



**Pacific Gas and
Electric Company®**

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January 19, 2006

PG&E Letter HBL-06-002

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Docket No. 50-133 OL-DPR-7
Humboldt Bay Power Plant, Unit 3
License Amendment Request 06-01
Revision of Technical Specification Section 3.1.2, "Spent Fuel Pool Load
Restrictions," and Section 5.2.2, "Facility Staff"

Dear Commissioners and Staff:

In accordance with 10 CFR 50.90, enclosed is an application for an amendment to Facility Operating License No. DPR-7 for Humboldt Bay Power Plant (HBPP), Unit 3. The enclosed license amendment request (LAR) proposes revision of Technical Specification (TS) 3.1.2 to correct an editorial error, and TS 5.2.2 to allow leaving the Unit 3 control room temporarily unmanned during emergency conditions requiring personnel to evacuate occupied buildings for their safety.

Enclosure 1 provides the evaluation of the changes proposed in this LAR. Enclosure 2 provides a markup of the HBPP Unit 3 TS showing the proposed changes. Enclosure 3 provides a retyped (clean) version of the HBPP Unit 3 TS incorporating the proposed changes.

The changes proposed in this LAR are not required to address an immediate safety concern. Pacific Gas and Electric Company requests that the revised TS be made effective upon NRC issuance of a license amendment, to be implemented within 60 days from the date of issuance of the license amendment.

Sincerely,



John S. Keenan

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dds/0801

Enclosures

cc: Edgar Bailey, DHS

John B. Hickman

Bruce S. Mallett


PG Fossil Gen HBPP Humboldt Distribution

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

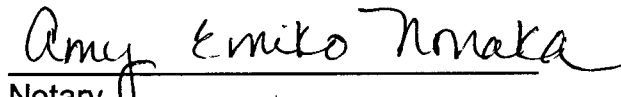
)	Docket No. 50-133
In the Matter of)	Facility Operating License
PACIFIC GAS AND ELECTRIC COMPANY)	No. DPR-7
)	
Humboldt Bay Power Plant, Unit 3)	License Amendment Request No. 06-01
)	

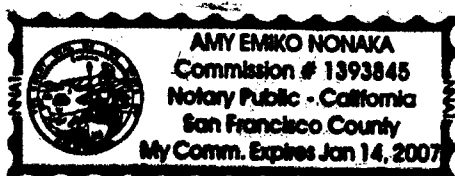
AFFIDAVIT

John S. Keenan, of lawful age, first being duly sworn upon oath says that I am Senior Vice President of Generation and Chief Nuclear Officer of Pacific Gas and Electric Company; that I am familiar with the content thereof; that I have executed License Amendment Request 06-01 on behalf of said company with full power and authority to do so; that I am familiar with the content thereof, and that the facts stated therein are true and correct to the best of my knowledge, information, and belief.


John S. Keenan
Senior Vice President - Generation and Chief Nuclear Officer

Subscribed and sworn to before me this 19th day of January 2006 by
John S. Keenan, personally known to me or proved to me on the basis of satisfactory
evidence to be the person who appeared before me.


Notary
State of California
County of San Francisco



EVALUATION

1.0 DESCRIPTION

This letter is a request to amend Operating License No. DPR-7 for Humboldt Bay Power Plant (HBPP) Unit 3.

The proposed changes would modify the Technical Specifications (TS) to correct an editorial error, and allow leaving the Unit 3 control room and the control station for Units 1 and 2 temporarily unmanned under emergency conditions requiring personnel to evacuate occupied buildings for their health and safety.

2.0 PROPOSED CHANGES

This license amendment request (LAR) proposes to revise TS 3.1.2 and 5.2.2.c as follows:

1. Modify TS 3.1.2, Limiting Condition for Operation (LCO) 3.1.2, Condition A to replace the word "restriction" with the word "weight" so that action is required if the load weight (instead of load restriction) is not within the limit.
2. Modify TS 5.2.2.c to allow the Unit 3 control room and the control station in Units 1 or 2 (hereafter referred to as the control room in this LAR) to be temporarily unmanned in an emergency when personnel are required to evacuate occupied buildings for their health and safety.

The proposed changes to the TS are noted in the marked-up copy of the applicable TS sections provided in Enclosure 2.

3.0 BACKGROUND

3.1 Spent Fuel Pool Load Restriction

License Amendment 34, issued on November 18, 2002, incorporated an extensive revision and reformatting of the HBPP Unit 3 TS to be consistent with the standard TS for permanently decommissioned plants such as Trojan Nuclear Plant and Millstone Nuclear Power Station, Unit 1. The wording for Condition A in LCO 3.1.2 is identical to the wording in a similar section in the Trojan Nuclear Plant TS.

The action described in LCO 3.1.2 is for a load that is not within the heavy load limit of 330 pounds to be placed in a safe position immediately. However, the wording in Condition A is, "Load restriction not within limit," and should read, "Load weight not within limit." The proposed wording revision is an editorial change to correct a confusing statement.

3.2 Facility Staff

TS 5.2.2.c requires that: "The Unit 3 control room shall be continuously manned or as an alternative, audible and visual annunciation of all alarms in Unit 3 shall be provided at a continuously manned control station in Units 1 or 2, considered to be the entire plus 27 foot elevation operating deck. A common annunciator may be used for all such alarms."

On June 14, 2005, a magnitude 7.4 earthquake occurred approximately 97 miles northwest of HBPP creating the potential for a tsunami to occur. Consequently, the National Weather Service, West Coast and Alaska Tsunami Warning Center issued a tsunami warning for an area that included the entire California coast. A tsunami warning indicates that a tsunami may be imminent and that coastal locations in the warned area should prepare for flooding.

As a result of the June 14, 2005, tsunami warning, HBPP implemented Emergency Operating Procedure EOP-6, "Tsunami," and Emergency Plan Implementing Procedure EPIP R-3, "Evacuation of Site Personnel." Procedures EOP-6 and EPIP R-3 specify that immediately following a large local earthquake, the 2-1 emergency signal should be sounded. The 2-1 emergency signal mandates all personnel onsite to evacuate occupied buildings and proceed to a higher ground location within the owner controlled area (OCA), in accordance with the evacuation instructions contained in EPIP R-3.

The June 14, 2005, plant evacuation resulted in violation of TS 5.2.2.c because the control room was not continuously manned. Upon termination of the tsunami warning, plant personnel re-entered the plant and implemented re-entry checks in accordance with EOP-6. The tsunami warning event resulted in the submittal of Licensee Event Report 2005-002-00 to the NRC in Pacific Gas and Electric Company (PG&E) letter HBL-05-022, dated August 12, 2005.

4.0 TECHNICAL ANALYSIS

4.1 Spent Fuel Pool Load Restriction

TS 3.1.2 is intended to ensure that no load greater than 330 pounds is lifted over fuel in spent fuel pool racks. If a load is determined to weigh more than 330 pounds, the load must be placed in a safe position in accordance with LCO 3.1.2. As currently worded, the LCO condition states "load restriction" not within the limit of 330 pounds should be placed in a safe position. "Load restriction not within limit" is not correct; the LCO condition should read, "Load weight not within limit." The term "load

weight" is used in the Surveillance Requirements portion of TS 3.1.2 as well as in the Bases section for Spent Fuel Pool Load Restrictions (B 3.1.2). The proposed wording modification is strictly an editorial change to correct a confusing statement.

4.2 Facility Staff

HBPP is located on the coast of northern California in a region that is seismically active and prone to tsunamis. In the event of an emergency situation such as a tsunami warning for a tsunami that may be imminent, plant procedures require onsite personnel to evacuate occupied buildings and proceed to a higher ground location within the OCA for their safety. The height of a tsunami wave that could affect the HBPP OCA is predicted to be between 28 to 43 feet above mean lower low water (MLLW). The control room is at 27 feet MLLW, and would clearly be impacted by the predicted tsunami wave. The high ground location onsite within the OCA is 44 feet MLLW, and was selected as the evacuation location because it is above the level of the predicted tsunami wave. It is necessary to evacuate personnel from occupied buildings, including the control room, to the high ground location onsite within the OCA to protect their health and safety.

During the June 14, 2005, tsunami warning, the local law enforcement agency required the evacuation of the nearby town of King Salmon for public health and safety. Similarly, it was essential that plant workers, including operators in the control room, evacuate occupied buildings and move to the higher ground location onsite within the OCA for their own safety. By moving to the higher ground location, plant workers will be protected from the projected tsunami, and they will, therefore, be available after the tsunami to perform any functions that may be necessary to recover from the event (e.g. repair damage, re-establish level in the spent fuel pool), and bring plant parameters within required specifications. If workers remain in the control room, they may become injured by the tsunami and not be able to perform necessary recovery functions after the tsunami.

Allowing the control room to be temporarily unmanned under emergency conditions does not create problems that could affect the public health and safety. HBPP Defueled Safety Analysis Report (DSAR), Appendix A, and NRC Safety Evaluation Report (SER), Section 10, dated April 29, 1987, evaluate various accidents at HBPP. Because all fuel has been removed from the reactor vessel and stored in the spent fuel pool, the majority of accidents analyzed pertain to events that could only affect spent fuel or the spent fuel pool. The DSAR and SER conclude that all accidents affecting spent fuel or the

spent fuel pool do not require operator action to maintain offsite radiological doses well within regulatory limits.

In addition, NRC SER, Section 10.7, "Impact of Tsunami Flooding," analyzes the impact of tsunami flooding. That analysis identifies a likely impact of the tsunami to be a release of the radwaste tank radionuclide contents to the bay and some damage to the reactor building. For both situations, no operator action is required to maintain offsite radiological doses well within regulatory limits.

The primary function of manning the control room is for an operator to observe and acknowledge alarms. Alarms such as low spent fuel pool level or high radiation in the refueling building require operator actions to be taken outside the control room. No recovery actions are required to be taken by the control room operator for damage to spent fuel, the spent fuel pool, or radwaste tanks to protect public health and safety.

Evacuating occupied buildings, including the control room, during a tsunami, allows the control room operator to return to the control room after the tsunami and assess damage by observing indicators and alarms. Upon returning to the control room, the operator would be able to direct and monitor recovery efforts from the control room as necessary to bring plant parameters within required specifications.

If an operator remains in the control room during a tsunami and becomes injured, that operator would be unable to direct and monitor recovery efforts. Under this scenario, other plant personnel who evacuated occupied buildings and went to higher ground onsite within the OCA would eventually return to the plant, including the control room, and perform any required recovery functions. Therefore, consequences of a tsunami are not increased by not continually manning the control room during a tsunami.

Evacuation of occupied buildings requires personnel to leave the control room, thereby departing from TS 5.2.2.c. Allowing the control room to be temporarily unmanned under emergency conditions will allow implementation of EPIP R-3 without violating plant TS. This is desirable since emergency conditions could arise in the future that will necessitate evacuation of occupied buildings to protect the health and safety of plant workers.

During an emergency condition such as a tsunami warning that requires evacuating occupied buildings, security personnel will have to leave their posts and relocate to the higher ground location onsite within the OCA. This situation will require a revision to the HBPP Physical Security Plan that must receive NRC approval prior to implementation.

In the near future, PG&E will be submitting an LAR to the NRC to address the evacuation of security personnel from occupied buildings.

5.0 REGULATORY ANALYSIS

5.1 No Significant Hazards Consideration

PG&E has evaluated the no significant hazard considerations involved with the proposed amendment, focusing on the three standards set forth in 10 CFR 50.92(c) as quoted below:

"The Commission may make final determination, pursuant to the procedures in §50.91, that a proposed amendment to an operating license for a facility licensed under §50.21(b) or §50.22 or for a testing facility involves no significant hazards consideration, if operation of the facility in accordance with the proposed amendment would not:

- (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or
- (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or
- (3) Involve a significant reduction in a margin of safety."

The following evaluation is provided for the no significant hazards consideration standards:

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No.

The proposed editorial change has no impact on probability or consequences of accidents. The following discussion applies to the proposed change related to control room evacuation.

Allowing plant personnel to not continuously man the control room has no impact on the probability of an accident from occurring, especially acts of nature such as earthquakes and tsunamis.

The HBPP DSAR, Appendix A, and NRC SER, Section 10, dated April 29, 1987, evaluate various accidents at HBPP. Because all fuel has been removed from the reactor vessel and stored in the spent fuel pool, the majority of accidents analyzed pertain to

events that could only affect spent fuel or the spent fuel pool. All accidents affecting spent fuel or the spent fuel pool do not require operator action to protect the public health and safety or to maintain offsite radiological doses well within regulatory limits. In addition, NRC SER, Section 10.7, "Impact of Tsunami Flooding," analyzes the impact of tsunami flooding. That analysis identifies a likely impact of the tsunami to be a release of the radwaste tank radionuclide contents to the bay and some damage to the reactor building. For both situations, no operator action is required to maintain offsite radiological doses well within regulatory limits.

Allowing the control room to be temporarily unmanned under emergency conditions does not create problems that could increase the consequences of an accident. The primary function of manning the control room is for an operator to observe and acknowledge alarms. Recovery actions to respond to damage to spent fuel, the spent fuel pool, or radwaste tanks are taken by personnel outside the control room. No recovery actions are required to be taken by the control room operator to respond to damage to spent fuel, the spent fuel pool, or radwaste tanks.

Evacuating occupied buildings, including the control room, during a tsunami, allows the control room operator to return to the control room after the tsunami and assess damage by observing indicators and alarms. Upon returning to the control room, the operator would be able to direct and monitor recovery efforts from the control room that may be necessary to bring plant parameters within required specifications.

If an operator remains in the control room during a tsunami and becomes injured, that operator would be unable to direct and monitor recovery efforts. Under this scenario, other plant personnel who evacuated to higher ground onsite within the OCA would eventually return to the plant, including the control room, and perform any required recovery functions. Therefore, consequences of a tsunami are not increased by not continually manning the control room during the event.

2. Does the change create the possibility of a new or different kind of accident from any accident evaluated?

Response: No.

The proposed editorial change has no impact on accidents. The following discussion applies to the proposed change related to control room evacuation.

As discussed in the response to question 1 above, none of the analyzed accidents require operator action to keep offsite radiological doses well within regulatory limits. In addition, allowing plant personnel to not continuously man the control room after an emergency situation has occurred, has no impact on the possibility of a new or different kind of accident from occurring. If the plant is evacuated, no work activities will be performed in the plant. With the plant in SAFSTOR and no work being performed, there are no actions required to be taken by personnel manning the control room.

3. Does the change involve a significant reduction in a margin of safety?

Response: The proposed editorial change has no impact on margin of safety. The following discussion applies to the proposed change related to control room evacuation.

NRC SER Section 10.8, "Accident Analysis Conclusions," summarizes the consequences from accidents in terms of offsite radiological doses. SER Section 10.8 includes the statement, "The (NRC) staff has determined that offsite radiological consequences due to a tsunami are within acceptable dose guideline values." As discussed in the response to question 1 above, none of the analyzed accidents require operator action to keep offsite radiological doses well within regulatory limits. Therefore, temporarily not manning the control room during an emergency will have no impact on the margin of safety.

5.2 Applicable Regulatory Requirements/Criteria

Regulation 10 CFR 50.54(x) allows licensees to take reasonable action that departs from a license condition or a TS to protect the public health and safety in an emergency. Other licensees have invoked 10 CFR 50.54(x) to protect the health and safety of site personnel from severe weather conditions and other emergency situations. In addition, another licensee's Physical Security Plan contains provisions to allow personnel to leave their outside posts (thereby degrading their security system) and take shelter inside plant buildings during a hurricane for personnel safety in a life threatening situation.

It should also be noted that the TS for HBPP (Table 5.2-1), Trojan, and Millstone Unit 3 all contain a provision that allows the facility staff to be below the minimum shift crew composition for up to two hours, provided expeditious actions are taken to fill the required positions.

6.0 ENVIRONMENTAL CONSIDERATION

PG&E has evaluated the proposed changes and determined that the changes do not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluents that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. The amendment changes requested are changes to administrative requirements. Accordingly, the proposed changes meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(10)(ii). Therefore, pursuant to 10 CFR 51.22(b), an environmental impact statement or environmental assessment of the proposed changes is not required.

7.0 REFERENCES

None

**MARKUP OF PROPOSED CHANGES TO THE
HBPP UNIT 3 TECHNICAL SPECIFICATIONS**

3.1 DEFUELED SYSTEMS

3.1.2 Spent Fuel Pool Load Restrictions

LCO 3.1.2 Loads carried over the fuel in the spent fuel pool racks shall be limited to a weight of no greater than 330 pounds.

APPLICABILITY: Whenever irradiated fuel assemblies are stored in the spent fuel pool.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Load restriction -weight not within limit.	A.1 Place the load in a safe position.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.1.2.1 Verify the load weight \leq 330 pounds.	Prior to moving each load over storage racks containing irradiated fuel.

5.0 ADMINISTRATIVE CONTROLS

5.2 Organization

5.2.1 Onsite and Offsite Organizations

Onsite and offsite organizations shall be established for unit operation and corporate management, respectively. The onsite and offsite organizations shall include the positions for activities affecting the safe storage of irradiated fuel.

- a. 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 Quality Assurance Plan and plant procedures.
- b. The Designated Manager shall be responsible for overall unit safe operation and shall have control over those onsite activities and resources necessary for maintenance and storage of irradiated fuel in a safe condition.
- c. The Designated Officer shall have corporate responsibility 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 ensure the safe storage of irradiated fuel.
- d. The individuals who train the CERTIFIED FUEL HANDLERS and those who carry out radiation protection functions or perform quality assurance functions may report to the appropriate onsite manager; however, they shall have sufficient organizational freedom to ensure their ability to perform their assigned functions.

5.2.2 Facility Staff

- a. Each on duty shift shall be composed of at least the minimum shift crew composition shown in Table 5.2-1.
- b. At least one Certified Fuel Handler shall be onsite when fuel is in the spent fuel storage pool.
- c. The Unit 3 control room shall be continuously manned or, as an alternative, audible and visual annunciation of all alarms in Unit 3 shall be provided at a continuously manned control station in Units 1 or 2, considered to be the entire +27 foot elevation operating deck. A common annunciator may be used for all such alarms. ← Insert 1
- d. An individual qualified in radiation protection procedures shall be onsite during fuel handling operations.

(continued)

TECHNICAL SPECIFICATION INSERT

Insert 1:

However, should an emergency situation arise in which action is immediately necessary to protect worker health and safety, the Unit 3 control room (and concurrently the control station in Units 1 or 2) may be left unmanned for such time as is necessary to ensure worker health and safety is protected.

There are no changes to this page. However, TS 5.2.2.c and TS 5.5.2.d will be rolled onto this page due to Insert 1.

5.2 Organization

5.2.2 Facility Staff (continued)

- e. All fuel handling operations shall be directly supervised by a qualified individual.
- f. Administrative procedures shall be developed and implemented to limit the working hours of unit staff who perform functions important to the safe storage of irradiated fuel assemblies. These procedures should follow the general guidance of the NRC Policy Statement on working hours (Generic Letter No. 82-12).
- g. The Shift Foreman shall be a CERTIFIED FUEL HANDLER.

/

**RETYPE (CLEAN) VERSION OF PROPOSED CHANGES
TO THE HBPP UNIT 3 TECHNICAL SPECIFICATIONS**

Remove Page

**3.1-2
5.0-2
5.0-3**

Insert Page

**3.1-2
5.0-2
5.0-3**

3.1 DEFUELED SYSTEMS

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LCO 3.1.2 Loads carried over the fuel in the spent fuel pool racks shall be limited to a weight of no greater than 330 pounds.

APPLICABILITY: Whenever irradiated fuel assemblies are stored in the spent fuel pool.

ACTIONS

CONDITION		REQUIRED ACTION	COMPLETION TIME
A.	Load weight not within limit.	A.1 Place the load in a safe position.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.1.2.1	Verify the load weight \leq 330 pounds.	Prior to moving each load over storage racks containing irradiated fuel.

5.0 ADMINISTRATIVE CONTROLS

5.2 Organization

5.2.1 Onsite and Offsite Organizations

Onsite and offsite organizations shall be established for unit operation and corporate management, respectively. The onsite and offsite organizations shall include the positions for activities affecting the safe storage of irradiated fuel.

- a. 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 Quality Assurance Plan and plant procedures.
- b. The Designated Manager shall be responsible for overall unit safe operation and shall have control over those onsite activities and resources necessary for maintenance and storage of irradiated fuel in a safe condition.
- c. The Designated Officer shall have corporate responsibility 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 ensure the safe storage of irradiated fuel.
- d. The individuals who train the CERTIFIED FUEL HANDLERS and those who carry out radiation protection functions or perform quality assurance functions may report to the appropriate onsite manager; however, they shall have sufficient organizational freedom to ensure their ability to perform their assigned functions.

5.2.2 Facility Staff

- a. Each on duty shift shall be composed of at least the minimum shift crew composition shown in Table 5.2-1.
- b. At least one Certified Fuel Handler shall be onsite when fuel is in the spent fuel storage pool.

(continued)

5.2 Organization

5.2.2 Facility Staff (continued)

- c. The Unit 3 control room shall be continuously manned or, as an alternative, audible and visual annunciation of all alarms in Unit 3 shall be provided at a continuously manned control station in Units 1 or 2, considered to be the entire +27 foot elevation operating deck. A common annunciator may be used for all such alarms. However, should an emergency situation arise in which action is immediately necessary to protect worker health and safety, the Unit 3 control room (and concurrently the control station in Units 1 or 2) may be left unmanned for such time as is necessary to ensure worker health and safety is protected.
- d. An individual qualified in radiation protection procedures shall be onsite during fuel handling operations.
- e. All fuel handling operations shall be directly supervised by a qualified individual.
- f. Administrative procedures shall be developed and implemented to limit the working hours of unit staff who perform functions important to the safe storage of irradiated fuel assemblies. These procedures should follow the general guidance of the NRC Policy Statement on working hours (Generic Letter No. 82-12).
- g. The Shift Foreman shall be a CERTIFIED FUEL HANDLER.