

From: [Perry Buckberg](#)
To: [Diane Curran](#)
Cc: h templeton@foe.org; cleary@ewg.org
Subject: Diablo Canyon Seismic Core Damage 2.206 petition - Accepted
Date: Thursday, August 22, 2024 7:37:00 AM

Good morning Diane,

The Office of Nuclear Reactor Regulation has concurred with the Petition Review Board's (PRB) recommendation to accept your March 4, 2024, petition, as supplemented, regarding the risk of seismic induced core damage at Diablo Canyon. Specifically, the concerns **below** are being accepted into the 2.206 process in accordance with MD 8.11 (ML18296A043), sections III.C.1(a) and (b) and the concerns will be reviewed by the PRB in accordance with MD 8.11, section IV.

In addition, on March 28, 2024 (ML24088A238) I informed you of the staff determination that immediate closure of Diablo Canyon was not necessary. The NRC staff position regarding immediate closure remains the same.

The PRB has prepared a formal 'Acknowledgement Letter' describing this acceptance determination which will be issued shortly. Once the PRB staff has completed its review of the concerns below, the PRB will consider whether enforcement action is warranted. This decision by the PRB will be documented in Proposed Director's Decision which will be sent to you for comment before issuance of a Final Director's Decision.

If you have any questions regarding this e-mail, please feel free to contact me at Perry.Buckberg@nrc.gov.

Thanks,

Perry Buckberg

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U.S. Nuclear Regulatory Commission

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Accepted Concerns from the March 4, 2024, Petition, as Supplemented

1. Thrust faulting is neglected by Pacific Gas & Electric Company's (PG&E) 2012 Seismic Source Characterization (SSC) model because the model assumes that a majority of large earthquakes affecting Diablo Canyon are strike-slip and disregards the significant contribution of thrust faulting earthquake sources under the Diablo Canyon site and the adjacent Irish Hills. In addition, PG&E did not use a hanging-wall term for the modeling of potential ground motions from the Los Osos and San Luis Bay thrust faults.
2. The January 2024 magnitude 7.5 (moment magnitude) earthquake centered in the Noto Peninsula (Japan), with an average slip of 2 meters on the fault, is analogous to future potential thrust mechanism earthquakes beneath Diablo Canyon. Based on the slip rate

of the Irish Hills adjacent to Diablo Canyon and the slip of the Noto earthquake, large thrust fault earthquakes will occur, on average, every 715 years near the Diablo Canyon site.

3. PG&E's 2012 SSC model does not account for an inferred offshore thrust fault that has a slip rate of 2.8 millimeters per year (mm/yr) and the potential for producing a magnitude 7.5 earthquake.
4. Seismic core damage frequency, estimated by PG&E in 2018 to be 3×10^{-5} , should be 1.4×10^{-3} per year (about once every 715 years) based on this higher recurrence rate for thrust earthquakes.