

June 23, 2014

MEMORANDUM TO: Michael T. Markley, Chief
Plant Licensing IV-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

FROM: Peter J. Bamford, Project Manager */RA/*
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Office of Nuclear Reactor Regulation

SUBJECT: DIABLO CANYON POWER PLANT, UNITS 1 AND 2 - REVIEW OF
FINAL SAFETY ANALYSIS REPORT UPDATE, REVISION 21 (TAC
NOS. MF2945 AND MF2946)

This memorandum documents the in-office review of Revision 21 to the Final Safety Analysis Report (FSAR) Update for Diablo Canyon Power Plant (DCPP), Units 1 and 2, dated September 16, 2013 (not publicly available). The FSAR Update was submitted by Pacific Gas and Electric Company (PG&E, the licensee), in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 50.71(e). PG&E follows the guidance of Nuclear Energy Institute (NEI) 98-03, Revision 1, "Guidelines for Updating Final Safety Analysis Reports," and NEI 99-04, Revision 0, "Guidelines for Managing NRC Commitment Changes."

The time requirements for FSAR submittals are stated in 10 CFR 50.71(e)(4). Revisions must be filed annually or 6 months after each refueling outage provided the interval between successive updates does not exceed 24 months. In its letter dated December 8, 1997, the licensee requested an exemption from the time requirements stated in 10 CFR 50.71(e)(4) for DCPP, Units 1 and 2. As discussed in the licensee's exemption request, DCPP, Units 1 and 2, have a common FSAR. The rule would require FSAR updates within 6 months of each refueling outage, resulting in required FSAR updates every 12 months. As such, the licensee requested an exemption to allow the updates of the FSAR to be submitted within 6 months after each DCPP, Unit 2, refueling outage, but not to exceed 24 months from the last update. The Nuclear Regulatory Commission (NRC) staff approved the exemption in a letter dated March 12, 1998 (ADAMS Accession No. ML022400141). DCPP, Unit 2, completed its last refueling outage on March 23, 2013. The previous update of the DCPP FSAR, Revision 20, was submitted on November 16, 2011 (ADAMS Accession No. ML11332A181). Therefore, the September 16, 2013, submittal date for Revision 21 of the DCPP FSAR meets the requirements approved in the exemption since the submittal was within 6 months of the last DCPP, Unit 2, refueling outage and does not exceed 24 months from the last FSAR update.

As stated in the licensee's letter dated September 16, 2013, Revision 21 of the DCPP FSAR contains changes to reflect the plant configuration as of March 23, 2013. This meets the requirement in 10 CFR 50.71(e)(4) which states that the revisions must reflect all changes up to a maximum of 6 months prior to the date of filing.

Amendments

Revision 21 covered changes to the FSAR Update during the period June 6, 2011, through September 16, 2013. Each of the license amendments issued during the period were reviewed for impacts on the FSAR Update and included Amendment Nos. 211/213 through 216/218 (for Units 1 and 2, respectively). The following three amendments were identified which resulted in impacts on the FSAR Update:

- Amendment Nos. 211/213, dated March 29, 2012 (ADAMS Accession No. ML120790338), modified FSAR Update Sections 8.1.4.3, "Regulatory Guides," and 8.3.1.1.13.1, "Diesel Generator Unit Description," to identify an exception to Revision 0 of Regulatory Guide 1.9, "Application and Testing of Safety-Related Diesel Generators in Nuclear Power Plants";
- Amendment Nos. 212/214, dated October 31, 2012 (ADAMS Accession No. ML120300114), modified FSAR Update Sections 15.2.7.3, "Results," and 15.2.16, "References," to adopt a new analysis methodology for establishing the reduced power range neutron flux high setpoint for one inoperable main steam safety valve; and
- Amendment Nos. 214/216, dated January 9, 2013 (ADAMS Accession No. ML12345A379), modified FSAR Update Section 4.3.2.2, "Power Distribution," to allow the use of the Best Estimate Analyzer for the Core Operations-Nuclear (BEACON) Power Distribution Monitoring System methodology, as described in Westinghouse Electric Company LLC's WCAP-12472-P-A, Addendum 1-A, "BEACON Core Monitoring and Operation Support System," January 2000.

The FSAR Update changes for Amendment Nos. 211/213 were not apparent in Revision 21. The licensee had reorganized the FSAR Update, removing the numbered Sections 8.1.4.3 and 8.3.1.1.13.1. However, the licensee included the amendment's language in Section 8.3.1.1.6.3.13, "Safety Guide 9, March 1971 – Selection of Diesel Generator Set Capacity for Standby Power Supplies," and Section 8.3.1.1.6.1.13, "Safety Guide 9, March 1971 – Selection of Diesel Generator Set Capacity for Standby Power Supplies." With the inclusion of this exception in these two sections, the NRC staff concludes that the FSAR Update is consistent with the updates stated in Amendment Nos. 211/213.

Inspection Reports

The inspection reports (IR) for the appropriate period were reviewed. The first, IR 2012004, involved a non-cited violation of Appendix B, Criteria V, "Instructions, Procedures, and Drawings," after PG&E failed to promptly evaluate the operability of plant structures, systems, and components (SSCs) after a newly discovered local fault line. The IR, dated February 14, 2012 (ADAMS Accession No. ML120450843), indicated a need to update the FSAR Update with the new seismic information. The second, IR 2011005, dated November 13, 2012 (ADAMS Accession No. ML12318A385), involved a Severity Level IV violation where the licensee failed to update the FSAR Update with information describing how plant SSCs meet 10 CFR Part 50,

Appendix A. In both cases, the NRC staff confirmed that Revision 21 of the FSAR Update incorporated the corrective actions to address both these IRs.

Licensee Event Reports

The licensee event reports (LERs) for the appropriate period were reviewed. One LER documented events that listed corrective actions including updating the FSAR Update. This LER, dated June 3, 2013 (ADAMS Accession No. ML13155A238), documented an event in which the licensee identified an unanalyzed condition due to a nonconservative change in the FSAR Update Chapter 15, "Accident Analyses," which would have resulted in a higher received radiological dose received by control room operators during an accident, but would not exceed General Design Criteria 19. The LER described the corrective actions taken to address the event and NRC staff confirmed that Revision 21 of the FSAR Update incorporated the corrective actions described in the LER.

The NRC staff's sampling review of the FSAR Update, Revision 21 included the applicable amendments, IRs, and LERs. The staff did not find any commitments to modify the FSAR Update in its review. Based on the review, the staff concludes that the FSAR Update, Revision 21 was submitted consistent with the requirements in 10 CFR 50.71(e).

Docket Nos. 50-275 and 50-323

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Docket Nos. 50-275 and 50-323

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