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PG&E Letter DCL-13-044

U.S. Nuclear Regulatory Commission
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11555 Rockville Pike
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10 CFR 50.54(f)

Docket No. 50-275, OL-DPR-80
Docket No. 50-323, OL-DPR-82
Diablo Canyon Units 1 and 2

Response to NRC Request for Information Pursuant to 10 CFR 50.54(f) Regarding
the Seismic Aspects of Recommendation 2.1 of the Near-Term Task Force Review
of Insights from the Fukushima Dai-ichi Accident

References:

1. NRC Letter, "Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3 of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident," dated March 12, 2012
2. Federal Register, Vol. 78, No. 38, Tuesday, February 26, 2013, pp. 13097-13099
3. NEI letter to NRC, "Proposed Path Forward for NTTF Recommendation 2.1: Seismic Reevaluations," dated April 9, 2013
4. NRC Letter, Endorsement of Electric Power Research Institute Final Draft Report 1025287, "Seismic Evaluation Guidance," dated February 15, 2012
5. Electric Power Research Institute (EPRI) Report No. 1025287, "Seismic Evaluation Guidance: Screening, Prioritization and Implementation Details (SPID) for the Resolution of Fukushima Near-Term Task Force Recommendation 2.1: Seismic," dated November 2012.

Dear Commissioners and Staff:

On March 12, 2012, the Nuclear Regulatory Commission (NRC) issued Reference 1 to Pacific Gas and Electric Company (PG&E). Reference 1, Enclosure 1 contains specific Requested Actions, Requested Information, and Required Responses associated with Recommendation 2.1 Seismic. Reference 1, Enclosure 1, Required Response 1 requires a 60-day response in which PG&E must submit: (1) its intent



to follow the developed guidance or (2) an alternative approach, including acceptance criteria. In accordance with References 1 and 2, the 60-day responses are due to the NRC by April 29, 2013.

PG&E Letter DCL-12-060, "Pacific Gas and Electric Company's Response to NRC Request for Information Pursuant to 10 CFR 50.54(f) Regarding the Seismic Aspects of Recommendation 2.1 of the Near-Term Task Force Review of Insights from the Fukushima Dai-Ichi Accident," dated June 7, 2012, confirmed that PG&E will assess whether it can meet the submittal deadlines for the seismic hazard evaluation and seismic risk evaluation and submit its intention to follow the endorsed guidance or an alternative approach.

PG&E intends to respond to Reference 1, Enclosure 1 by following the approach described in Reference 3 on the schedule provided in Reference 3 with the following two clarifications:

- (1) PG&E will perform the safe shutdown earthquake (SSE) to ground motion response spectrum (GMRS) comparison consistent with EPRI 3002000704, Section 2.2, footnote 1 (Reference 3, Attachment 1), using the Diablo Canyon Power Plant (DCPP) double design earthquake (DDE) as the SSE. DCPP Updated Final Safety Analysis Report, Section 3.7.1.1 indicates that the DDE corresponds to the SSE, as described in 10 CFR 100, Appendix A.
- (2) PG&E will develop the review-level ground motion (RLGM) in accordance with either Criteria 1 or 2 of EPRI 300200704, Section 4 (Reference 3, Attachment 1). For Criterion 1, PG&E will utilize the 5 percent damped free-field 1977 Hosgri earthquake (HE) spectrum as the baseline. The 1977 HE is part of DCPP's design basis, previously reviewed and accepted by the NRC, and the spectrum shape is similar to the anticipated updated GMRS. The updated GMRS shape is expected to be similar to the 10^{-4} uniform hazard spectra, provided in Section 6.8.2 of PG&E Letter DCL-11-005, "Report on the Analysis of the Shoreline Fault Zone, Central Coastal California," dated January 7, 2011. The ratio of the 1977 HE spectrum to the SSE (DDE) is 1.3 to 2.5 x SSE in the 1 to 10 Hz frequency range and 1.9 x SSE at zero period acceleration. In order to develop RLGM, the 1977 HE spectrum will be scaled-up (if necessary) at each frequency to envelop the 5 percent damped updated GMRS, which is currently being developed in accordance with References 4 and 5. The RLGM in-structure response spectra (ISRS) will be derived by scaling the 1977 HE ISRS based on the frequency-dependent ratio of the GMRS spectrum to the 1977 HE spectrum. The result will be a RLGM that envelops the updated GMRS. Therefore, the use of the 1977 HE for



developing RLGM and in-structure RLGM seismic motion is appropriate for this beyond design basis, expedited evaluation process assessment.

PG&E is making a regulatory commitment (as defined by NEI 99-04) in the Enclosure of this letter. This letter includes no revisions to existing regulatory commitments.

If you have any questions, or require additional information, please contact Mr. Terence L. Grebel at (805) 545-4160.

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

Executed on April 29, 2013.

Sincerely,

Barry S. Allen
Site Vice President

dmfn/SAPN 50465913

Enclosure

cc: Diablo Distribution

cc:/enc: Thomas R. Hipschman, NRC, Senior Resident Inspector

Arthur T. Howell, III, NRC Region IV

Eric J. Leeds, NRC Director, Office of Nuclear Reactor Regulation

James. T. Polickoski, NRR Project Manager

Regulatory Commitments

PG&E is making the following regulatory commitment (as defined by NEI 99-04) in this submittal:

Commitment	Due Date
<p>PG&E intends to respond to Reference 1, Enclosure 1 by following the approach described in Reference 3 on the schedule provided in Reference 3 with the following two clarifications:</p> <p>(1) PG&E will perform the safe shutdown earthquake (SSE) to ground motion response spectrum (GMRS) comparison consistent with EPRI 3002000704, Section 2.2, footnote 1 (Reference 3, Attachment 1), using the Diablo Canyon Power Plant (DCPP) double design earthquake (DDE) as the SSE.</p> <p>(2) PG&E will develop the review-level ground motion (RLGM) in accordance with either Criteria 1 or 2 of EPRI 300200704, Section 4 (Reference 3, Attachment 1). For Criterion 1, PG&E will utilize the 5 percent damped free-field 1977 Hosgri earthquake (HE) spectrum as the baseline. The ratio of the 1977 HE spectrum to the SSE (DDE) is 1.3 to 2.5 x SSE in the 1 to 10 Hz frequency range and 1.9 x SSE at zero period acceleration. In order to develop RLGM, the 1977 HE spectrum will be scaled-up (if necessary) at each frequency to envelop the 5 percent damped updated GMRS, which is currently being developed in accordance with References 4 and 5. The RLGM in-structure response spectra (ISRS) will be derived by scaling the 1977 HE ISRS based on the frequency-dependent ratio of the GMRS spectrum to the 1977 HE spectrum. The result will be a RLGM that envelops the updated GMRS.</p>	<p>Refer to Reference 3, Attachment 3</p>