

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)
)
PACIFIC GAS AND ELECTRIC COMPANY) Docket Nos. 50-275-LR/ 50-323-LR
)
(Diablo Canyon Nuclear Power Plant,)
Units 1 and 2))

NRC STAFF'S ANSWER TO FRIENDS OF THE EARTH'S REQUEST FOR A
HEARING AND PETITION TO INTERVENE AND WAIVER PETITION

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I. INTRODUCTION

Pursuant to 10 C.F.R. § 2.309(i)(1) and the Atomic Safety and Licensing Board's (Board) revised scheduling order,¹ the staff of the U.S. Nuclear Regulatory Commission (Staff) hereby files its answer to the "Friends of the Earth's Request for a Hearing and Petition to Intervene," (Petition to Intervene)² and accompanying waiver petition,³ filed by Friends of the Earth (FOE) regarding Pacific Gas and Electric Company's (PG&E) license renewal application (LRA) for Diablo Canyon Nuclear Power Plant, Units 1 and 2 (DCPP or Diablo Canyon).⁴

¹ Revised Scheduling Order (Nov. 19, 2012) (Agencywide Documents Access and Management System (ADAMS) Accession No. ML12324A214).

² Friends of the Earth's Request for a Hearing and Petition to Intervene (Oct. 10, 2014) (ADAMS Accession No. ML14283A591) (Petition to Intervene).

³ Friends of the Earth's Petition for Waiver of 10 C.F.R. §§ 54.4, 54.21, and 54.29(a) as Applied to the Diablo Canyon License Renewal Proceeding (Oct. 10, 2014) (ADAMS Accession No. ML14283A603) (Waiver Petition). The Waiver Petition was supported by a declaration from Mr. Richard Ayres. See Declaration of Richard Ayres, Counsel for Friends of the Earth, Regarding Waiver of 10 C.F.R. §§ 54.4, 54.21, and 54.29(a) as Applied to the Diablo Canyon License Renewal Proceeding (Oct. 10, 2014) (ADAMS Accession No. ML14283A602).

⁴ Letter from James R. Becker, Site Vice President, to NRC, Information to Support NRC Review of DCPP License Renewal Application (LRA) (Nov. 23, 2009) (ADAMS Accession No. ML093350335) (transmitting application for license renewal for Diablo Canyon Nuclear Power Plant, Units 1 and 2.). The Diablo Canyon LRA (2009) is *available at* <http://www.nrc.gov/reactors/operating/licensing/renewal/applications/diablo-canyon.html>.

As more fully set forth below, the Staff opposes the admission of the three contentions proffered in FOE's Petition to Intervene, which are based in part on PG&E's September 10, 2014 submission of the Central Coastal California Seismic Imaging Project Report (PG&E Seismic Report).⁵ FOE has not met the Board's contention admissibility standards for new contentions filed by a non-party after the deadline because it has not satisfied the "good cause" requirements of section 2.309(c)(1)(i)-(iii) or demonstrated that the Petition to Intervene was submitted in a "timely manner" pursuant to 10 C.F.R. § 2.309(c)(1)(iii).⁶

Additionally, FOE's Petition to Intervene should be denied because it does not meet the general contention admissibility requirements in 10 C.F.R. § 2.309(f)(1). Specifically, FOE's proposed contentions: (1) raise issues outside the scope of this proceeding, (2) do not raise a genuine material dispute with the license renewal application, and/or (3) lack an adequate basis. Therefore, FOE's Petition to Intervene should be denied.

FOE's Waiver Petition should also be denied. While FOE argues that the Board should consider its out of scope claims related to the ability of Diablo Canyon to safely shut down following a potential earthquake⁷ in this license renewal proceeding, FOE's Waiver Petition does not demonstrate that special circumstances exist with respect to this proceeding such that the application of 10 C.F.R. §§ 54.4, 54.21, and 54.29(a) would not serve the purposes for which

⁵ Petition to Intervene at 1. See Letter from E. Halpin, Senior Vice President, to NRC, Central Coastal California Seismic Imaging Project (CCCSIP), Shoreline Fault Commitment (Sept. 10, 2014) (PG&E Letter DCL-14-081) (ADAMS Accession No. ML14260A387) and enclosed CCCSIP report (ADAMS Package Accession No. ML14260A106). FOE's Petition to Intervene is also based on arguments raised in a separate Commission filing and a petition filed in the D.C. Circuit. See Petition to Intervene and Request for Hearing by Friends of the Earth (Aug. 26, 2014) (*de facto* Petition) (ADAMS Accession No. ML14254A231); See Friends of the Earth, Petition for Review (D.C. Cir. Oct. 28, 2014) (ADAMS Accession No. ML14303A293).

⁶ See Revised Scheduling Order at 8-9.

⁷ Waiver Petition at 1.

they were adopted.⁸ Thus, a waiver of these safety rules is not warranted. In the absence of a waiver, FOE's claims are outside the scope of the proceeding and should not be admitted.

For all the foregoing reasons, FOE's Petition to Intervene and Waiver Petition should be denied.

II. BACKGROUND

This proceeding concerns PG&E's November 23, 2009 application to renew its operating licenses for Diablo Canyon for an additional twenty years from the current expiration dates of November 2, 2024, and August 26, 2025.⁹ PG&E's application was submitted pursuant to NRC's license renewal regulations at 10 C.F.R. Part 54.¹⁰ Notice of receipt of the LRA, which included PG&E's environmental report (ER), was published in the *Federal Register* on December 11, 2009.¹¹ The NRC accepted the LRA for review, and on January 21, 2010, published a Federal Register Notice providing a Notice of Opportunity for Hearing.¹²

The LRA included, among other things, an integrated plant assessment, which identified those structures, systems, and components (SSCs) subject to an aging management review,¹³

⁸ 10 C.F.R. § 2.335(b); *See also Pac. Gas & Elec. Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-11-11, 74 NRC 427 (2011) (noting this as the sole ground for petition of waiver or exception).

⁹ LRA at Section 1.0, 1.1-1.

¹⁰ *See* 10 C.F.R. §§ 54.19-54.23 (providing general requirements regarding the contents of license renewal applications); *See* 10 § C.F.R. 51.53(c) (providing environmental requirements regarding the contents of license renewal applications).

¹¹ Pacific Gas & Electric Company; Notice of Receipt and Availability of Application for Renewal of Diablo Canyon Nuclear Power Plant, Units 1 and 2; Facility Operating Licenses Nos. DPR-80 and DPR-82 for an Additional 20-Year Period, 74 Fed. Reg. 65,811 (Dec. 11, 2009).

¹² Notice of Acceptance for Docketing of the Application, Notice of Opportunity for Hearing for Facility Operating License Nos. DPR-80 and DPR-82 for an Additional 20-Year Period; Pacific Gas & Electric Company, Diablo Canyon Nuclear Power Plant, Units 1 and 2; and Order Imposing Procedures for Access to Sensitive Unclassified Non-Safeguards Information (SUNSI) for Contention Preparation, 75 Fed. Reg. 3493, 3493 (Jan. 21, 2010).

¹³ *See* LRA Chapter 2 (describing and justifying the methods used in the integrated plant assessment to identify those structures and components subject to an aging management review in accordance with the requirements of 10 C.F.R. § 54.21(a)(2)).

a description of the time-limited aging analyses (TLAAs)¹⁴ for Diablo Canyon,¹⁵ and a description of aging management programs (AMPs).¹⁶ The LRA discussed both the Hosgri and Shoreline Faults,¹⁷ and included the Final Safety Analysis Report,¹⁸ which provided the current seismic design basis sections for Diablo Canyon. The period for filing a petition for intervention or request for hearing closed on March 22, 2010. The San Luis Obispo Mothers for Peace (SLOMPF) timely filed a petition to intervene and a waiver petition on March 22, 2010.¹⁹ As relevant here, one of SLOMPF's contentions related to the Shoreline Fault.²⁰ An Atomic Safety and Licensing Board (Board) was established and granted SLOMPF's hearing request and admitted SLOMPF's Shoreline Fault contention.²¹

Almost four years later, FOE submitted its October 10, 2014 Petition to Intervene and Waiver Petition. FOE's Petition to Intervene is based on supposedly new information contained in a September 10, 2014 Seismic Report that PG&E submitted to the NRC. FOE claims that

¹⁴ See 10 C.F.R. § 54.3(a); 10 C.F.R. § 54.21(c)(1).

¹⁵ See LRA Chapter 4. See *id.* at 4.3-51; 4.7-11 - 4.7-12.

¹⁶ See LRA at Appendix B.

¹⁷ See, e.g., ER at 5-4 (discussing Shoreline fault); See LRA at A-36 (discussing Hosgri earthquake). *Id.* at 2.1-9.

¹⁸ LRA at Appendix A.

¹⁹ Request for Hearing and Petition to Intervene by San Luis Obispo Mothers for Peace (Mar. 22, 2010) (ADAMS Accession No. ML100810441). San Luis Obispo Mothers for Peace's Petition for Waiver of 10 C.F.R. Part 51 Subpart A Appendix B and 10 C.F.R. § 51.53(c)(2) (Mar. 22, 2010) (ADAMS Accession No. ML100810442). SLOMPF supported its petition with a declaration from its counsel. See Declaration by Diane Curran in Support of Petition for Waiver of 10 C.F.R. Part 51 Subpart A Appendix B and 10 C.F.R. § 51.53(c)(2) (Mar. 22, 2010).

²⁰ Request for Hearing and Petition to Intervene by San Luis Obispo Mothers for Peace at 8-16. SLOMPF claimed that the severe accident mitigation alternatives (SAMA) analysis required by 10 C.F.R. 51.53(c)(3)(ii)(L) was inadequate because it did not account for the Shoreline Fault. The Staff opposed the contention in part, but did not object to its admission to the extent that PG&E's SAMA analysis did not include a discussion of the Shoreline Fault.

²¹ *Pac. Gas & Elec. Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), LBP-10-15, 72 NRC 257, 345-46 (2010). On appeal, the Commission affirmed the Board's ruling on admissibility but restated the contention. *Diablo Canyon*, CLI-11-11, at 429, 438.

there is new and materially different information in the Seismic Report, in particular information related to the Shoreline Fault and the Hosgri Fault.²²

To put FOE's claims in context, it is important to understand Diablo Canyon's seismic design and licensing basis, the discussion of the Shoreline and Hosgri faults in the LRA, the Staff's independent study of seismic issues as they relate to the current operation of Diablo Canyon, and the purpose and effect of PG&E's Seismic Report.

A. Diablo Canyon Seismic Design and Licensing Basis

Diablo Canyon has a unique and complex seismic design and licensing basis. Before completion of evidentiary hearings on seismic issues related to operation, some aspects of the plant's design were reanalyzed to address the Hosgri Fault, which was discovered after plant construction was authorized and underway, and is located 5 km (3 mi) from Diablo Canyon. PG&E reanalyzed and upgraded the plant design to withstand an earthquake with a ground acceleration of 0.75g, which accommodates the higher estimates of shaking levels caused by the Hosgri Fault.²³

Additionally, the Unit 1 full-power license DPR-80 has a license condition (2.C.(7)) that required a reevaluation of the seismic design basis of the plant.²⁴ To meet this requirement, PG&E developed the Long-Term Seismic Program (LTSP). As part of the LTSP, PG&E performed a full seismic reevaluation of DCPD between 1985 and 1988.²⁵

²² See Petition to Intervene at 4-7.

²³ See *Pac. Gas & Elec. Co. (Diablo Canyon Nuclear Power Plant, Units 1 & 2)*, ALAB-644, 13 NRC 903, 909-10 (1981) (affirming LBP-79-26, 10 NRC 453, 463-507 (1979)); *Diablo Canyon*, LBP-79-26, 10 NRC at 490 (PG&E "was required to modify the plant, where necessary, to withstand an SSE with a maximum vibratory acceleration of 0.75g.").

²⁴ *Diablo Canyon Nuclear Power Plant, Unit 1*, Docket No. 50-275, Facility Operating License, License No. DPR-80, at 7 (Nov. 2, 1984) (ADAMS Accession No. ML053140349) (DCPD Tech Specs).

²⁵ The results of the program are detailed in the Final Report of the Diablo Canyon Long Term Seismic Program and summarized in NUREG-0675, Sup. No. 34, *Safety Evaluation Report* (June 1991) (ADAMS Accession No. ML14279A130). See Letter from Bruce Boger, NRC, to J.D. Shiffer, PG&E, Issuance of Supplement No. 34 to NUREG-0675, Safety Evaluation Report for [DCPD], and Finding of

B. Hosgri Fault: Discussion in PG&E's LRA

PG&E's LRA discusses the Hosgri Fault and the potential Hosgri earthquake. In the scoping and screening methodology section, the LRA states that:

The DCPD Operating Licenses include a condition to implement the Seismically Induced System Interaction (SISI) Program to ensure that SSCs required for safe shutdown of the plant as well as certain accident mitigating systems will not be impaired from performing their safety function as a result of seismically induced interactions when subjected to a seismic event of severity up to and including the postulated 7.5M Hosgri event. The SISI program identifies both safety-related and nonsafety-related SSCs that are required for safe shutdown of the plant as well and for mitigation of certain accidents. A review of the SISI Program documents was performed to ensure that all such components were included in the scope of license renewal.²⁶

The LRA also discusses how SSCs were evaluated for the Hosgri earthquake to ensure that they can perform their intended function.²⁷ Further, the LRA states that for seismic design, "all Design Class I and some Design Class II SSCs are classified Seismic Category 1, and must remain functional following a design earthquake (DE),²⁸ double design earthquake (DDE),²⁹ or Hosgri earthquake (HE).^{30,31} The LRA also discussed whether any licensee calculations or analyses were TLAAs.³² The LRA noted, among other things, that:

Compliance with Condition 2.C.(7) of Unit 1 Operating License DPR-80 Related to The LTSP (TAC Nos. 55305 and 68049) (June 6, 1991) (ADAMS Accession No. 9106120065) (on microfiche) (SSER 34). Also available at ADAMS Package No. ML14279A124. The LTSP spectrum is essentially a Hosgri spectrum that is enhanced over some frequencies. Ground motions, like other forms of energy that propagate as complex waves (such as light and sound), are composed of energy at many frequencies being combined together in complex patterns that can be defined by a plot of amplitude versus frequency (a spectrum). In engineering, the definition of seismic ground shaking levels is called the response spectrum.

²⁶ LRA at 2.1-9.

²⁷ See, e.g., *id.* at 2.4-24 (intake structure and intake control building); *id.* at 2.4-18 (diesel fuel oil pump vaults and structures); *id.* at 2.4-14 (turbine building); *id.* at 2.4-2 (containment building).

²⁸ The LRA notes that the "DE is equivalent to the operating basis earthquake (OBE) of 10 CFR 100, Appendix A." *Id.* at 4.1-5, n.1.

²⁹ The LRA notes that the "DDE is equivalent to the safe shutdown earthquake (SSE) of 10 CFR 100, Appendix A." *Id.* at 4.1-5, n.2.

³⁰ The LRA notes that the "HE is a postulated Richter magnitude 7.5 earthquake centered along an offshore zone of geologic faulting known as the 'Hosgri Fault' and is specific to DCPD." *Id.* at 4.1-5, n.3.

There have been no occurrences of a DE, DDE, or Hosgri seismic event at DCPD during the first 20 plus years of operation. Therefore, the seismic fatigue qualification of Class IE electrical support angle fittings for the original design basis number of DE, DDE, and Hosgri events is sufficient to the end of the period of extended operation. Therefore, the analysis is valid for the period of extended operation, in accordance with 10 CFR 54.21(c)(1)(i).³³

and

The numbers of thermal and seismic cycles used in the analysis are consistent with or more conservative than the DCPD 50-year design basis described in FSAR Table 5.2-4. The assumed transients are consistent with or bounded by the 50 year licensing basis. The number of transients will be monitored by the enhanced Fatigue Management Program. The enhanced Fatigue Management Program provides assurance that the fatigue crack growth analysis will be managed for the period of extended operation in accordance with 10 CFR 54.21(c)(1)(iii).³⁴

C. Shoreline Fault: Discovery and Discussion in PG&E's LRA

The LRA also discussed the Shoreline Fault, a new fault near Diablo Canyon which was discovered by the United States Geological Survey (USGS) in 2008.³⁵ In particular, PG&E's ER contains a discussion of the Shoreline Fault, PG&E's preliminary analyses with respect to this potential fault, and the NRC's preliminary independent review of possible implications related to the design and licensing basis evaluations of the Diablo Canyon SSCs given this fault. As noted in PG&E's ER:

On November 14, 2008, PG&E notified the NRC that preliminary results from ongoing studies by PG&E and the U.S. Geological Survey (USGS) indicate that there is a zone of seismicity that could indicate the presence of a fault approximately 15 km in length, located approximately 1 km offshore from DCPD. Subsequently, PG&E has informally referred to this zone of seismicity as the potential 'Shoreline Fault.'³⁶

³¹ *Id.* at 4.1-5.

³² See 10 C.F.R. § 54.3(a).

³³ LRA at 4.3-51.

³⁴ *Id.* at 4.7-11. See also *id.* at 4.7-12 (discussing validation of flaw evaluation of Unit 1 RHR Weld WIC-95).

³⁵ See Petition to Intervene at 3 (discussing discovery of Shoreline Fault).

³⁶ ER at 5-4.

Further, the ER states that “PG&E informed the NRC staff that it had performed an initial evaluation of the potential ground motion levels at DCPD from the hypothesized fault which concluded that these motions would be bounded by the ground motion levels previously determined for the current licensing basis (the larger Hosgri fault).”³⁷ The ER also discusses NRC’s preliminary independent review of the information provided by the USGS (*i.e.*, the NRC’s Research Information Letter (RIL) 09-001, “Preliminary Deterministic Analysis of Seismic Hazard at Diablo Canyon Nuclear Power Plant from Newly Identified ‘Shoreline Fault’.”).³⁸ The LTSP response spectrum is used as a point of comparison in the study detailed in RIL-09-001.

The ER stated the Staff’s preliminary conclusion that “the postulated Shoreline Fault will not likely cause ground motions that exceed those for which DCPD has already been analyzed.”³⁹ Thus, PG&E concluded that “[a]lthough the presence of the potential Shoreline Fault offshore of DCPD is new information, based on the PG&E and NRC assessments of the potential Shoreline Fault, it is not significant information since the design and licensing basis evaluations of the DCPD structures, systems, and components are not expected to be adversely affected.”⁴⁰

D. Continuing Study of the Shoreline Fault

Since issuing RIL-09-001, both PG&E and the NRC have continued to evaluate the Shoreline Fault. For example, PG&E submitted a report to NRC on January 7, 2011, which indicated that the response spectra associated with a postulated earthquake from the fault are enveloped by both the 1977 Hosgri Earthquake spectrum and the 1991 LTSP Earthquake

³⁷ *Id.*

³⁸ *Id.* RIL 09-001, Preliminary Deterministic Analysis of Seismic Hazard at [DCPD] from Newly Identified “Shoreline Fault” (Apr. 8, 2009) (ADAMS Accession No. ML090330523).

³⁹ ER at 5-5.

⁴⁰ *Id.*

spectrum.⁴¹ To understand the significance of the information and determine what NRC action, if any, was needed, the NRC documented its independent assessment of the information by letter dated October 12, 2012 (October 12, 2012 Letter).⁴²

Referencing the assessment in RIL-12-01, the October 12, 2012 Letter (1) concluded that ground motions from the Shoreline Fault are at or below those for which DCPD was evaluated previously and demonstrated to have a reasonable assurance of safety and (2) placed the review of the Shoreline Fault information under the March 12, 2012, 10 C.F.R. § 50.54(f) Fukushima Accident Lessons Learned letter, which requested that all nuclear power reactor licensees conduct seismic re-evaluations as part of Fukushima Accident-related assessments, unless planned PG&E seismic data collection efforts identified information indicating the fault was more capable.⁴³

Prior to receipt of RIL-12-01, PG&E had requested a license amendment seeking approval to (1) define an evaluation process for new seismic information and incorporate ongoing commitments associated with the LTSP, (2) clarify, consistent with a previous Safety Evaluation (SE), that the Hosgri Earthquake is equivalent to an SSE, as defined in 10 C.F.R. Part 100, Appendix A, for the DCPD, and (3) use the square-root-of-the-sum-of squares (SRSS) method for the evaluation of load combinations of seismic with loss-of-coolant accident

⁴¹ [PG&E] Report on the Analysis of the Shoreline Fault Zone, Central Coastal California (Jan. 7, 2011) (Final Report) (The documents are available at ADAMS Package Accession No. ML110140431).

⁴² Letter from Joseph Sebrosky, NRC, to Edward Halpin, PG&E, [DCPD] - NRC Review of Shoreline Fault (TAC Nos. ME5306 and ME5307 (Oct. 12, 2012) (ADAMS Accession No. ML120730106) (October 12, 2012 Letter); RIL 12-01, Confirmatory Analysis of Seismic Hazard at the Diablo Canyon Power Plant from the Shoreline Fault Zone (Sept. 2012) (ADAMS Accession No. ML121230035) (RIL-12-01).

⁴³ October 12, 2012 Letter at 1, 4. See 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 (Mar. 12, 2012) (March 12, 2012 Letter) (ADAMS Accession No. ML12053A340). Staff also noted PG&E's plans to acquire new offshore and onshore seismic reflection data, and stated its expectation that, if new information is discovered that would suggest the Shoreline Fault is more capable the previously believed, PG&E would provide the NRC an interim evaluation prior to completion of the evaluations requested by the March 2012 Letter. October 12 Letter at 4.

(LOCA).⁴⁴ However, on October 25, 2012, PG&E withdrew LAR 11-05.⁴⁵ PG&E stated that it no longer needed approval of its LAR due to (1) the issuance of the March 2012, § 50.54(f) letter, and (2) the issuance of the Staff's October 12, 2012 Letter.⁴⁶ PG&E noted that the § 50.54(f) letter defines an evaluation process for newly identified seismic information for all nuclear power plants in the United States. Thus, PG&E stated that it was no longer requesting the NRC's review of a plant-specific evaluation process for new seismic information.⁴⁷

E. PG&E's September 10, 2014 Seismic Study

On April 10, 2011, PG&E submitted a letter to the NRC stating that it had decided to complete "certain seismic studies at DCCP prior to issuance of the coastal consistency certification and the renewed NRC operating licenses, if approved."⁴⁸ These seismic studies are those "approved and funded by the California Public Utilities Commission (CPUC)."⁴⁹ PG&E stated that it would "issue a report addressing the results prior to issuance of a consistency certification and/or renewed operating licenses, if approved."⁵⁰ On May 31, 2011, the Staff

⁴⁴ Letter from James Becker, PG&E to NRC, License Amendment Request [LAR] 11-05, Evaluation Process for New Seismic Information and Clarifying the [DCCP] Safe Shutdown Earthquake (Oct. 20, 2011) (PG&E Letter DCL-11-097) (ADAMS Accession No. ML11312A166) (LAR 11-05).

⁴⁵ Letter from Barry Allen, PG&E, to NRC, Withdrawal of License Amendment Request (LAR) 11-05 (LAR 11-05), Evaluation Process for New Seismic Information and Clarifying the [DCCP] Safe Shutdown Earthquake at 2 (Oct. 25, 2012) (ADAMS Accession No. ML12300A105) (PG&E Letter DCL-12-108).

⁴⁶ *Id.* PG&E noted that it had committed at a March 15, 1991 public meeting, and by a April 17, 1991, letter to continue to maintain geosciences and engineering staff to keep abreast of new geological, seismic, seismic evaluation data, and would evaluate new seismic information consistent with the process defined in the October 12, 2012 Letter. *Id.* at 3.

⁴⁷ *Id.*

⁴⁸ Letter from John T. Conway, PG&E, to NRC, Request for Deferral of Issuance of Diablo Canyon Power Plan Renewed Operating Licenses , at 1 (Apr. 10, 2011) (ADAMS Accession No. ML111010592) (PG& E Letter DCL-11-047).

⁴⁹ *Id.*

⁵⁰ *Id.*

indicated that it would issue the SER in June 2011,⁵¹ but that “[p]rior to finalizing a decision regarding license renewal, the staff will supplement the SER, as necessary, considering any relevant new information from the seismic studies, operating experience, and annual updates to the LRA.”⁵² In 2012, PG&E committed to the NRC that:

If during PG&E’s ongoing collection of seismic data, new faults are discovered or information is uncovered that would suggest the Shoreline fault is more capable than currently believed, PG&E will provide the NRC with an interim evaluation that describes actions taken or planned to address the higher seismic hazard relative to the design basis, as appropriate, prior to completion of the evaluations requested in the NRC Staff’s March 12, 2012, request for information.⁵³

PG&E’s Seismic Report was submitted on September 10, 2014.⁵⁴ The Seismic Report stated that “the Shoreline fault is longer...and therefore, more capable.” However, PG&E’s interim evaluation concluded that “the ground motions from updated shoreline fault and other regional faults remain less than the 1977 Hosgri Design ground motions, for which the plant was evaluated and demonstrated to have reasonable assurance of safety.”⁵⁵

⁵¹ The Staff did issue the Diablo Canyon License Renewal SER, with open items, in June 2011. See Letter from Brian E. Holian, NRC, to John Conway, PG&E, Safety Evaluation Report Related to the License Renewal of Diablo Canyon Nuclear Power Plant, Units 1 and 2, at 1 (June 2, 2011) (ADAMS Accession No. ML11138A274).

⁵² Letter from Brian E. Holian, NRC, to Mr. John Conway, PG&E, Response to Request for Deferral of Issuance of Renewed Operating Licenses and Revisions of Schedule for the Review of [Diablo Canyon LRA], at 1 (May 31, 2011) (ADAMS Accession No. ML11138A315).

⁵³ See PG&E Letter DCL-12-108, at 4. The March 12, 2012 Request for Information requested that all nuclear power reactor licensees conduct seismic re-evaluations as part of Fukushima Accident-related assessments. See March 12 2012 Letter.

⁵⁴ See PG&E Letter DCL-14-081 at 1.

⁵⁵ PG&E Letter DCL-14-081 at 2.

F. FOE's Contentions Based on PG&E's September 10, 2014 Seismic Study

On October 10, 2014, FOE filed its Petition to Intervene, based in part on PG&E's September 10, 2014 Seismic Report.⁵⁶ FOE's Petition to Intervene proffers three safety contentions:

Contention 1: PG&E's Operating License for Diablo Canyon Should Not be Renewed Unless and Until PG&E Establishes That the Plant Can Withstand and Be Safely Shut Down Following an Earthquake on the Hosgri-San Simeon, Shoreline, Los Osos, or San Luis Bay Faults.⁵⁷

Contention 2: PG&E Has Failed to Establish In Its License Renewal Application That the Effects of Aging on Diablo Canyon's Relay Switches and Snubbers Will be Adequately Managed for the Period of Extended Operation, in Violation of 10 C.F.R. § 54.21(c).⁵⁸

Contention 3: PG&E Has Failed to Establish In Its Aging Management Plan That the Effects of Aging on Diablo Canyon Will Be Adequately Managed for the Period of Extended Operation, In Violation of 10 C.F.R. § 54.21(a)(3).⁵⁹

In short, FOE claims: (1) that "a series of new seismic findings" in PG&E's Seismic report "show Diablo Canyon cannot provide the assurances of safe operation required to obtain permission to operate the plant," (2) that PG&E has not "identified or analyzed the effects of aging on" snubbers and relay switches, and (3) that "in light of the new seismic findings" in PG&E's Seismic Report, PG&E "has failed to establish in its aging management plan that the effect of aging on Diablo Canyon will be adequately managed for the period of extended operation."⁶⁰ FOE recognizes that its claims are outside the scope of license renewal;

⁵⁶ See, e.g., Petition to Intervene at 1. FOE's Petition to Intervene also repeats arguments raised in a separate petition (*i.e.*, FOE's petition based on a supposed *de facto* license amendment). See *id.* at 4 n.11. The Staff separately answered those claims and so will not address these claims at length in this answer. See NRC Staff Answer to Petition to Intervene and Request for a Hearing by Friends of the Earth (Oct. 6, 2014) (ADAMS Accession No. ML14279A573) (Staff *de facto* Answer).

⁵⁷ Petition to Intervene at 8 (emphasis omitted).

⁵⁸ *Id.* at 21 (emphasis omitted).

⁵⁹ *Id.* at 30 (emphasis omitted).

⁶⁰ *Id.* at 1-2.

therefore, FOE also submitted a Waiver Petition. For the reasons discussed below, FOE's Petition to Intervene and Waiver Petition should be denied.

III. DISCUSSION

FOE's Petition to Intervene should be denied because FOE has not demonstrated that its claims support a late-filed contention or meet the contention admissibility requirements.

A. FOE'S Proposed Contentions Do Not Meet The Requirements For a Late-Filed Contention

FOE's Petition to Intervene should be denied because FOE's proposed contentions do not meet the contention admissibility standards for new contentions filed after the initial deadline.

1. The Deadline For Filing In This Licensing Proceeding Has Passed

As discussed above, PG&E submitted its Diablo Canyon LRA in 2009. After accepting the LRA for review, the NRC issued a notice of an opportunity for a hearing. The deadline for submitting petitions to intervene was March 22, 2010.⁶¹ Based on information in the ER, SLOMPF timely filed a petition to intervene and a waiver petition on March 22, 2010.⁶² Notably, one of SLOMPF's environmental contentions related to the Shoreline Fault. In particular, SLOMPF claimed that PG&E's severe accident mitigation alternative (SAMA) analysis⁶³ was inadequate because it did not account for the Shoreline Fault. The Staff opposed the contention in part, but did not object to its admission to the extent that PG&E's SAMA analysis did not include a discussion of the Shoreline Fault.⁶⁴

⁶¹ See 75 Fed. Reg. at 3496.

⁶² See *supra* at n. 19.

⁶³ PG&E was required to submit this analysis as part of its license renewal ER. See 10 C.F.R. § 51.53(c)(3)(ii)(L).

⁶⁴ NRC Staff's Answer to the San Luis Obispo Mothers for Peace Request for Hearing and Petition to Intervene, at 26-34 (Apr. 16, 2010) (ADAMS Accession No. ML101060667). In particular, the Staff's view is that EC-1 is material to the findings the Staff must make under 10 C.F.R. § 51.53(c)(3)(ii)(L) because PG&E's Environmental Report omitted a discussion of "how or whether PG&E's [Environmental

On April 8, 2010, this Board was appointed to preside over the adjudicatory proceeding.⁶⁵ In LBP-10-15, SLOMPF's hearing request was granted and SLOMPF's SAMA contention was admitted as a contention of omission.⁶⁶ On appeal, the Commission affirmed the Board's decision to admit SLOMPF's SAMA contention because the Commission found that SLOMPF had raised a genuine dispute as to whether information from the Shoreline Fault should be addressed in PG&E's SAMA analysis.⁶⁷ The Commission reversed the Board's decision to admit other claims,⁶⁸ including a contention that raised current operating issues (*i.e.*, TC-1).⁶⁹

2. The Late-Filed Contention Admissibility Standards

The deadline for receipt of petitions to intervene passed years ago and FOE is not a party to this proceeding.⁷⁰ The Board's Revised Scheduling Order contemplates the filing of petitions to intervene filed after the deadline by non-parties such as FOE, but places additional

Report] considered the effects of the Shoreline Fault in deriving the SAMA analysis." NRC Staff's Answer to [PG&E]'s Appeal of Atomic Safety and Licensing Board Decision (LBP-10-15), at 5-6 (Aug. 26, 2010) (ADAMS Accession No. ML102380578).

⁶⁵ Establishment of Atomic Safety and Licensing Board (Apr. 8, 2010) (ADAMS Accession No. ML100980501).

⁶⁶ *Diablo Canyon*, LBP-10-15, 72 NRC at 257. As Admitted by the Board, Contention (EC-1) stated that PG&E's Severe Accident Mitigation Alternatives (SAMA) analysis fails to satisfy 40 C.F.R. § 1502.22 because it fails to consider information regarding the Shoreline fault that is necessary for an understanding of seismic risks to the Diablo Canyon nuclear power plant. Further, that omission is not justified by PG&E because it has failed to demonstrate that the information is too costly to obtain. As a result of the foregoing failures, PG&E's SAMA analysis does not satisfy the requirements of the National Environmental Policy Act (NEPA) for consideration of alternatives or NRC implementing regulation 10 C.F.R. § 51.53(c)(3)(ii)(L). *Diablo Canyon*, LBP-10-15, 72 NRC at 280.

⁶⁷ *Diablo Canyon*, CLI-11-11, 75 NRC at 443. However, the Commission reformulated the contention to the extent it would make 40 C.F.R. § 1502.22 binding on the NRC. *Id.* at 443-44.

⁶⁸ See, e.g., [SLOMPF] Motion to Admit Contentions Regarding Failure of Environmental Report to Address Post-Fukushima Investigations and Modification (Apr. 27, 2012) (ADAMS Accession No. ML12118A582). The Commission is currently considering SLOMPF's continued storage contention and related suspension petition. See *DTE Elec. Co.* (Fermi Nuclear Power Plant, Unit 3), CLI-14-9, 80 NRC ___ (Oct. 7, 2014) (slip op.).

⁶⁹ *Diablo Canyon*, CLI-11-11, 75 NRC at 434-36 (noting that TC-1 raised safety culture issues).

⁷⁰ In this proceeding, the initial filing deadline was March 22, 2010. See 75 Fed. Reg. at 3493.

requirements on such petitions.⁷¹ To be admitted in this proceeding, FOE's proposed contentions must satisfy the "good cause" criteria of 10 C.F.R. § 2.309(c)(1)(i)-(iii), the contention admissibility criteria of 10 C.F.R. § 2.309(f)(1)(i)-(iv), and the standing criteria of 10 C.F.R. § 2.309(d).⁷² The Staff does not challenge FOE's standing. FOE has demonstrated representational standing⁷³ on behalf of several of its members based on a proximity presumption.⁷⁴ FOE has identified by name and address several members of the organization who live within fifty miles of Diablo Canyon⁷⁵ and shown that the members have authorized FOE to represent his/her interests in this proceeding.⁷⁶

In order to show "good cause" under 10 C.F.R. § 2.309(c)(1)(i)-(iii), FOE must show that the information upon which its Petition to Intervene is based was not previously available, that such information is materially different from information previously available, and that it submitted the Petition to Intervene in a timely fashion based on the availability of the information.

Pursuant to the Board's revised scheduling order, a new contention filed by a non-party like FOE is deemed timely under 10 C.F.R. § 2.309(c)(1)(iii) based on a reasonableness

⁷¹ Revised Scheduling Order at 9.

⁷² 10 C.F.R. § 2.309(f)(1)(i)-(vi).

⁷³ See *Vermont Yankee Nuclear Power Corp. & AmerGen Vermont, LLC* (Vermont Yankee Nuclear Power Station), CLI-00-20, 52 NRC 151, 163 (2000) (discussing elements of representational standing).

⁷⁴ Because a proximity presumption applies to each declarant, the Staff did not analyze whether FOE had standing based on the traditional judicial concepts of standing (i.e., injury, causation, and redressability).

⁷⁵ See standing declarations: Declaration of Sandra L. Brazil (Oct. 5, 2014) (ADAMS Accession No. ML14283A595); Declaration of Thomas Danfield (Oct. 6, 2014) (ADAMS Accession No. ML14283A590); Declaration of Michael R. Jencks (Oct. 7, 2014) (ADAMS Accession No. ML14283A589); Declaration of Jeffrey Pienack (Sept. 23, 2014) (ADAMS Accession No. ML14283A588); Declaration of Susan Sunderland (Oct. 6, 2014) (ADAMS Accession No. ML14283A587).

⁷⁶ See *id.*

standard and not the thirty (30) day deadline applicable to new or amended contentions filed by parties to the proceeding.⁷⁷

The Commission has made several points clear when discussing what constitutes new and materially different information for purposes of a late-filed contention.⁷⁸ First, when a petitioner's motion makes little effort to meet the pleading requirements governing late-filed contentions, that in and of itself constitutes sufficient grounds for rejecting the petitioner's motion.⁷⁹ For example, the Commission has stated that a petitioner's failure to address the factors in 10 C.F.R. § 2.309(f)(2) or 10 C.F.R. § 2.309(c) is reason enough to reject the motion.⁸⁰ Second, petitioners cannot just point to "documents merely summarizing earlier documents or compiling preexisting, publicly available information into a single source" as doing so does not "render 'new' the summarized or compiled information."⁸¹ As the Commission noted in *Prairie Island*,⁸² a "petitioner or intervenor [cannot] delay filing a contention until a document becomes available that collects, summarizes and places into context the facts

⁷⁷ Revised Scheduling Order at 9-10.

⁷⁸ This case law below references 10 C.F.R. § 2.309(f)(2), which was previously the standard for late-filed contention and is substantively the same as the new regulation at 10 C.F.R. § 2.309(c)(1)(i)-(iii).

⁷⁹ *Florida Power & Light Co., FPL Energy Seabrook, LLC, FPL Energy Duane Arnold, LLC, Constellation Energy Group, Inc.* (Calvert Cliffs Nuclear Power Plant, Units 1 and 2; Calvert Cliffs Independent Spent Fuel Storage Installation; Nine Mile Point Nuclear Station, Units 1 and 2; R.E. Ginna Nuclear Power Plant; Turkey Point Nuclear Generating Plant, Units 3 and 4; St. Lucie Nuclear Power Plant, Units 1 and 2; Seabrook Station; Duane Arnold Energy Center), CLI-06-21, 64 NRC 30, 33-4 (2006).

⁸⁰ *Id.* (noting that petitioner did not address any of the factors in 10 C.F.R. § 2.309(f)(2) and did not address two of the factors in 10 C.F.R. § 2.309(c)).

⁸¹ *Entergy Nuclear Vermont Yankee, L.L.C. and Entergy Nuclear Operations, Inc.* (Vermont Yankee Nuclear Power Station), CLI-11-2, 73 NRC 333, 344 (2011), *citing Northern States Power Co.* (Prairie Island Nuclear Generating Plant, Units 1 and 2), CLI-10-27, 72 NRC 481, 493-96 (2010).

⁸² *Prairie Island*, CLI-10-27, 72 NRC at 496

supporting that contention. To conclude otherwise would turn on its head the regulatory requirement that new contentions be based on ‘information ... *not previously available*.’”⁸³

Third, the Commission has made clear that alleged new and materially different information must support the proposed contention.⁸⁴ Thus, the Commission has noted that alleged new and materially different information must articulate a “reasonably apparent” foundation for the contention.⁸⁵ Fourth, simply rehashing old arguments is not enough to meet the materially different standard in 10 C.F.R. § 2.309(f)(2)(ii).⁸⁶ Instead, the Commission has stated that petitioners filing amended contentions must show how their arguments supporting the contention differ from their previous arguments.⁸⁷ Finally, the Commission considers information new and materially different when the Staff is considering the information for the first time in responding to issues relevant to the contention.⁸⁸

3. FOE Has Not Demonstrated That Its Contentions Satisfy the “Good Cause” Requirements of 10 C.F.R. § 2.309(c)(1)(i)-(iii)

While FOE has demonstrated standing, its contentions should not be admitted because it has not satisfied the “good cause” requirements of 10 C.F.R. § 2.309(c)(1)(i)-(iii). FOE’s Petition to Intervene asserts that it is based on supposedly new and materially different information contained in PG&E’s September 10, 2014 Seismic Report.⁸⁹ FOE also bases its

⁸³ *Id.* (internal citations omitted) (emphasis in original).

⁸⁴ *Id.* at 493-94 (noting that the SER petitioners cited to as having new and materially different information did not provide support for the contention and so did not contain new or materially different information).

⁸⁵ *Id.* at 495.

⁸⁶ See *Entergy Nuclear Vermont Yankee, L.L.C. & Entergy Nuclear Operations, Inc.* (Vermont Yankee Nuclear Power Station), CLI-10-17, 72 NRC 1, 53 (2010).

⁸⁷ *Id.*

⁸⁸ See *Pa’ina Hawaii, LLC* (Materials License Application), CLI-10-18, 72 NRC 56, 79 (2010).

⁸⁹ See Petition to Intervene at 1, 4, 33. *Id.* at 33 (claiming that PG&E’s Seismic Report “adds significant new and material information to the body of scientific knowledge regarding the seismicity of the area surrounding Diablo Canyon.”).

Petition to Intervene on arguments it made in a separate filing.⁹⁰ For the reasons discussed below, FOE has not demonstrated that any of the information in its Petition to Intervene constitutes new and materially different information under 10 C.F.R. § 2.309(c)(1)(i)-(iii).

a. FOE Has Not Shown That Information in PG&E's Seismic Report Is New and Materially Different From Information Previously Available

FOE claims that its Petition to Intervene is timely because it was filed within 30 days of PG&E's submittal of the Seismic Report.⁹¹ In particular, FOE points to several "significant findings"⁹² in the Seismic Report related to the Shoreline, Hosgri, and San Simeon faults and claims that the information "reveals that previous assessments of the Hosgri and Shoreline faults, two of the most significant faults near Diablo Canyon, are capable of creating much more powerful earthquakes than previously thought."⁹³ These "significant findings" are:

- (1) the "Shoreline fault is nearly double the previously assumed length,"⁹⁴ which "increases the potential magnitude of the earthquake from 6.5 to 6.7,"⁹⁵
- (2) the "step-over" between the Hosgri fault and the San Simeon fault "is small enough that the two faults are assumed to rupture together rather than separately," which revises "the potential magnitude of a Hosgri earthquake from 7.1 to 7.3,"⁹⁶ and
- (3) the "Hosgri and Shoreline faults are assumed to intersect such that a linked rupture involving the full Hosgri fault and the full Shoreline fault is now assumed to be

⁹⁰ See, e.g., Petition to Intervene at 4 (discussing *de facto* claims and the withdrawn license amendment). See *generally de facto* Petition (raising same arguments).

⁹¹ See Petition to Intervene at 34.

⁹² *Id.* at 33.

⁹³ *Id.* at 35. FOE claims that "the new study makes findings dramatically at odds with the findings of the Atomic Safety and Licensing Board in 1979 and the Atomic Licensing Appeals Board in 1981, as well as subsequent reports regarding the Shoreline fault." *Id.* at 5.

⁹⁴ Petition to Intervene at 34. *Id.* ("It is now found to be 45 km long rather than the previously presumed 23 km.") (citing PG&E Seismic Report, Technical Summary, at 6-7).

⁹⁵ Petition to Intervene at 34 (citing PG&E Seismic Report, Technical Summary, at 10). *Id.* at 11 (citing to Jentzsch affidavit for proposition that "an increase of magnitude 0.2 is not to be dismissed as minor.").

⁹⁶ Petition to Intervene at 34 (citing PG&E Seismic Report, Technical Summary, at 6-7, 10).

possible,” which indicates that “the Hosgri/Shoreline fault system was capable of producing a magnitude 7.3 earthquake occurring within 600 meters of the plant.”⁹⁷

FOE claims that these findings establish “that the earthquake caused by the Hosgri fault, as identified and analyzed in the Hosgri part of the original licensing proceeding, is no longer the largest or most powerful threat to the Diablo plant.”⁹⁸ Further, FOE claims that a rupture on the Hosgri fault cannot “be described in any way as the ‘bounding scenario.’”⁹⁹

While these three conclusions might be new information, FOE does not indicate how any of these conclusions is materially different information than previously available. First, PG&E recognized that the additional seismic studies found that the Shoreline Fault was longer and therefore, more capable.¹⁰⁰ However, as FOE recognizes,¹⁰¹ PG&E ultimately concluded¹⁰² “that the ground motions from updated shoreline fault and other regional faults remain less than the 1977 Hosgri Design ground motions, for which the plant was evaluated and demonstrated to have reasonable assurance of safety.”¹⁰³ The Hosgri ground motions were 0.75 based on a Richter scale magnitude 7.5 earthquake and are part of the licensing basis of the plant.¹⁰⁴

⁹⁷ Petition to Intervene at 34 (citing PG&E Seismic Report, Ch. 13, at 17-18). *Id.* at 12. FOE also points out that the Seismic Report “concludes that the San Luis Bay fault is capable of generating a magnitude 6.4 earthquake, which is larger than estimated in PG&E’s 2011 report [Shoreline Fault Zone Report: Report on the Analysis of the Shoreline Fault Zone, Central Coastal California, report to the U.S. Nuclear Regulatory Commission, January.]”. *Id.* at 5.

⁹⁸ Petition to Intervene at 5. *Id.* at 26 (“This newly released data demonstrates that previous seismic assessments are thoroughly inaccurate and incomplete.”).

⁹⁹ Petition to Intervene at 5.

¹⁰⁰ See PG&E Letter DCL-14-081 at 2.

¹⁰¹ Affidavit and Curriculum Vitae of Dr. Gerhard Jentzsch, at 1 (Oct. 2, 2014) (ADAMS Accession No. ML14283A594); Affidavit and Curriculum Vitae of Arnold Gundersen, MSNE, RO, at 11-12 (Gundersen Affidavit) (Oct. 8, 2014) (ADAMS Accession No. ML14283A593); Petition to Intervene at 13-15.

¹⁰² The Staff is evaluating this conclusion with regard to DCP’s current operation.

¹⁰³ See PG&E Letter DCL-14-081 at 2.

¹⁰⁴ See *Diablo Canyon*, LBP-79-26, 10 NRC at 490 (“the Board concludes that the 0.75g acceleration assigned to the safe shutdown earthquake is an appropriately conservative value for the maximum vibratory ground acceleration that could occur at the Diablo Canyon site and thus an

FOE also points out that the Seismic Report takes the position that “the risk of earthquake damage to Diablo from the increased energy discharge expected from a joint rupture of the Hosgri-San Simeon and Shoreline faults is not as great as identified in its [2011 Seismic Report.]”¹⁰⁵ Thus, notwithstanding the new information in the Seismic Report on the Shoreline Fault, and the rupture potentials in points (2) and (3) above, the ultimate conclusion of PG&E’s Seismic Report is that the ground motions predicted for Diablo are bounded by the 1977 Hosgri spectrum and the 1991 LTSP response spectra.¹⁰⁶ This finding is consistent with statements in the LRA, the Staff’s RIL-09-01, PG&E’s 2011 Report, and the Staff’s RIL 12-01. Therefore, the information cited from the Seismic Report is not new and materially different information from information previously available.

Moreover, FOE does not indicate how any of the information cited in the Seismic Report supports admissibility of its safety contentions in this license renewal proceeding. As discussed in more detail below, FOE’s contentions are outside the limited scope of the license renewal proceeding, do not raise a genuine dispute with the application, and challenge the Commission’s rules, the plant’s current operation, and the adequacy of its current licensing basis (CLB).

For these reasons, FOE has not shown that information in the Seismic Report is new and materially different information from information previously available.

appropriate anchorpoint . . . for the design response spectra.”); *Diablo Canyon*, ALAB-644, 13 NRC at 986-88 (concluding that PG&E’s program for testing the ability of SSCs to withstand the estimated Hosgri ground motion was sufficient); 10 C.F.R. § 54.3 (stating that a plant’s CLB includes “orders”). The NRC Staff has always considered the Hosgri ground motions part of DCP’s licensing basis. See, e.g., October 12, 2012 Letter at 4 (“DCPP is unique in having three earthquake scenarios (DE, DDE, and HE) in its design and licensing basis”).

¹⁰⁵ Petition to Intervene at 6.

¹⁰⁶ See PG&E Seismic Report, Chapter 13, at 20. Petition to Intervene at 17.

b. FOE Does Not Demonstrate That Its *De Facto* License Amendment Claims, Which Were Raised In a Separate Filing, Are New and Materially Different Information

In the introduction section of its Petition to Intervene, FOE repeats several assertions made in its separate *de facto* Petition and request for a hearing.¹⁰⁷ For example, FOE takes issue with the NRC's position that the Hosgri analysis is already part of the CLB and that no amendment is needed to incorporate it into the CLB.¹⁰⁸ FOE also repeats arguments related to a license amendment it claims was withdrawn "at the NRC's request."¹⁰⁹ These arguments are not based on new and materially different information. FOE could have, and in fact did, raise these same claims previously.¹¹⁰ The Commission is currently considering this petition. The Staff answered these claims in a separate filing¹¹¹ and will not reiterate its answer here except to say that FOE's claims are not admissible in a Sec. 189a. hearing.¹¹²

Because FOE does not specify how any information cited in its Petition to Intervene is new and materially different from information that was previously available, as required by the Board's Revised Scheduling Order, FOE's Petition to Intervene does not satisfy the "good cause" requirements in 10 C.F.R. § 2.309(c)(1)(i)-(iii).

4. FOE Has Not Shown That It Raised Its Claims In a Timely Fashion

FOE asserts that its Petition to Intervene has been filed in a timely fashion because it "was filed on October 10, 2014, 30 days after [PG&E's Seismic Report] was released."¹¹³ Thus,

¹⁰⁷ See Petition to Intervene at 4 and n. 11.

¹⁰⁸ Petition to Intervene at 4. *Id.* at n. 11 (asserting that this is a "regulatory sleight of hand" that "is opposed in a separate petition filed with the Commission by [FOE] on August 26, 2014.").

¹⁰⁹ Petition to Intervene at 4.

¹¹⁰ See *de facto* Petition at 38.

¹¹¹ See NRC Staff Answer to Petition to Intervene and Request for Hearing by Friends of the Earth (Oct. 6, 2014) (ADAMS Accession No. ML14279A573) (Staff Answer to *de facto* Petition).

¹¹² *Id.* at 10-12.

¹¹³ Petition to Intervene at 35.

FOE claims that the Petition not only meets the more stringent 30-day deadline applicable to parties seeking to file new or amended contentions, but also the less stringent “reasonableness standard” applicable in this instance.¹¹⁴ However, FOE has not shown that its Petition to Intervene was filed in a timely manner under the reasonableness standard.

As discussed above, PG&E noted in the 2009 LRA that a Richter Scale magnitude 7.5 earthquake along the Hosgri Fault was possible, and that the plant had been designed to withstand such an earthquake.¹¹⁵ Thus, FOE was aware of the possibility of a Richter scale magnitude 7.5 earthquake at the plant before October 10, 2014. While the Seismic Report does contain new information about the length and capability of the Shoreline Fault and other faults, it ultimately concludes that the 1977 Hosgri Design ground motions and the 1991 LTSP are still bounding. Since these ground motions bound those discussed in PG&E’s Seismic Report, FOE could have raised its concerns that TLAAs and/or AMPs were omitted or inadequate given the possibility of Richter scale magnitude 7.5 earthquake right after the LRA was submitted.¹¹⁶ Likewise, FOE could have raised its concerns about the snubbers and relays before October 10, 2014. Both the LRA, which has been publicly available since 2009, and the Staff’s SER, which was issued in 2011, listed the AMPs and TLAAs and did not include AMPs or TLAAs for snubbers or relays. Thus, FOE could reasonably have raised concerns about this omission and/or the adequacy of the LRA before October 10, 2014.

B. FOE’s Proposed Contentions Do Not Meet the 10 C.F.R. § 2.309(f)(1) Requirements

FOE’s proposed contentions should also be denied because they do not meet the Commission’s general contention admissibility standards in 10 C.F.R. § 2.309(f). As the Board explained in LBP-10-15, in order to become a party in an adjudicatory proceeding, a petitioner

¹¹⁴ *Id.*

¹¹⁵ See, e.g., LRA at 2.1-9, 4.1-5.

¹¹⁶ As noted, SLOMPF raised concerns related to the Shoreline fault back in 2010.

must submit at least one admissible contention that meets the six basic requirements set forth in 10 C.F.R. § 2.309(f)(1)(i)-(vi).¹¹⁷ In summary, these requirements are:

(i) *Specificity*: Provide a specific statement of the issue of law or fact to be raised or controverted;

(ii) *Brief Explanation*: Provide a brief explanation of the basis for the contention;

(iii) *Within Scope*: Demonstrate that the issue raised in the contention is within the scope of the proceeding;

(iv) *Materiality*: Demonstrate that the issue raised in the contention is material to the findings the NRC must make to support the action that is involved in the proceeding;

(v) *Concise Statement of Alleged Facts or Expert Opinion*: Provide a concise statement of the alleged facts or expert opinions which support the requestor's/petitioner's position on the issue and on which the petitioner intends to rely at hearing, together with references to the specific sources and documents on which the requestor/petitioner intends to rely to support its position on the issue; and

(vi) *Genuine Dispute*: Provide sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact. This information must include references to specific portions of the application (including the applicant's environmental report and safety report) that the petitioner disputes and the supporting reasons for each dispute, or, if the petitioner believes that the application fails to contain information on a relevant matter as required by law, the identification of each failure and the supporting reasons for the petitioner's belief.¹¹⁸

"A failure to meet any of these criteria renders the contention inadmissible."¹¹⁹ "While a board may view a petitioner's supporting information in a light favorable to the petitioner...the

¹¹⁷ *Diablo Canyon*, LBP-10-15, 72 NRC at 277.

¹¹⁸ *Id.* at 277-78 (citing 10 C.F.R. 2.309(f)(1)) (emphasis in original).

¹¹⁹ *Northern States Power Co.* (Prairie Island Nuclear Generating Plant Independent Spent Fuel Installation), LBP-12-24, 76 NRC 503, 509 (2012); *See also South Carolina Elec. & Gas Co.* (Virgil C. Summer Nuclear Station, Units 2 and 3), CLI-10-1, 71 NRC 1, 7 & n.33 (2010).

petitioner (not the board) [is required] to supply all of the required elements for a valid intervention petition.”¹²⁰

FOE’s proposed contentions make safety claims. Thus, the contentions must raise a genuine dispute with the LRA and must raise an issue material to the Staff’s license renewal safety findings.¹²¹ As discussed below, FOE’s proposed contentions should not be admitted because they: raise issues that are beyond the scope of this proceeding, do not raise a genuine dispute with the application, do not raise a material issue, and/or lack an adequate basis.

1. Contention 1

FOE’s Contention 1 states:

PG&E’s Operating License for Diablo Canyon Should Not Be Renewed Unless and Until PG&E Establishes That the Plant Can Withstand and Be Safely Shut Down Following an Earthquake On the Hosgri-San Simeon, Shoreline, Los Osos, or San Luis Bay Faults.¹²²

In support of Contention 1, FOE maintains that new information in PG&E’s Seismic Report indicates that “the NRC no longer has a basis for any conclusion that there is a reasonable assurance that the aging equipment in the Diablo Canyon reactors can withstand the effects of the maximum possible earthquake.”¹²³ FOE explains that the Seismic Report discloses for the first time that the Shoreline Fault is longer than previously thought, that the Hosgri and Shoreline Faults may rupture together, and that the Hosgri and San Simeon Faults are connected.¹²⁴ Moreover, FOE asserts that the Seismic Report utilizes untested and unproven methodologies to reach its conclusions, and that those methods depart from the

¹²⁰ *Amergen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 NRC 235, 260 (2009), *citing Arizona Pub. Serv. Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, & 3). CLI-91-12, 34 NRC 149, 155 (1991).

¹²¹ See 10 C.F.R. § 54.29.

¹²² Petition to Intervene at 8 (emphasis omitted).

¹²³ *Id.*

¹²⁴ *Id.* at 11-13.

methods in DCP's licensing basis.¹²⁵ For this reason, FOE states that the Seismic Report's conclusions that the Shoreline and other faults are bounded by the Hosgri Earthquake cannot be correct.¹²⁶ Finally, FOE maintains that Contention 1 is within the scope of the license renewal proceeding because it seeks to ensure that DCP's "safety-related SSCs, non-safety related SSCs that support a safety function, and SSCs relied upon in the safety analysis, in their aged state, can continue to perform their intended functions such that the plant can safely remain shut down following an earthquake of the magnitude now known to be possible."¹²⁷

As explained below, Contention 1 is inadmissible because it raises issues outside the scope of the license renewal proceeding and fails to raise a genuine, material dispute with the applicant.¹²⁸

a. Contention 1 is Beyond the Scope of the Proceeding to the Extent It Raises Current Safety Issues

Contention 1 is inadmissible to the extent it raises current safety issues, as these issues are beyond the scope of a license renewal proceeding.¹²⁹ The Commission stated in *Turkey Point*, "Part 54 centers the license renewal reviews on the most significant overall safety concern posed by extended reactor operation – the detrimental effects of aging."¹³⁰ Thus, the scope of the license renewal safety review is narrow; it is limited to "plant structures and components that will require an aging management review for the period of extended operation and the plant's systems, structures, and components that are subject to an evaluation of time-

¹²⁵ *Id.* at 13-17.

¹²⁶ *Id.* at 17-18.

¹²⁷ *Id.* at 20.

¹²⁸ 10 C.F.R. §§ 2.309(f)(1)(iii) & (vi).

¹²⁹ *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 8-10 (2001).

¹³⁰ *Id.* at 7.

limited aging analyses.”¹³¹ For each structure or component requiring an aging management review, a license renewal applicant must demonstrate that the “*effects of aging* will be adequately managed so that *the intended function(s)* will be maintained consistent with the [CLB] for the period of extended operation.”¹³² Challenges to the adequacy of a plant’s CLB, however, are beyond the scope of license renewal.¹³³ In fact, one of the fundamental principles upon which the Commission based the license renewal rule is that “with the possible exception of the detrimental effects of aging on the functionality of certain plant systems, structures, and components in the period of extended operation . . . the regulatory process is adequate to ensure that the licensing bases of all currently operating plants provides and maintains an acceptable level of safety.”¹³⁴

FOE asserts that “aging equipment” in DCPD will not be able to withstand the effects of a potential earthquake,¹³⁵ and that SSCs within the scope of license renewal, in “their aged state,” will not perform their intended functions.¹³⁶ License renewal, however, is concerned with “age related degradation” and the “effects of aging,” not simply with whether old components will

¹³¹ *Duke Energy Corp.*, (McGuire Nuclear Station, Units 1 & 2; Catawba Nuclear Station, Units 1 & 2), CLI-01-20, 54 NRC 211, 212 (2001), *citing* 10 C.F.R. §§ 54.21(a) and (c), 54.4..

¹³² *Entergy Nuclear Generation Co. & Entergy Nuclear Operations, Inc.* (Pilgrim Nuclear Power Station), CLI-10-14, 71 NRC 449, 453-456 (2010) (emphasis added), *citing* 10 C.F.R. § 54.21(a)(3). In the Statements of Consideration (SOCs) for the 1995 revisions to Part 54, the Commission stated, “The objective of a license renewal review is to determine whether the *detrimental effects of aging*, which could adversely affect the functionality of systems, structures, and components that the Commission determines require review for the period of extended operation, are adequately managed.” Nuclear Power Plant License Renewal; Revisions 60 Fed. Reg. 22,461, 22,464 (May 8, 1995) (Final Rule) (emphasis added).

¹³³ *See Turkey Point*, CLI-01-17, 54 NRC at 8-9 (stating that the Commission’s on-going regulatory oversight ensures the adequacy of the plant’s current licensing basis, thus there is no reason to reanalyze the adequacy of the CLB for license renewal).

¹³⁴ 60 Fed. Reg. at 22,464.

¹³⁵ Petition to Intervene at 8.

¹³⁶ *Id.* at 20.

fail for a different reason, such as an earthquake. An earthquake, unlike corrosion for example, does not have an aging effect.¹³⁷

At bottom, FOE's concern with DCPD's ability to safely shut down following a potential earthquake is a current operating issue, and is not unique to license renewal. Early in its Petition to Intervene, FOE states that PG&E has never demonstrated that the plant can be safely operated under its existing license given the Shoreline Fault,¹³⁸ and that the findings in PG&E's Seismic Report are at odds with findings made by the Licensing Board and the Appeal Board when the plant was licensed.¹³⁹ Throughout Contention 1, FOE argues that the Seismic Report's findings predict a larger earthquake than the one for which DCPD was licensed and that the Hosgri Earthquake is not the bounding seismic analysis for DCPD.¹⁴⁰ These concerns relate to whether DCPD is in compliance with its CLB and can continue to operate, and do not address the limited scope of license renewal. As part of the NRC's ongoing oversight, the Staff inspects the plant and evaluates any potential impacts to safety.¹⁴¹ The NRC's ongoing oversight of Diablo Canyon would address any safety-significant issue associated with PG&E's Seismic Report. In addition, in response to recommendations of the Near-Term Task Force review of the accident at Fukushima Dai-ichi nuclear facility, the NRC has requested information from PG&E and all operating reactor licensees in response to the March 12, 2012, § 50.54(f)

¹³⁷ See *Turkey Point*, CLI-01-17, 54 NRC at 7 (noting that "[a]dverse aging effects can result from metal fatigue, erosion, corrosion, thermal and radiation embrittlement, microbiologically induced effects, creep, and shrinkage.").

¹³⁸ Petition to Intervene at 3.

¹³⁹ *Id.* at 4-5.

¹⁴⁰ *Id.* at 9-10.

¹⁴¹ The Staff is also considering what impact, if any, PG&E's Seismic Report has on a license renewal decision. See, e.g., NRC Staff October 2014 Schedule Update re: Projected Schedule for Completion of the Safety and Environmental Evaluations (Oct. 16, 2014) (ADAMS Accession No. ML14289A066). However, as discussed throughout, FOE has not raised a genuine material dispute with the LRA because they have not identified how, if at all, any AMP needs to be modified to account for the issues raised in its contentions.

letter regarding seismic hazards re-evaluations. The results of NRC' review of these 50.54(f) responses will determine whether additional regulatory actions are needed to provide additional protection against updated seismic hazards. In sum, FOE's concerns address continued operation, not the period of extended operation.¹⁴² The proper vehicle for raising concerns related to continued operation is a 10 C.F.R. § 2.206 petition.

b. FOE's Safety Claims Do Not Raise a Genuine Dispute With the Application

FOE's Contention 1 should also be found inadmissible because it does not raise a genuine dispute with the application. An applicant for license renewal under Part 54 is required to submit an integrated plant assessment (IPA) for those SSCs within the scope of license renewal and must also submit an evaluation of time-limited aging analyses (TLAAs).¹⁴³ As part of its LRA, PG&E submitted both an IPA and an evaluation of TLAAs.¹⁴⁴

FOE's Contention 1 fails to raise a genuine dispute with PG&E's LRA because FOE does not challenge any part of the IPA or any TLAA. FOE does not point to a single SSC that it claims will be affected by the potential earthquake predicted by PG&E's Seismic Report, and does not explain how any AMP in the LRA is deficient. Instead, FOE generally alleges that in-scope SSCs will fail to perform their intended functions such that the plant will be able to be safely shut down in the event of an earthquake.¹⁴⁵ Thus, while FOE couches its claims as

¹⁴² FOE's witness, Dr. Gerhard Jentzch, appears to acknowledge that the Petition concerns current operating issues, not license renewal issues. He states in conclusion, "All this leads to the firm conviction that the earthquake hazard estimations for the Diablo Canyon site are not at all conservative but simply too small. Thus, the Different Professional Opin[i]on provided by Peck (2013) should be taken very serious[ly] pointing at the weak points of the licensing process of DCP." Jentzch Affidavit at ¶ 30 (emphasis omitted). Dr. Michael Peck's Differing Professional Opinion (DPO) concerned the current operation of DCP. See DPO Case File, DPO-2013-002, Document 1, Differing Professional Opinion – Diablo Canyon Seismic Issues, at 2 (Jul. 2013) (ADAMS Accession No. ML14252A743). Likewise, Dr. Jentzch challenges the current operation of DCP, not issues related to the limited scope of license renewal.

¹⁴³ 10 C.F.R. § 54.21(a) & (c).

¹⁴⁴ LRA at Chapter 3 & Chapter 4.

¹⁴⁵ Petition to Intervene at 19-20.

related to license renewal, Contention 1 does not raise a specific challenge to any of PG&E's analyses supporting license renewal.¹⁴⁶

2. Contention 2

FOE's Contention 2 states:

PG&E Has Failed to Establish In Its License Renewal Application That the Effects of Aging on Diablo Canyon's Relay Switches and Snubbers Will Be Adequately Managed for the Period of Extended Operation, In Violation of 10 C.F.R. § 54.21(c).¹⁴⁷

In support of Contention 2, FOE argues that snubbers and relays require an aging management review.¹⁴⁸ FOE also claims that PG&E was required to conduct TLAA's for relays and snubbers¹⁴⁹ and that to the extent PG&E conducted those analyses, they are no longer valid because they do not account for the new information in the Seismic Report.¹⁵⁰

For the reasons discussed below, FOE's Contention 2 should be found inadmissible.

¹⁴⁶ In Contention 1, FOE repeats a claim it first raised in its *de facto* amendment filing: that the "NRC made an exception to the seismic design basis to accommodate the risk presented by the Hosgri fault," and that the "exception was limited to activity on the Hosgri fault." Petition to Intervene at 9. FOE, however, fails to support this assertion. To the contrary, the Hosgri ground motion is part of DCP's licensing basis. See *Diablo Canyon*, LBP-79-26, 10 NRC at 490 ("the Board concludes that the 0.75g acceleration assigned to the safe shutdown earthquake is an appropriately conservative value for the maximum vibratory ground acceleration that could occur at the Diablo Canyon site and thus an appropriate anchorpoint . . . for the design response spectra."); *Diablo Canyon*, ALAB-644, 13 NRC at 986-88 (concluding that PG&E's program for testing the ability of SSCs to withstand the estimated Hosgri ground motion was sufficient); 10 C.F.R. § 54.3 (stating that a plant's CLB includes "orders"). The NRC Staff has always considered the Hosgri ground motions part of DCP's licensing basis. See, e.g., October 12, 2012 Letter at 4 ("DCP is unique in having three earthquake scenarios (DE, DDE, and HE) in its design and licensing basis").

¹⁴⁷ Petition to Intervene at 21 (emphasis omitted).

¹⁴⁸ *Id.* at 27.

¹⁴⁹ *Id.* at 25 ("[i]t is not apparent from Diablo Canyon's [LRA] whether PG&E has included evaluations of its TLAA's."). *Id.* (asserting that "PG&E has failed to evaluate these TLAA's in violation of 10 C.F.R. 54.21(c)(1)(i)-(iii).").

¹⁵⁰ Petition to Intervene at 24-25. FOE asserts that the Seismic Report concludes that PG&E's "previous analyses of the Hosgri, Shoreline, and other faults greatly underestimated the earthquake capability of those faults." *Id.* at 25.

a. FOE's Claims Are Outside the Scope of License Renewal and Do Not Raise a Genuine Dispute with the Application

FOE's Contention 2 is inadmissible because it challenges the Commission's regulations, which specifically exclude relays and snubbers from a license renewal aging management review. FOE notes that relays and snubbers are within the scope of license renewal because pursuant to 10 C.F.R. § 54.4(a)(2), they are nonsafety-related SSCs whose failure could prevent safety-related SSCs from fulfilling their intended functions.¹⁵¹ FOE argues that if an SSC is within the scope of the proceeding, it is subject to either (1) an aging management program or (2) the requirement to evaluate TLAA's.¹⁵² However, FOE is incorrect. Although relays and snubbers are SSCs within the scope of license renewal, they do not require an aging management review or TLAA's.

First, as the Commission explained in the SOC's for the license renewal rule, snubbers and relays are not subject to an aging management review because they perform active functions.¹⁵³ The Commission stated that "[o]nly passive, long-lived structures and components

¹⁵¹ Petition to Intervene at 28-29. 10 C.F.R. § 54.4(a), in relevant part, defines SSCs within the scope of license renewal as follows:

(1) Safety-related systems, structures, and components which are those relied upon to remain functional during and following design-basis events (as defined in 10 CFR 50.49(b)(1)) to ensure the following functions--

(i) The integrity of the reactor coolant pressure boundary;

(ii) The capability to shut down the reactor and maintain it in a safe shutdown condition; or

(iii) The capability to prevent or mitigate the consequences of accidents which could result in potential offsite exposures comparable to those referred to in § 50.34(a)(1), § 50.67(b)(2), or § 100.11 of this chapter, as applicable.

(2) All nonsafety-related systems, structures, and components whose failure could prevent satisfactory accomplishment of any of the functions identified in paragraphs (a)(1)(i), (ii), or (iii) of this section.

¹⁵² Petition to Intervene at 28.

¹⁵³ 60 Fed. Reg. at 22,477.

are subject to an aging management review for license renewal.”¹⁵⁴ Thus, 10 C.F.R. § 54.21(a)(1)(i) specifically excludes snubbers and relays from an aging management review in the IPA. PG&E was not required to include an aging management review for snubbers and relays in its LRA. FOE argues that “permitting the license renewal proceeding to go forward without considering whether the plant’s relays and snubbers, in their aged state, can withstand an earthquake which is demonstrably capable of occurring would be at odds with the stated purpose of the license renewal rule.”¹⁵⁵ In fact, just the opposite is true. Requiring PG&E to consider snubbers and relays in its IPA would be contrary to the stated purpose of the regulations.

Second, PG&E is not required by the license renewal regulations to submit TLAAAs for snubbers and relays in its LRA. Thus, FOE’s claim that the TLAAAs for snubbers and relays are no longer valid in light of the Seismic Report’s conclusions likewise falls outside the scope of this proceeding. Notably, FOE appears to recognize that snubbers and relays have no TLAAAs associated with them.¹⁵⁶ FOE nonetheless asserts that such TLAAAs should have been included in the LRA and that they need to take into account the findings of the Seismic Report.¹⁵⁷ However, FOE misunderstands the purpose and scope of the Commission’s regulations concerning TLAAAs.

The regulations define TLAAAs as:

[T]hose licensee calculations and analyses that:

- (1) Involve systems, structures, and components within the scope of license renewal, as delineated in § 54.4(a);

¹⁵⁴ *Id.* at 22,463.

¹⁵⁵ Petition to Intervene at 27.

¹⁵⁶ See Petition to Intervene at 25 (“It is not apparent from Diablo Canyon’s License Renewal Application whether PG&E has included evaluations of its TLAAAs for relays and snubbers as required by 10 C.F.R. § 54.21(c).”).

¹⁵⁷ *Id.* at 25.

- (2) Consider the effects of aging;
- (3) Involve time-limited assumptions defined by the current operating term, for example, 40 years;
- (4) Were determined to be relevant by the licensee in making a safety determination;
- (5) Involve conclusions or provide the basis for conclusions related to the capability of the system, structure, and component to perform its intended functions, as delineated in § 54.4(b); and
- (6) Are contained or incorporated by reference in the CLB.¹⁵⁸

Thus, a TLAA is a licensee calculation and analysis involving SSCs within the scope of license renewal that considers the effects of aging, is time-limited, and is contained in the CLB. Section 54.21(c) requires the license renewal applicant to provide, “A list of time-limited aging analyses, as defined in § 54.3,” and demonstrate that:

- (i) The analyses remain valid for the period of extended operation;
- (ii) The analyses have been projected to the end of the period of extended operation; or
- (iii) The effects of aging on the intended function(s) will be adequately managed for the period of extended operation.

In other words, *if* there is a TLAA, the applicant must verify that the analysis remains valid during the renewal or ensure that an AMP is in place.¹⁵⁹ Neither section 54.3 nor section 54.21(c) requires an applicant to generate a TLAA where one does not exist.¹⁶⁰

¹⁵⁸ 10 C.F.R. § 54.3.

¹⁵⁹ *Vermont Yankee*, CLI-10-17, 72 NRC at 18 (“a license renewal applicant seeking to satisfy our regulations’ aging management requirements by reliance upon the *existing* TLAA’s in its current licensing basis would rely upon sections 54.21(c)(1)(i) or (ii), while a license renewal applicant seeking to do so by reliance upon an AMP would rely instead upon sections 54.21(a)(3) and (c)(1)(iii).” (emphasis in original)).

¹⁶⁰ *See Turkey Point*, CLI-01-17, 54 NRC at 8 (stating that “some safety reviews or analyses made during the original term of the license may have been based upon a particular time period, such as, perhaps, an assumed service life of a specific number of years or some period of operation defined by the original license term, i.e., 40 years. Before the NRC will grant any license renewal application, an applicant must reassess these “time-limited aging analyses,” and (1) show that the earlier analysis will remain valid for the extended operation period; or (2) modify and extend the analysis to apply to a longer

In this case, PG&E's LRA did not include a TLAA for snubbers and relays because there are no time-limited analyses in the CLB considering the effects of aging on those components.¹⁶¹ Because there are no TLAAAs for snubbers and relays, PG&E is not required to evaluate those components under § 54.21(c) or include them in its LRA. Thus, FOE's claim that PG&E must submit TLAAAs for snubbers and relays that consider the new information in the Seismic Report is outside the scope of this proceeding because it is contrary to what the license renewal regulations require. Further, FOE's claim does not raise a genuine dispute with the application; PG&E was not required to and did not include TLAAAs for snubbers and relays in its LRA.

Additionally, there would be little need for a TLAA to address the effects of an earthquake on relay switches and snubbers. As noted above, relays and snubbers are active components that do not require an aging management review.¹⁶² TLAAAs are concerned with the management of the effects of aging. In the 1995 License Renewal SOCs, the Commission provided several examples of potential TLAAAs, including "reactor vessel neutron embrittlement . . . , concrete containment tendon prestress, metal fatigue, environmental qualification (EQ) of electrical equipment, [and] metal corrosion allowance," among others.¹⁶³ All of the issues

term, such as 60 years; or (3) otherwise demonstrate that the effects of aging will be adequately managed in the renewal term.") (emphasis added). Likewise, in the 1995 License Renewal SOCs, the Commission explained that it is concerned with ensuring that *existing* TLAAAs cover the period of extended operation or the aging effects on the components addressed are otherwise adequately managed. See 60 Fed. Reg. at 22,480-81 ("The Commission's intent for the requirement of time-limited aging analyses is to capture, for renewal review, *certain plant-specific aging analyses that are explicitly based on the duration of the current operating license of the plant. The Commission's concern is that these aging analyses do not cover the period of extended operation.* Unless these analyses are evaluated, the Commission does not have assurance that the systems, structures, and components addressed by these analyses can perform their intended function(s) during the period of extended operation.") (emphasis added).

¹⁶¹ See, e.g., *Vermont Yankee*, CLI-10-17, 72 NRC at 39 (stating that an analysis cannot be a TLAA if it is not contained in the CLB).

¹⁶² 10 C.F.R. § 54.21(a)(1)(i).

¹⁶³ 60 Fed. Reg. at 22,480. The Standard Review Plan for License Renewal provides the same examples of TLAAAs as the 1995 SOCs do and adds several others. NUREG-1800, Rev. 1, *Standard*

identified by the Commission can have adverse, aging related effects on the functionality of safety-related SSCs. FOE wants PG&E to examine the effects of an earthquake on relay switches and snubbers. But the Commission did not identify relay switches and snubbers as requiring TLAAAs.

Finally, FOE's concerns with the ability of the plant's snubbers and relays to withstand the potential earthquake predicted by PG&E's Seismic Report are outside the scope of this proceeding because they challenge current operation. As explained above, license renewal looks at the detrimental effects of aging unique to extended operation.¹⁶⁴ FOE's concerns about relay chatter caused by an earthquake¹⁶⁵ and its concerns regarding the shock-absorbing capacity of snubbers during an earthquake¹⁶⁶ are current operating issues. Dr. Arnold Gundersen's affidavit highlights the seriousness of the relay chatter issue and stresses the snubbers' importance in preventing damage during an earthquake.¹⁶⁷ Thus, the affidavit merely reinforces the notion that the proper function of relays and snubbers is critical to DCP's current operation.¹⁶⁸ The NRC's ongoing oversight of Diablo Canyon would address any safety-significant issue associated with PG&E's Seismic Report relating to the performance of relay

Review Plan for Review of License Renewal Applications for Nuclear Power Plants, at 4.1-5 – 4.1-6 (Sept. 30, 2005) (ADAMS Accession No. ML052110007). All of the examples are aging related. See *id.* An analysis of the effects of an earthquake on relay switches and snubbers would not match the rest of the list.

¹⁶⁴ *Turkey Point*, CLI-01-17, 54 NRC at 7.

¹⁶⁵ Petition to Intervene at 23-24 & 29.

¹⁶⁶ *Id.* at 24 & 29.

¹⁶⁷ See Gundersen Affidavit at 24-36 (discussing relay chatter) & 36-40 (discussing snubbers).

¹⁶⁸ In SSER 34, the Staff described the audit it performed of the relay chatter analysis prepared by PG&E as part of a probabilistic risk assessment. See SSER 34 at Section 23 & 23-13. This further demonstrates that relay chatter is a current operating issue, not a concern within the scope of license renewal. Furthermore, LCO 3.0.8 in the current Technical Specifications for DCP's states that if a snubber cannot perform its associated support function for a specified period of time, then the affected supported system LCO will not be met, and the plant must be shut down until the problem is resolved. See DCP's Tech Specs at 3.0-2. This shows that the operability of DCP's snubbers is a current operating issue, not an aging-related issue within the scope of license renewal.

switches and snubbers in the event of an earthquake. For this reason, FOE's concerns are outside the scope of license renewal and would be better addressed via a 10 C.F.R. § 2.206 petition.

3. Contention 3

FOE's Contention 3 states:

PG&E Has Failed to Establish In Its Aging Management Plan That the Effects of Aging on Diablo Canyon Will Be Adequately Managed for the Period of Extended Operation, In Violation of 10 C.F.R. § 54.21(a)(3).¹⁶⁹

In support of Contention 3, FOE argues that given the new findings in PG&E's Seismic Report, the aging management review in PG&E's LRA "rests on seismic data that [have] been shown to be obsolete and inaccurate."¹⁷⁰ Thus, FOE asserts that PG&E has not met an "implicit requirement" in 10 C.F.R. § 54.21(a)(3)¹⁷¹ and that PG&E must "update its aging management review with data from the Seismic Report."¹⁷²

For the reasons discussed below, Contention 3 is inadmissible.

a. FOE's Contention 3 Does Not Raise a Genuine Dispute With the LRA

As discussed above, PG&E's Diablo Canyon LRA was submitted in 2009. The LRA included an aging management review, including a list of AMPs. The LRA also included a discussion of the Hosgri earthquake and the LTSP Spectrum. The LRA discussed how SSCs were evaluated for the Hosgri earthquake to ensure that they can perform their intended function.¹⁷³ Further, the LRA states that for seismic design, "all Design Class I and some Design Class II SSCs are classified Seismic Category 1, and must remain functional following a

¹⁶⁹ Petition to Intervene at 30 (emphasis omitted).

¹⁷⁰ *Id.* at 31.

¹⁷¹ *Id.*

¹⁷² *Id.* at 32.

¹⁷³ See, e.g., LRA at 2.4-24 (intake structure and intake control building); *id.* at 2.4-18 (diesel fuel oil pump vaults and structures); *id.* at 2.4-14 (turbine building); *id.* at 2.4-2 (containment building).

design earthquake (DE),¹⁷⁴ double design earthquake (DDE),¹⁷⁵ or Hosgri earthquake (HE).^{176, 177}

In support of Contention 3, FOE generally asserts that the LRA's aging management review is based on out-of-date and inaccurate information, as well as invalid assumptions,¹⁷⁸ and must be updated to account for "up-to-date and accurate seismic data."¹⁷⁹ FOE claims that given the new information in the Seismic Report, the LRA's conclusion that the SSCs will remain "strong enough throughout the plant's extended period of operation to withstand an earthquake in accordance with the plant's CLB"¹⁸⁰ is no longer valid.

FOE's claims do not raise a genuine dispute with the Diablo Canyon LRA. FOE's non-specific challenge that the aging management review is inadequate does not reference a specific portion of the application that FOE disputes.¹⁸¹ Instead, FOE only generally claims that the entire aging management review is inadequate. It is not for the Board or the parties to search through FOE's Petition to Intervene and supporting affidavits to divine theories that might support the admission of a contention.¹⁸² This type of assertion does not meet the Commission's contention admissibility requirements. FOE also does not indicate how any part

¹⁷⁴ The LRA notes that the "DE is equivalent to the operating basis earthquake (OBE) of 10 CFR 100, Appendix A." LRA at 4.1-5, n.1.

¹⁷⁵ The LRA notes that the "DDE is equivalent to the safe shutdown earthquake (SSE) of 10 CFR 100, Appendix A." *Id.* at 4.1-5, n.2.

¹⁷⁶ The LRA notes that the "HE is a postulated Richter magnitude 7.5 earthquake centered along an offshore zone of geologic faulting known as the 'Hosgri Fault' and is specific to DCP." *Id.* at 4.1-5, n.3.

¹⁷⁷ *Id.* at 4.1-5.

¹⁷⁸ Petition to Intervene at 32.

¹⁷⁹ *Id.*

¹⁸⁰ *Id.*

¹⁸¹ See 10 C.F.R. § 2.039(f)(1)(vi).

¹⁸² *Metropolitan Edison Co.* (Three Mile Island Nuclear Station, Unit 1), CLI-83-25, 18 NRC 327, 331 (1983).

of the aging management review or AMPs relied on any seismic assumptions, or how any seismic assumption in the LRA is invalidated by information in the Seismic Report. As discussed above, while the Seismic Report did contain new information related to the Shoreline and other faults, the Seismic Report ultimately concluded that the Hosgri and LTSP were bounding. This is consistent with what is in the LRA, which states that the SSCs were analyzed assuming the Hosgri. Therefore, the Seismic Report does not undermine or invalidate the LRA's position on the ability of SSCs to withstand an earthquake.

b. FOE's Contention 3 Does Not Raise a Material Issue Within the Scope of License Renewal

Moreover, FOE's Contention 3 should be denied because it does not raise a material issue. Section 2.309(f)(1)(iv) requires that all contentions demonstrate that the contention is material to the outcome of a licensing proceeding, "meaning that the subject matter of the contention must impact the grant or denial of a pending license application."¹⁸³ In this license renewal proceeding, the standard for grant or denial of a license renewal application is found in 10 C.F.R. § 54.29. With respect to aging management programs and TLAAs, the Staff must find that there is reasonable assurance that the effects of aging on in-scope SSCs will be managed during the period of extended operation, that TLAAs have been identified for review, and that applicable environmental requirements have been met.¹⁸⁴

FOE does not indicate how any of its claims would impact the Staff's ability to make a license renewal finding. Instead, FOE makes only bare assertions that PG&E has failed to ensure that the effects of aging will be adequately managed for an additional 20 years given the findings in the Seismic Report. But FOE does not indicate how its seismic claims relate to aging; instead, FOE asserts that the "aged components" will not be able to perform their

¹⁸³ *Union Elec. Co.* (Callaway Plant, Unit 1), LBP-12-15, 76 NRC 14, 26 (2012), *citing* 10 C.F.R. § 2.309(f)(1)(iv).

¹⁸⁴ *See* 10 C.F.R. § 54.29.

intended function. Therefore, FOE has not raised a material issue and Contention 3 should be denied.

c. FOE's Contention 3 Lacks Sufficient Basis

FOE's Contention 3 also lacks an adequate basis and therefore should be denied. FOE generally claims that PG&E's aging management review is based on a number of invalid assumptions. But FOE does not reference specific portions of PG&E's aging management review or indicate which assumptions it believes are inadequate. Likewise, FOE's affidavits do not support admission of FOE's Contention 3 in this license renewal proceeding. Instead, the affidavits discuss, among other things, why the current operation of the plant is problematic given the information in PG&E's Seismic Report.¹⁸⁵

C. FOE's Waiver Petition Should Be Denied

FOE's Waiver Petition should also be denied. FOE's Waiver Petition seeks "a limited waiver of 10 C.F.R. §§ 54.4, 54.21, and 54.29(a) to the extent the [Commission or Board] interpret these regulations as precluding [FOE] from asserting in this proceeding that PG&E has not established Diablo Canyon can safely shut down following a potential earthquake."¹⁸⁶

For the reasons discussed below, FOE has not made a *prima facie* showing on any of the four factors comprising the Commission's stringent waiver standard.¹⁸⁷ Thus, FOE's Waiver Petition should be denied.

¹⁸⁵ See Gundersen Affidavit at 24-40 (discussing current operational issues concerning relay chatter and snubbers) and Jentzch Affidavit at ¶ 30.

¹⁸⁶ Waiver Petition at 1. See also *id.* at 5 (noting that waiver is sought "to the extent those regulations are interpreted as precluding Petitioner from arguing that the ASLB should consider seismic issues in determining whether to grant PG&E's license renewal request.").

¹⁸⁷ See *Exelon Generation Co., LLC* (Limerick Generating Station, Units 1 and 2), CLI-13-7, 78 NRC 199, 207 (2013) ("Our waiver standard is *stringent by design*. The NRC has discretion to transact its business broadly, through rulemaking, or case-by-case, through adjudication. When we engage in rulemaking, we are 'carving out' issues from adjudication for generic resolution. Therefore, to challenge the generic application of a rule, a petitioner seeking waiver must show that there is something *extraordinary* about the subject matter of the proceeding such that the rule should not apply.") (footnotes omitted; emphasis added).

1. Legal Standards Governing Petitions for Waiver Under 10 C.F.R. § 2.335

Pursuant to 10 C.F.R. § 2.335(a), except as provided in 10 C.F.R. § 2.335 (b), (c), and (d), “no rule or regulation of the Commission, or any provision thereof, concerning the licensing of production and utilization facilities . . . is subject to attack by way of discovery, proof, argument, or other means in any adjudicatory proceeding subject to this part.” Subsections (b), (c), and (d) of 10 C.F.R. § 2.335 further provide as follows:

(b) A party to an adjudicatory proceeding subject to this part may petition that the application of a specified Commission rule or regulation or any provision thereof, of the type described in paragraph (a) of this section, be waived or an exception made for the particular proceeding. *The sole ground for petition of waiver or exception is that special circumstances with respect to the subject matter of the particular proceeding are such that the application of the rule or regulation (or a provision of it) would not serve the purposes for which the rule or regulation was adopted.* The petition must be accompanied by an affidavit that identifies the specific aspect or aspects of the subject matter of the proceeding as to which the application of the rule or regulation (or provision of it) would not serve the purposes for which the rule or regulation was adopted. *The affidavit must state with particularity the special circumstances alleged to justify the waiver or exception requested.* Any other party may file a response by counter affidavit or otherwise.

(c) If, on the basis of the petition, affidavit and any response permitted under paragraph (b) of this section, the presiding officer determines that the petitioning party *has not made a prima facie showing* that the application of the specific Commission rule or regulation (or provision thereof) to a particular aspect or aspects of the subject matter of the proceeding would not serve the purposes for which the rule or regulation was adopted and that application of the rule or regulation should be waived or an exception granted, no evidence may be received on that matter and no discovery, cross-examination or argument directed to the matter will be permitted, and the presiding officer may not further consider the matter.

(d) If, on the basis of the petition, affidavit and any response provided for in [§ 2.335(b)], the presiding officer determines that the prima facie showing required by [§ 2.335(b)] has been made, the presiding officer shall, before ruling on the petition, certify the matter directly to the Commission . . . for a determination in the matter of whether the application of the Commission rule or regulation or provision thereof to a particular aspect or aspects of

the subject matter of the proceeding, in the context of this section, should be waived or an exception made. . . .

10 C.F.R. § 2.335 (emphasis added).

In applying these provisions, the Commission has emphasized that a waiver of one or more of its license renewal rules may be granted only upon a showing that the following four factors set out in *Millstone*¹⁸⁸ have been satisfied:

(i) the rule's strict application "would not serve the purposes for which [it] was adopted;" (ii) the movant has alleged "special circumstances" that were "not considered, either explicitly or by necessary implication, in the rulemaking proceeding leading to the rule sought to be waived;" (iii) those circumstances are "unique" to the facility rather than "common to a large class of facilities;" and (iv) a waiver of the regulation is necessary to reach a "significant safety problem." The use of "and" in this list of requirements is both intentional and significant. For a waiver request to be granted, *all four* factors must be met.¹⁸⁹

Thus, unless all of these requirements are satisfied, any matters deemed to be outside the scope of the license renewal safety review cannot be challenged in individual license renewal proceedings.¹⁹⁰

FOE seeks a waiver of 10 C.F.R. §§ 54.4, 54.21 and 54.29 for all three of its contentions. Specifically, FOE seeks a "limited waiver of the application of 10 C.F.R. §§ 54.4, 54.21, and 54.29(a)"¹⁹¹ to permit it to assert that "a large earthquake that . . . is now known to be possible, would cause certain [SSCs] within Diablo Canyon to fail, preventing the plant's reactors to remain safely shut down."¹⁹² Further, FOE seeks a waiver to litigate its claims that Diablo

¹⁸⁸ *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 1 and 2), CLI-05-24, 62 NRC 551 (2005).

¹⁸⁹ *Millstone*, CLI-05-24, 62 NRC at 559-60 (emphasis in original; footnotes omitted).

¹⁹⁰ *Turkey Point*, CLI-01-17, 54 NRC at 10-12.

¹⁹¹ Waiver Petition at 1.

¹⁹² *Id.* See also *id.* at 8 (requesting waiver to "allow [FOE] to assert that the Commission can and should consider whether the plant's SSCs will continue to function properly during the extended period of operation in the face of increased risk revealed by newly discovered seismic data.").

Canyon “cannot withstand an earthquake due to the fact that the plant’s relay switches and snubbers are no longer able to function properly.”¹⁹³

As set forth below, FOE has failed to establish a *prima facie* case that its Waiver Petition meets all of the *Millstone* factors. Accordingly, FOE’s Waiver Petition should be denied.

2. FOE Has Not Made a Prima Facie Showing On Any of the Waiver Factors

a. Factor 1: FOE Has Not Shown That Part 54’s Application Would Not Serve the Purposes for Which It Was Adopted

FOE has not made a *prima facie* showing that the application of 10 C.F.R. §§ 54.4, 54.21 and 54.29(a) in this proceeding would not serve the purposes for which they were adopted. These license renewal safety regulations establish the scope of the plant SSCs within the scope of license renewal,¹⁹⁴ the technical contents of a license renewal application,¹⁹⁵ and the standards for issuance of a renewed license,¹⁹⁶ respectively. These rules limit the areas of concern for license renewal proceedings to issues unique to the period of extended operation. As the Commission explained in its Statements of Consideration (SOC),¹⁹⁷ “The license renewal review is intended to identify any additional actions that will be needed to maintain the functionality of the systems, structures, and components in the period of extended operation.”¹⁹⁸ As a result, Part 54 draws a line between public health and safety during the period of extended operations, which is within the rule’s scope, and public health and safety during current plant

¹⁹³ *Id.* at 8.

¹⁹⁴ 10 C.F.R. § 54.4. Waiver Petition at 7.

¹⁹⁵ 10 C.F.R. § 54.21; *See also* 10 C.F.R. § 54.4(b). Waiver Petition at 2 and n.4.

¹⁹⁶ 10 C.F.R. § 54.29(a).

¹⁹⁷ *See Limerick*, CLI-13-7, 78 NRC at 209-10 (explaining that to determine the underlying purpose of a rule, one should look further than the rule’s stated effect and, for instance, examine the Statements of Consideration accompanying the rulemaking).

¹⁹⁸ 60 Fed. Reg. at 22,464.

operation, which is outside the rule's scope.¹⁹⁹ Part 54 purposefully does not "require submission of information relating to the adequacy of, or compliance with, the current licensing basis" and does not "require a finding regarding the adequacy of, or compliance with, the plant's licensing basis."²⁰⁰

Therefore, hearings in individual license renewal proceedings are limited to safety contentions that question "whether the applicant has properly complied with the 10 CFR part 54 requirements and thereby adequately addressed age-related degradation unique to license renewal."²⁰¹ FOE argues that the strict application of 10 C.F.R. §§ 54.4, 54.21, and 54.29(a) in this license renewal proceeding would "unjustifiably exclude important and relevant issues relating to the ability of Diablo Canyon to continue functioning properly" during the license renewal term.²⁰²

In particular, FOE argues that the "paramount objective" of the license renewal rules is to "ensure that the important systems, structures, and components will continue to perform their intended function in the period of extended operation."²⁰³ FOE argues that given the "extraordinary seismic history of Diablo Canyon"²⁰⁴ and the findings in the Seismic Report,²⁰⁵ the usual scope of license renewal should not apply in this instance.²⁰⁶

¹⁹⁹ See 60 Fed. Reg. at 22,463-64, 22,481.

²⁰⁰ Nuclear Power Plant License Renewal, 56 Fed. Reg. 64,943, 64,961 (Dec. 13, 1991) (Final Rule).

²⁰¹ *Id.* License renewal hearings also consider certain environmental issues (*i.e.*, "whether the applicable requirements of 10 CFR part 51 relating to environmental protection under NEPA have been satisfied . . ."). *Id.* FOE recognizes this, as its Waiver Petition correctly states the objective of a license renewal safety review. Waiver Petition at 1-2 & 6-7.

²⁰² Waiver Petition at 6. *Id.* at 8 ("Interpreting the Commission's rules to preclude Petitioner from arguing that the plant cannot withstand an earthquake due to the fact that the plant's relay switches and snubbers are no longer able to function properly would eviscerate the central objective of the license renewal rule—to ensure plant safety during the extended license term.").

²⁰³ *Id.* at 6.

²⁰⁴ Waiver Petition at 5.

FOE's arguments do not provide a *prima facie* case that Part 54's application would not serve the purpose for which it was adopted. In particular, FOE has not indicated how any of its claims are necessary to ensure adequate protection *only during the renewal term*.²⁰⁷ Instead, FOE seeks to adjudicate the current licensing basis of Diablo Canyon in a license renewal proceeding and/or challenge the Commission's license renewal rules.²⁰⁸ Thus, while FOE claims that its waiver request is "limited,"²⁰⁹ FOE's Waiver Petition is actually extremely broad. In effect, FOE is requesting that the narrow scope of Part 54 be waived in its entirety for this proceeding, and that Part 50 matters related to current operation of the plant be adjudicated. This goes against the purpose of Part 54, which the Commission revised "to identify and eliminate from license renewal proceedings certain analysis that would be duplicative of the licensee's ongoing obligations to comply with Commission regulations and the plant's current licensing basis."²¹⁰ As the Commission explained in *Millstone*, "it makes no sense to spend the

²⁰⁵ See, e.g., *Id.* at 8 (characterizing the findings in the report as showing an "increased risk"). See *id.* at 1 (asserting that the Seismic Report has for the first time demonstrated that a large earthquake is possible and that the plant will not be able to withstand it).

²⁰⁶ *Id.* at 5-6.

²⁰⁷ 56 Fed. Reg. at 64,961 (explaining that waiver petitions from 10 C.F.R. Part 54 would not be granted for "[i]ssues that have relevance and could be completely resolved during the term of operation under the existing operating license *as well as license renewal*" because "there is no unique relevance of [these] issue[s] to the renewal term. . . ." On the other hand, "if an intervenor could make a *prima facie* demonstration that an issue or circumstance *would occur during the renewal term and not during the existing operating license term*, and that its resolution is necessary to ensure adequate protection, the Commission would admit that issue for resolution in the formal renewal hearing, as provided, in § 54.29(c).") (emphasis added).

²⁰⁸ For example, FOE argues that snubbers and relay switches are subject to aging management.

²⁰⁹ Waiver Petition at 1.

²¹⁰ *Id.* at 6 (citing 60 Fed. Reg. at 22,462-3).

parties' and our own valuable resources litigating allegations of *current* deficiencies in a proceeding that is directed to *future*-oriented issues of aging.”²¹¹

The Staff is currently examining PG&E's Seismic Report to determine what, if any, implications it has on the current operation the plant.²¹² FOE's Waiver Petition demonstrates that it has concerns with the current operation of the plant given PG&E's Seismic Report. But, as the Commission has explained, it will not grant waiver petitions in license renewal proceedings for “[i]ssues that have relevance and could be completely resolved during the term of operation under the existing operating license as well as license renewal” because “there is no unique relevance of [these] issue[s] to the renewal term.”²¹³ Thus, FOE's Waiver request should be denied.²¹⁴

b. Factor 2: FOE Has Not Shown That Special Circumstances Exist

FOE's Waiver Petition should also be denied because it has not made a *prima facie* showing regarding the second *Millstone* factor (*i.e.*, that there are “special circumstances” that were “not considered, either explicitly or by necessary implication, in the rulemaking proceeding

²¹¹ *Millstone*, CLI-05-24, 62 NRC at 560-61 (emphasis in original). Instead, the “NRC regulations provide two other procedural mechanisms (10 C.F.R. §§ 2.206 and 2.802), by which [a petitioner] may pursue its concerns about” current deficiencies. *Id.* at 561.

²¹² If the Staff determines that there is a current operating issue, this would be dealt with presently, and would not wait until the period of extended operation. The license renewal Staff would then consider if any change in the current operation of the plant would affect the Staff's license renewal review.

²¹³ 56 Fed. Reg. at 64,961. “On the other hand, if an intervenor could make a *prima facie* demonstration that an issue or circumstance *would occur during the renewal term and not during the existing operating license term*, and that its resolution is necessary to ensure adequate protection, the Commission would admit that issue for resolution in the formal renewal hearing, as provided, in § 54.29(c).” *Id.* (emphasis added).

²¹⁴ To the extent that FOE takes issue with the Commission's license renewal safety rules, it could file a 10 C.F.R. § 2.802 petition for rulemaking. To the extent that FOE has concerns with the current operation of the plant, FOE could file a 10 C.F.R. § 2.206 petition for agency action. See *Millstone*, CLI-05-24, 62 NRC at 561, 562-63.

leading to the rule sought to be waived”).²¹⁵ The Commission has explained that “special circumstances must be such as to undercut the rationale for the rule sought to be waived.”²¹⁶

FOE argues that there are special circumstances in this instance because the “unprecedented circumstances surrounding the seismic history of Diablo Canyon were not considered in the Commission’s license renewal rulemaking proceeding.”²¹⁷ FOE claims that the “license renewal rule was based on the assumption that a plant’s seismic design basis would be static, and that no new seismic data, requiring alternations to the plant’s current licensing basis, would be discovered.”²¹⁸ Thus, FOE argues that there are special circumstances “that warrant an analysis at the license renewal stage of whether the plant’s SSCs, in their aged condition, can continue to function properly during the extended period of operation.”²¹⁹

In particular, FOE claims that the license renewal rule did not contemplate a scenario where “outside-design-basis events [would] be added to the plant’s current licensing basis”²²⁰ or a scenario where SSCs that were deemed not to require monitoring would require monitoring given “additional stress on these SSCs.”²²¹ Thus, FOE argues that “the rule’s purpose of continued safety is not furthered by excluding from license renewal review certain SSCs²²² that

²¹⁵ *Id.* at 559-60.

²¹⁶ *Pub. Serv. Co. of New Hampshire* (Seabrook Station, Units 1 and 2), CLI-88-10, 28 NRC 573, 597 (1988).

²¹⁷ Waiver Petition at 5.

²¹⁸ *Id.* at 8-9.

²¹⁹ *Id.* at 9. FOE’s Waiver Petition then recounts the “seismic history” of Diablo Canyon. *Id.* at 9-12.

²²⁰ *Id.* at 12. *See also id.* at 11 (discussing Hosgri evaluation).

²²¹ *Id.* at 12. *See also id.* at 11 (asserting that the Seismic Report shows that there is the possibility of a larger earthquake).

²²² Presumably, FOE is talking about relay switches and snubbers and/or the “small” components discussed in its affidavits (though it is not clear what “small” components are being referenced).

play an important part in ensuring that the plant is able to safely shut down and remain shut down following an earthquake.”²²³

FOE’s claims do not demonstrate that there are special circumstances in this license renewal proceeding that were not considered during the Part 54 rulemaking. As an initial matter, FOE offers no support for its claims that the license renewal rule presumes that there will be no change in the seismic risk at a plant or for its claims that the Seismic Report concluded that there is an increased seismic risk at Diablo Canyon.²²⁴ In any event, the issue of whether Diablo Canyon was designed, built, and operated to safely withstand earthquakes likely to occur in its region is a current operating issue.

As explained above, the Commission explicitly accounted for the dichotomy between current operating issues and issues unique to license renewal in its Part 54 rulemaking. The Commission has also accounted for the possibility that seismic hazards at reactor sites could change and is dealing with this as part of its ongoing oversight of the current operation of the plants.²²⁵ Thus, FOE’s asserted “special circumstances” do not undercut the rationale for Part 54.²²⁶ Moreover, the Commission considered which SSCs should be subject to aging

²²³ Waiver Petition at 12.

²²⁴ In fact, FOE’s Waiver Petition notes that PG&E “concluded that the plant remained safe on the basis that the ground motions based on the new information [in the Seismic Report] ‘remain bounded’ by its previous evaluation of ground motion that can be caused by the Hosgri fault.” *Id.* at 12 (emphasis removed).

²²⁵ For example, as part of the Commission’s post-Fukushima lessons-learned activities, the NRC is requiring all licensees, including Diablo Canyon, to reevaluate seismic hazards at their sites. See Letter from NRC to All Power Reactor Licensees and Holders of Construction Permits in Active or Deferred Status, 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 (Mar. 12, 2012) (ADAMS Accession No. ML12056A046) (requiring, in part, that plants reevaluate seismic hazards using present-day methods and guidance, and conduct “walkdowns” (visual reviews of the plants’ seismic structures, systems and components)) (Fukushima RAI).

²²⁶ *Seabrook*, CLI-88-10, 28 NRC at 597.

management review and/or TLAAs in its license renewal rulemaking.²²⁷ The fact that FOE disagrees with the Commission's separation of current operating issues and issues unique to license renewal, and questions the Commission's license renewal rules is not a special circumstance that was not considered during the Part 54 rulemaking. Thus, FOE has not made a *prima facie* showing on the second Millstone factor, and its Waiver Petition should be denied.

c. Factor 3: FOE Has Not Shown That There Are Special Circumstances
Unique to Diablo Canyon

As discussed directly above, FOE has not shown that there are special circumstances in this license renewal proceeding that were not considered during the Part 54 rulemaking. Since FOE has not shown special circumstances, it also cannot satisfy the third *Millstone* factor which is that the identified special circumstances must be "unique" to the facility rather than "common to a large class of facilities."²²⁸ Moreover, the Commission has explained that to meet *Millstone's* uniqueness factor, a challenge to a regulation should rest on "issues that are legitimately unique to the proceeding and do not imply broader concerns about the rule's general viability or appropriateness."²²⁹ While FOE's challenges are premised on a report that applies only to Diablo Canyon, at bottom FOE's challenges imply broader concerns about the viability or appropriateness of Part 54. Thus, FOE has not made a *prima facie* showing with respect to the third *Millstone* factor, and its Waiver Petition should be denied.

FOE argues that Diablo Canyon is unique because "[n]o other nuclear power plant in the U.S. has been permitted to continue operations despite the existence and acknowledgement of a fault nearby that can produce far greater ground motion than the plant's safe shutdown

²²⁷ See 10 C.F.R. § 54.4(a). See also NUREG-1800, Rev. 1, at A.1-2.

²²⁸ *Millstone*, CLI-05-24, 62 NRC at 559-60.

²²⁹ *Limerick*, CLI-13-7, 78 NRC at 208. *Id.* ("To be sure, if an issue were 'common to a large class of facilities,' then it would be appropriate for [the Commission] to address the issue through rulemaking.").

earthquake.”²³⁰ As an initial matter, FOE offers no support for its claim that Diablo Canyon is being allowed to operate outside of its current licensing basis. In any event, the proposition that there could be a seismic hazard greater than contemplated in a plant’s design is not unique to Diablo Canyon.²³¹ Moreover, as noted above, each power reactor, not just Diablo Canyon, is being required to reevaluate seismic hazards using present-day methods and guidance, and conduct “walkdowns” to ensure protection against seismic hazards.²³²

FOE also argues that Diablo Canyon is unique because it is located on the Pacific Coast²³³ and because its seismic design basis is complex while other plants’ seismic design bases are “simple.”²³⁴ While it is true that Diablo Canyon’s CLB is unique and complex, this does not satisfy the *Millstone* “uniqueness” factor. Instead, FOE’s claims indicate that FOE has concerns with the current operation of the plant, the plant’s CLB, and the SSCs subject to aging management review. Since these claims could also be raised at another facility (for example, an East Coast plant that identified a higher seismic hazard than previously realized), the issue is not unique but, rather, common to a large class of facilities. Thus, FOE’s Waiver Petition does not make a *prima facie* case on the third *Millstone* factor and should be denied.

²³⁰ Waiver Petition at 13.

²³¹ See, e.g., Results of Initial Screening of Generic Issue 194, “Implications of Updated Probabilistic Seismic Hazard Estimates” (Sept. 12, 2003) (ADAMS Accession No. ML032680979) (concerning a probabilistic seismic hazard assessment for Watts Bar and Vogtle that shows a higher probabilistic seismic hazard estimate for the Watts Bar site than the value obtained from previous estimates).

²³² See generally Fukushima RAI.

²³³ Waiver Petition at 14.

²³⁴ *Id.* at 13.

d. Factor 4: FOE Has Not Shown That Waiver Is Necessary to Reach a Significant Safety Issue

Finally, FOE has not made a *prima facie* showing that waiver of Part 54 is necessary to reach a significant safety issue. This *Millstone* factor was established to protect the Commission's already crowded regulatory agenda from non-substantive problems.²³⁵

FOE argues that waiver is necessary because the "danger posed by an earthquake affecting a nuclear power plant is not subject to dispute" and FOE "has no other avenue by which it can assert that Diablo Canyon's relays and snubbers, and the plant's SSCs considered in their entirety, have degraded to the point they will not be able to continue to function properly after an earthquake"²³⁶ during the period of extended operation.

FOE's claims do not make a *prima facie* showing on the fourth *Millstone* factor. While the Staff recognizes that seismic hazards are an important issue and have the potential to affect public health and safety, these issues are current operating issues. Despite FOE's claims to the contrary,²³⁷ FOE does have other avenues to raise its concerns about seismic issues at Diablo Canyon. For example, FOE could file a 10 C.F.R. § 2.206 petition, FOE could file a 10 C.F.R. § 2.802 petition for rulemaking, or FOE could submit an admissible late-filed contention in this

²³⁵ See *Seabrook*, CLI-88-10, 28 NRC at 601 ("The Commission's agenda is crowded with significant regulatory matters, including new rules on nuclear plant maintenance, fitness for duty, and high-level waste repository licensing, and safety oversight of the over 100 nuclear power plants with operating licenses. It would not be consistent with the Commission's statutorily mandated responsibilities to spend time and resources on matters that are of no substantive regulatory significance. . . . For these reasons, we conclude that the rule waiver petitions before us do not present a significant safety problem, and therefore must be denied."). The *Millstone* decision relied on *Seabrook*.

²³⁶ Waiver Petition at 14-15.

²³⁷ *Id.* at 14, 15 and n. 36. While FOE asserts that it is not seeking to modify, suspend, or revoke a license, its Petition to Intervene and Waiver Petition appear to be requesting exactly such relief. Both petitions make numerous claims that there are now new and greater seismic hazards that mean that Diablo Canyon cannot safely shut down. See, e.g., Petition to Intervene at 3 (stating that PG&E has never demonstrated that the plant can be safely operated under its existing license given the Shoreline Fault); *Id.* at 1.

license renewal proceeding related to seismic concerns.²³⁸ Therefore, FOE's Waiver Petition does not make a *prima facie* case on the fourth *Millstone* factor and should be denied.

IV. CONCLUSION

For the reasons set forth above, the Board should deny FOE's Petition to Intervene and Waiver Petition.

Respectfully submitted,

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Executed in Accord with 10 CFR 2.304(d)

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²³⁸ Contrary to FOE's claims, the Board is already considering "seismic issues in determining whether to grant PG&E's license renewal request." Waiver Petition at 5. In particular, the Board is considering the adequacy of PG&E's SAMA analysis given the Shoreline fault. See *Diablo Canyon*, CLI-11-11, 74 NRC at 427.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)
)
FIRSTENERGY NUCLEAR OPERATING CO.) Docket No. 50-346-LRA
)
(Davis-Besse Nuclear Power Station, Unit 1))
)

CERTIFICATE OF SERVICE

Pursuant to 10 C.F.R. § 2.305 (revised), I hereby certify that copies of the “NRC STAFF’S ANSWER TO FRIENDS OF THE EARTH’S REQUEST FOR A HEARING AND PETITION TO INTERVENE AND WAIVER PETITION” have been served upon the Electronic Information Exchange, the NRC’s E-Filing System, in the above captioned proceeding, this 4th day of November, 2014.

/Signed (electronically) by/
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