building Ventilation exhaust radiation monitors, the automatic function of the fuel storage area monitors will be removed. Transfer of system operation into the iodine removal mode will be by either of the two Fuel Handling Building Ventilation exhaust radiation monitors required by Specification 3.3.3. ANSI N510-1980 will be used as a procedural guide for surveillance testing, except laboratory testing of charcoal shall be performed in accordance with ASTM D3803-1989.

3/4.9.13 SPENT FUEL SHIPPING CASK MOVEMENT

The restriction on spent fuel shipping cask movement ensures that no fuel assemblies will be ruptured in the event of a spent fuel shipping cask accident. The dose consequences of this accident are within the dose guideline values of 10 CFR Part 100.

3/4.9.14 SPENT FUEL ASSEMBLY STORAGE

The restrictions placed on spent fuel assemblies stored in the spent fuel pool ensure that keff will not be greater than 0.95 under normal conditions, as discussed in TS 5.6.1.a. The requirement for 2000 ppm boron concentration ensures that k-eff will not be greater than 0.95 under accident conditions. The spent fuel storage has been designed and analyzed for a maximum enrichment of 5.0 weight percent U-235.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 113 TO FACILITY OPERATING LICENSE NO. DPR-80

AND AMENDMENT NO. 111 TO FACILITY OPERATING LICENSE NO. DPR-82

PACIFIC GAS AND ELECTRIC COMPANY

DIABLO CANYON NUCLEAR POWER PLANT, UNITS 1 AND 2

DOCKET NOS. 50-275 AND 50-323

1.0 INTRODUCTION

By application dated April 3, 1996, Pacific Gas and Electric Company (or the licensee) requested changes to the Technical Specifications (Appendix A to Facility Operating License Nos. DPR-80 and DPR-82) for the Diablo Canyon Nuclear Power Plant (DCPP), Units 1 and 2. The proposed changes revise the combined Technical Specifications (TS) for the Diablo Canyon Nuclear Power Plant, Unit Nos. 1 and 2 to revise Technical Specifications 3/4.7.5, "Control Room Ventilation System;" 3/4.7.6, "Auxiliary Building Safeguards Air Filtration System;" and 3/4.9.12, "Fuel Handling Building Ventilation System" to clarify the testing methodology utilized by PG&E to determine the operability of the charcoal and high efficiency particulate air (HEPA) filters in the engineering safeguards features (ESF) air handling units at the Diablo Canyon Nuclear Power Plant (DCPP).

2.0 EVALUATION

2.1 Charcoal Testing

The current DCPP TS requirements for surveillance testing of charcoal samples from the ESF ventilation systems do not accurately reflect the actual testing being performed in the industry to determine methyl iodide penetration. Rather than performing the surveillance to meet older industry standards and regulatory guidance, the licensee proposed to modify the TS to reflect the current testing being performed.

The proposed amendment changes the testing requirements in the TS used to determine the operability of the charcoal in the ESF air handling units. The charcoal is provided to remove iodine from the air as it passes through the air handling units. There are no changes to the physical design or operation of the facility. Updated Safety Analysis Report (USAR) design basis are not affected.

The guidance in Regulatory Guide (RG) 1.52, "Design, Testing, and Maintenance Criteria for Post Accident Engineered-Safety-Feature Atmosphere Cleanup System Air Filtration and Adsorption Units of Light-Water-Cooled Nuclear Power Plants, Revision 2" and American National Standards Institute (ANSI) N509-

1976, "Nuclear Power Plant Air Cleaning Units and Components," presently forms the licensing basis test requirements. The current TS references Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978, which requires testing in accordance with ANSI N509-1976, which requires that the testing be performed at 80°C.

The essential elements of the proposed TS change are those outlined by RG 1.52, Revision 2 and ANSI N509-1980 which refers to ASTM D 3803-1979, "Standard Test Methods for Radiation Testing of Nuclear-Grade Gas-Phase Adsorbents." ASTM D 3803-1979 is updated guidance based on RDT M16-1T, "Gas Phase Adsorbents for Trapping Radioactive Iodine and Iodine Components."

The quantity of water retained by charcoal (carbon) is dependent on temperature. Generally, the higher the temperature the less water retained. The water retained by the carbon decreases the efficiency of the carbon to adsorb other contaminants. At 25°C and 95 percent relative humidity (RH), carbon will retain about 40 weight percent water. At 80°C and 95 percent RH, carbon retains only about 2 to 3 weight percent water. During an accident, the charcoal adsorber banks would not experience that high a temperature, therefore testing at higher temperatures produces non-conservative results.

ASTM D 3803-1979 specifies a test temperature of 30°C instead of 25°C for the pre-load and post-load sweep temperatures. There is little difference in the adsorption behavior of carbon between these two temperatures. The 25°C parameter is more conservative.

Pre-test humidity equilibration is achieved by sweeping air of the appropriate humidity through the test carbon. This condition is for testing new carbon and until 1977 it also was applied for testing used carbon. In 1977, RDT M16-1T-1977 was released stating that for testing used carbon, "the material shall not be pre-equilibrated before testing." NUREG/CR-0771, "Effects of Weathering on Impregnated Charcoal Performance," May 10, 1979, provides a basis by stating that, "it is thought that the elimination of the pre-humidification is a better simulation of accident conditions since a carbon filter must be ready at all times...." It also states that, "several investigators do not recommend any pre-treatment (of the carbon) in order to prevent a partial regeneration of the carbon which would increase the measured trapping efficiency." Therefore, by the release of the ASTM D 3803-1979 standard, it was established that the better test method was not to pre-equilibrate the humidity of the carbon.

The present TS reference to N509-1976 (RDT M16-1T) requires the carbon to be equilibrated to 25°C and 70 percent RH. The methyl iodide test medium would then be instantaneously introduced at 80°C. Carbon testing is not performed this way because this would cause condensation to form on the carbon (the dew point temperature of the test medium at these conditions is approximately 71°C.) Condensation on the carbon sample itself ("wetting the bed") results in the test being invalid. This is supported by paragraph 12.41. of ASTM D 3803-1979 which states with respect to relative humidity of the test medium that, "tests at saturation or above give very erratic results." Because of this, the testing standards after 1976 (i.e., RDT M16-1T-1977, ASTM D 3803-1979,

N509-1980), have been changed to include pre-test thermal equilibration at the test temperature.

The proposed TS change to N510-1989, Appendix B, for the 30°C and 95 percent RH methyl iodine test is considered by the Idaho National Engineering Laboratory and the NRC to be the most reliable test method. ASTM D 3803-1989, Annex A5 allows for humidity testing of the charcoal at various operating conditions as required by the facility, however, the testing temperature will be 30°C in all cases. For the control room and auxiliary building ventilation system, the humidity of the exhaust air is controlled to 70 percent RH maximum. Therefore, the charcoal samples for the control room and auxiliary building are to be tested at 70 percent RH.

The post-test sweep of the carbon is performed to evaluate the ability of the carbon to hold the adsorbate once it is captured. The current TS test specifies a two hour test at 25°C.

The requested changes revise TS 3/4.7.5, "Control Room Ventilation System;" 3/4.7.6, "Auxiliary Building Safeguards Air Filtration System;" and 3/4.9.12, "Fuel Handling Building Ventilation System", and the associated TS Bases relating to surveillance requirements for charcoal filter laboratory testing, such that existing flawed test methodology in the TS will reflect the currently utilized acceptable test methodology in accordance with industry standards. The staff has evaluated this change and concludes that the testing methodology proposed by the licensee adequately demonstrates the operability of the air handling units, and is therefore acceptable.

2.2 Other Testing

The current DCPP TS requires that other filter testing, such as filter visual inspections and in-place penetration and bypass leakage testing of HEPA filters and adsorber banks, also be performed in accordance with RG 1.52. RG 1.52 references ANSI N510-1975, and describes the requirements for the required testing.

The requested changes revise TS 3/4.7.5, "Control Room Ventilation System;" 3/4.7.6, "Auxiliary Building Safeguards Air Filtration System;" and 3/4.9.12, "Fuel Handling Building Ventilation System", relating to surveillance requirements for filter visual inspections, in-place penetration and bypass leakage testing of HEPA filters and adsorber banks. The proposed TS will require that testing be performed in accordance with ANSI N510-1980, which encompasses the testing required by N510-1975. The staff has evaluated this change and concludes that the testing methodology proposed by the licensee adequately demonstrates the operability of the air handling units, and is therefore acceptable.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the California State official was notified of the proposed issuance of the amendments. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

These amendments change surveillance requirements. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding (61 FR 18173). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

5.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

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