

Pacific Gas and Electric Company®

James R. Becker Site Vice President Diablo Canyon Power Plant Mail Code 104/5/601 P. O. Box 56 Avila Beach, CA 93424

805.545.3462 Internal: 691.3462 Fax: 805.545.6445

January 12, 2011

PG&E Letter DCL-11-001

U.S. Nuclear Regulatory Commission ATTN: Document Control Desk Washington, DC 20555-0001

Docket No. 50-275, OL-DPR-80 Docket No. 50-323, OL-DPR-82 Diablo Canyon Units 1 and 2 <u>Response to Telephone Conference Call Held on December 14, 2010, Between</u> <u>U.S. Nuclear Regulatory Commission and Pacific Gas & Electric Company</u> <u>Concerning Responses to Requests for Additional Information Related to the Diablo</u> Canyon Nuclear Power Plant, Units 1 and 2, License Renewal Application

Dear Commissioners and Staff:

By letter dated November 23, 2009, Pacific Gas and Electric Company (PG&E) submitted an application to the U.S. Nuclear Regulatory Commission (NRC) for the renewal of Facility Operating Licenses DPR-80 and DPR-82, for Diablo Canyon Power Plant Units 1 and 2, respectively. The application included the license renewal application (LRA) and Applicant's Environmental Report – Operating License Renewal Stage.

On December 14, 2010, a telephone conference between the NRC and representatives of PG&E was held to obtain clarification on PG&E's response to requests for additional information (RAI) submitted to the NRC in letters dated October 12, October 15, and November 8, 2010, regarding scoping and screening.

PG&E's supplemental information to the RAI responses is provided in Enclosure 1. PG&E amends commitments in revised LRA Table A4-1, License Renewal Commitments, shown in Enclosure 2. LRA Amendment 37 is included in Enclosure 2 showing the changed pages with line-in/line-out annotations.

If you have any questions regarding this response, please contact Mr. Terence L. Grebel, License Renewal Project Manager, at (805) 545-4160. Document Control Desk January 12, 2011 Page 2

I declare under penalty of perjury that the foregoing is true and correct.

Executed on January 12, 2011.

Sincerely James R. Becker Site Vice President

TLG/50367168
Enclosures
cc: Diablo Distribution
cc/enc: Elmo E. Collins, NRC Region IV Regional Administrator
Nathanial B. Ferrer, NRC Project Manager, License Renewal
Kimberly J. Green, NRC Project Manager, License Renewal
Michael S. Peck, NRC Senior Resident Inspector
Alan B. Wang, NRC Licensing Project Manger

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PG&E Supplements to Telephone Conference Call Held on December 14, 2010, Concerning Responses to Requests for Additional Information (RAI) Submitted to the NRC in Letters Dated October 12, October 15 and November 8, 2010, Regarding Scoping and Screening

<u>RAI 2.1-1</u>

In a telephone conference call held on December 14, 2010, the NRC requested additional information in regards to the spatial interaction of non-safety related fluid-filled components and the control room pressurization system (CRPS) supply fans, controls and instrumentation. In addition, the NRC requested additional information on the capability of fluid entering HVAC supply and exhaust ducting for the vital 480V switchgear rooms.

PG&E agreed to supplement the response to RAI 2.1-1.

PG&E Supplement to RAI 2.1-1

PG&E Letter DCL-10-132, dated October 12, 2010, provided additional information on nonsafety-related piping in the turbine building that could fail and interact with any safety-related structures, systems and components (SSC) in a manner that would prevent the performance of the system safety function for which the safety-related SSC is required.

A confirmatory walk-down was performed for the control room pressurization system (CRPS) supply fans and instrumentation and controls (I&C) for potential spatial interaction with nonsafety-related fluid-filled components. Firewater piping was identified approximately 60 ft to the north and east of the Unit 2 CRPS I&C and approximately 50 ft to the east of the Unit 1 CRPS I&C. These are the only fluid-filled components in the area and line-of-sight of the CRPS I&C cabinet. Nonsafety-related firewater piping in the vicinity of the CRPS supply fans, I&C on both Units is added to the scope of license renewal under 10 CFR 54.4(a)(2). License Renewal Application (LRA) Tables 2.3.3-12 and 3.3.2-12 are amended to reflect this change in Enclosure 2. Boundary drawings LR-DCPP-18-106718-07 and LR-DCPP-18-106718-09 have been revised to include the additional in-scope SSCs.

A confirmatory walk-down was performed on the heating, ventilation and air conditioning (HVAC) openings on the turbine deck, which supply the 4160V switchgear rooms. On both Units 1 and 2, there is nonsafety-related firewater piping in the vicinity of these openings. Nonsafety-related firewater piping in the vicinity of the 4160V ventilation exhaust openings on the turbine deck on both Units is added to the scope of license renewal under 10 CFR 54.4(a)(2). LRA Tables 2.3.3-12 and 3.3.2-12 are amended to reflect this change. Boundary drawing LR-DCPP-18-106718-09 has been revised to include the additional in-scope SSCs. Additionally, there is a low pressure domestic

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water line supplying the temporary instrument repair shop on the Unit 1 side. Domestic water piping in the vicinity of the 4160V ventilation exhaust openings on the turbine deck on Unit 1 is added to the scope of license renewal under 10 CFR 54.4(a)(2). The LRA is unaffected by this addition. Boundary drawing LR-DCPP-16-106718-21 has been revised to include the additional in scope SSCs.

A confirmatory walk-down was performed on the HVAC supply and exhaust ducting which feeds the vital 480V switchgear room. Rainwater cannot enter the HVAC supply ducting on either unit. The supply ducts have louvers tilted downwards on the entrance precluding rain from entering. Similarly, rain cannot enter the Unit 1 exhaust ducting since the exit is oriented downwards. The Unit 2 exhaust ducting exit is oriented upwards. The Unit 2 exhaust ductwork has provisions to allow water to drain from the duct. DCPP will enhance these provisions to ensure that water cannot enter the 480V switchgear room upstream of the ducts when the fan is turned off. There are no other openings in the supply or exhaust duct through which fluids could enter. LRA Table A4-1 is amended to include this commitment.

<u>RAI 2.3-1</u>

In a telephone conference call held on December 14, 2010, the NRC requested additional information in regards to safety-related tubing attached to non-safety related tubing through solenoid operated valves in the compressed air system. In particular, the NRC wants to know the methodology used for scoping these portions of the system.

PG&E agreed to supplement the response to RAI 2.3-1.

PG&E Supplement to RAI 2.3-1

PG&E Letter DCL-10-137, dated October 15, 2010, clarified the methodology for indicating the boundary between safety-related and nonsafety-related structures, systems and components (SSCs). This method was then applied to valves in the compressed air system.

The following clarifies the scoping methodology used for safety-related transitioning to nonsafety-related SSCs in the compressed air system as well as the nitrogen and hydrogen system. DCPP has included all safety-related and nonsafety-related backup air system tubing in scope up to the first seismic or equivalent anchor on the nonsafety-related side of the code break valve (either a solenoid or a check valve).

With respect to the nitrogen and hydrogen system, these nonsafety-related systems are not in scope of license renewal. All nonsafety-related nitrogen piping and valves connected to safety-related instrument air back-up piping and fluid systems in the emergency core cooling system are in scope up to the first seismic anchor or equivalent anchor on the nonsafety-related side of the code break valve.

<u>RAI 2.3-3</u>

In a telephone conference call held on December 14, 2010, the NRC requested additional information in regards to the orientation of safety-related and non safety-related components in electrical pull boxes.

PG&E agreed to supplement the response to RAI 2.3-3.

PG&E Supplemental Response to RAI 2.3-3

PG&E Letter DCL-10-128, dated October 12, 2010, discussed electrical pull box drain configuration. In particular, the drain piping components and sump for electrical pull boxes are oriented such that fluids cannot spray or leak onto safety-related cables or conduits. The following provides the additional information on the pull box configuration that demonstrates fluids cannot spray or leak onto safety-related cables or conduits.

The in-scope electrical pull boxes between the intake structure and turbine building are designed with drain conduits that drain to pull boxes at the intake and turbine building. The end pull boxes drain to a building sump or to an in-ground sump that has a level alarm and an automatic sump pump. The pull box sump pump and alarm features are tested annually in accordance with the plant maintenance work orders. The remaining in-scope electrical pull boxes are located inside of in-scope structures that provide shelter and protection and are not subject to weather related water intrusion. Some of the indoor pull boxes are also equipped with drain conduits that drain to a building sump. As discussed in PG&E Letter DCL-10-148, dated November 24, 2010, the pull box inspection program has been effective in preventing pull box flooding and cable submergence in all in-scope 480V and higher power cable pull boxes.

The in-scope pull boxes that drain to an automatic pump equipped sump are physically separated from the sump, pump and pump discharge piping. The pull boxes drain to the sump via a 4-inch drain pipe. The sump pump discharge line is routed underground to the turbine building and ultimately the turbine building sump. The sump pump discharge line does not transit through any of the in-scope pull boxes, therefore it cannot leak or spray on any in-scope cables.

Since the in-scope pull boxes are physically separated from the sump, pump and pump discharge piping, no safety-related cables or conduits can be sprayed or leaked on.

<u>RAI 2.3.3.7-3</u>

In a telephone conference call held on December 14, 2010, the NRC requested additional information in regards to water traps in the compressed air system whose failure could affect safety-related equipment.

PG&E agreed to supplement the response to RAI 2.3.3.7-3.

PG&E Supplement to RAI 2.3.3.7-3

PG&E Letter DCL-10-140, dated November 8, 2010, discussed the effect of water trap failure and loss of instrument air to safety-related air operated components. Further, the RAI response detailed how the compressed air system is a dry system.

As described in the DCPP License Renewal Application (LRA), the only portions of the compressed air system that are within the scope of license renewal are the backup air systems. A confirmatory walk-down was performed to assess the surroundings of the water traps. The water traps are located on LRA drawings LR-DCPP-25-106725-50 (location 503-E) and LR-DCPP-25-107725-42 (location 423-D). These water traps could contain approximately 4 ounces of liquid. In the event of failure, a minor amount of water could spray on nearby safety-related equipment. Approximately 2 ft away from the wall is safety-related ductwork and approximately 2 ft to the west on the same wall are safety-related solenoid valves.

The water traps are located on instrument air lines to temperature control valves regulating supply air heating coils. This portion of the system is no longer in use as described in PG&E Letter DCL-10-140. Since the compressed air system is dry and the instrument air lines which contain the water traps are not used, PG&E will close the isolation valve upstream of the traps and then drain the traps. LRA Table A4-1 is amended to include this commitment.

RAI 2.3.3.14-1

In a telephone conference call held on December 14, 2010, the NRC requested additional information in regards to the in progress design changes on the diesel generator starting air and turbocharger air compressor unloader line.

PG&E agreed to supplement the response to RAI 2.3.3.14-1.

PG&E Supplemental Response to RAI 2.3.3.14-1

PG&E Letter DCL-10-137, dated October 15, 2010, credited the nonsafety-related tubing associated with the diesel generator starting air and turbocharger air compressor unloader line with the structural support intended function. This was because the boundary of nonsafety-related tubing terminated at a valve integral to the compressor head which served as positive isolation of the pressure boundary.

An upgrade is being implemented on the diesel generator starting air compressors and the diesel generator turbocharger air compressors. This relocates the connection point of the unloader tubing line. Prior to the upgrade, the unloader tubing was connected to the air receiver at a dedicated connection with a normally open manual valve. The tank connection nozzle and valve were safety-related. The unloader tubing was nonsafetyrelated.

The upgrade relocates the unloader tubing line to the compressor discharge piping at a location between the compressor and the code break check valve in the air supply line to the air receiver, such that it is upstream of the seismic anchor. The motive force for unloader operation with this new configuration is the air within the compressor discharge line rather than the air receiver itself. The existing check valve in the compressor discharge line (adjacent to the air receiver) remains the code break and serves as the pressure boundary between the air receiver and all of the following: the compressor, compressor discharge piping, and the unloader tubing. The internal environment of the unloader tubing is dried air; therefore the tubing does not perform a leakage boundary (spatial interaction) intended function. Since the unloader tubing line connects at a point on the upstream side of the seismic anchor, the tubing is not required to provide the intended function of structural integrity (attached). Therefore, the entire length of the unloader tubing is not within the scope of license renewal. License Renewal Application Tables 2.3.3-14 and 3.3.2-14 are amended to reflect this change. The manual value at the old tubing connection point is changed to normally closed and capped. The connected tubing is removed and rerouted.

This upgrade has been implemented on all Unit 1 diesel generator starting air and turbocharger air compressors. Implementation completion for all Unit 2 diesel generator starting air and turbocharger air compressor upgrades is planned for April, 2011. License Renewal Application Table A4-1 is amended to include this commitment.

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LRA Amendment 37

LRA Section	RAI
Table 2.3.3-12	2.1-1
Table 2.3.3-14	2.3.3.14-1
Table 3.3.2-12	2.1-1
Table 3.3.2-14	2.3.3.14-1
	2.1-1, 2.3.3.7-3,
Table A4-1	2.3.3.14-1

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Component Type	Intended Function
Valve	Leakage Boundary (spatial)
	Pressure Boundary

Component Type	Intended Function
Tubing	Pressure Boundary
	Structural Integrity (attached)
	Structural Support

Table 2.3.3-14 Diesel Generator System

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Notes	A	В
Table 1 Item	3.4.1.41	3.3.1.70
NUREG- 1801 Vol. 2 Item	VIII.I-2	VII.G-12
Aging Management Program	None	Fire Water System (B2.1.13)
Aging Effect Requiring Management	None	Loss of material
Environment	Plant Indoor Air (Ext)	Raw Water (Int)
Material	Copper Alloy	Copper Alloy
Intended Function	<u>гв</u> Ѕ, РВ	LBS, PB
Component Type	Valve	Valve
	Component Intended Material Environment Aging Effect Aging Management NUREG- Table 1 Item Notes Type Function Requiring Program 1801 Vol. Anaagement 2 Item Anaagement	ComponentIntendedMaterialEnvironmentAging EffectAging ManagementNUREG-Table 1 ItemNotesTypeFunctionRequiringRequiringProgram1801 Vol.2 ItemNotesValveLBS, PBCopper AlloyPlant Indoor AirNoneNoneVIII.I-23.4.1.41A

Table 3.3.2-12 Auxiliary Systems – Summary of Aging Management Evaluation – Fire Protection Component Intended Material Environment Aging Effect Aging Management NUREG-	System	Table 1 Ite
Table 3.3.2-12 Auxiliary Systems – Summary of Aging Management Evaluation – Fire H Component Intended Material Environment Aging Effect Aging Management	² rotection	NUREG-
Table 3.3.2-12 Auxiliary Systems – Summary of Aging Manageme Component Intended Material Environment Aging Effect	ent Evaluation – Fire F	Aging Management
Table 3.3.2-12 Auxiliary Systems – Summary of A Component Intended Material	ging Manageme	Aging Effect
Table 3.3.2-12 Auxiliary Systems Component Intended	- Summary of A	Environment
Table 3.3.2-12 Auxilian Component Intended	ary Systems	Material
Table 3.3.2-1. Component	2 Auxilia	Intended
	Table 3.3.2-1.	Component

Γ

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	Notes	A	A	A	A
or system	Table 1 Item	3.3.1.98	3.2.1.53	3.3.1.98	3.3.1.94
eneration in the second s	NUREG- 1801 Vol. 2 Item	VII.J-3	V.F-3	VII.J-18	VII.J-15
ni Evaluation – Diese	Aging Management Program	None	None	None	None
ging manageme	Aging Effect Requiring Management	None	None	None	None
 – Summary of A 	Environment	Dry Gas (Int)	Plant Indoor Air (Ext)	Dry Gas (Int)	Plant Indoor Air (Ext)
iry systems	Material	Copper Alloy	Copper Alloy	Stainless Steel	Stainless Steel
4 AUXIIIa	Intended Function	PB , SS	PB , SS	PB , SIA, SS	PB , SIA, SS
1 able 3.3.2-1	Component Type	Tubing	Tubing	Tubing	Tubing

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Table A4-1 License Renewal Commitments

Item #	Commitment	LRA Section	Implementation Schedule
60	PG&E will enhance provisions in the HVAC ducting from the 480V switchgear room that allow water to drain from the exhaust ducting so water cannot enter the 480V switchgear room.		Prior to the period of extended operation
61	PG&E will close the isolation valve upstream of the water traps and drain the traps in the compressed air system.		Prior to the period of extended operation
62	Implementation for all Unit 2 Diesel Generator Starting Air and Turbocharger Air Compressor upgrades is planned for April, 2011.		Prior to the period of extended operation