California Energy Commission

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13-IEP-1J

TN 72393

DEC 03 2013

Recommendations

Diablo Canyon Power Plant

- Complete and make available *AB 1632 Report* recommended studies. PG&E should continue to provide updates on its progress in completing the *AB 1632 Report*-recommended studies to the Energy Commission and make its findings and conclusions available to the Energy Commission, the California Public Utilities Commission (CPUC), and the Nuclear Regulatory Commission during their reviews of the Diablo Canyon license renewal application.
- **Update evacuation time estimates**. PG&E should provide updated evacuation time estimates, including an evacuation scenario following a seismic event.
- Assess liability coverage adequacy. Based on mounting clean-up costs for the 2011 Fukushima accident, prior to reactivating the Diable Canyon license renewal application with the Nuclear Regulatory Commission, PG&E should provide to the Energy Commission and CPUC a comprehensive study on whether the Price-Anderson liability coverage for a severe event at Diable Canyon would be adequate to cover liabilities resulting from a large offsite release of radioactive materials in San Luis Obispo County, and if not, identify and quantify other funding sources that would be necessary to cover any shortfall. The CPUC should consider requiring P&GE to complete such a study as a condition of License Renewal funding approval.
- Evaluate seismic hazard analysis against the licensed design. To help ensure plant reliability and minimize costs to ratepayers, prior to reactivating the Diablo Canyon license renewal application with the Nuclear Regulatory Commission As part of the NRC's 50.54(f) requirements, PG&E should evaluate all its seismic hazard analyses for Diablo Canyon against the licensed design basis elements for the Design Earthquake and the Double Design Earthquake, in addition to the Hosgri earthquake element. PG&E should update the Energy Commission on the progress of this evaluation and share the final product with the Energy Commission when it is completed.
- Comply with applicable fire protection regulations. PG&E should, as expeditiously as possible, bring Diablo Canyon into compliance with the applicable 2004 National Fire Protection Agency fire protection regulations and report to the Energy Commission on their progress until full compliance is achieved.
- Evaluate long_term impacts and costs of spent fuel storage options. PG&E should evaluate the potential long_term impacts and projected costs of spent fuel storage in pools versus dry cask storage of higher burn-up fuels in densely packed pools, and the potential degradation of fuels and package integrity during long-term wet and dry storage and transportation offsite and submit the findings to the Energy Commission and CPUC.
- Evaluate the structural integrity of the spent fuel pools. To help ensure plant reliability and minimize costs to ratepayers, prior to reactivating the Diable Canyon license renewal application with the Nuclear Regulatory Commission, PG&E should provide to the Energy Commission and CPUC an evaluation of the structural integrity of the concrete and reinforcing steel in the spent fuel pools, including any increased vulnerability to damage resulting from a seismic event.

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• Evaluate the annual capability of moving spent fuel bundles to dry cask storage. PG&E should perform, and report to the Energy Commission and CPUC as part of the 2014 IEPR Update, an evaluation of the inventory of the spent fuel pools to determine the maximum number of spent fuel bundles it can move on a per year basis from the spent fuel pools into dry cask storage, taking into consideration the following constraints:

Thermal limits of the dry casks imposing a minimum threshold on the age of the spent fuels;

Federal requirements on older spent fuels surrounding newer spent fuels; Availability of dry casks;

Building schedule(s) of dry cask storage pads;

Coordination of refueling outages and dry casks loading schedules; and Availability of plant staff and contractors for dry cask loadings.

- Transfer spent fuel to dry casks as expeditiously as possible. To reduce the volume of spent fuel packed into Diablo Canyon's storage pools (and consequently the radioactive material available for dispersal in the event of an accident or sabotage), PG&E should, as soon as practicable and while maintaining compliance with Nuclear Regulatory Commission spent fuel cask and pool storage requirements, transfer spent fuel from the pools into dry casks, while maintaining compliance with Nuclear Regulatory Commission spent fuel cask and pool storage requirements and report to the Energy Commission on its progress until the pools have been returned to open racking arrangements.
- Complete the evaluation of laminar flaws on Unit 2 pressurizer nozzles. The Diablo Canyon Independent Safety Committee should monitor PG&E's progress in completing the root cause evaluation of laminar flaws on the Unit 2 pressurizer nozzles and identification of required corrective actions over the next cycle of operation, and follow the issue until it is resolved