



Pacific Gas and Electric Company®

September 29, 2006

PG&E Letter DCL-06-114

U.S. Nuclear Regulatory Commission
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Docket No. 50-323, OL-DPR-82
Diablo Canyon Unit 2
Response to Request for Additional Information Regarding License Amendment Request 06-02, "Revision to Technical Specification 5.6.5, 'Core Operating Limits Report (COLR)'"

Dear Commissioners and Staff:

Pacific Gas and Electric Company Letter DCL-06-006, dated January 13, 2006, submitted License Amendment Request (LAR) 06-02, "Revision to Technical Specification 5.6.5, 'Core Operating Limits Report (COLR).'" LAR 06-02 proposes to revise Technical Specification (TS) 5.6.5, "Core Operating Limits Report (COLR)," by adding WCAP-16009-P-A, "Realistic Large-Break LOCA Evaluation Methodology Using the Automated Statistical Treatment of Uncertainty Method (ASTRUM)," dated January 2005, as an approved analytical method for determining core operating limits for Unit 2.

On July 14, 2006, the NRC staff requested additional information required to complete the review of LAR 06-02. The enclosure provides the requested information.

The response provided in this submittal does not affect the results of the technical evaluation or the no significant hazards consideration determination previously transmitted in DCL-06-006.

PG&E makes no regulatory commitments or revisions to regulatory commitments in this letter. If you have any questions or require additional information, please contact Stan Ketelsen at (805) 545-4720.

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

Executed on ~~September~~ September 29, 2006

James R. Becker

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jer1/3664
Enclosure

cc: Edgar Bailey, DHS
Terry W. Jackson
Bruce S. Mallett
Diablo Distribution
cc/enc: Alan B. Wang

**Response to Request for Additional Information Regarding License
Amendment Request 06-02, "Revision to Technical Specification 5.6.5,
'Core Operating Limits Report (COLR)'"**

NRC Question No. 1

Confirm that performing the Unit 2 BELOCA [best estimate loss of coolant loss-of-coolant accident] analysis with an assumed nominal core power level of 3468 MWt [megawatt, thermal] and an associated uncertainty of 0.3 percent is conservatively bounding.

PG&E Response to Question No. 1

The BELOCA methodology used in WCAP-16009-P-A, "Realistic Large-Break LOCA Evaluation Methodology Using the Automated Statistical Treatment of Uncertainty Method (ASTRUM)," performs a statistical treatment of key parameter uncertainties in order to calculate a ninety fifth percentile peak cladding temperature (PCT) value. The core power level is one of the key input parameters, which is randomly sampled for each of the 124 WCOBRA/TRAC cases, which are analyzed to establish the ninety fifth percentile PCT result. A greater core power level results in increased initial fuel temperatures and decay heat for a given case analysis and thus generates a more limiting PCT result. In order to conservatively bound any future potential increase in the licensed maximum core power level associated with a measurement uncertainty recapture (MUR) power uprate, the Unit 2 BELOCA analysis was performed with an assumed core power level of 3468 MWt. This analyzed core power level represents a 1.7 percent increase with respect to the current Unit 2 licensed maximum core power level of 3411 megawatt, thermal (MWt). The ASTRUM BELOCA statistical analysis was then performed based on a uniform probability distribution corresponding to 0.3 percent uncertainty about the assumed value of 3468 MWt.

Figure 1 shows example plots of the uniform probability distribution for a core power level of 3411 MWt analyzed with a 2 percent uncertainty, and the Unit 2 ASTRUM BELOCA assumed core power level of 3468 MWt with a 0.3 percent analyzed uncertainty. The figure shows the core power probability distribution analyzed for the Unit 2 ASTRUM BELOCA results in a significant shift and increase in the probabilistic power level compared to the 3411 MWt case with a 2 percent uncertainty. Since an increase in the analyzed core power level results in a larger PCT value, the Unit 2 ASTRUM BELOCA analyzed a more limiting core power level probability distribution and generated PCT results that are conservatively bounding for the current Unit 2 licensed maximum core power level of 3411 MWt with a 2 percent uncertainty.

NRC Question No. 2

Confirm that PG&E is not implementing any core power level changes for Unit 2 as part of this COLR amendment and any such core power uprate will only be implemented in a separate license amendment.

PG&E Response to Question No. 2

PG&E is not implementing any core power level changes as part of this COLR license amendment. The assumed nominal core power level for the ASTRUM BELOCA analysis was increased to preclude having to perform a BELOCA re-analysis should a MUR power uprate be implemented for Unit 2. Any such calorimetric power uprate would only be implemented following NRC approval of a separate license amendment request that evaluates the applicable license and design basis changes.

Figure 1: Examples of Uniform Probability Distributions for Assumed for BELOCA Power Levels

