



July 11, 2011

PG&E Letter DCL-11-081

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
11555 Rockville Pike  
Rockville, MD 20852-2738

10 CFR 50.54(f)

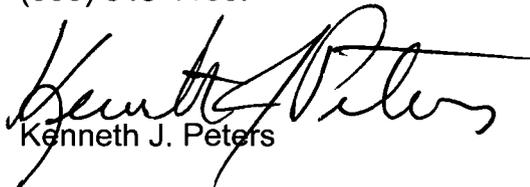
Docket No. 50-275, OL-DPR-80  
Docket No. 50-323, OL-DPR-82  
Diablo Canyon Units 1 and 2  
Sixty-Day Response to NRC Bulletin 2011-01, "Mitigating Strategies"

On May 11, 2011, the NRC issued Bulletin 2011-01, "Mitigating Strategies," (referred herein as the Bulletin), to request each licensee to provide a comprehensive verification of its compliance with the regulatory requirements of Title 10 of the Code of Federal Regulations (10 CFR) Section 50.54(hh)(2). The Bulletin requires that Pacific Gas and Electric Company (PG&E) submit written responses within 30 and 60 days of the Bulletin. PG&E submitted its 30-day response in PG&E Letter DCL-11-065, dated June 10, 2011 (ML111640426).

The enclosure to this letter provides PG&E's 60-day response to the Bulletin and is being submitted in accordance with 10 CFR 50.54(f).

PG&E makes no regulatory commitments (as defined by NEI 99-04) in this letter. This letter includes no revisions to existing regulatory commitments.

If you have any questions regarding this response, please contact Mr. William Guldemon, Special Assistant to the Site Vice President, at (805) 545-4160.



Kenneth J. Peters

jwh/50408579

Enclosure

cc: Diablo Distribution  
cc/enc: Elmo E. Collins, NRC Region IV  
Michael S. Peck, NRC Senior Resident Inspector  
James T. Polickoski, NRC Project Manager NRR  
Alan B. Wang, NRC Project Manager NRR

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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

In the Matter of PACIFIC GAS AND ELECTRIC COMPANY	) Docket No. 50-275 ) Facility Operating License ) No. DPR-80
Diablo Canyon Power Plant Units 1 and 2	) Docket No. 50-323 ) Facility Operating License ) No. DPR-82

AFFIDAVIT

Kenneth J. Peters, of lawful age, first being duly sworn upon oath says that he is Vice President – Engineering Services of Pacific Gas and Electric Company; that he has executed this response to NRC Bulletin 2011-01 on behalf of said company with full power and authority to do so; that he is familiar with the content thereof; and that the facts stated therein provided by his staff are true and correct to the best of his knowledge, information, and belief.



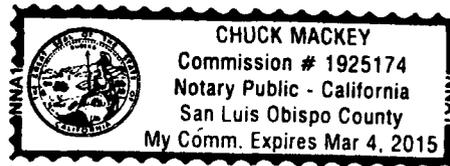
Kenneth J. Peters  
*Vice President – Engineering Services*

State of California  
County of San Luis Obispo

Subscribed and sworn to (or affirmed) before me on this 11th day of July, 2011, by Kenneth J. Peters, proved to me on the basis of satisfactory evidence to be the person who appeared before me.



(Notary Public Signature)



(Notary Public Seal)

**PG&E 60-Day Response to NRC Bulletin 2011-01  
Mitigating Strategies**

The NRC has requested the following information:

Within 60 days of the date of this bulletin (May 11, 2011), the NRC requests that licensees provide information regarding their mitigation strategies programs for 10 CFR 50.54(hh)(2).

The Diablo Canyon Power Plant (DCPP) guidelines and strategies are provided in the following primary correspondence on this topic:

(1) PG&E Letter DCL-05-058, "Response to NRC Guidance Regarding Mitigation Strategies," dated May 25, 2005.

(2) PG&E Letter DCL-07-001, "Response Providing Implementation Details for the Phase 2 and 3 Mitigation Strategies," dated January 11, 2007.

(3) PG&E Letter DCL-07-051, "Response to NRC Request for Additional Information Regarding Implementation Details for the Phase 2 and 3 Mitigation Strategies," dated May 8, 2007.

Additional equipment that is currently required to be inventoried as part of the mitigating strategies is listed in this response but is not necessarily called out in the above correspondence.

Many of the items described below represent current DCPP practices. Individual items may be revised or adjusted in the future based on new or revised vendor recommendations, industry experience, etc., in accordance with NEI 99-04, Revision 0, "Commitment Management Guidelines."

**NRC Question 1:**

*Describe in detail the maintenance of equipment procured to support the strategies and guidance required by 10 CFR 50.54(hh)(2) in order to ensure that it is functional when needed.*

*Examples of the types of information to include when providing your response to Question (1) are:*

- a. Measures implemented to maintain the equipment, including periodicity.*
- b. Basis for establishing each maintenance item (e.g., manufacturer's recommendation, code or standard applicable to the craft). This should include consideration of storage environment impact on the maintenance necessary.*

*These examples are not meant to limit your response if you use other methods to address the issues described above.*

PG&E Response 1:

The maintenance activities listed below have been established to ensure that the B.5.b equipment can perform its intended function.

<b>Equipment</b>	<b>Preventive Maintenance</b>	<b>Periodicity</b>	<b>Basis</b>
Various sizes of disposable batteries	Replace	Annually	Good practice based on finite battery shelf life
Electrical Tape and Duct Tape	Replaced if hardened	Annually	Good practice
Fire hoses	None	None	Annually hydro tested in lieu of preventive maintenance
Ansul Foam	Replaced	25 Years	Manufacturer's recommendation based on shelf life
Flow Meters	Replace batteries	Annually	Good practice based on finite battery shelf life
Fluke Meters	Replace batteries	Annually	Good practice based on finite battery shelf life
Monarch Instruments Pocket Laser Tach 200 (PLT 200)	Replace batteries	Annually	Good practice based on finite battery shelf life
Three Portable Long Term Cooling Pumps	Oil sample / change / clean / inspect	Annually	Manufacturer's recommendation
	Hose inspection	Annually	NFPA 1962, 1998 Edition
Portable Diesel Driven Fuel Oil Transfer Pump	Battery check	Monthly	Manufacturer's recommendation
	Oil change and inspection	Biennially	Manufacturer's recommendation
	Suction and discharge hose replacement	8 Years	Manufacturer's recommendation

<b>Equipment</b>	<b>Preventive Maintenance</b>	<b>Periodicity</b>	<b>Basis</b>
Mobile Crane	Inspection	Daily (when in use)	Good practice
	Inspection	Annually	CAL-OSHA Title 8, CFR Title 29, Part 1910, Subpart N 1910.180, CFR Title 29, Part 1926, Subpart CC
Fire Truck	Short inspection	90 days	Manufacturer's recommendation
	Long inspection	Annually	Manufacturer's recommendation
	Inspection	Daily Weekly Quarterly	Good practice
Pump	Inspection and general maintenance	Annually	Vendor recommendation
Fuel Storage Truck	Short inspection	90 days	Manufacturer's recommendation
	Long inspection	Annually	

<b>Equipment</b>	<b>Preventive Maintenance</b>	<b>Periodicity</b>	<b>Basis</b>
SCBAs	Inspection of SCBA system	Monthly	NFPA 1981, Manufacturer's recommendation
	Maintenance, cleaning, and inspection of masks	Post use or monthly	
	Cylinder visual inspections	Monthly	
	Cylinders replaced	15 years	
	Cylinder pressure check	Weekly	
	Replace batteries	Quarterly	
	Pressure regulator overhaul	8 years	
Electric Fans	Visual inspection	Weekly	Good practice
Gas Powered Fan – on Fire Engine	Inspection – check fuel	Daily and Weekly	Good practice
Gas Powered Fan – in 85 ft elevation Fire Brigade Locker	Inspection – check fuel	Weekly	
Fire rescue truck	Visual inspection and check fuel	Weekly	Good practice
	Short inspection	90 days	Manufacturer's recommendation
	Long inspection	Annually	Manufacturer's recommendation
Pump mounted on truck	Visual inspection	Weekly	Good practice

<b>Equipment</b>	<b>Preventive Maintenance</b>	<b>Periodicity</b>	<b>Basis</b>
Hazmat trailer	Inspection (ensure equipment is in trailer, lights work, tires are filled, and gets washed)	Weekly	Good practice
	Inspection and maintenance	Annually	Manufacturer's recommendation
Portable gas electric generators	Fuel/Oil level check and refill as necessary	Monthly	Manufacturer's testing recommendation
Site ambulance	Short inspection	90 days	Manufacturer's recommendation
	Long inspection	Twice a year	Manufacturer's recommendation and good practice
Site boundary Pressurized Ion Chambers	UPS replaced	Biennially	Recommended replacement frequency of 3 to 6 years per operating experience
Maintenance Field Kits	Detectors calibrated	Various frequencies depending on use	Manufacturer's recommendation

NRC Question 2:

*Describe in detail the testing of equipment procured to support the strategies and guidance required by 10 CFR 50.54(hh)(2) in order to ensure that it will function when needed.*

*Examples of the types of information to include when providing your response to Question (2) are:*

- a. A description of any testing accomplished to ensure the strategies were initially feasible.*
- b. A description of any periodic testing instituted for the equipment, along with the basis for establishing that test requirement.*
- c. A description of the corrective action process used when the equipment fails to adequately perform its test.*

*These examples are not meant to limit your response if you use other methods to address the issues described above.*

PG&E Response 2a:

The following table is a description of testing accomplished using nonpermanently installed plant equipment to ensure the strategies were initially feasible.

<b>Strategy</b>	<b>Description</b>
Strategies involving the fire truck	Demonstrated that required flow and spray pattern can be achieved to a mock spent fuel pool
Strategies demonstrating that the fire protection ring header can be filled via external sources	Demonstrated that the necessary flow can be achieved through startup tests using the long term cooling pumps

PG&E Response 2b:

The following table describes periodic testing instituted for the equipment, along with the basis for establishing that test requirement.

<b>Equipment</b>	<b>Test Description</b>	<b>Periodicity</b>	<b>Basis</b>
Fire hoses	Hydrostatic test	Annually	NFPA 1962
Radios, chargers, and microphone remote speakers	Functional test	Quarterly	Good practice

<b>Equipment</b>	<b>Test Description</b>	<b>Periodicity</b>	<b>Basis</b>
Flow Meters	Verify functional	Annually	Good practice
Fluke Meters	Verify functional	Annually	Good practice
Monarch Instruments Pocket Laser Tach 200 (PLT 200)	Verify functional	Annually	Good practice
Three Portable Long Term Cooling Pumps	Operability test	Quarterly	Operating Experience
	Flow test	Annually	Operating Experience
	Inspection and hydrostatic test	Annually	National Fire Protection Association Standard 1962
Portable Diesel Driven Fuel Oil Transfer Pump	Flow test	Quarterly	Operating Experience
Mobile Crane	Functional checks	Daily	Good practice
	Load test	Annually	CAL-OSHA Title 8, CFR Title 29, Part 1910, Subpart N, 1910.180, CFR Title 29, Part 1926, Subpart CC
	110% Load test	Quadrennial	
Fire Truck Pump	Flow test	Annually	NFPA 19 specifications for motor fire apparatus
SCBAs	Cylinder hydrostatic test	5 years	NFPA, OSHA, Manufacturer's recommendation
	System test	Annually	
	Cylinder functional test	Monthly	
	Air sample test	Quarterly	
Electric Fans	Start/Run	Quarterly	Good practice
Gas Powered Fan – on Fire Engine	Run until warm	Weekly	Good practice
Gas Powered Fan – in 85 ft elevation Fire Brigade	Run until warm	Weekly	
Pump mounted on fire rescue truck	Run motor for 2 minutes	Weekly	Good practice
Portable gas electric generators	Run under load	Monthly	Manufacturer's recommendation

<b>Equipment</b>	<b>Test Description</b>	<b>Periodicity</b>	<b>Basis</b>
Portable lighting	Verify operations	Daily	Security requirements
Site boundary Pressurized Ion Chambers	Operational check	Annually	Calibration testing requirements
Satellite Phones	Functional test	Quarterly	Good practice
Maintenance Field Kits	Detector functional tests	Quarterly	Good practice

PG&E Response 2c:

The DCP 10 CFR 50, Appendix B, Corrective Action Program (CAP) is used for most pieces of equipment to document failures, establish priorities for corrective actions, and perform trending. Some pieces of equipment are maintained by other equipment specific processes.

For that equipment subject to the CAP, when an issue is identified, a Notification is initiated, a Notification Review Team determines the level of review required, and corrective actions are determined and implemented in accordance with the significance.

**NRC Question 3:**

*Describe in detail the controls for assuring that the equipment is available when needed.*

*Examples of the types of information to include when providing your response to Question (3) are:*

- a. A description of any inventory requirements established for the equipment.*
- b. A listing of deficiencies noted in inventories for the equipment and corrective actions taken to prevent loss.*

*These examples are not meant to limit your response if you use other methods to address the issues described above.*

**PG&E Response 3a and 3b:**

In addition to the controls described in responses 1 and 2, nonpermanently installed B.5.b equipment is inventoried at least annually in accordance with DCPD processes or procedures. This inventory assures the items are stored in the proper quantities and location, equipment is accessible, and storage locations are controlled. (See Table below.)

Inventory deficiencies are entered into the DCPD CAP. As of the date of this response, there are no outstanding inventory deficiencies that would render the strategies not viable.

<b>Equipment</b>	<b>Inventory Frequency</b>	<b>Special Storage Controls</b>	<b>Items Verified (e.g., proper quantities, locations, pressures, calibrations, shelf life, and equipment is accessible.)</b>
Batteries	Annually	Note 1	Location, quantity, accessibility
Bucket	Annually	Note 1	Location, quantity, accessibility
Lights	Annually	Note 1	Location, quantity, accessibility
Tarpaulin	Annually	Note 1	Location, quantity, accessibility
Personal Protective Equipment	Annually	Note 1	Location, quantity, accessibility
Tool box items	Annually	Note 1	Location, quantity, accessibility
Hose / Tubing	Annually	Note 1	Location, quantity, accessibility
Supports / Brackets	Annually	Note 1	Location, quantity, accessibility
Adapters	Annually	Note 1	Location, quantity, accessibility
Nozzles	Annually	Note 1	Location, quantity, accessibility
Carts	Annually	Note 1	Location, quantity, accessibility
Splitters	Annually	Note 1	Location, quantity, accessibility

<b>Equipment</b>	<b>Inventory Frequency</b>	<b>Special Storage Controls</b>	<b>Items Verified (e.g., proper quantities, locations, pressures, calibrations, shelf life, and equipment is accessible.)</b>
Foam	Annually	None	Location, quantity, accessibility
Rope	Annually	Note 1	Location, quantity, accessibility
Communication equipment	Quarterly	None	Location, quantity, accessibility
Flow meters	Annually	Note 1	Location, quantity, accessibility
Measuring equipment	Annually	Note 1	Location, quantity, accessibility
Three Portable Long Term Cooling Pumps and associated hoses and connectors	Quarterly	Pumps seismically restrained	Location, accessibility
Portable Diesel Driven Fuel Oil Transfer Pump	Quarterly	Pump cart seismically restrained	Location, accessibility
Mobile crane	Annually	None	Location
Fire truck	Daily Weekly Quarterly	None	Location, quantity of supplies
Fuel truck	Annually	None	Location
Oscillating Monitor Nozzle	Annually	Note 1	Location, accessibility
Additional Monitors	Quarterly	None	Location, quantity
Fire Department SCBAs	Weekly	None	Location, quantity
Electric fans	Weekly	None	Location, quantity
Gas powered fans	Weekly	None	Location, quantity
Fire rescue truck and pump mounted on truck	Quarterly	None	Location
Hazmat trailer	Weekly	None	Location
Portable gas generators	Weekly	None	Location, quantity
Portable lighting	Daily	None	Location, quantity
Site ambulance	Monthly	None	Location, quantity of supplies
TLDs	Quarterly	None	Location, quantity, accessibility

<b>Equipment</b>	<b>Inventory Frequency</b>	<b>Special Storage Controls</b>	<b>Items Verified (e.g., proper quantities, locations, pressures, calibrations, shelf life, and equipment is accessible.)</b>
Site boundary Pressurized Ion Chambers	Annually	None	Location, calibration, accessibility
Maintenance field kits	Quarterly	None	Location, quantity, accessibility, calibration of detectors

Note 1: Contained in a locked storage facility.

NRC Question 4:

*Describe in detail how configuration and guidance management is assured so that strategies remain feasible.*

*Examples of the types of information to include when providing your response to Question (4) are:*

- a. Measures taken to evaluate any plant configuration changes for their effect on feasibility of the mitigating strategies.*
- b. Measures taken to validate that the procedures or guidelines developed to support the strategies can be executed. These measures could include drills, exercises, or walk through of the procedures by personnel that would be expected to accomplish the strategies.*
- c. Measures taken to ensure procedures remain up-to-date and consistent with the current configuration of the plant.*
- d. A description of the training program implemented in support of the mitigating strategies and the manner in which you evaluate its effectiveness.*

*These examples are not meant to limit your response if you use other methods to address the issues described above.*

PG&E Response 4a:

The current plant design change process requires an evaluation of the impacts of modifications on the mitigation strategies.

PG&E Response 4b:

Initially, mitigating strategies were validated by walkdowns, engineering evaluations, performance of the procedure, and/or table top reviews. Subsequent procedure changes are validated to ensure that the guidelines remain viable. In 2011, B.5.b mitigating strategies were revalidated by similar techniques.

PG&E Response 4c:

The design change process and procedure controls are utilized so that the mitigating strategy guidelines are maintained up-to-date and consistent with the current configuration of the plant.

PG&E Response 4d:

The following table describes the training in support of the mitigating strategies and the manner in which effectiveness is evaluated.

Station Personnel	Training	Periodicity	Evaluation
Operations	Initial and continuing training on Extreme Damage Mitigation Guidelines and B.5.b casualty procedures	4 years	Facilitated discussion, simulator events, or written exams
ERO	<ul style="list-style-type: none"> <li>• Initial training was provided on Extreme Damage Mitigation Guidelines and B.5.b casualty procedures.</li> <li>• The need for initial training of new ERO members and recurrent training for existing ERO members was identified as a gap and was entered into the CAP. In the interim, the training materials have been provided to appropriate ERO members. This training has been completed by current on-call ERO members.</li> </ul>	N/A	Peer evaluation of emergency callout drills
Fire Brigade	Initial training on fire response procedure  Foam applications  Extreme Damage Mitigation Guidelines, B.5.b casualty procedures, and large accelerant fed fires	Biennially  Annually	Qualifications, table tops, drills, and exercises

<b>Station Personnel</b>	<b>Training</b>	<b>Periodicity</b>	<b>Evaluation</b>
Security	Initial training on B.5.b casualty procedures  Initial and continuing training on EDMGs	Annually	Initial security-related table tops and continued facilitated discussions

NRC Question 5:

*Describe in detail how you assure availability of off-site support.*

*Examples of the types of information to include when providing your response to Question (5) are:*

- a. A listing of off-site organizations you rely on for emergency response.*
- b. Measures taken to ensure the continuity of memoranda of agreement or understanding or other applicable contractual arrangements. This should include a listing of periods of lapsed contractual arrangements.*
- c. A listing of any training or site familiarization provided to off-site responders. This should include any measures taken to ensure continued familiarity of personnel of the off-site responders in light of turnover and the passage of time.*

*These examples are not meant to limit your response if you use other methods to address the issues described above.*

PG&E Response 5:

<b>Off-site Organization</b>	<b>Implementing Document</b>	<b>Validation and Periodicity</b>	<b>Training/Familiarization Refresher/Periodicity</b>
Cambria Community Healthcare District	Agreement for casualty treatment	Annually	Need for training discussed during annual review
French Hospital Medical Center	Agreement for casualty treatment	Annually	Periodic training seminars as needed
Marian Medical Center	Agreement for casualty treatment	Annually	Periodic training seminars as needed
San Luis Ambulance Service, Inc.	Agreement for casualty treatment	Annually	Need for training discussed during annual review
Rogers Helicopters, Inc.	Agreement for airlifting capabilities	Annually	Need for training discussed during annual review
Local Law Enforcement Agency (LLEA) Agreement	Agreement for security resources	Annually	Biennial responder training

<b>Off-site Organization</b>	<b>Implementing Document</b>	<b>Validation and Periodicity</b>	<b>Training/Familiarization Refresher/Periodicity</b>
California Department of Forestry and Fire Protection (CALFIRE)	Agreement for fire fighting resources	Annually	Initial training and annual refresher training; site familiarization or virtual site familiarization annually
Rain for Rent - Contract 4600014571	Contract for back up pumping and cooling capability	Annually	Site familiarization training provided as needed

Per the Emergency Plan, the implementing documents are reviewed annually and renewed as necessary.

Currently there are no lapsed letters of agreement, memoranda of understanding (MOU), or contractual agreements. PG&E reviewed the DCCP CAP from 2008 through May 2011, and found no lapsed letters of agreement, MOU, or contracts related to B.5.b.