October 28, 2004

Mr. Gregory M. Rueger
Senior Vice President, Generation and
Chief Nuclear Officer
Pacific Gas and Electric Company
Diablo Canyon Power Plant
P. O. Box 3
Avila Beach, CA 93424

SUBJECT: DIABLO CANYON POWER PLANT, UNIT NOS. 1 AND 2 - ISSUANCE OF

AMENDMENT RE: PERMANENTLY REVISED STEAM GENERATOR VOLTAGE-BASED REPAIR CRITERIA PROBABILITY OF DETECTION

METHOD (TAC NOS. MC2313 AND MC2314)

Dear Mr. Rueger:

The Commission has issued the enclosed Amendment No. 177 to Facility Operating License No. DPR-80 and Amendment No. 179 to Facility Operating License No. DPR-82 for the Diablo Canyon Power Plant, Unit Nos. 1 and 2, (DCPP) respectively. The amendments consist of changes to the DCPP Final Safety Analysis Report (FSAR) Update and the Technical Specifications (TSs) in response to your application dated March 18, 2004, and its supplements dated August 18 and 20, and September 17, 2004.

The amendments authorize revisions to the FSAR Update to incorporate the NRC approval of a permanently revised steam generator voltage-based repair criteria probability of detection (POD) method. The revised POD method is referred to as the probability of prior cycle detection method. In addition, a reporting requirement is added to the DCPP TS as TS 5.6.10.i.

A copy of the related Safety Evaluation is enclosed. The Notice of Issuance will be included in the Commission's next regular biweekly *Federal Register* notice.

Sincerely,

/RA/

Girija S. Shukla, Project Manager, Section 2 Project Directorate IV Division of Licensing Project Management Office of Nuclear Reactor Regulation

Docket Nos. 50-275 and 50-323

Enclosures: 1. Amendment No. 177 to DPR-80

2. Amendment No. 179 to DPR-82

3. Safety Evaluation

cc w/encls: See next page

#### November 9, 2004

Mr. Gregory M. Rueger
Senior Vice President, Generation and
Chief Nuclear Officer
Pacific Gas and Electric Company
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P. O. Box 3
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/RA/

Girija S. Shukla, Project Manager, Section 2

Project Directorate IV

Division of Licensing Project Management Office of Nuclear Reactor Regulation

Docket Nos. 50-275 and 50-323 <u>DISTRIBUTION</u>:

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2. Amendment No. 179 to DPR-82 RidsNrrDlpmPdiv (HBerkow) LLund

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## Diablo Canyon Power Plant, Units 1 and 2

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## PACIFIC GAS AND ELECTRIC COMPANY

## **DOCKET NO. 50-275**

## DIABLO CANYON NUCLEAR POWER PLANT, UNIT NO. 1

## AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 177 License No. DPR-80

- 1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Pacific Gas and Electric Company (the licensee) dated March 18, 2004, and its supplements dated August 18 and 20, and September 17, 2004, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
- 2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-80 is hereby amended to read as follows:

## (2) <u>Technical Specifications</u>

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 177, are hereby incorporated in the license. Pacific Gas and Electric Company shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan, except where otherwise stated in specific license conditions.

Additionally, by Amendment No. 177, the license is amended to authorize revision of the Final Safety Analysis Report (FSAR) Update, as set forth in the application for amendment by Pacific Gas and Electric Company dated March 18, 2004, and its supplements dated August 18 and 20, and September 17, 2004. Pacific Gas and Electric Company shall update the FSAR Update to incorporate the description of the revised steam generator voltage-based repair criteria probability of detection method, based on the probability of prior cycle detection method, as described in the amendment application of March 18, 2004, and its supplements dated August 18 and 20, and September 17, 2004, and the staff's Safety Evaluation attached to this amendment.

3. This license amendment is effective as of its date of issuance and shall be implemented within 30 days of the date of issuance. The implementation of the amendment includes the incorporation into the FSAR Update the changes discussed above, as described in the licensee's application dated March 18, 2004, and its supplements dated August 18 and 20, and September 17, 2004, and evaluated in the staff's Safety Evaluation attached to this amendment.

FOR THE NUCLEAR REGULATORY COMMISSION

#### /RA/

Robert A. Gramm, Chief, Section 2 Project Directorate IV Division of Licensing Project Management Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical

Specifications

Date of Issuance: October 28, 2004

## PACIFIC GAS AND ELECTRIC COMPANY

## **DOCKET NO. 50-323**

## DIABLO CANYON NUCLEAR POWER PLANT, UNIT NO. 2

## AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 179 License No. DPR-82

- 1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Pacific Gas and Electric Company (the licensee) dated March 18, 2004, and its supplements dated August 18 and 20, and September 17, 2004, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
- 2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-82 is hereby amended to read as follows:

## (2) <u>Technical Specifications</u>

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 179, are hereby incorporated in the license. Pacific Gas and Electric Company shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan, except where otherwise stated in specific license conditions.

Additionally, by Amendment No. 179, the license is amended to authorize revision of the Final Safety Analysis Report (FSAR) Update, as set forth in the application for amendment by Pacific Gas and Electric Company dated March 18, 2004, and its supplements dated August 18 and 20, and September 17, 2004. Pacific Gas and Electric Company shall update the FSAR Update to incorporate the description of the revised steam generator voltage-based repair criteria probability of detection method, based on the probability of prior cycle detection method, as described in the amendment application of March 18, 2004, and its supplements dated August 18 and 20, and September 17, 2004, and the staff's Safety Evaluation attached to this amendment.

3. This license amendment is effective as of its date of issuance and shall be implemented within 30 days of the date of issuance. The implementation of the amendment includes the incorporation into the FSAR Update the changes discussed above, as described in the licensee's application dated March 18, 2004, and its supplements dated August 18 and 20, and September 17, 2004, and evaluated in the staff's Safety Evaluation attached to this amendment.

FOR THE NUCLEAR REGULATORY COMMISSION /RA/

Robert A. Gramm, Chief, Section 2 Project Directorate IV Division of Licensing Project Management Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical

Specifications

Date of Issuance: October 28, 2004

## ATTACHMENT TO LICENSE AMENDMENT NO. 177

## TO FACILITY OPERATING LICENSE NO. DPR-80

## AND AMENDMENT NO. 179 TO FACILITY OPERATING LICENSE NO. DPR-82

## DOCKET NOS. 50-275 AND 50-323

Replace the following page of the Appendix A Technical Specifications with the attached revised page. The revised page is identified by amendment number and contains marginal lines indicating the areas of change.

<u>REMOVE</u> <u>INSERT</u> 5.0-30a 5.0-30a

# SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

## RELATED TO AMENDMENT NO. 177 TO FACILITY OPERATING LICENSE NO. DPR-80

## AND AMENDMENT NO. 179 TO FACILITY OPERATING LICENSE NO. DPR-82

## PACIFIC GAS AND ELECTRIC COMPANY

## DIABLO CANYON POWER PLANT, UNITS 1 AND 2

DOCKET NOS. 50-275 AND 50-323

## 1.0 INTRODUCTION

By application dated March 18, 2004, as supplemented by letters dated August 18 and 20, and September 17, 2004, Pacific Gas and Electric Company (PG&E or licensee), requested amendments to Facility Operating License Nos. DPR-80 and DPR-82 for Diablo Canyon Power Plant (DCPP), Units 1 and 2, respectively. The proposed license amendment request (LAR) involves revisions to the Final Safety Analysis Report (FSAR) Update to incorporate the NRC approval of a revised steam generator (SG) voltage-based repair criteria probability of detection (POD) method. In addition, a reporting requirement is added to the DCPP Technical Specifications (TS) as TS 5.6.10.i.

The proposed POD method is based on the probability of prior cycle detection (POPCD) method, and is used in assessing SG tube integrity. The proposed POD method is an exception to the guidance of Generic Letter (GL) 95-05, "Voltage-Based Repair Criteria for Westinghouse Steam Generator Tubes Affected by Outside Diameter Stress Corrosion Cracking," dated August 3, 1995, and its use requires prior NRC review and approval.

GL 95-05 specifies that a POD of 0.6 is to be applied to all bobbin indications. The use of the constant POD of 0.6 for determination of the beginning of cycle (BOC) voltage distribution can be non-conservative for indications below approximately 0.5 volts and conservative for indications above 1 volt. The POPCD method provides a more realistic POD which is a function of the indication's voltage.

The August 18 and 20, and September 17, 2004, supplemental letters provided additional clarifying information, did not expand the scope of the application as originally noticed, and did not change the NRC staff's original proposed no significant hazards consideration determination published in the *Federal Register* (69 FR 34704).

A similar license amendment request was approved for DCPP Unit 2 by NRC letter dated October 21, 2003. That approval was for one cycle of operation, whereas this request is permanent and applies to both DCPP Units 1 and 2. In addition, the NRC recently authorized PG&E to use a POD of 1.0, on a one-time basis, for one bobbin indication identified during the

Spring 2003 refueling outage at DCPP Unit 2. This indication was 21.5 bobbin volts and the licensee concluded that an indication of this size could be detected with 100 percent certainty. The staff's review and approval is contained in a letter dated June 3, 2003.

## 2.0 REGULATORY EVALUATION

The licensee implements a voltage-based alternate repair criteria (ARC) for axial outside diameter stress corrosion cracking (ODSCC) located at tube-to-tube support plate intersections. The voltage-based plugging limits for axial ODSCC at the tube support plate elevations are discussed in GL 95-05. The NRC previously reviewed and approved the use of this ARC at DCPP Units 1 and 2 through a license amendment modifying the DCPP Units 1 and 2 TSs. At that time, the licensee updated the DCPP FSAR Update to describe implementation of the GL 95-05 voltage-based repair criteria.

Implementation of the voltage-based repair criteria requires analyses to demonstrate that tubes remaining in service under this ARC will retain adequate structural and leakage integrity during normal operating, transient, and postulated accident conditions, consistent with General Design Criteria 14, 15, 30, 31, and 32 of Title 10 of the *Code of Federal Regulations* (10 CFR), Part 50, Appendix A. Structural integrity refers to maintaining adequate margins against gross failure, rupture, and collapse of the SG tubing. Leakage integrity refers to limiting primary-to-secondary leakage to within acceptable limits (e.g., 10 CFR Part 100).

GL 95-05 specifies the methodology to be used for ensuring structural integrity (e.g., determination of the conditional burst probability) and for ensuring leakage integrity (e.g., determination of the total primary-to-secondary leak rate during postulated accident conditions (e.g., main steam line break (MSLB)). These methodologies rely, in part, on projecting the voltage distribution of indications expected at the end-of-cycle (EOC) (i.e., the EOC voltage distribution). The EOC voltage distribution is calculated from the BOC voltage distribution, the POD, the growth rate distribution, and the measurement (i.e., non-destructive examination) uncertainty distributions. Currently, a POD of 0.6 is used for all BOC indications, except as noted above (i.e., one time approval to use POPCD for DCPP Unit 2 and to use a POD of 1.0 for one indication). Since a change to the POD results in a departure from a method of evaluation described in the FSAR Update, this change requires a LAR.

Since the staff previously approved the voltage-based ARC (on a permanent basis) and the use of POPCD (for a one-cycle period), the staff's review focused on whether the changes in the POD methodology would result in a sufficiently conservative projection of the EOC voltage distribution and that prompt corrective actions would be taken when the results were not sufficiently conservative.

## 3.0 TECHNICAL EVALUATION

## 3.1 Background

Use of the voltage-based ARC requires certain actions to be performed (e.g., inspections, repairs, and analysis). Based on the inspection results of each SG, an analysis is performed to determine the projected EOC conditional burst probability and the total primary-to-secondary leak rate from each SG where the ARC is applied during postulated accidents (e.g., MSLB

event) to ensure that these projections remain below reporting thresholds and acceptance limits (e.g., 1x10<sup>-2</sup> and 10.5 gallons per minute (gpm), respectively). These analyses utilize Monte Carlo statistical analysis techniques to project the EOC voltage distribution. The projected EOC voltage distribution is determined from the BOC voltage distribution, the POD, a growth distribution, and a non-destructive examination uncertainty distribution. The projected EOC voltage distribution is then used in conjunction with empirically derived correlations between the voltage (i.e., bobbin coil voltage) and tube burst pressure and leak rate to ensure the reporting thresholds/acceptance limits are met.

The BOC voltage distribution is based on consideration of all bobbin indications identified during that outage. A POD of 0.6 is used for all BOC indications as stated in GL 95-05 (as discussed above PG&E was authorized to deviate from this assumption for one cycle at DCPP Unit 2). The POD values are used, in part, to account for missed indications (i.e., present but not detected) and new indications that may initiate during the next operating cycle.

The proposed POD method is based, in part, on the POPCD method described in the Electric Power Research Institute (EPRI) Topical Report NP 7480-L, Addendum 5, "Steam Generator Tubing Outside Diameter Stress Corrosion Cracking at Tube Support Plates Database for Alternate Repair Limits," dated January 2003, which was submitted to the NRC in a letter from the Nuclear Energy Institute (NEI) dated February 17, 2003. However, specific details related to implementation of POPCD, such as classification of indications, voltage bin width, regression analysis, and reporting requirements, are modified and updated in the LAR. The current proposal (dated March 18, 2004, as supplemented by letters dated August 18 and 20, and September 17, 2004) is identical to the method approved by the NRC in Amendment No. 164 dated October 21, 2003.

## 3.2 POPCD Definition and Treatment of Inspection Data

Bobbin probe inspection of the SG tubes is required to be performed every refueling outage. Additional inspections of the SG tubes at tube-to-tube support plate intersections are performed with a rotating probe. The term rotating probe or rotating pancake coil (RPC) is used in this document to mean a rotating probe equipped with a pancake coil or other equivalent coil such as the +Point<sup>TM</sup> coil. The results of these inspections are used in the development of the POPCD. POPCD is calculated as the ratio of indications reported at the prior inspection, cycle n, to the total indications found at the subsequent inspection, cycle n+1 (i.e., all indications reported in the prior cycle plus new indications).

The definition of POPCD is based on the premise that all bobbin indications that can contribute significantly to burst and leakage during the next operating cycle can be confirmed (i.e., detected) by rotating probe inspections. For the purposes of POPCD, RPC inspection results are assumed to be "truth." That is, an indication detected via an RPC inspection is assumed to mean a flaw is present, regardless of the results of the inspection with a bobbin probe. Conversely, the absence of an RPC indication (at a location where there is a bobbin indication) is assumed to mean that no flaw is present that can contribute significantly to burst or leakage during the next operating cycle. POPCD treats all newly identified bobbin and RPC indications at an inspection as having been undetected at the prior inspection. All of these "new" indications are included in the POPCD calculations, even though some of them may have

initiated during the operating cycle. Therefore, the application of POPCD attempts to account for newly initiated indications, as well as previously undetected indications.

Tables 1 and 2 of the March 18, 2004, letter clearly describe how the inspection results (e.g., detected with bobbin, not detected with bobbin, detected with RPC, etc.) are used in determining the POPCD. The submittal also discusses that a plant-specific POPCD is to be used rather than an industry generic POPCD. The use of a plant-specific POPCD (when appropriately justified) removes a concern that the noise levels at the plant may be higher than that at the other plants used to construct the generic industry POPCD model such that the use of the generic POPCD model is non-conservative. The use of an industry generic POPCD may be appropriate if there is insufficient plant-specific data to justify the use of a plant-specific POPCD. DCPP Units 1 and 2 have sufficient plant-specific data to justify the use of a plant-specific POPCD.

Table 1 of the March 18, 2004, letter states that indications that were confirmed (i.e., detected) with an RPC probe during  $EOC_n$  will be inspected with an RPC probe during the  $EOC_{n+1}$  inspection if the indication is not detected with the bobbin probe during  $EOC_{n+1}$ . For the purposes of POPCD, RPC inspection results are considered "truth" and therefore, RPC confirmation of the indication during  $EOC_n$  indicates that a flaw is present at that location. If the indication is not detected with a bobbin probe during the  $EOC_{n+1}$  inspection, this would imply a potentially inaccurate bobbin probe inspection result. Therefore, an RPC probe inspection will be performed during  $EOC_{n+1}$  to ensure that all known ODSCC indications are included in the GL 95-05 calculations.

Indications that were confirmed (i.e., detected) with an RPC probe during  $EOC_n$  that are inspected, but not detected with an RPC probe during  $EOC_{n+1}$  could appear to be "disappearing flaws" since RPC inspection results are considered "truth." Therefore, Table 1 indicates that the causative factors for this change in RPC detection will be discussed in the ARC 90-day report for all indications with a +Point<sup>TM</sup> voltage greater than 0.5 volts. In addition, regardless of whether the +Point<sup>TM</sup> voltage exceeds 0.5 volts, if there is a significant number of these types of indications (i.e., no longer detectable with an RPC probe), then the cause will also be discussed in the 90-day report.

For the POPCD evaluation, all determinations of bobbin and RPC "detection" at  $EOC_n$  and voltages assigned to  $EOC_n$  detected indications are to be based exclusively on the inspection records from the  $EOC_n$  inspection. Lookback analyses of the  $EOC_n$  data are only applied to assign  $EOC_n$  voltages for new indications detected at  $EOC_{n+1}$  (i.e.,  $EOC_n$  voltages are not available from the inspection records). If the indication cannot be assigned a voltage at the  $EOC_n$  inspection based on a lookback analysis, the licensee will estimate the  $EOC_n$  voltage by reducing the  $EOC_{n+1}$  voltage by the average voltage growth for the cycle.

When  $EOC_{n+1}$  indications are only found by RPC inspection (i.e., no degradation was identified in the bobbin mix channel), the  $EOC_{n+1}$  bobbin voltage for this indication is determined based on a review of the 200 kHz data. If a flaw is not evident in the 200 kHz data, a correlation relating RPC voltage to bobbin voltage is used to determine the bobbin voltage. However, if there is more than one ODSCC indication at the intersection, the bobbin voltage assigned to the intersection is estimated as the square root of the sum of squares of the bobbin voltages (the bobbin voltages are determined from the RPC voltage to bobbin correlation for each indication).

Given the scatter in the correlations which are used to assign voltages to indications not detected with the bobbin coil, the licensee committed to assess whether the bobbin voltages assigned to these indications continue to remain conservative. That is, once these indications become detectable by bobbin, a review of the prior cycle assigned voltages, the current cycle actual bobbin voltages, and the growth rate will be performed.

## 3.3 Statistical Generalized Linear Model (GLM) Regression Analyses

The POPCD data (i.e., voltage bin versus POPCD value for each voltage bin) are utilized in a statistical GLM regression analyses to develop a POPCD cumulative distribution function. The data from this table are sorted into 0.1-volt bins representing various voltage levels (e.g., 0.21 to 0.3 volts) and the POPCD distributions are developed using fits to weighted binary data, where weighting is based on the number of indications in each bin. Monte Carlo techniques are then used to apply the POPCD curves to the distribution of indications found during the outage to develop the BOC voltage distribution. The Monte Carlo techniques include simulation of the uncertainties in the POPCD distribution.

The p-value for the POPCD regression is the probability of observing a value of  $\chi^2$  as small as the one calculated from the data. A high p-value (i.e., greater than 5 percent) may indicate that noise is interfering with the reliable detection of indications. As a result, if the p-value for the POPCD regression analysis is greater than 5 percent, an alternate POD model will be submitted to the NRC for approval. It is not expected that the plant-specific POPCD would exceed 5 percent.

## 3.4 Other Considerations and Benchmarking

The POD model in GL 95-05 (along with the other models discussed above) was intended to ensure that the projection of the EOC voltage distribution was conservative or that corrective actions were taken prior to exceeding the reporting threshold for the probability of burst or the acceptance limit for primary-to-secondary leakage during postulated accident conditions. A conservative projection of the EOC voltage distribution would provide confidence that the probability of burst and the projected leakage under postulated accident conditions were also conservative.

With the proposed relaxation to the constant POD model in GL 95-05, it is important that the growth rate model is sufficiently conservative. As part of the POPCD application, the steps for determining the flaw growth distribution used in the projection of the EOC voltage distribution were described. These steps are described in the August 18, 2004, letter (refer to the response to question 8) as modified by the September 17, 2004, letter (refer to the detailed response to question 3(b)). Essentially, these steps involve determining the cumulative probability distribution function of the growth rate, selecting the limiting growth rate distribution for each SG, analyzing for voltage dependent growth, analyzing for potentially increasing growth rates, and determining if any additional adjustments to the growth rate distributions are needed.

To ascertain whether the changes in the methodologies are appropriate, the POPCD methodology along with the growth methodology discussed above were benchmarked to assess their ability to conservatively project the EOC voltage distribution. These

benchmarking analyses are documented in PG&E letters dated September 30, 2003, March 16 and August 18, 2004. These results indicate that the methodology used to project the EOC conditions was not conservative in all cases; however, the underpredictions in general, were not significant except for one instance. In this instance, an extreme growth rate was observed for one indication. This extreme growth was considered to be an outlier (a random event). To address the potential for extreme growth rates to occur, a methodology was developed and documented in an NEI letter dated June 2, 2004, and in PG&E letters dated August 20 and September 17, 2004. The staff's review of this extreme growth rate methodology is ongoing: however, these extreme growth rates are not expected to occur with a high probability in successive cycles (i.e., they are low probability events) and the licensee has demonstrated that they will have adequate tube integrity for the current cycles at DCPP Units 1 and 2 regardless of whether the extreme voltage growth is explicitly modeled or included as part of the standard growth rate distribution. In addition, to address the potential cause for the extreme voltage growth rate observed at DCPP, PG&E has committed to perform a rotating probe inspection of all bobbin coil indications above 1.7 volts at intersections to which a 2 volt ARC are applied. If the NRC approves a larger voltage repair limit at tube support plates that are locked in place, the licensee will determine the need for augmented rotating probe inspections based on leakage considerations.

As discussed above, the proposed models used in projecting the EOC voltage distribution have, for the most part, resulted in conservative projections. However, since they have not always been conservative, the licensee has proposed (at the staff's request) to modify their technical specifications to require an assessment of the adequacy of their methodology for projecting the EOC conditions under certain conditions. Specifically, the licensee has proposed to add the following requirement as TS 5.6.10.i:

For implementation of the probability of prior cycle detection (POPCD) method, for the voltage-based repair criteria at tube support plate intersections, if the end-of-cycle conditional main steamline break burst probability, the projected main steamline break leak rate, or the number of indications are underpredicted by the previous cycle operational assessment, the following shall be reported to the Commission pursuant to 10 CFR 50.4 within 90 days following return to service of the steam generators:

- (1) The assessment of the probable causes for the underpredictions, proposed corrective actions, and any recommended changes to probability of detection or growth methodology indicated by potential methods assessments.
- (2) An assessment of the potential need to revise the alternate repair criteria analysis methods if: the burst probability is underpredicted by more than 0.001 (i.e., 10% of the reporting threshold) or an order of magnitude; or the leak rate is underpredicted by more than 0.5 gpm or an order of magnitude.
- (3) An assessment of the potential need to increase the number of predicted low voltage indications at the beginning of cycle if the total number of as-

found indications in any steam generator are underestimated by greater than 15% or by greater than 150 indications.

The current projections for the next EOC conditions at DCPP Unit 2 are contained in response to question 9e in the August 18, 2004, letter. Specifically, Table 5 contains the EOC 12 projections. The EOC projections for the next DCPP Unit 1 inspection were submitted by letter dated September 7, 2004.

Upon implementation of POPCD, PG&E also committed to several reporting requirements. These reporting requirements are listed, in part, in Section 4.1.4 of PG&E's March 18, 2004, letter. These commitments basically include reporting the POPCD data, assessing the POPCD method for potential changes over time, and evaluating "disappearing" flaws.

#### 3.5 Conclusion

Based on the information provided by the licensee (and summarized above), the staff concludes that the changes to the POD model and the associated technical specification changes are acceptable since the changes in the methodology result in sufficiently conservative projections of the EOC voltage distribution and that prompt corrective actions will be taken when the results are not sufficiently conservative.

## 4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the California State official was notified of the proposed issuance of the amendments. The State official had no comments.

## 5.0 ENVIRONMENTAL CONSIDERATION

These amendments relate to changes in recordkeeping, reporting, or administrative procedures or requirements. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(10). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

## 6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

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