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PG&E Letter DCL-10-092

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20852

Docket No. 50-275, OL-DPR-80
Docket No. 50-323, OL-DPR-82
Diablo Canyon Units 1 and 2
Response to NRC Letter dated July 6, 2010, Request for Additional Information (Set 7) for the Diablo Canyon 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 (DCPP) Units 1 and 2, respectively. The application included the license renewal application (LRA), and Applicant's Environmental Report – Operating License Renewal Stage.

By letter dated July 6, 2010, the NRC staff requested additional information needed to continue their review of the DCPP LRA.

PG&E's response to the request for additional information is included in Enclosure 1. LRA Amendment 6, resulting from the responses, is included in Enclosure 2 showing the changed pages with line-in/line-out annotations.

PG&E makes no regulatory commitments (as defined in NEI 99-04) in this letter.

If you have any questions regarding this response, please contact Mr. Terence L. Grebel, License Renewal Project Manager, at (805) 545-4160.

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NRR

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

Executed on July 28, 2010.

Sincerely,

James R. Becker
Site Vice President

pns/50329484
Enclosure
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 Project Manager, Office of Nuclear Reactor Regulation

PG&E Response to Request for Additional Information For the Diablo Canyon License Renewal Application

RAI 2.3.3.12-1

License renewal boundary drawing LR-DCPP-18-106718-02 shows several fire water suppression systems associated with various transformers (e.g., main, auxiliary, and standby/startup transformers) as not within the scope of license renewal (i.e., not highlighted in green). Section 9.6.1 on page 9-8 of NUREG-0675, Supplement 8, "Safety Evaluation Report Related to the Operation of Diablo Canyon Nuclear Power Plant, Units 1 and 2," dated November 15, 1978, states that: "Special protection water system are provided for the fire hazards which exist in the areas around the plant. Examples of these are dry pipe deluge spray system for main transformers, auxiliary transformers...." The staff requests that the applicant verify that the fire water suppression systems associated with various transformers are in the scope of license renewal in accordance with 10 CFR 54.4(a) and subject to an aging management review (AMR) in accordance with 10 CFR 54.21(a)(1). If they are excluded from the scope of license renewal and not subject to an AMR, the staff requests that the applicant provide justification for the exclusion.

PG&E Response to RAI 2.3.3.12-1

Final Safety Analysis Report Section 9.5.1.2.4 indicates that water spray deluge systems are provided in the power block for the following:

1. Main transformers
2. Auxiliary transformers
3. Standby/startup transformers

These water spray deluge systems have been added to the scope of license renewal in accordance with 10 CFR 54.4(a)(3). See revised License Renewal Application Table 3.3.2-12.

RAI 2.3.3.12-2

License renewal boundary drawing LR-DCPP-18-106718-03 shows a jockey pump and its associated components as not within the scope of license renewal (i.e., not highlighted in green). The jockey pump and its associated components appear to have fire protection intended functions required for compliance with 10 CFR 50.48 as stated in 10 CFR 54.4. The staff requests that the applicant verify that the jockey pump and its associated components are in the scope of license renewal in accordance with 10 CFR 54.4(a) and subject to an AMR in accordance with 10 CFR 54.21(a)(1). If they are excluded from the scope of license renewal and not subject to an AMR, the staff requests that the applicant provide justification for the exclusion.

PG&E Response to RAI 2.3.3.12-2

The jockey pumps, which are depicted on license renewal boundary drawing LR-DCPP-18-106718-03, are associated with pressurizing the Patton Flats south fire water loop that is not within the scope of license renewal. Therefore, the jockey pumps have no intended function and are not within the scope of license renewal.

RAI 2.3.3.12-3

The following license renewal boundary drawings show the following fire protection systems/components as not within the scope of license renewal (i.e., not highlighted in green):

LRA Drawing	*Systems/Components*	*Location*
LR-DCPP-18-106718-07	*Fire protection piping, valves, hose connections, and drains*	*Units 1 and 2 Containment Structure*
LR-DCPP-18-106718-08	*Fire water drains*	*Unit 1 Turbine Building*
LR-DCPP-18-106718-09	*Fire water drains*	*Unit 2 Turbine Building*
LR-DCPP-18-106718-11	*A portion of the carbon dioxide (CO_2) fire suppression system*	*A114 and B115*
LR-DCPP-18-106718-16	*Fire hose connections FW-3-11-1, FW-3-12-1, FW-3-13-2, and FW-3-14-2*	*Intake Structure*

The components listed above appear to have fire protection intended functions required for compliance with 10 CFR 50.48 as stated in 10 CFR 54.4. The staff requests that the applicant verify whether the fire protection systems/components listed above are within the scope of license renewal in accordance with 10 CFR 54.4(a) and whether they are subject to an AMR in accordance with 10 CFR 54.21(a)(1). If they are excluded from the scope of license renewal and are not subject to an AMR, the staff requests that the applicant provide justification for the exclusion.

PG&E Response to RAI 2.3.3.12-3

Diablo Canyon Power Plant (DCPP) has reviewed the portions of the fire suppression systems not highlighted in green on above listed boundary drawings and has concluded as follows:

On License Renewal Application (LRA) Drawing LR-DCPP-18-106718-07, the fire protection piping, valves, hose connections, and drains described in Request for Additional Information (RAI) 2.3.3.12-3 as located in Units 1 and 2 containment structures are actually located in the Units 1 and 2 turbine building. Therefore, the components shown on LR-DCPP-18-106718-07, that are not highlighted in green, have no fire protection function and are not within the scope of license renewal.

On LRA Drawing LR-DCPP-18-106718-08, Rev 1, the fire water drains described in RAI 2.3.3.12-3 as located in the Unit 1 turbine building, and not highlighted in green, are not needed for fire protection piping to perform its intended function. Therefore, they are not within the scope of license renewal. In areas within the turbine building where there is no possibility of spatial interaction with safety-related components, fire water drain piping performs no license renewal intended function and is therefore not within the scope of license renewal. Fire water drain valves are within the scope of license renewal only if they are connected to in-scope fire water piping.

On LRA Drawing LR-DCPP-18-106718-09, Rev 1, the fire water drains described in RAI 2.3.3.12-3 as located in the Unit 2 turbine building, and not highlighted in green, are not needed for fire protection piping to perform its intended function. Therefore, they are not within the scope of license renewal. In areas within the turbine building where there is no possibility of spatial interaction with safety-related components, fire water drain piping performs no license renewal intended function and is therefore not within the scope of license renewal. Fire water drain valves are within the scope of license renewal only if they are connected to in-scope fire water piping.

On LRA Drawing LR-DCPP-18-106718-11, a portion of the carbon dioxide (CO_2) fire suppression system described in RAI 2.3.3.12-3 as shown at coordinates A114 and B115, and not highlighted in green, is used for main generator purge, which is not a fire protection function. The CO_2 system has an interconnection between fire protection and main generator purge sub-systems and is isolated from the fire protection system by valve 0-83 at drawing coordinate B-112. Therefore, this portion of the CO_2 system is not within the scope of license renewal.

On LRA Drawing LR-DCPP-18-106718-16, Rev 1, Fire hose connections FW-3-11-1, FW-3-12-1, FW-3-13-2, and FW-3-14-2 described in RAI 2.3.3.12-3 as located in the intake structure, and that are not highlighted in green, do perform a fire protection intended function and are therefore within the scope of license renewal. The boundary drawing has been revised (Rev 1) and by letter dated June 18, 2010, the questioned components have been included within the scope of license renewal, and an aging evaluation has been completed.

RAI 2.3.3.12-4

License renewal boundary drawing LR-DCPP-18-106718-12 shows Units 1 and 2 CO2 fire hose reels highlighted as within the scope of license renewal for the following areas:

- *Vital 4 kV Bus "F," Elevation 119'*
- *Exciter Field Breaker Room, Elevation 119'*
- *ISO Phase Bus Room, Elevation 107'*
- *4kV Vital Cable Spreading Room, Elevation 107'*
- *4 & 12 kV Switchgear Room, Elevation 85'*

However, Final Safety Analysis Report, Section 2.5.1.2.6.1, "Low Pressure CO2," states that manually initiated low-pressure CO2 hose reels of 100 foot length are provided only for the following areas:

- *12 kV Switchgear Rooms*
- *4.16 kV Switchgear Rooms*
- *4.16 kV Cable Spreading Rooms*
- *25 kV Potential Transformer Area*
- *480 V Switchgear Room*
- *125 Vdc Battery and Inverter Rooms*
- *Electric Load Center Room*

The staff requests that the applicant clarify this discrepancy.

PG&E Response to RAI 2.3.3.12-4

RAI 2.3.3.12-4 requests clarification of an apparent discrepancy between Units 1 and 2 Carbon Dioxide (CO_2) fire hose reel locations highlighted on license renewal boundary drawing LR-DCPP-18-106718-12 (as within the scope of license renewal) and the Final Safety Analysis Report (FSAR) description of the CO_2 fire hose reel locations.

FSAR Section 9.5.1.2.6.1, "Low Pressure CO_2," states that manually initiated low-pressure CO_2 hose reels of 100 foot length are provided for the following areas:

- 12kV Switchgear Rooms
- 4.16kV Switchgear Rooms
- 4.16kV Cable Spreading Rooms
- 25kV Potential Transformer Area
- 480V Switchgear Room
- 125 Vdc Battery and Inverter Rooms
- Electric Load Center Room

There are multiple CO_2 hose reels that can reach the areas listed in the FSAR. Some of these hose reels provide protection for areas beyond those in which the hose reels are located. The reels are typically arranged (with the exception of the 12KV switchgear room) in diagonally opposite areas for the covered areas listed in the FSAR. CO_2 hose reels are located in or immediately adjacent to the areas listed in the FSAR as follows:

CO_2 Hose Reel Location	**FSAR Referenced Area Covered By a CO_2 Hose Reel**
Vital 4kV Bus "F," Elevation 119'	4.16kV Switchgear Rooms
Exciter Field Breaker Room, Elevation 119'	4.16kV Switchgear Rooms
ISO Phase Bus Room, Elevation 107'	4.16kV Cable Spreading Rooms
4kV Vital Cable Spreading Room, Elevation 107'	4.16kV Cable Spreading Rooms
4kV and 12kV Switchgear Room, Elevation 85'	Non Vital 4kV and12kV switchgear Room
PPC Inverter Room (Unit 1 West Side) 115'	125 Vdc Battery and Inverter Rooms
Rod Control Room (Unit 1 East Side) 115'	125 Vdc Battery and Inverter Rooms
PPC Inverter Room (Unit 2 West Side)115'	125 Vdc Battery and Inverter Rooms
Unit 1 480V nonvital Switchgear room (east Side) 100'	480V Switchgear Room Electric Load Center Room
Unit 2 Hot Shutdown Panel (West Side) 100'	480V Switchgear Room Electric Load Center Room

RAI 2.4-1

Section 2.4 of the LRA does not include the following fire barrier and other fire protection components:

- *Table 2.4-1, fire barrier seals*
- *Table 2.4-3, fire barrier coatings and wraps*
- *Table 2.4-7, fire barrier coatings*
- *Table 2.4-8, fire barrier coatings*
- *Table 2.4-9, fire barrier coatings*
- *Table 2.4-10, fire barrier seals and fire barrier coatings*

The fire barrier components listed above appear to have fire protection intended functions required for compliance with 10 CFR 50.48 as stated in 10 CFR 54.4. The staff requests that the applicant verify whether the above fire barrier assemblies and fire protection components are within the scope of license renewal within the identified structure accordance with 10 CFR 54.4(a) and subject to an AMR in accordance with 10 CFR 54.21(a)(1). If they are excluded from the scope of license renewal and not subject to an AMR, the staff requests that the applicant provide justification for the exclusion.

PG&E Response to RAI 2.4-1

Table 2.4-1, fire barrier seals:

There are no fire barrier seals within the scope of license renewal and subject to an aging management review (AMR) in the containment building. The Diablo Canyon Power Plant (DCPP) Final Safety Analysis Report (FSAR), Appendix 9.5A, "Fire Hazards Analysis," describes the fire protection evaluation for the containment building as Fire Areas 1 and 9. This evaluation documents no fire barrier seals as being credited for performing a fire barrier function in the containment building.

Table 2.4-3, fire barrier coatings and wraps:

Fire barrier coatings and wraps are within the scope of license renewal and subject to an AMR in the auxiliary building. Component type fire barrier coatings/wraps have been added to License Renewal Application (LRA) Table 2.4-3, Section 3.5.2.1.3, and Table 3.5.2-3. See revised LRA Section 3.5.2.1.3, Tables 2.4-3 and 3.5.2-3 in Enclosure 2.

Table 2.4-7, fire barrier coatings:

There are no fire barrier coatings within the scope of license renewal and subject to an AMR in the diesel fuel oil pump vaults and structures. The DCPP FSAR, Appendix 9.5A, "Fire Hazards Analysis," describes the fire protection evaluation for the diesel fuel oil pump vaults and structures as Fire Areas 35-A and 35-B. This evaluation documents no fire barrier coatings as being credited for performing a fire barrier function in the diesel fuel oil pump vaults and structures.

Table 2.4-8, fire barrier coatings:

There are no fire barrier coatings within the scope of license renewal and subject to an AMR in the 230kV Switchyard, 500kV Switchyard, and electrical foundations and structures. The DCPP FSAR, Appendix 9.5A, "Fire Hazards Analysis," describes the fire protection evaluation for the 230kV switchyard, 500kV switchyard, and electrical foundations and structures as Fire Areas 28 and 29. This evaluation documents no fire barrier coatings as being credited for performing a fire barrier function in the 230kV switchyard, 500kV switchyard, and electrical foundations and structures.

Table 2.4-9, fire barrier coatings:

There are no fire barrier coatings within the scope of license renewal and subject to an AMR in the fuel handling building (FHB). The DCPP FSAR, Appendix 9.5A, "Fire Hazards Analysis," describes the fire protection evaluation for the FHB as Fire Areas (Zones) 3-Q-1 (All), AB-1 (Zone 3-Q-2), FB-1 (Zone 31), V-1 (Zone 3-P-3), 3-T-1 (All), AB-1 (Zone 3-T-2), and FB-2 (Zone 32). This evaluation documents no fire barrier coatings as being credited for performing a fire barrier function in the FHB.

Table 2.4-10, fire barrier seals and fire barrier coatings:

There are no fire barrier seals or fire barrier coatings within the scope of license renewal and subject to an AMR in the intake structure and intake control building. The DCPP FSAR, Appendix 9.5A, "Fire Hazards Analysis," describes the fire protection evaluation for the intake structure and intake control building as Fire Areas 30-A-1, 30-A-2, 30-A-3, 30-A-4, and IS-1 (Zone 30-A-5). This evaluation documents no fire barrier seals or fire barrier coatings as being credited for performing a fire barrier function in the intake structure and intake control building.

LRA Amendment 6

LRA Section	RAI
Section 3.5.2.1.3	2.4-1
Table 2.4-3	2.4-1
Table 3.3.2-12	2.3.3.12-1
Table 3.5.2-3	2.4-1

3.5.2.1.3 Auxiliary Building

Materials

The materials of construction for the auxiliary building component types are:

- Fire Barrier (Cementitious Coating)

Table 2.4-3 Auxiliary Building

Component Type	Intended Function
Fire Barrier Coatings & Wraps	Fire Barrier

Table 3.3.2-12 Auxiliary Systems – Summary of Aging Management Evaluation – Fire Protection System (Continued)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Vol. 2 Item	Table 1 Item	Notes
Hose Station	PB	Carbon Steel	Atmosphere/ Weather (Ext)	Loss of Material	External Surfaces Monitoring Program (B2.1.20)	VII.I-9	3.3.1.58	B
Spray Nozzle	SP	Carbon Steel	Atmosphere/ Weather (Int)	Loss of Material	External Surfaces Monitoring Program (B2.1.20)	VII.I-8	3.3.1.58	B
Spray Nozzle	SP	Carbon Steel	Atmosphere/ Weather (Ext)	Loss of Material	External Surfaces Monitoring Program (B2.1.20)	VII.I-8	3.3.1.58	B
Strainer	PB	Cast Iron	Plant Indoor Air (Ext)	Loss of Material	External Surfaces Monitoring Program (B2.1.20)	VII.I-8	3.3.1.58	B
Strainer	PB	Cast Iron	Raw Water (Int)	Loss of Material	Fire Water System (B2.1.13)	VII.G-24	3.3.1.68	B

Table 3.5.2-3 Containments, Structures, and Component Supports – Summary of Aging Management Evaluation - Auxiliary Building (Continued)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Vol. 2 Item	Table 1 Item	Notes
Fire Barrier Coating & Wraps	FB	Fire Barrier – Cementitious Coating	Plant Indoor Air (Structural) (Ext)	Loss of material, cracking	Fire Protection (B2.1.12)	None	None	J