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March 25, 2011

PG&E Letter DCL-11-021

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
Pacific Gas and Electric Company Comments on the Safety Evaluation Report with
Open Items Related to the Diablo Canyon Power Plant License Renewal

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 January 10, 2011, the NRC staff provided PG&E with the "Safety Evaluation Report With Open Items Related to the License Renewal of the Diablo Canyon Nuclear Power Plant, Units 1 and 2" (SER). The staff requested that PG&E review the SER and verify its accuracy.

Enclosure 1 contains PG&E's technical comments and Enclosure 2 contains PG&E's editorial comments. The enclosures contain references to the SER, the related comment, and a recommended resolution for staff consideration.

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

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



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

Executed on March 25, 2011.

Sincerely,

James R. Becker
Site Vice President

gwh/50369777

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 Manager

**Pacific Gas and Electric Company Comments on the Safety Evaluation Report
 With Open Items Related to the License Renewal of Diablo Canyon Power Plant, Units 1 and 2**

| SER Page | SER Section | Comment | Suggested Resolution |
|----------|-------------|---|---|
| 1-7 | 1.4 | Open Item 3.0.3.2.12-1: In the last sentence, the OI refers to SER Section 3.0.3.2.12 instead of SER Section 3.0.3.1.12. The OI number should be 3.0.3.1.12-1. | Revise the OI number to 3.0.3.1.12-1 and the reference to 3.0.3.1.12. |
| 1-7 | 1.5 | The last sentence for Open Item 2.1-1 should refer to SER Section 2.3.3.19, since 2.3.3.19 refers back to Open Item 2.1-1. | Revise the 1st paragraph, last sentence of the paragraph for Open Item 2.1-1 to read: "See SER Sections 2.1.4.1.2; 2.3, 2.3.3.7; and <u>2.3.3.19.</u> " |
| 1-10 | 1.5 | 1st sentence in RAI 4.3-13 states: "The staff noted that the applicant dispositioned the CUF values for the 2009 replacement Unit 2 upper reactor vessel (RV) closure head components, and its control rod driver mechanism (CRDM)..." Change "driver mechanism" to "drive mechanism" per SER, page xv, Abbreviations. | Revise 1st sentence in RAI 4.3-13 to read: "The staff noted that the applicant dispositioned the CUF values for the 2009 replacement Unit 2 upper reactor vessel (RV) closure head components, and its control rod <u>drive driver</u> mechanism (CRDM)..." |
| 2-27 | 2.1.4.5.2 | Change "P&ID" to "OVIDs", which are highlighted for Boundary Drawings. See LRA Section 2.1.3.1. | Replace "system piping and instrumentation diagrams (P&IDs)" with "Operating Valve Identification Diagrams (OVIDs)" |
| 2-31 | 2.1.5.2.2 | Last paragraph: Change "P&ID" to "OVIDs", which are highlighted for Boundary Drawings. See LRA Section 2.1.3.1. | Replace "P&IDs" with "OVIDs" |

| SER Page | SER Section | Comment | Suggested Resolution |
|----------|-------------|---|---|
| 2-32 | 2.1.5.2.2 | 1st paragraph: Change "P&IDs" to "OVIDs", which are highlighted for Boundary Drawings. See LRA Section 2.1.3.1. | Replace "P&IDs" with "OVIDs" |
| 2-45 | 2.3.1.1.1 | 1st paragraph, 6th sentence states: "The vessel is supported by pads on the bottom of each of these six nozzles." LRA Section 2.3.1.1 states that the vessel is nozzle supported. Per FSAR Figures 5.4.1 and 5.4.2, the reactor vessel is supported by two inlet nozzles and two outlet nozzles. | To be consistent with LRA Section 2.3.1.1, revise the sentence to read: "The vessel is <u>nozzle</u> supported by pads on the bottom of each of these six nozzles. " |
| 2-46 | 2.3.1.2.1 | 1st paragraph, last sentence, states: "A reactor head vent system is provided for the removal of non-condensable gases and for additional letdown capability from the RCS." This function is not consistent with LRA Section 2.3.1.2. The reactor head vent system does not provide letdown capability for RCS. | Recommend revising the last sentence of the 1st paragraph to read: "A reactor vessel head vent system is provided for the removal of non-condensable gases and for additional letdown capability from the RCS. " |
| 2-46 | 2.3.1.2.1 | 2nd paragraph: The intended functions listed includes: "provides for ... additional letdown capability from the RCS using the reactor vessel head vent system." This intended function is not consistent with LRA Section 2.3.1.2. The system intended function does not provide for additional letdown capability from the RCS using the reactor vessel head vent system. | Revise system intended function to read: "provides for the removal of non-condensable gases and for additional letdown capability from the RCS using the reactor vessel head vent system. " |

| SER Page | SER Section | Comment | Suggested Resolution |
|----------|-------------|--|---|
| 2-53 | 2.3.2.4.1 | <p>1st paragraph, states: "LRA Section 2.3.3.4 describes the containment heating, ventilation, and air conditioning..."</p> <p>Change LRA Section 2.3.3.4 to LRA Section 2.3.2.4.</p> <p>3rd paragraph, last sentence, states: "LRA Table 2.3.3-4 lists containment HVAC system component types subject to an AMR"</p> <p>Change LRA Table 2.3.3-4 to LRA Table 2.3.2-4.</p> | <p>Revise 1st paragraph to read: "LRA Section <u>2.3.2.4</u> 2.3.3.4 describes the containment heating, ventilation, and air conditioning..."</p> <p>Revise the 3rd paragraph, last sentence, to read: "LRA Table <u>2.3.2-4</u> 2.3.3-4 lists containment HVAC system component types subject to an AMR"</p> |
| 2-60 | 2.3.3.5.2 | <p>1st sentence in the 3rd complete paragraph, states: "In its supplemental response dated October 27, 2010, the applicant indicated that design changes were made to the fire water storage and transfer tank to eliminate reliance on them for additional feedwater supply."</p> <p>In response to RAI 2.3.3.5-1, PG&E Letter DCL-10-133, dated October 27, 2010, states that the design changes were made to the condensate storage tank to eliminate reliance on the firewater storage tank for additional feedwater supply.</p> | <p>Revise the 1st sentence in the 3rd paragraph to read: "In its supplemental response dated October 27, 2010, the applicant indicated that design changes were made to the <u>condensate storage tanks</u> fire water storage and transfer tank to eliminate reliance on <u>the firewater storage tank</u> them for additional <u>seismically-qualified</u> feedwater supply."</p> |

| SER Page | SER Section | Comment | Suggested Resolution |
|----------|-------------|--|--|
| 2-60 | 2.3.3.5.2 | <p>Last paragraph, 1st sentence, states: "In a letter dated August 17, 2010, the applicant responded by discussing the internal plenums that it installed for all nonsafety-related CST connections to maintain safety-related inventory in the CST."</p> <p>Per PG&E Letter DCL-10-104, dated August 17, 2010, plenums were installed around any nonseismically qualified CST connections in the usable volume region</p> | <p>Revise the last paragraph, 1st sentence, to read: "In a letter dated August 17, 2010, the applicant responded by discussing the internal plenums that it installed for <u>any all nonseismically qualified nonsafety-related CST connections in the usable volume region</u> to maintain safety-related inventory in the CST."</p> |
| 2-61 | 2.3.3.5.2 | <p>3rd and 4th full paragraph, states: "Based on its review, the staff finds the applicant's response to RAI 2.3.3.5-3 acceptable. The staff confirmed that the applicant added the piping attached to the reservoirs into the scope for license renewal and revised the license renewal boundary drawing for makeup water system to reflect the in-scope piping. Therefore, the staff's concern described in RAI 2.3.3.5-3 is resolved."</p> <p>The SER should be clarified. The RAI pertained to piping at location 112-C (LR-DCPP-16-106716-11), which was not added in scope because the components at location 112-C did not penetrate the reservoir. The piping added in scope was the long-term cooling flow path using the portable firewater pump at location 114-A (LR-DCPP-16-106716-11).</p> | <p>Revise the 4th full paragraph to read: "Based on its review, the staff finds the applicant's response to RAI 2.3.3.5-3 acceptable. The staff confirmed that the applicant added <u>the long term cooling flow path using the portable firewater pump at location 114-A (LR-DCPP-16-106716-11)</u>. <u>The piping at location 112-C was not added in scope because the components at location 112-C did not penetrate the reservoir</u>. Therefore, the staff's concern described in RAI 2.3.3.5-3 is resolved."</p> |

| SER Page | SER Section | Comment | Suggested Resolution |
|----------|-------------|--|---|
| 2-90 | 2.3.4.3.1 | 1st paragraph, 3rd sentence: Add the word "support" after the word system". | Revise sentence to read: "In addition, portions of the system <u>support</u> fire protection, EQ, and SBO requirements." |
| 2-106 | 2.4.13.1 | 1st paragraph, 2nd sentence, reads: "There are two RWSTs and two CSTs, one for unit of the plant." Add the word "each" before the word "unit" in the 2nd sentence. (Refer to LRA Section 2.4.13) | Revise 2nd sentence in 1st paragraph of section 2.4.13.1 to read: "There are two RWSTs and two CSTs, one for <u>each</u> unit of the plant." |
| 3-22 | 3.0.3.1.6 | <p>Operating Experience, 1st paragraph, last sentence, states: " The applicant included the following as part of the operating experience: All degradation indications to date are from wear (fretting) due to loose parts, tube supports, anti-vibration bars, and manufacturing or handling anomalies. The tubing and secondary internals in these units are <u>not susceptible</u> to corrosion due to advanced material design."</p> <p>This does not reflect the change made in PG&E Letter DCL-10-073, dated July 7, 2010.</p> | Revise the 1st paragraph, last sentence, to read: "The applicant included the following as part of the operating experience: All degradation indications to date are from wear (fretting) due to loose parts, tube supports, anti-vibration bars, and manufacturing or handling anomalies. The tubing and secondary internals in these units are <u>not susceptible more resistant</u> to corrosion due to advanced material design." |
| 3-29 | 3.0.3.1.9 | <p>(5) This section states: "Units 1 and 2 both have several capsules with low lead factors that will remain in the RV during the period of extended operation."</p> <p>This statement is inconsistent with the SER, page 3-30, 2nd paragraph, last sentence, which states: "No capsules will remain in the RV during the period of extended operation." The 2nd paragraph discusses Unit 2.</p> | <p>(5) Change sentence to read:</p> <p>"Units 1 and 2 both have <u>has</u> several capsules with low lead factors that will remain in the RV during the period of extended operation."</p> |

| SER Page | SER Section | Comment | Suggested Resolution |
|----------|-------------|---|---|
| 3-29 | 3.0.3.1.9 | <p>Last paragraph on page, 3rd and 4th sentences, state: "By letter dated August 26, 2010, the staff issued RAI B2.1.15-1..." "In its September 1, 2010, response, the applicant..."</p> <p>The dates do not appear to be correct. The RAI was issued on July 20, 2010, and the response was sent August 17, 2010. Refer to PG&E Letter DCL-10-100.</p> | <p>Change 3rd sentence as follows: "By letter dated August 26 <u>July 20, 2010</u>, the staff issued RAI B2.1.15-1..."</p> <p>Change 4th sentence as follows: "In its September 22 <u>August 17, 2010</u>, response, the applicant clarified that four surveillance capsules..."</p> |
| 3-36 | 3.0.3.1.11 | <p>FSAR Supplement, 1st paragraph, last sentence, states: "The staff also noted that the applicant committed (Commitment No. 6) to implement the new Selective Leaching of Materials Program prior to entering the period of extended operation for managing aging of applicable components:"</p> <p>PG&E Letter DCL-10-164, dated December 13, 2010, states that the implementation schedule for the Selective Leaching of Materials Program is "5 years prior to the period of extended operation."</p> | <p>Revise FSAR Supplement, 1st paragraph, last sentence, to read: "The staff also noted that the applicant committed (Commitment 6) to implement the new Selective Leaching of Materials Program <u>during the 5 years</u> prior to entering the period of extended operation for managing aging of applicable components."</p> |
| 3-39 | 3.0.3.1.12 | <p>Last paragraph, 2nd sentence, states: "...the staff noted that the tube developed a leak within three months of returning to power operations during Unit 2 Operating Cycle 14."</p> <p>Other references to the leak in this section correctly state: "...within 4 months..."</p> | <p>Revise last paragraph, 2nd sentence to state: "...the staff noted that the tube developed a leak within three <u>four</u> months of returning to power operations during Unit 2 Operating Cycle 14."</p> |

| SER Page | SER Section | Comment | Suggested Resolution |
|----------|-------------|---|--|
| 3-64 | 3.0.3.1.20 | <p>SER, under Summary of Technical Information in the Application, 2nd sentence, states: "The applicant stated that the EQ of Electrical Components Program manages component thermal, radiation, and cyclic aging through use of aging evaluations based on the methods noted in 10 CFR 50.49(f) and RG 1.89 Revision 1."</p> <p>LRA Section B3.2 states that evaluations are based on 10 CFR 50.49(f) qualification methods. DCPPEQ program considers but is not committed RG 1.89 Revision for qualification of new and replacement equipment installed since the promulgation of the Guide.</p> | <p>Revise SER, under Summary of Technical Information in the Application, 2nd sentence, to read: "The applicant stated that the EQ of Electrical Components Program manages component thermal, radiation, and cyclic aging through use of aging evaluations based on the methods noted in 10 CFR 50.49(f) and RG 1.89 Revision 1.</p> |
| 3-84 | 3.0.3.2.4 | <p>The SER states: "<u>Exception 5.</u> LRA Section B2.1.10 states an exception to the 'preventive actions,' 'parameters monitored or inspected,' 'detection of aging affects,' 'monitoring and trending,' and 'acceptance criteria' program elements."</p> <p>The SER does not list "Corrective Actions" as an exception whereas LRA Section B2.1.10 lists "Corrective Actions" as an exception.</p> | <p>Revise sentence to read:</p> <p><u>Exception 5.</u> LRA Section B2.1.10 states an exception to the 'preventive actions,' 'parameters monitored or inspected,' 'detection of aging affects,' 'monitoring and trending,' '<u>corrective actions.</u>' and 'acceptance criteria' program elements.</p> |

| SER Page | SER Section | Comment | Suggested Resolution |
|----------|-------------|--|---|
| 3-90 | 3.0.3.2.5 | <p>FSAR Supplement, 4th sentence, states: "The staff further noted that the applicant committed (Commitment No. 2) to enhance the Fire Protection Program procedures to include inspections for all fire-rated doors and qualifications for personnel performing fire damper and fire door inspections prior to entering the period of extended operation."</p> <p>This is inconsistent with LRA Table A4-1, Commitment 2.</p> | <p>Revise FSAR Supplement, 4th sentence, to read: "The staff further noted that the applicant committed (Commitment No. 2) to enhance the Fire Protection Program procedures to include inspections for all fire-rated doors <u>listed in the DCPP Fire Hazards Analysis</u> and qualification <u>criteria</u> for personnel performing fire damper and fire door inspections prior to entering the period of extended operation</p> |

| SER Page | SER Section | Comment | Suggested Resolution |
|----------|-------------|---|--|
| 3-94 | 3.0.3.2.6 | <p>FSAR Supplement, 1st paragraph, states: "Specifically, the applicant committed to perform sprinkler head testing or replacement in accordance with NFPA 25; to enhance the program procedures to include either periodic, non-intrusive volumetric examinations, or visual inspections of fire water piping; and to enhance the program procedures to state trending requirements.</p> <p>This is inconsistent with LRA Table A4-1, Commitment 3.</p> | <p>Add the underlined wording to the FSAR Supplement, 1st paragraph:</p> <p><u>"Specifically, the applicant committed to perform sprinkler head testing or replacement in accordance with NFPA 25; to enhance the program procedures to include either periodic, non-intrusive volumetric examinations, or visual inspections of fire water piping; and to enhance the program procedures to state trending requirements enhance the Fire Water System program:</u></p> <p><u>Sprinkler heads in service for 50 years will be replaced or representative samples from one or more sample areas will be tested consistent with NFPA 25, Inspection, Testing and Maintenance of Water-Based Fire Protection Systems guidance. Test procedures will be repeated at 10-year intervals during the period of extended operation, for sprinkler heads that were not replaced prior to being in service for 50 years, to ensure that signs of degradation, such as corrosion, are detected prior to the loss of intended function, and</u></p> <p><u>For either periodic, non-intrusive volumetric examinations, or visual inspections on firewater piping. Non-intrusive volumetric examinations would detect any loss of material due to corrosion to ensure that aging effects are managed, wall thickness is within acceptable limits and degradation would be detected before the loss of intended function. Visual</u></p> |

| SER Page | SER Section | Comment | Suggested Resolution |
|----------|-------------|--|---|
| | | | <p><u>inspections would evaluate (1) wall thickness as it applies to avoidance of catastrophic failure, and (2) the inner diameter of the piping as it applies to the design flow of the fire protection system.</u></p> <p><u>The volumetric examination technique employed will be one that is generally accepted in the industry, such as ultrasonic or eddy current, and to state trending requirements</u></p> |
| 3-95 | 3.0.3.2.7 | <p>Summary of Technical Information in the Application, 1st paragraph, 13th line, states: "...ultrasonic wall thickness measurements of the fuel oil storage tanks if there are indications of reduced cross sectional thickness found during the visual inspection..."</p> <p>The SER is not consistent with LRA Section B2.1.14, Program description part (d).</p> | <p>Revise Summary of Technical Information in the Application, 1st paragraph, 13th line, to state: "...<u>one-time</u> ultrasonic wall thickness measurements of the <u>accessible portions</u> of fuel oil storage-tanks <u>bottoms</u> if there are indications of reduced cross sectional thickness found during the visual inspection..."</p> |

| SER Page | SER Section | Comment | Suggested Resolution |
|----------|-------------|--|---|
| 3-96 | 3.0.3.2.7 | <p>Exception 2, 3rd sentence, states: "The applicant stated that it does not remove water from the portable diesel driven fire pump fuel oil tanks and the portable caddy fuel oil tanks, as they are small tanks that do not have provisions to remove water from the tank bottoms."</p> <p>The SER does not address the fuel oil pump head tanks.</p> <p>LRA Section B2.1.14, <i>Preventive Actions – Element 2 and Monitoring and Trending – Element 5</i>, second sentence, states: "Water is not removed from the portable diesel driven fire pump fuel oil tanks, portable caddy fuel oil tanks, or the fuel oil pump head tanks."</p> | <p>Revise SER Exception 2, 3rd sentence, to read: "The applicant stated that it does not remove water from the portable diesel driven fire pump fuel oil tanks, <u>and the portable caddy fuel oil tanks, or the fuel oil pump head tanks</u> as they are small tanks that do not have provisions to remove water from the tank bottoms."</p> |

| SER Page | SER Section | Comment | Suggested Resolution |
|----------|-------------|--|--|
| 3-96 | 3.0.3.2.7 | <p>Exception 3 as stated in the SER is consistent with LRA Section B2.1.14, Parameters Monitored or Inspected – Element 3, first paragraph.</p> <p>Exception 3 does not address LRA Section B2.1.14, Parameters Monitored or Inspected – Element 3, second paragraph. The fuel oil pump head tanks will not be analyzed for particulate concentration.</p> | <p>Add the following to Exception 3, prior to the last sentence:</p> <p><u>"The applicant stated the fuel oil in the fuel oil pump head tanks will not be analyzed for particulate concentration since the fuel oil in the fuel oil pump head tanks is replenished with fuel oil from the day tanks on a daily cycle. The applicant further stated that provisions do not exist to sample for particulates directly from the fuel oil pump head tanks. The fuel oil pump head tanks are filled with fuel oil from the fuel oil day tanks. The fuel oil from the diesel fuel oil day tanks is analyzed quarterly for total particulate contamination in accordance with ASTM D2276 using the limits specified in the DCPD Technical Specifications. The applicant further stated that frequent addition of fuel oil and the absence of elevated levels of particulates from the fuel supply assure that high levels of particulates are not being introduced into or accumulating in the fuel oil pump head tanks."</u></p> |

| SER Page | SER Section | Comment | Suggested Resolution |
|----------|-------------|--|--|
| 3-96 | 3.0.3.2.7 | <p>Exception 2, 3rd sentence, states: "The applicant stated that it does not remove water from the portable diesel driven fire pump fuel oil tanks and the portable caddy fuel oil tanks, as they are small tanks that do not have provisions to remove water from the tank bottoms."</p> <p>The SER does not address the fuel oil pump head tanks.</p> <p>LRA Section B2.1.14, <i>Preventive Actions – Element 2 and Monitoring and Trending – Element 5</i>, second sentence, states: "Water is not removed from the portable diesel driven fire pump fuel oil tanks, portable caddy fuel oil tanks, or the fuel oil pump head tanks."</p> | <p>Revise SER Exception 2, 3rd sentence, as follows: "The applicant stated that it does not remove water from the portable diesel driven fire pump fuel oil tanks, and the portable caddy fuel oil tanks, or the fuel oil pump head tanks as they are small tanks that do not have provisions to remove water from the tank bottoms."</p> |
| 3-96 | 3.0.3.2.7 | <p>SER Exception 4 does not mention that the fuel oil pump head tanks have no provisions to take sample directly from the head tanks. Refer to LRA Section B2.1.14, <i>Parameters Monitored or Inspected – Element 3 and Detection of Aging Effects – Element 4</i>, second paragraph.</p> | <p>Add the following to SER Exception 4: <u>"Provisions do not exist to take samples directly from the fuel oil pump head tanks. The fuel oil pump head tanks are filled with fuel oil from the fuel oil day tanks. The samples taken from the fuel oil day tanks are taken in accordance with ASTM D4057, with the exception of the portable diesel driven fire pump fuel oil tanks, fuel oil pump head tanks, and the portable caddy fuel oil tanks."</u></p> |

| SER Page | SER Section | Comment | Suggested Resolution |
|----------|-------------|---|--|
| 3-100 | 3.0.3.2.7 | <p>FSAR Supplement, 3rd bullet, states: "provide for supplemental UT thickness measurements if there are indications of reduced cross sectional thickness found during the visual inspection of the diesel fuel oil storage tanks, diesel generator day tanks, portable diesel-driven fire pump fuel oil tanks, and portable caddy fuel oil tanks."</p> <p>The bullet is not consistent with amended Commitment 4 in PG&E Letter DCL-10-096, dated August 12, 2010.</p> | <p>Change 3rd bullet to reflect amended Commitment 4 in PG&E Letter DCL-10-096, which states:</p> <p>"provide for <u>one-time</u> supplemental UT thickness measurements of <u>accessible portions of fuel oil tank bottoms.</u>" if there are indications of reduced cross-sectional thickness found during the visual inspection of the diesel fuel oil storage tanks, diesel generator day tanks, portable diesel-driven fire pump fuel oil tanks, and portable caddy fuel oil tanks."</p> |
| 3-103 | 3.0.3.2.8 | <p>2nd paragraph, 1st bullet, reads: "The inlet piping for the auxiliary saltwater system has cathodic protection installed on its entire length or it is encased in the concrete floor of the turbine building."</p> <p>The wording does not reflect PG&E Letter DCL-10-148.</p> | <p>Align the SER wording with PG&E Letter DCL-10-148 by revising the 1st bullet to state:</p> <p>"The inlet piping for the auxiliary saltwater system has cathodic protection installed on its entire length <u>in contact with soil.</u> The segments or it is encased in the concrete floor of the turbine building <u>do not have cathodic protection.</u>"</p> |
| 3-104 | 3.0.3.2.8 | <p>FSAR Supplement, 3rd sentence, states: "The staff also noted that the applicant committed (Commitment No. 7) to implement the new Buried Piping and Tanks Inspection Program prior to entering the period of extended operation for managing aging of applicable components."</p> <p>LRA Table A4-1, Commitment 7, indicates that the Buried Piping and Tanks Inspection Program will be implemented during the 10 years prior to the period of extended operation.</p> | <p>Revised FSAR Supplement, 3rd sentence, to read: "The staff also noted that the applicant committed (Commitment No. 7) to implement the new Buried Piping and Tanks Inspection Program <u>during the 10 years</u> prior to entering the period of extended operation for managing aging of applicable components."</p> |

| SER Page | SER Section | Comment | Suggested Resolution |
|----------|-------------|---|--|
| 3-106 | 3.0.3.2.9 | <p>In the final paragraph on the page, 3rd line down, the SER states: "By letter dated December 13, 2010, the applicant supplemented its response to RAI B2.1.19-2 and stated that it will volumetrically examine 10 percent, with a maximum of 25, socket welds and 10 percent, with a maximum of 25, butt welds within the population of ASME Code Class 1 small-bore piping in each unit."</p> <p>PG&E Letter DCL-10-146, dated November 24, 2010, states: "Diablo Canyon Power Plant (DCPP) will volumetrically examine 10%, with a maximum of 25, of the small bore socket welds and 10%, with a maximum of 25, of the butt welds within the population of ASME Class-1 piping NPS less than 4-inches on each unit."</p> | <p>Revise the final paragraph on Page 3-106, 3rd line, to state:</p> <p>"By letter dated <u>November 24, 2010</u>, December 13, 2010, the applicant supplemented its response to RAI B2.1.19-2 and stated that it will volumetrically examine 10 percent, with a maximum of 25, <u>of the small bore</u> socket welds and 10 percent, with a maximum of 25, <u>of the butt welds</u> within the population of ASME Code Class 1 <u>NPS less than 4 inches</u> small-bore piping in each unit."</p> |
| 3-108 | 3.0.3.2.9 | <p>Operating Experience, 1st paragraph, 7th line, states: "In the second example, a four-inch excess letdown piping reducer segment socket weld showed a crack indication that was attributed to IGSCC caused by sensitization of the base metal as a result of the initial welding process."</p> <p>Per PG&E Letter DCL-10-073, dated July 7, 2010, four-inch should be one-inch.</p> | <p>Change sentence to read: "In the second example, a four<u>one</u>-inch excess letdown piping reducer segment socket weld showed a crack indication that was attributed to IGSCC caused by sensitization of the base metal as a result of the initial welding process."</p> |

| SER Page | SER Section | Comment | Suggested Resolution |
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| 3-108 | 3.0.3.2.9 | <p>Operating Experience, 1st paragraph, on page 3-108, last sentence, states: During its audit, the applicant stated in discussions with the staff that this failure was not considered to be within the program scope because the unusual geometry of the component resulted in a second re-heating of the affected region during welding and produced an atypical, highly-sensitized microstructure that was especially susceptible to SCC."</p> <p>PG&E Letter DCL-10-126, dated September 30, 2010, states: "LRA Section B2.1.19 identified that stress corrosion cracking occurred on the excess letdown reducer segment socket weld. After further review, this stress corrosion crack occurred on the ASME Class-2 portion of the piping."</p> | <p>Revise Operating Experience, 1st paragraph, on page 3-108, last sentence to read:</p> <p>"During its audit, the applicant stated in discussions with the staff that this failure was not considered to be within the program scope because the unusual geometry of the component resulted in a second re-heating of the affected region during welding and produced an atypical, highly-sensitized microstructure that was especially susceptible to SCC. The applicant <u>states in a letter dated September 30, 2010, that this failure is not considered to be within the program scope because the stress corrosion crack occurred on the ASME Class-2 portion of the piping."</u></p> |
| 3-109 | 3.0.3.2.9 | <p>FSAR Supplement, 3rd sentence, states: "The staff noted that the applicant committed (Commitment No. 39) to implement the One-Time Inspection of ASME Code Class 1 Small-Bore Piping Program prior to entering the period of extended operation for managing aging of applicable components."</p> <p>LRA Table A4-1, Commitment 39, indicates that the commitment will be implemented during the 6 years prior to the period of extended operation.</p> | <p>Change the 3rd sentence to read: "The staff noted that the applicant committed (Commitment No. 39) to implement the One-Time Inspection of ASME Code Class 1 Small-Bore Piping Program <u>during the 6 years</u> prior to entering the period of extended operation for managing aging of applicable components."</p> |

| SER Page | SER Section | Comment | Suggested Resolution |
|----------|-------------|--|---|
| 3-109 | 3.0.3.2.9 | <p>1st full paragraph on page, 7th line, states: "The applicant evaluated 50 locations in Unit 1 and 40 locations in Unit 2, as part of the extent of condition. The staff noted that of these 94 locations evaluated..."</p> <p>This was an error in PG&E Letter DCL-10-126, which used 94. The total number should be 90.</p> | <p>Revise sentence to read: "The applicant evaluated 50 locations in Unit 1 and 40 locations in Unit 2, as part of the extent of condition. The staff noted that of these <u>94 90</u> locations evaluated..."</p> |
| 3-109 | 3.0.3.2.9 | <p>1st full paragraph, 1st sentence, states: "In its response dated July 7, 2010, and supplement dated September 1, 2010, the applicant summarized and clarified the plant-specific operating experience related to Class 1 small-bore piping."</p> <p>The supplement was dated September 30, 2010. Refer to PG&E Letter DCL-10-126.</p> | <p>Change the 1st full paragraph, 1st sentence, to read: "In its response dated July 7, 2010, and supplement dated September 1<u>30</u>, 2010, the applicant summarized and clarified the plant-specific operating experience related to Class 1 small-bore piping."</p> |
| 3-116 | 3.0.3.2.11 | <p>FSAR Supplement, 4th sentence: The words "this new program" is not accurate. Commitment 20 states that operating experience will be evaluated and appropriately incorporated into the "new programs", of which 9 are listed in the LRA Section of LRA Table A4-1.</p> | <p>FSAR Supplement, 4th sentence: change "this new program" to the new programs."</p> |
| 3-130 | 3.0.3.2.14 | <p>FSAR Supplement, 2nd paragraph, 3rd sentence, states: "(energized greater 25 percent of the time)"</p> <p>The word "than" is missing before 25.</p> | <p>Revise FSAR Supplement, 2nd paragraph, 3rd sentence, to read: "(energized greater <u>than</u> 25 percent of the time)"</p> |

| SER Page | SER Section | Comment | Suggested Resolution |
|----------|-------------|---|---|
| 3-148 | 3.0.3.2.18 | <p>4th paragraph, last sentence, states: "The applicant further stated that since the crack does affect the performance characteristics of the structure, its potential for propagation is not present, and it acts as a control joint, repair is not required."</p> <p>Refer to PG&E Letter DCL-10-077, dated July 19, 2010. Change "does affect..." to "does not affect..."</p> | <p>Change 4th paragraph, last sentence, to read: "The applicant further stated that since the crack does <u>not</u> affect the performance characteristics of the structure, its potential for propagation is not present, and it acts as a control joint, repair is not required."</p> |
| 3-149 | 3.0.3.2.18 | <p>FSAR Supplement, 1st bullet, states: "monitor groundwater samples every 5 years for pH, sulfates, and chloride concentrations, including seasonal variations."</p> <p>LRA Table A4-1, Commitment 14, bullet 1, includes the words "consideration for potential" prior to seasonal variations..</p> | <p>Revise FSAR Supplement, 1st bullet, to read: "monitor groundwater samples every 5 years for pH, sulfates, and chloride concentrations, including <u>consideration for potential</u> seasonal variations."</p> |
| 3-158 | 3.0.3.2.19 | <p>2nd paragraph, 4th line, states: "The applicant also clarified that the new 50-year TLAA for these components is addressed in LRA Section 4.3.2.5 and that the 50-year CUF values for these nozzles are being dispositioned in accordance with 10 CFR 54.21(c)(1)(iii)."</p> <p>10 CFR 54.21(c)(1)(iii) should be changed to 10 CFR 54.21(c)(1)(i) to be consistent with LRA Section 4.3.2.2 and PG&E Letter DCL-10-121, dated September 22, 2010.</p> | <p>Revise 2nd paragraph, 4th line, to read: "The applicant also clarified that the new 50-year TLAA for these components is addressed in LRA Section 4.3.2.5 and that the 50-year CUF values for these nozzles are being dispositioned in accordance with 10 CFR 54.21(c)(1)(i)."</p> |

| SER Page | SER Section | Comment | Suggested Resolution |
|----------------|-------------|--|--|
| 3-311 | 3.3.2.3.7 | <p>4th paragraph, 5th sentence, the SER states that the LRA was revised to use the Selective Leaching Program instead of the External Surfaces Monitoring Program to monitor for material loss in solenoid valves and regulators made of copper-alloy (greater than 15% zinc). Based on LRA Table 3.3.2-7, pages 3.3-143 and 3.3-144, the External Surfaces Monitoring Program was retained, and the Selective Leaching Program was added.</p> | <p>Revise 4th paragraph, 5th sentence, to read: "In its response dated October 12, 2010, the applicant revised these AMR line items to use the Selective Leaching of Material Program <u>in addition to</u> the External Surfaces Monitoring Program to manage the loss of material aging effect."</p> |
| 3-315 3-316 | 3.3.2.3.10 | <p>3rd paragraph, 1st sentence uses the term "dry gas-interior" instead of "dry gas (internal)" as indicated in LRA Table 3.3.2-10.</p> | <p>Revise 3rd paragraph of section 3.3.2.3.10 to read: "In LRA Tables 3.3.2-10 and 3.5.2-4, the applicant stated that for piping constructed of glass exposed to dry gas-interior<u>internal</u> and glass..."</p> |
| 3-356 | 3.4.2.3.4 | <p>2nd paragraph, 1st sentence, states: "In LRA Table 3.4.2-4, the applicant stated that elastomer expansion joints exposed to plant indoor air (internal) are managed for hardening and loss of strength by the Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components Program." Per LRA Table 3.4.2-4, page 3.4-83, Row 4, "plant indoor air (internal)" should be "secondary water (internal)."</p> | <p>Revise 2nd paragraph, 1st sentence, to read: "In LRA Table 3.4.2-4, the applicant stated that elastomer expansion joints exposed to <u>secondary water</u>-plant indoor air (internal) are managed for hardening and loss of strength by the Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components Program."</p> |

| SER Page | SER Section | Comment | Suggested Resolution |
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| 3-391 | 3.5.2.3.13 | <p>1st paragraph, 1st sentence, states: "The staff reviewed LRA Table 3.5.2-14, which summarizes the results of AMR evaluations for the outdoor water storage tank foundations and encasements component groups."</p> <p>The LRA Table that summarizes the above is LRA Table 3.5.2-13.</p> | <p>Revise 1st sentence in 1st paragraph of Section 3.5.2.3.13 to read: "The staff reviewed LRA Table 3.5.2-13 3.5.2-14, which summarizes..."</p> |
| 3-392 | 3.5.2.3.14 | <p>2nd paragraph, 1st sentence, states: "In LRA Table 3.5.2-14, the applicant stated that stainless steel traveling screens and non-ASME Code supports for mechanical equipment that are submerged are managed for loss of material by the Structures Monitoring Program, citing generic note J."</p> <p>LRA Table 3.5.2-10 states that stainless steel traveling screens that are submerged are managed for loss of material by the Structures Monitoring Program, citing generic note J.</p> | <p>Revise 2nd paragraph, 1st sentence to read: "In LRA Tables <u>3.5.2-10 and 3.5.2-14</u>, the applicant stated that stainless steel traveling screens and non-ASME Code supports for mechanical equipment that are submerged are managed for loss of material by the Structures Monitoring Program, citing generic note J."</p> |
| 4-3 | 4.1.1 | <p>5th bullet from top of page states: "Flow-Induced Vibration Endurance Limit, Transient Cycle Count Assumptions, and Ductility Reduction of Fracture Toughness for the Reactor Vessel Internals" that PG&E identified as not being TLAA's.</p> <p>LRA Table 4.1-2, page 4.1-10 states that transient cycle count assumptions are a TLAA.</p> | <p>Revise bullet to read:</p> <ul style="list-style-type: none"> - Flow-Induced Vibration Endurance Limit, Transient Cycle Count Assumptions, and Ductility Reduction of Fracture Toughness for the Reactor Vessel Internals |

| SER Page | SER Section | Comment | Suggested Resolution |
|----------|-------------|--|---|
| 4-3 | 4.1.1 | <p>Last paragraph in section states: "Pursuant to 10 CFR 54.21(c)(2), the applicant stated that it did not identify any exemptions granted under 10 CFR 50.12 based on a TLAA, as defined in 10 CFR 54.3."</p> <p>The SER is not consistent with LRA Section 4.1.4, pg. 4.1-5 and LRA Section 4.8, pg. 4.8-1.</p> | <p>To be consistent with the LRA and SER Section 4.1.2.2, it should state that PG&E identified the LBB evaluation as an exemption based on a TLAA.</p> |
| 4-5 | 4.1.2.2 | <p>Paragraph prior to Section 4.1.3, 1st sentence, reads: "In its response dated October 21, 2010, the applicant amended LRA Sections 4.1.2 and 4.8 to identify the exemption on use of ASME Code Case N-514 to establish the LTOP system setpoints for Units 1 and 2 as an additional exemption based on a TLAA."</p> <p>Change Section 4.1.2 to Section 4.1.4 per PG&E Letter DCL-10-131, dated October 21, 2010. The DCL did not amend Section 4.1.2.</p> | <p>Revise paragraph prior to Section 4.1.3, 1st sentence, to read: "In its response dated October 21, 2010, the applicant amended LRA Sections 4.1.2 4.1.4 and 4.8 to identify the exemption on use of ASME Code Case N-514 to establish the LTOP system setpoints for Units 1 and 2 as an additional exemption based on a TLAA.</p> |
| 4-6 | 4.2.1.1 | <p>3rd paragraph, line 3, states: "The applicant also stated that Unit 1 calculations account for an uprate from 3338 MWt to 3411 MWt at the end of Cycle 11."</p> <p>This is inconsistent with LRA Section 4.2.1, which states: "The calculations account for a Unit 1 core power uprate from 3338 MWt to 3411 MWt at the onset of Cycle 11."</p> | <p>Revise the 3rd paragraph, line 3 to read: "The applicant also stated that Unit 1 calculations account for an uprate from 3338 MWt to 3411 MWt at the <u>onset</u> end of Cycle 11."</p> |

| SER Page | SER Section | Comment | Suggested Resolution |
|----------|-------------|--|---|
| 4-9 | 4.2.2.2 | <p>3rd full paragraph on page, last sentence, reads: "By letter dated July 20, 2010, the staff issued RAI 4.2-1, and requested that the applicant supply the source reference for the Cu and Ni content for Intermediate Shell Plates B4106-1, B4106-2, and B4107-3."</p> <p>The RAI number that the staff issued by letter dated July 20, 2010, was RAI 4.2.2-1 and not RAI 4.2-1.</p> | <p>Revise 3rd full paragraph on page, last sentence, to read: By letter dated July 20, 2010, the staff issued RAI 4.2.2-1, and requested that the applicant supply the source reference for the Cu and Ni content for Intermediate Shell Plates B4106-1, B4106-2, and B4107-3."</p> |
| 4-9 | 4.2.2.2 | <p>Staff Evaluation, 5th paragraph, line 6 states: "Intermediate shell plate B5454-3 (heat no. C5168-2) actually has a higher RTPTS ..."</p> <p>This should be "intermediate shell plate B5454-2 (heat no. C5168-2) actually has a higher RTPTS ..."</p> | <p>Revise Staff Evaluation, 5th paragraph, line 6, to state:</p> <p>"Intermediate shell plate B5454-2³ (heat no. C5168-2) actually has a higher RTPTS ..."</p> |
| 4-11 | 4.2.2.2 | <p>3rd paragraph, 1st sentence states: "The applicant also stated that it would implement alternate options, such as flux reduction, as provided in 10 CFR 50.61, if the provisions of 10 CFR 50.61 cannot be met."</p> <p>LRA Section 4.2.2 states: "In the event that the provisions of 10 CFR 50.61a cannot be met, PG&E will implement alternate options, such as flux reduction, as provided in 10 CFR 50.61.</p> | <p>Revise 3rd paragraph, 1st sentence to read: "The applicant also stated that it would implement alternate options, such as flux reduction, as provided in 10 CFR 50.61, if the provisions of 10 CFR 50.61a cannot be met."</p> |

| SER Page | SER Section | Comment | Suggested Resolution |
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| 4-23 | 4.3.1.2.1 | <p>2nd paragraph, 2nd sentence, states: "...CUF values for these nozzles are being dispositioned in accordance with 10 CFR 54.21(c)(1)(iii)."</p> <p>This is inconsistent with PG&E Letter DCL-10-121, dated September 22, 2010, Enclosure 1, page 6. SG FW nozzles were dispositioned in accordance with 10 CFR 54.21(c)(1)(i).</p> | <p>Change the 2nd paragraph, 2nd sentence, to read:</p> <p>"...CUF values for these nozzles are being dispositioned in accordance with 10 CFR 54.21(c)(1)(i)."</p> |
| 4-23 | 4.3.1.2.1 | <p>Last sentence on 4-23 states: "...that the applicant will submit the corrective action option selected for NRC approval."</p> <p>This statement is inconsistent with SER Section 4.3.1.2.1 and PG&E Letter DCL-10-121, Enclosure 1, page 6.</p> | <p>To be consistent with PG&E Letter DCL-10-121 and SER Section 4.3.1.2.1, page 4-24, revise the last sentence on page 4-23 to read:</p> <p>"The staff also noted that the applicant's response also clarifies one critical factor with regard to selecting one of these corrective action options, that the applicant will submit the corrective action option selected for NRC approval." <u>that the applicant will submit the corrective action options selected for to the NRC for approval, only if the corrective action option is subject to an applicable NRC review and approval requirement.</u>"</p> |

| SER Page | SER Section | Comment | Suggested Resolution |
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| 4-23 | 4.3.1.2.1 | <p>2nd paragraph, 4th line, states: "The applicant also clarified that the new 50-year TLAA for these components is addressed in LRA Section 4.3.2.5 and that the 50-year CUF values for these nozzles are being dispositioned in accordance with 10 CFR 54.21(c)(1)(iii)."</p> <p>10 CFR 54.21(c)(1)(iii) should be changed to 10 CFR 54.21(c)(1)(i) to be consistent with LRA Section 4.3.2.2 and PG&E Letter DCL-10-121.</p> | <p>Revise SER to read, "The applicant also clarified that the new 50-year TLAA for these components is addressed in LRA Section 4.3.2.5 and that the 50-year CUF values for these nozzles are being dispositioned in accordance with 10 CFR 54.21(c)(1)(i)."</p> |
| 4-24 | 4.3.1.2.2 | <p>2nd paragraph in section, 7th line: cites FSAR Table 5.2-3. The FSAR Table to cite is 5.2-4.</p> | <p>Revise to FSAR Table 5.2-4, which lists transients for DCPD</p> |
| 4-35 | 4.3.2.2.1 | <p>1st paragraph, 2nd sentence, states: "The applicant stated that the reactor pressure boundary components associated with the RV closure heads are the control rod driver mechanism (CRDM) pressure housings..."</p> <p>LRA Section 1.5, Acronyms, shows the CRDM as being the control rod drive mechanism. Change "driver" to "drive."</p> | <p>Revise the 1st paragraph in section, 7th line, to read: "The applicant stated that the reactor pressure boundary components associated with the RV closure heads are the control rod driver mechanism (CRDM) pressure housings..."</p> |
| 4-38 | 4.3.2.3.2 | <p>1st line and throughout remainder of section – the SER states "Unit 1 Nos. 1 and 2 main flange hydraulic nuts and studs."</p> <p>The LRA Section 4.3.2.3, pages 4.3-19 and 4.3-20 state "Unit 1 RCP 1-2."</p> | <p>Revise the SER to state that main flange hydraulic nuts and studs are only applicable to Unit 1 RCP 1-2.</p> |

| SER Page | SER Section | Comment | Suggested Resolution |
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| 4-57 | 4.3.2.11.2 | 1st paragraph, last sentence: The reference to SER Section 4.3.2.2 should be changed to SER 4.3.2.12. | See Comment |
| 4-64 | 4.3.3.3 | 9th line from the page bottom: When discussing the unit load and unloading transient, it should not state "55 of power/minute" | Revise to state "unit load and unloading transient at 5% of power/minute" |
| 4-68 | 4.3.4.2 | 2nd paragraph: while discussing the Fen factor that was used, the SER quotes 2.45 and then 2.46 later on in the same paragraph. LRA Table 4.3-8 states 2.455. | Revise to be consistent with LRA Table 4.3-8. |
| A-1 | Table A-1 | The Source for Item Numbers 1, 2, and 3 in the SER is DCL-10-079 and should be DCL-09-079. | Change the Source for Item Numbers 1, 2, and 3 from DCL-10-079 to DCL-09-079. |
| A-2, A-3, A-4 | Table A-1 | The Source for Item Numbers 5, 6, 7, 8, 9, 10, 11, 12, 13, and 19 in the SER is DCL-10-096 and should be DCL-09-079. | Change the Source for Item Numbers 5, 6, 7, 8, 9, 10, 11, 12, 13, and 19 from DCL-10-096 to DCL-09-079. |
| A-2 | Table A-1 | The Enhancement or Implementation Schedule for Item Number 6 should read: "During the 5 years prior to the period of extended operation" per PG&E Letter DCL-10-164, dated December 13, 2010. | Change the Enhancement or Implementation Schedule for Item Number 6 to read: "During the 5 years prior to the period of extended operation." Add DCL-10-164 as the Source. |
| A-4, A-5, A-6, A-7 | Table A-1 | The Source for Item Numbers 15, 16, 17, 18, 20, 21, 22, 23, 24, 25, 26, 27, 28, and 29 in the SER is DCL-10-067 and should be DCL-09-079. | Change Source for Item Numbers 15, 16, 17, 18, 20, 21, 22, 23, 24, 25, 26, 27, 28, and 29 from DCL-10-067 to DCL-09-079. |
| A-6 | Table A-1 | The Source for Item Numbers 22, 23, 24, and 25 should be DCL-09-079. | Change Source for Item Numbers 22, 23, 24, and 25 from DCL-10-067 to DCL-09-079. |

| SER Page | SER Section | Comment | Suggested Resolution |
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| A-9 | Table A-1 | <p>The SER states the following for Commitment 44: "The Structures Monitoring Program inspection interval will be revised to be aligned with the guidance in ACI 349.3R, Evaluation of Existing Nuclear Safety Related Concrete Structures, Chapter 6, Evaluation Frequency, except for the exterior of non-safety related structures, for which all accessible areas of both units will be inspected at an interval of no more than ten years."</p> <p>Commitment 44 was amended by PG&E Letter DCL-10-164, dated December 13, 2010.</p> | <p>Revise Commitment to read: "The Structures Monitoring Program inspection interval <u>for safety-related and non-safety related structures</u> will be revised to be aligned with the guidance in ACI 349.3R, Evaluation of Existing Nuclear Safety Related Concrete Structures, Chapter 6, Evaluation Frequency."; except for the exterior of non-safety related structures, for which all accessible areas of both units will be inspected at an interval of no more than ten years."</p> <p>Add DCL-10-164 as the Source.</p> |
| A-10 | Table A-1 | <p>Item Number 54: The FSAR Supplement Section / LRA Section reads B2.1.18.</p> <p>LRS Table A4-1 indicated that the FSAR Supplement Section / LRA Section should be B2.1.26.</p> | <p>Change the FSAR Supplement Section / LRA Section in Item Number 54 from B2.1.18 to B2.1.26.</p> |

**Pacific Gas and Electric Company Editorial Comments
 on the Safety Evaluation Report With Open Items Related to the
 License Renewal of Diablo Canyon Power Plant, Units 1 and 2**

| SER Page | SER Section | Comment / Suggested Resolution |
|----------|-------------|---|
| 1-6 | Table 1.4-1 | 1st row: Remove one "." in SER Section 3.0.3.1.4 |
| 1-8 | 1.5 | Last line on page 1-8: add an "I" to "RA" |
| 1-9 | 1.5 | Last line in RAI 4.3-4: Change SEE to See. |
| 1-10 | 1.5 | 2nd sentence in RAI 4.3-14: add space in between "50" and "year." |
| 2-6 | 2.1.4 | 4th sentence: "The LRA states that that ..." Remove duplicate word "that" |
| 2-9 | 2.1.4.1.2 | 4th paragraph on page 2-9, 3rd sentence: change "consistently" to "consistent" |
| 2-19 | 2.1.4.2.2 | 1st bullet, 1st paragraph, last sentence: add a space between "above" and "mentioned." |
| 2-32 | 2.1.5.3.1 | 1st paragraph, 2nd sentence: add the word 'renewal' after "...in scope of" (Refer to LRA Section 2.1.4.2) Revise to read: "... in scope of license <u>renewal</u> , the" |
| 2-58 | 2.3.3.4.1 | 1st paragraph, 2nd sentence: change "post-LOCA sample cooler" to "post-LOCA sample coolers" (plural). Reference LR-DCPP-14-106714-09 and LR-DCPP-11-106711-04 show more than one post-LOCA cooler. |
| 2-67 | 2.3.3.7.2 | In the 4th sentence, next to last paragraph, use "effect" instead of "affect." |

| SER Page | SER Section | Comment / Suggested Resolution |
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| 2-77 | 2.3.3.12.2 | In paragraph just before Section 2.3.3.12.3, add a space between 2.3.3.12 and "is." |
| 3-7 | Table 3.0.1 | Most AMP titles in table have "Program" at the end of the title. Seven AMP titles do not have the word "Program" at the end of the title. Add "Program" to titles for B2.1.8, B2.1.21, B2.1.33, B2.1.38, B2.1.39, B3.1, and B3.2. |
| 3-30 | 3.0.3.1.9 | By letter dated October 22, 2010, the applicant revised LRA Section A1.15 to reflect that four, not five, standby capsules will remain in the Unit 1 RV during the period of extended operation. DCL 10-131 was dated October 21,2010 |
| 3-42 | 3.0.3.1.12 | 4th line from top of page reads: "...degradation in Unit 2 L3 flux thimble tube..." Unit 2 L3 should be Unit 2 L13 |
| 3-59 | 3.0.3.1.19 | Last paragraph on page 3-59 states that the "intake structure is expected to resume monitoring under Maintenance Rule (a)(2) status by 2010". PG&E has not met this expectation. The new date is July 2011. |
| 3-70 | 3.0.3.2.1 | 3rd paragraph, 3rd sentence, states: "The staff finds the applicant's response to RAI B2.1.3 1 acceptable because..." Change RAI B2.1.3 1" to "B2.1.3-1" (add a dash after "3".) |

| SER Page | SER Section | Comment / Suggested Resolution |
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| 3-71 | 3.0.3.2.1 | <p>2nd full paragraph, 6th sentence states: "In addition, the applicant explained that the RV closure studs are not metal-plated."</p> <p>This section needs to add a key element to managing stress corrosion cracking as stated in PG&E Letter DCL-10-073. DCPD uses compatible lubricants which reduce the probability of stress corrosion cracking.</p> <p>Revise 2nd full paragraph, 6th sentence, to state: "In addition, the applicant explained that the RV closure studs are not metal-plated <u>and lubricants used, Fel-Pro 5000 and Neolube, are compatible with the bolting material at operating temperature for concerns related to stress corrosion cracking.</u>"</p> |
| 3-76 | 3.0.3.2.3 | 2nd to last line on page 3-76: eliminate comma between "issued" and "B2.1.7-5." |
| 3-102 | 3.0.3.2.8 | <p>Operating Experience, 1st paragraph, 4th sentence, states: "... including the replacement of the diesel and fuel oil storage and transfer system piping....."</p> <p>Revise to read: "...including the replacement of the diesel and fuel oil storage and transfer system piping....."</p> |
| 3-105 | 3.0.3.2.8 | In Conclusion, 4th line, remove space between "and" and "concludes." |
| 3-113 | 3.0.3.2.11 | In middle paragraph, first line, change "In it response" to "In its response..." |
| 3-126 | 3.0.3.2.14 | In middle paragraph, 4th sentence: correct typo at "perofrmed." |
| 3-137 | 3.0.3.2.17 | Under Operating Experience, 3rd sentence, there is a period between "Unit 2" and "14th RO", instead of a comma. |
| 3-138 | 3.0.3.2.17 | 1st sentence on the page says "Ins" instead of INs (referring to NRC Information Notices). |

| SER Page | SER Section | Comment / Suggested Resolution |
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| 3-149 | 3.0.3.2.18 | <p>FSAR Supplement, 2nd paragraph, 1st sentence, states "procedures" whereas LRA Table A4-1, Commitment 34 states "work control" procedures.</p> <p>Add the words "work control" prior to "procedures" to be consistent with LRA Table A4-1, Commitment 34.</p> |
| 3-152 | 3.0.3.2.19 | Last line on page: Change "addition" to "additional." |
| 3-303 | 3.3.2.3.4 | Line 18 of paragraph: change "in these system" to "in these systems." |
| 3-315 | 3.3.2.3.8 | Line 18 on page 3-315: Add space between "SSC" and "of." |
| 3-337 | 3.4.2.1.2 | 3rd paragraph, 9th line, change "open-cycle cooing water" to "open-cycle cooling water..." |
| 3-354 | 3.4.2.3.2 | All instances of "lexan" should be "Lexan." |
| 4-18 | 4.3.1.2.1 | Last paragraph on page 4-18, 3rd line: Change "action limited is reached" to "action limits are reached.." |
| 4-20 | 4.3.1.2.1 | 2nd paragraph, 5th line from bottom: add space between "use" and "stress" |
| 4-26 | 4.3.1.2.2 | <p>1st bullet states that NRC independently calculated the number of feedwater initiation events through 60 years of operation. Refer to LRA Table 4.3-2, #12 & DCL-10-121, Encl. 1, pg. 10.</p> <p>Revise the bullet to say that the independently calculated number of initiations is through 2008, not through the 60-year period. This matches the preceding para in the SER and matches the LRA.</p> |
| 4-29 | 4.3.1.2.2 | 3rd paragraph, 1st sentence: change "emphasize" to "emphasis." |
| 4-35 | 4.3.2.2.1 | 1st paragraph, line 8: change "The staff noted that the Unit 1 RPV head was replaced scheduled.." to "The staff noted that the Unit 1 RPV head was replaced as scheduled..." |

| SER Page | SER Section | Comment / Suggested Resolution |
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| 4-37 | 4.3.2.3 | 2nd paragraph: The SER makes references to ASME Code Case N-415.1 and ASME Code Case N-416.2. The references used are ASME Code, Section III, 1968 Editions paragraphs. Refer to LRA Section 4.3. Change the reference to "ASME Code Case N-415.1" or "ASME Code Case N-416.2" to "ASME III Paragraph N-415.1" and "ASME III Paragraph N-416.2" |
| 4-40 | 4.3.2.3.2 | 4th line from top of page 4-40: delete "for the components" as it appears twice. |
| 4-41 | 4.3.2.4.2 | 2nd paragraph, last line: change "support bracket remain valid..." to "support bracket remains valid..." |
| 4-42 | 4.3.2.4.2 | 2nd paragraph, 5th line: states "the TLAAs for the for all pressurizer..." Remove "the for" before "all pressurizer" |
| 4-43 | 4.3.2.4.2 | 2nd line on page 4-43: remove space between "an" and "acceptable." |
| 4-49 | 4.3.2.6.2 | 5th bullet: remove "\" before the word "valve." |
| 4-49 | 4.3.2.6.2 | 1st paragraph, 3rd line: change "was procured" to "were procured..." |
| 4-49 | 4.3.2.6.2 | 4th paragraph, last line: states "fatigue analyses would not need to identified as applicable..." Add the word "be" before the word "identified." |
| 4-50 | 4.3.2.7.1 | 6th line in paragraph: "ANSE B31.1-1967" should be "ANSI B31.1-1967" Change "ANSE" to "ANSI" |
| 4-52 | 4.3.2.8.3 | Title of section should be FSAR instead of SAR. Change SAR to FSAR |

| SER Page | SER Section | Comment / Suggested Resolution |
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| 4-55 | 4.3.2.10.2 | 1st paragraph, 12th line states: "WCAP-13045 would not need to identified as..." Add the word "be" before the word "identified." |
| 4-56 | 4.3.2.10.3 | 1st sentence: change "to included" to "to include." |
| 4-64 | 4.3.3.3 | 2nd paragraph, 6th line: add the word "to" between "relative the." |
| 4-69 | 4.3.4.2.2 | 1st paragraph, 3rd line: delete the word "with" in "through with the Metal Fatigue..." |
| 4-73 | 4.3.6.2 | Paragraph under (3), last line: change "5 occurrence" to "5 occurrences." |
| 4-73 | 4.3.6.2 | 3rd paragraph under (3), 3rd sentence: Add "of" after the word "resolution." |
| 4-79 | 4.6.2.2 | Page 4-79, sentence beginning with "The applicant's August 18, 2010, response..." Items 1 and 2: refers to the "main steam generator blowdown". The August 18, 2010, response refers to "steam generator blowdown". Change "main steam generator blowdown..." to "steam generator blowdown..." |
| 4-80 | 4.6.2.2 | In paragraph before Section 4.6.2.3, 8th line, change S_m to S_m |
| 4-82 | 4.7.1.2 | Remove one period at the end of the paragraph. |
| 4-87 | 4.7.3.2 | 3rd bullet at the bottom of the page: change "is" to "in" in the term "flaw growth analysis is WCAP..." |
| 4-88 | 4.7.4.1 | 1st line: change "LRA Section 4.7.4 sates.." to "LRA Section 4.7.4 states..." |
| 4-90 | 4.7.5.2.1 | 6th line: DCI should be DCL for Diablo Canyon Letter. |

| SER Page | SER Section | Comment / Suggested Resolution |
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| 4-93 | 4.7.5.2.2 | 3rd paragraph, 5th line" change "analyzed" to "analyze" |
| 4-94 | 4.7.5.2.2 | Paragraph before Section 4.7.5.2.3, line 8: remove the word "to" before the word "challenge" |
| 4-100 | 4.8.1 | 2nd sentence: remove the word "to" between "list" and "those" |
| A-2 | | <p>The Source for Item Numbers 4 should also reference DCL-09-079. The Source listed (DCL-10-096), amended part of Item Number 4 from DCL-09-079.</p> <p>Add DCL-09-079 to Source Item Number 4.</p> |
| A-3 | | <p>The Source for Item Number 14 should also reference DCL-09-079. The Source listed (DCL-10-067), amended part of Item Number 14 from DCL-09-079.</p> <p>Add DCL-09-079 to Source for Item Number 14.</p> |
| A-8 | | <p>The Source for Item Number 38 should also reference DCL-10-120. The Source listed (DCL-10-131), amended part of Item Number 38 from DCL-10-120.</p> <p>Add DCL-10-120 to Source for Item Number 38</p> |
| A-8 | | <p>The Source for Item Number 43 should also reference DCL-10-126. The Source listed (DCL-10-162), amended part of Item Number 43 from DCL-10-126.</p> <p>Add DCL-10-126 to Source for Item Number 43.</p> |
| A-10 | | <p>Item Number 52: In the Commitment, 3rd bullet, add a space between "four" and "excavations." In the Commitment, 4th bullet, add a space between "of" and "polyvinyl."</p> |