



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

October 31, 2012

Mr. Edward D. Halpin
Senior Vice President and Chief Nuclear Officer
Pacific Gas and Electric Company
Diablo Canyon Power Plant
P.O. Box 56, Mail Code 104/6
Avila Beach, CA 93424

SUBJECT: DIABLO CANYON POWER PLANT, UNIT NOS. 1 AND 2 - ISSUANCE OF AMENDMENTS RE: REVISION TO TECHNICAL SPECIFICATION 3.7.1, "MAIN STEAM SAFETY VALVES (MSSVS)," AND FINAL SAFETY ANALYSIS REPORT UPDATE (TAC NOS. ME5713 AND ME5714)

Dear Mr. Halpin:

The U.S. Nuclear Regulatory Commission (the Commission) has issued the enclosed Amendment No. 212 to Facility Operating License No. DPR-80 and Amendment No. 214 to Facility Operating License No. DPR-82 for the Diablo Canyon Power Plant (DCPP), Unit Nos. 1 and 2, respectively. The amendments consist of changes to the Technical Specifications (TSs) and the Final Safety Analysis Report Update (FSARU) in response to your application dated February 17, 2011, as supplemented by letters dated April 21, 2011, February 27, 2012, and July 2, 2012.

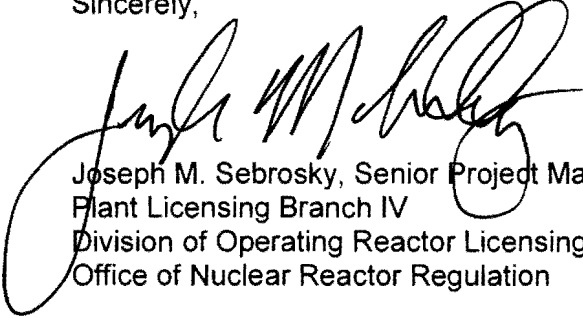
The amendments revise TS 3.7.1, "Main Steam Safety Valves (MSSVs)," Table 3.7.1-1, "Maximum Allowable Power Range Neutron Flux High Setpoint with Inoperable MSSVs," to remove a one-time note specific to DCPP, Unit No. 2 for Cycle 15, which is no longer applicable or needed. The licensee also proposed to revise the TS Bases, applicable to DCPP, Unit Nos. 1 and 2, to adopt a new analysis methodology for establishing the reduced power range neutron flux high setpoint for one inoperable MSSV as listed in TS Table 3.7.1-1. By letter dated April 21, 2011, the licensee clarified that the proposed revision to the TS Bases is a revision to the FSARU Sections 15.2.7.3, "Results," and 15.2.16, "References."

E. Halpin

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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,

A handwritten signature in black ink, appearing to read "Joseph M. Sebrosky". The signature is fluid and cursive, with a large loop at the end.

Joseph M. Sebrosky, Senior Project Manager
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-275 and 50-323

Enclosures:

1. Amendment No. 212 to DPR-80
2. Amendment No. 214 to DPR-82
3. Safety Evaluation

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

PACIFIC GAS AND ELECTRIC COMPANY

DOCKET NO. 50-275

DIABLO CANYON NUCLEAR POWER PLANT, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 212
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 February 17, 2011, as supplemented by letters dated April 21, 2011, February 27, 2012, and July 2, 2012, 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.

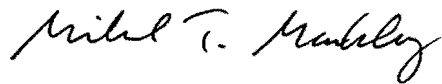
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and Paragraph 2.C.(2) of Facility Operating License No. DPR-80 is hereby amended to read as follows:

- (2) Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 212, are hereby incorporated in the license. Pacific Gas & 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.

3. This license amendment is effective as of its date of issuance and shall be implemented within 90 days from the date of issuance. Implementation of the amendment shall also include revision of the Final Safety Analysis Report Update as described in the licensee's letter dated April 21, 2011.

FOR THE NUCLEAR REGULATORY COMMISSION



Michael T. Markley, Chief
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Facility
Operating License No. DPR-80
and Technical Specifications

Date of Issuance: October 31, 2012



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

PACIFIC GAS AND ELECTRIC COMPANY

DOCKET NO. 50-323

DIABLO CANYON NUCLEAR POWER PLANT, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 214
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 February 17, 2011, as supplemented by letters dated April 21, 2011, February 27, 2012, and July 2, 2012, 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.

Enclosure 2

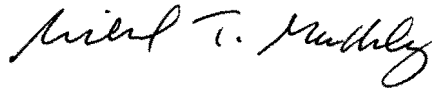
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and Paragraph 2.C.(2) of Facility Operating License No. DPR-82 is hereby amended to read as follows:

- (2) Technical Specifications (SSER 32, Section 8)* and Environmental Protection Plan

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 214, are hereby incorporated in the license. Pacific Gas & 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.

3. This license amendment is effective as of its date of issuance and shall be implemented within 90 days from the date of issuance. Implementation of the amendment shall also include revision of the Final Safety Analysis Report Update as described in the licensee's letter dated April 21, 2011.

FOR THE NUCLEAR REGULATORY COMMISSION



Michael T. Markley, Chief
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Facility
Operating License No. DPR-82
and Technical Specifications

Date of Issuance: October 31, 2012

ATTACHMENT TO LICENSE AMENDMENT NOS. 212 AND 214
TO FACILITY OPERATING LICENSE NOS. DPR-80 AND DPR-82
DOCKET NOS. 50-275 AND 50-323

Replace the following pages of the Facility Operating License Nos. DPR-80 and DPR-82, and Appendix A Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Facility Operating License No. DPR-80

<u>REMOVE</u>	<u>INSERT</u>
-3-	-3-

Facility Operating License No. DPR-82

<u>REMOVE</u>	<u>INSERT</u>
-3-	-3-

Technical Specifications

<u>REMOVE</u>	<u>INSERT</u>
3.7-2	3.7-2

- (4) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
- (5) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.

C. This License shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

The Pacific Gas and Electric Company is authorized to operate the facility at reactor core power levels not in excess of 3411 megawatts thermal (100% rated power) in accordance with the conditions specified herein.

(2) Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 212, are hereby incorporated in the license. Pacific Gas & 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.

(3) Initial Test Program

The Pacific Gas and Electric Company shall conduct the post-fuel-loading initial test program (set forth in Section 14 of Pacific Gas and Electric Company's Final Safety Analysis Report, as amended), without making any major modifications of this program unless modifications have been identified and have received prior NRC approval. Major modifications are defined as:

- a. Elimination of any test identified in Section 14 of PG&E's Final Safety Analysis Report as amended as being essential;

- (4) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
- (5) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.

C. This License shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

The Pacific Gas and Electric Company is authorized to operate the facility at reactor core power levels not in excess of 3411 megawatts thermal (100% rated power) in accordance with the conditions specified herein.

(2) Technical Specifications (SSER 32, Section 8)* and Environmental Protection Plan

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 214, are hereby incorporated in the license. Pacific Gas & 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.

(3) Initial Test Program (SSER 31, Section 4.4.1)

Any changes to the Initial Test Program described in Section 14 of the FSAR made in accordance with the provisions of 10 CFR 50.59 shall be reported in accordance with 50.59(b) within one month of such change.

*The parenthetical notation following the title of many license conditions denotes the section of the Safety Evaluation Report and/or its supplements wherein the license condition is discussed.

Table 3.7.1-1 (page 1 of 1)
Maximum Allowable Power Range Neutron Flux High Setpoint With Inoperable MSSVs

MINIMUM NUMBER OF MSSVs PER STEAM GENERATOR REQUIRED OPERABLE	MAXIMUM ALLOWABLE POWER RANGE NEUTRON FLUX HIGH SETPOINT %RTP
4	87*
3	47*
2	29*

* Unless the reactor trip system breakers are in the open position.



UNITED STATES
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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 212 TO FACILITY OPERATING LICENSE NO. DPR-80
AND AMENDMENT NO. 214 TO FACILITY OPERATING LICENSE NO. DPR-82
PACIFIC GAS AND ELECTRIC COMPANY
DIABLO CANYON POWER PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-275 AND 50-323

1.0 INTRODUCTION

By application dated February 17, 2011, as supplemented by letters dated April 21, 2011, February 27, 2012, and July 2, 2012 (Agencywide Documents Access and Management System (ADAMS) Accession Nos. ML110480870, ML111120056, ML12059A076, and ML121850128, respectively), Pacific Gas and Electric Company (PG&E, the licensee) requested changes to the Technical Specifications (TSs, Appendix A to Facility Operating License Nos. DPR-80 and DPR-82) and the Final Safety Analysis Report Update (FSARU) for the Diablo Canyon Power Plant (DCPP), Unit Nos. 1 and 2.

The amendments would revise TS 3.7.1, "Main Steam Safety Valves (MSSVs)," Table 3.7.1-1, "Maximum Allowable Power Range Neutron Flux High Setpoint with Inoperable MSSVs," to remove a one-time note specific to DCPP, Unit No. 2 for Cycle 15, which is no longer applicable or needed. In its letter dated February 17, 2011, the licensee also proposed to revise the TS Bases, applicable to DCPP, Unit Nos. 1 and 2, to adopt a new analysis methodology for establishing the reduced power range neutron flux high setpoint for one inoperable MSSV as listed in TS Table 3.7.1-1. By letter dated April 21, 2011, the licensee clarified that the proposed revision to the TS Bases is a revision to the FSARU Sections 15.2.7.3, "Results," and 15.2.16, "References."

The supplemental letters dated April 21, 2011, February 27, 2012, and July 2, 2012, provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the U.S. Nuclear Regulatory Commission (NRC) staff's original proposed no significant hazards consideration determination as published in the *Federal Register* on May 17, 2011 (76 FR 28475).

2.0 REGULATORY EVALUATION

In Section 50.36, "Technical specifications," of Title 10 of the *Code of Federal Regulations* (10 CFR), the NRC established its regulatory requirements related to the content of TSs. Pursuant to 10 CFR 50.36, TSs are required to include items in the following five specific categories related to station operation: (1) safety limits, limiting safety system settings, and limiting control settings; (2) limiting conditions for operation; (3) surveillance requirements; (4) design features; and (5) administrative controls. Because the licensee determined that adopting a new analysis methodology for establishing the reduced power range neutron flux high setpoint for one inoperable MSSV required NRC approval under 10 CFR 50.59, the licensee submitted this license amendment request (LAR) pursuant to 10 CFR 50.90.

The requirement of General Design Criterion (GDC) 15, "Reactor coolant system design," of Appendix A to 10 CFR Part 50 specifies that

The reactor coolant system and associated auxiliary, control, and protection systems shall be designed with sufficient margin to assure that the design conditions of the reactor coolant pressure boundary are not exceeded during any condition of normal operation, including anticipated operational occurrences.

The main purpose of the MSSVs is to provide overpressure protection for the reactor coolant system (RCS) and steam generators (SGs). Together with the reactor protection system, the MSSVs ensure that the RCS and SG pressures meet the GDC 15 requirement in terms of the pressure code limit (110 percent of design pressure). Compliance with the GDC requirement is demonstrated in the analysis of design basis events.

In 1994, Westinghouse Electric Company issued Nuclear Safety Advisory Letter (NSAL) 94-001, "Operation at Reduced Power Levels with Inoperable MSSVs," dated January 20, 1994, and the NRC issued Information Notice 94-60, "Potential Overpressurization of Main Steam System," dated August 22, 1994, which included NSAL 94-001 as an enclosure (ADAMS Accession No. ML033090523). NSAL 94-001 stated that under certain conditions with typical safety analysis assumptions, a loss of load/turbine trip (LOL/TT) transient from partial load conditions could result in overpressurization of the main steam system when operating in accordance with the existing TS 3.7.1 reduced power range neutron flux high trip setpoints. By letter dated December 23, 1997 (ADAMS Legacy Accession No. 9801020098), PG&E proposed revising the reduced power range neutron high flux trip setpoints based explicitly on the NSAL 94-001 calculation methodology for two and three inoperable MSSVs. The licensee performed a RETRAN-02 analysis of the LOL/TT event to establish that the existing power range neutron high flux setpoint was conservatively bounding. By letter dated May 28, 1998, the NRC reviewed and accepted these revisions to TS 3.7.1.1, Table 3.7-1 and the associated bases for the power range neutron flux high trip setpoint in the issuance of License Amendment Nos. 125 and 123 for DCP, Unit Nos. 1 and 2, respectively (ADAMS Accession No. ML022400047).

During the development of PG&E's emergency LAR 09-04* dated September 3, 2009 (ADAMS Accession No. ML093580627), a nonconforming condition was identified in the older analyses, which was submitted to the NRC via PG&E Letter DCL-97-105, "LAR 97-06: Revision of Technical Specification 3.7.1.1, Table 3.7-1 and Associated Bases - Reduced Power Operation Levels for Inoperable MSSVs," dated December 23, 1997. PG&E determined that the 1997 analysis assumptions were not conservatively bounding in all cases. In response to this condition, a specific LOL/TT analysis was incorporated into the emergency LAR. To permanently resolve the nonconforming condition, the licensee performed a new loss of load (LOL) analysis to demonstrate acceptability over the full range of the operating cycle moderator temperature coefficient (MTC) conditions. This amendment will incorporate the new methodology into the FSARU.

3.0 TECHNICAL EVALUATION

3.1 Proposed TS Change

In its letter dated February 17, 2011, the licensee proposed to remove a one-time note listed in TS Table 3.7.1-1, "Maximum Allowable Power Range Neutron Flux High Setpoint with Inoperable MSSVs," specific to DCP, Unit No. 2, Cycle 15, which states:

For Unit 2 Cycle 15 with only MS-2-RV-224 inoperable, a Maximum Allowable Power Range Neutron Flux High Setpoint of 106% RTP may be used. If the as-found channel setpoint is outside its predefined as-found tolerance, then the channel shall be evaluated to verify that it is functioning as required before returning the channel to service. The instrument channel setpoint shall be reset to a value that is within the as-left tolerance around the Nominal Trip Setpoint (NTSP) at the completion of the surveillance; otherwise, the channel shall be declared inoperable. Setpoints more conservative than the NTSP are acceptable provided that the as-found and as-left tolerances apply to the actual setpoint implemented in the Surveillance procedures to confirm channel performance. The methodologies used to determine the as-found and the as-left tolerances are specified in the Equipment Control Guidelines.

3.2 Background

The RCS and SG overpressure protection is provided by actuation of the MSSVs and the reactor protection system. They are designed to ensure that the GDC 15 requirement in terms of the pressure code limit of 1210 pounds per square inch absolute (psia) is met (i.e., 110 percent of the design pressure). When a plant is operating at a reduced power level with one or more MSSVs inoperable, a reactor trip from the signal of high pressurizer pressure, over-temperature ΔT (OTDT), or SG low-low level may not occur before the SG pressure exceeds the code limit during the transient. In order to limit the consequences of the events that challenge the relieving capacity of the MSSVs, a reduction in the power range neutron flux high

* In the safety evaluation dated September 17, 2009, the NRC staff concluded that the licensee's request for an emergency amendment did not meet the standard in 10 CFR 50.91(a)(5) for emergency circumstances. License Amendment No. 208 for DCP, Unit No. 2, was issued under exigent circumstances in accordance with 10 CFR 50.91(a)(6) (ADAMS Accession No. ML092540544).

(PRNF-H) trip setpoint is required for operation with inoperable MSSVs to appropriate values. TS Table 3.7.1-1 contains those values at DCP.

3.3 NRC Staff Evaluation

As stated in the DCP FSARU, the full power LOL/TT without steam dump is the limiting anticipated operational occurrence with respect to secondary system pressure. In support of the proposed TS Bases changes, the licensee reanalyzed the LOL/TT event only for the nonconforming cases involving one MSSV per steam lead inoperable. The existing analysis of record is conservatively bounding for the rest of the LOL/TT cases.

The reanalysis was performed with the RETRAN-02W code, documented in the proprietary Westinghouse WCAP-14882-P-A, "RETRAN-02 Modeling and Qualification for Westinghouse Pressurized Water Reactor Non-LOCA [Loss-of-Coolant Accident] Safety Analysis," April 1999. The RETRAN-02W non-LOCA analysis methodology was incorporated into the DCP licensing basis as part of a recent Steam Generator Replacement Project (SGRP). The reanalysis used the RETRAN-02W models developed for the DCP, Unit No. 1 and 2 SGRP. In the reanalysis, the values assumed for the initial plant conditions and core characteristics (such as the positive MTCs) covered a range of reduced power and MTC conditions to establish a conservative, bounding PRNF-H setpoint.

The licensee benchmarked the reanalysis to the analysis of record in FSARU Section 15.2.7, "Loss of External Electrical Load and/or Turbine Trip," and then ran four additional cases at various power and MTC conditions. The reanalysis credits the OTDT reactor trip protection function consistent with that shown in FSARU Figure 15.1-1, "Illustration of Overpower and Overtemperature ΔT Protection." Additionally, the automatic turbine runback control feature for the OTDT function is not credited and the pressurizer power-operated relief valves are assumed to be operable with an elevated relief flow capacity that precludes RCS pressure from reaching the high pressurizer pressure reactor trip before the OTDT reactor trip. The MSSV on each SG with the lowest nominal setpoint was assumed to be unavailable and a 3 percent tolerance was assumed for all the available MSSVs. The reanalysis demonstrates that SG pressure will remain below 1210 psia. The reanalysis reestablishes the basis for the TS setpoint for one MSSV inoperable listed in TS Table 3.7.1-1. The LAR did not request a change to the setpoint; therefore, it will remain at 87 percent rated thermal power.

MSSV Modeling

PG&E Calculation STA-279, Rev. 0, dated September 3, 2009, "RETRAN Loss of Load Evaluation with an Inoperable MSSV," which is referenced in support of this LAR, incorporates a new model of MSSV behavior related to full-open accumulation conditions. Previously, the RETRAN LOL evaluation assumed a simple conservative safety valve model based on a +3 percent drift in the lift setpoint and a 3 percent additional increase (roughly + 30 pounds per square inch (psi)) in the accumulation pressure until the safety valve was assumed to be at full-flow conditions. The current RETRAN LOL evaluation still assumes a +3 percent setpoint drift, but assumes +5 psi accumulation to full open instead of the simple conservative +3 percent assumption.

In PG&E letter DCL-12-065 dated July 2, 2012, the licensee provided RAI responses which included a limited set of accumulation test data for Dresser pressurizer safety valves that are stated to be similar to the Dresser MSSVs at DCP. These data suggest that the accumulation value for these valves is approximately 5 psi, although there is some scatter and uncertainty in the test data.

The NRC staff agrees that the +3 percent accumulation analysis model used previously for MSSVs is quite conservative. However, the staff was concerned with the total elimination of conservatism in the assumed accumulation value in the current analysis and its effect on system over-pressurization. The licensee provided information regarding the conservatisms which exist in the analysis to demonstrate that the maximum allowable pressure will not be exceeded:

1. The licensee provided approximately 15 years' of test data for the DCP Unit Nos. 1 and 2 MSSVs indicating that the valves routinely lift at significantly less than the +3 percent setpoint drift assumed in the analysis.
2. In each of the DCP units, two of the four main steam leads pass through the auxiliary building with the MSSVs connected to the main steamline by a vertical header 25 to 30 feet long to enable them to discharge directly to the atmosphere. (The other two main steam leads are located outside and the MSSVs are attached directly to the main steamline with essentially no inlet piping.) The analysis adjusts the MSSV lift and full-open setpoints to bound the effects of the maximum pressure drop during relief flow conditions of the additional header length and conservatively extends this penalty to the MSSVs on the outside steamlines, even though the valves on these steamlines are not so affected.

The NRC staff determined that if the analysis demonstrates the adequacy of the system overpressure protection with sufficiently conservative deterministic criteria and acceptably conservative input parameters and analysis methodology, then no minimal margin beyond the acceptance criteria is required. The staff has reviewed the licensee's analysis methodology and input assumptions and agrees that they are sufficiently conservative. Thus, the licensee has met the required limits for over-pressurization and other acceptance criteria, and demonstrated that maximum allowable pressure would not be exceeded.

Regarding the specific analysis model of MSSV performance, the NRC staff agrees that modeling the MSSVs to open fully at their setpoints (with a +3 percent tolerance) plus a 5 psi accumulation is acceptable and is consistent with other data that the staff has reviewed for other MSSV installations. The previous method used in modeling the MSSV performance involved the valve beginning to open at the setpoint pressure plus 3 percent drift and becoming fully open after an additional 3 percent pressure rise (accumulation). The proposed method is more nearly a best-estimate modeling technique (i.e., an additional 5 psi pressure rise (accumulation) during the several milliseconds it takes for the valve to fully open having reached its conservatively modeled setpoint) and, as such, provides no additional conservatism beyond that required to meet the acceptance criterion. Although the previous method of modeling the MSSVs is more conservative than that being currently proposed, the staff agrees that the overall conservatism of the analysis assumptions taken together is adequate.

The NRC staff reviewed the data provided in the licensee's calculation of the main parameters of the primary and secondary systems for one MSSV per steam lead inoperable. The data was produced using an acceptable NRC code. The assumptions, inputs, and limitations used in the code were conservative. PG&E adhered to all limitations in using the RETRAN-02 code as required by and documented in the NRC Safety Evaluation Report for WCAP-14882-P-A dated February 11, 1999.

The NRC staff has reviewed the licensee's proposed change to the FSARU to adopt a new analysis methodology for establishing the reduced power range neutron flux high setpoint for one inoperable MSSV as listed in TS Table 3.7.1-1. The staff concludes that the proposed change is in accordance with guidance provided in the applicable codes and standards. The main steam system will remain fully capable of providing its design safety function of overpressure protection with the appropriate number of MSSVs operable at the reactor power level specified.

3.4 Removal of One-Time Note

The note in TS Table 3.7.1-1, "Maximum Allowable Power Range Neutron Flux High Setpoint with Inoperable MSSVs," for the Unit 2 Facility Operating License DPR-82 is specific to DCCP Unit No. 2 Cycle 15. The unit has completed Cycle 15; therefore, the NRC staff concludes the note is no longer applicable, and that the removal of the note is editorial in nature. Therefore, it is acceptable to remove the note.

3.5 TS Bases Changes

The licensee's letter dated February 17, 2011, as supplemented by letter dated April 21, 2011, provided proposed changes to the TS Bases to be implemented with the associated TS changes. The TS Base pages were provided for information only and will be revised in accordance with TS 5.5.14, "Technical Specifications (TS) Bases Control Program."

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

The amendments change a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration and there has been no public comment on such finding published in the *Federal Register* on May 17, 2011 (76 FR 28475). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). 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) there is reasonable assurance that 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.

Principal Contributor: Jennifer Gall

Date: October 31, 2012

E. Halpin

- 2 -

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/

Joseph M. Sebrosky, Senior Project Manager
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-275 and 50-323

Enclosures:

1. Amendment No. 212 to DPR-80
2. Amendment No. 214 to DPR-82
3. Safety Evaluation

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NAME	SLynch*	JSebrosky	JBurkhardt	JThorp	CJackson
DATE	2/13/12	10/25/12	10/12/12	2/29/12	10/10/12
OFFICE	NRR/DE/EPTB/BC	NRR/DSS/STSB/BC	OGC	NRR/LPL4/BC	NRR/LPL4/PM
NAME	AMcMurtray	RElliott	MSmith	MMarkley	JSebrosky
DATE	10/4/12	10/15/12	10/24/12	10/30/12	10/31/12

OFFICIAL RECORD COPY