

**BEFORE THE UNITED STATES
NUCLEAR REGULATORY COMMISSION**

In the Matter of)	
)	Docket Nos. 50-275
PACIFIC GAS & ELECTRIC COMPANY)	50-323
)	
(Diablo Canyon Power Plant))	October 14, 2014

FRIENDS OF THE EARTH'S REPLY TO NRC STAFF'S AND PACIFIC GAS & ELECTRIC
COMPANY'S ANSWERS AND PROPOSED *AMICUS CURIAE* NUCLEAR ENERGY
INSTITUTE'S BRIEF IN RESPONSE TO PETITION TO INTERVENE AND REQUEST FOR
HEARING

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I. INTRODUCTION

Following the 2008 discovery of the Shoreline fault just hundreds of meters offshore from Diablo Canyon, PG&E had to choose one of two ways to deal with this new finding: either seek to amend the plant's licensing basis to incorporate the Shoreline fault into the its seismic design basis, or retrofit the plant to withstand a postulated Shoreline earthquake, which was projected to cause greater ground motion and occur closer to the plant than any fault known to exist up to that point. Unsurprisingly, PG&E chose the former, and in October 2011, filed License Amendment Request 11-05 (LAR 11-05).

When PG&E became aware, however, that NRC intended to deny LAR 11-05—on grounds that the amendment would be “unacceptable from technical and regulatory perspectives”¹—PG&E must have realized that the consequences of such a denial would be catastrophic. Were NRC to deny LAR 11-05, PG&E would have painted itself into a corner; having been denied its formal request to incorporate the Shoreline fault into its seismic design basis, the only option that would remain to PG&E would be an expensive retrofit. The company accordingly withdrew LAR 11-05 before the NRC Staff could grant or deny the license amendment request.

PG&E must have also known that were it to withdraw its license amendment request, it would have the option of seeking to accomplish, through informal channels and negotiations with the NRC Staff, precisely that which it had sought to accomplish through LAR 11-05—and that is what PG&E did. A comparison of the relief sought in LAR 11-05 with the results achieved since that request was withdrawn demonstrates this point.

¹ NRC draft document, “Basis for DE Denial of Diablo Canyon 1&2 LAR 11-05,” at 3, ADAMS Accession No. ML13354B992.

- In LAR 11-05, PG&E had sought to make the Hosgri Evaluation the plant's Safe Shutdown Earthquake; at NRC's invitation, PG&E accomplished precisely that.²
- In LAR 11-05, PG&E had sought to make the Hosgri Evaluation the bounding evaluation and the yardstick by which the predicted ground motion from the Shoreline fault would be measured; later actions accomplished precisely that.³
- In LAR 11-05, PG&E had sought to analyze the recently discovered Shoreline fault according to the methodologies and assumptions of the Long Term Seismic Plan (LTSP); now PG&E has accomplished precisely that by simply inserting new language into its FSARU.⁴

NRC Staff have negotiated these results without requiring PG&E to meet the regulatory requirements applicable to establishing and amending a plant's seismic design basis.

Respondents raise a number of arguments to avoid the obvious—that under § 189(a)(1)(A) of the Atomic Energy Act and the regulations of the Nuclear Regulatory Commission, a change in the Seismic Design Basis of a nuclear power plant requires a license amendment, which requires an opportunity for a public hearing on the proposed change. The need for an amendment was recognized in 2009 by PG&E and the NRC's western office Staff, but the Commission's headquarters staff overruled them and gave PG&E permission to withdraw its proposed license amendment. Instead, the Staff commenced the *de facto* license amendment process of which FoE complained in its Petition, which has resulted so far in the Staff's surreptitiously slipping into the license changes that substituted the Hosgri Evaluation (HE) for the Double Design Earthquake in the original license as the seismic design basis and the Safe

² See PG&E, Diablo Canyon Power Plant, Units 1 and 2, Final Safety Analysis Report Update, Rev. 21 (Sep. 2013), at 2.5-77 (*hereinafter* "FSARU Rev. 21").

³ FSARU Rev. 21, at 2.5-66.

⁴ FSARU Rev. 21, at 2.5-80.

Shutdown Earthquake. Revision 21 was subjected to no public review, and would not have come to public light but for offhand references in the case file for the internal review of and decision on Dr. Michael Peck's dissenting professional opinion (DPO) released on September 10, 2014. This reference confirms the existence of the *de facto* licensing amendment process FoE has identified.

PG&E and the NRC Staff attempt to avoid the implications of these facts by claiming that PG&E withdrew its license amendment because it "was overtaken" by the Commission's post-Fukushima § 50.54(f) process. But the post-Fukushima process does not supplant the requirement that a license amendment is required to change the seismic design basis for the plant.

The Staff and PG&E also claim that the HE "bounds" the Shoreline and other newly understood faults near Diablo Canyon analyzed in the recently issued Central Coastal California Seismic Imaging Project Report⁵ (PG&E Seismic Report), even though the Shoreline fault is now shown to be closer to Diablo Canyon, stronger than previously known, and longer than the Hosgri fault had been assumed to be as recently as 2011. But they offer no straight-up comparison of the Hosgri fault with the other faults, using the same assumptions about ground motion; instead PG&E and the NRC Staff adjust the ground motion equations and other parameters on Shoreline to allow the "bounding" claim.

PG&E and the NRC Staff also urge FoE to avail itself of the § 2.206 process. But that process is designed for citizens who wish to initiate a proceeding to alter or amend an existing license, not for citizens to challenge a *de facto* license amendment proceeding initiated by the licensee and the Staff or ongoing license amendment proceedings.

⁵ See PG&E, Central Coastal California Seismic Imaging Project, <http://www.pge.com/en/safety/systemworks/dcpp/seismicsafety/report.page> (last accessed Oct. 1, 2014) (*hereinafter* "PG&E Seismic Report").

For these reasons, the NRC has violated § 189a(a)(1)(A) of the Atomic Energy Act with respect to FSARU Revision 21. The Commission should convene an Atomic Safety and Licensing Board and direct it to grant FoE’s Petition to Intervene and Request for a Hearing on licensing changes required as a result of discovery of the new seismic information described in PG&E’s September 10, 2014 Seismic Report.

II. THE HOSGRI EVALUATION IS NOT PART OF DIABLO CANYON’S SEISMIC DESIGN BASIS

In maintaining that no *de facto* license amendment is occurring and that no license amendment is needed, both NRC Staff and PG&E rely heavily on the assertion that the Hosgri Evaluation (HE) is part of the current licensing basis.⁶ PG&E points to this assertion as proof that the plant is safe to continue operating and that no *de facto* license amendment has occurred. But PG&E’s statement that the HE is “part of the current licensing basis” has little consequence to this proceeding and is intended to distract the Commission from the central issue—PG&E’s failure to satisfy its regulatory obligations under General Design Criterion 2 in 10 C.F.R. Part 50, Appendix A and other applicable Commission regulations. Moreover, the document PG&E relies on to assert that the HE is the Safe Shutdown Earthquake (SSE) for Diablo Canyon—Supplemental Safety Evaluation Report No. 7 (SSER 7)—was issued in 1978, six years before the plant received its operating license.⁷ In any event, as a supplemental safety evaluation, SSER 7 is not part of the current licensing basis and was superseded by the original Final Safety Analysis Report, approved by the NRC in 1984, which states that the Double Design Earthquake (DDE) is the SSE for Diablo Canyon.

⁶ PG&E Answer, at 2-8; NRC Staff Answer, at 27.

⁷ NUREG-0675, “Safety Evaluation Report Related to the Operation of Diablo Canyon Power Plant, Units 1 and 2,” Supplement No. 7 (May 26, 1978) (*hereinafter* “SSER 7”).

a. Regulatory Framework

Since PG&E and NRC Staff make much of the fact that the Hosgri Evaluation is included in Diablo Canyon’s current licensing basis (CLB), a brief recitation of the regulatory framework applicable to seismic design is appropriate.

Diablo Canyon’s seismic design basis is set forth by three “tiers” of Commission regulations: the current licensing basis, the General Design Criteria, and the seismic design basis, each discussed in turn below.

i. Current Licensing Basis

As defined by Commission regulations, the CLB is “the set of NRC requirements applicable to a specific plant and a licensee’s written commitments for ensuring compliance with and operation within applicable NRC requirements and the plant-specific design basis.”⁸ The CLB consists of the following:

- NRC regulations contained in 10 CFR parts 2, 19, 20, 21, 26, 30, 40, 50, 51, 52, 54, 55, 70, 72, 73, 100 and appendices thereto;
- Commission orders;
- License conditions;
- Exemptions;
- Technical specifications;
- Plant-specific design basis information defined in 10 CFR 50.2 and documented in the most recent UFSAR (as required by 10 CFR 50.71);

⁸ 10 C.F.R. § 54.3(a).

- Licensee commitments remaining in effect that were made in docketed licensing correspondence (such as licensee responses to NRC bulletins, Licensee Event Reports, generic letters, and enforcement actions); and
- Licensee commitments documented in NRC safety evaluations.⁹

ii. General Design Criteria

Each plant must meet each of 64 listed “General Design Criteria.” These General Design Criteria, which as part of 10 C.F.R. Part 50 are included in each plant’s CLB, “establish minimum requirements for the principal design criteria for water-cooled nuclear power plants similar in design and location to plants for which construction permits have been issued by the Commission.”¹⁰ General Design Criterion 2 sets forth “[d]esign bases for protection against natural phenomena”:

Structures, systems, and components important to safety shall be designed to withstand the effects of natural phenomena such as earthquakes, tornadoes, hurricanes, floods, tsunami, and seiches without loss of capability to perform their safety functions. The design bases for these structures, systems, and components shall reflect . . . [a]ppropriate consideration of the most severe of the natural phenomena that have been historically reported for the site and surrounding area, with sufficient margin for the limited accuracy, quantity, and period of time in which the historical data have been accumulated¹¹

iii. Seismic Design Basis

“Design bases,” which are a subset of a plant’s CLB, are used to demonstrate compliance with the General Design Criteria. Design bases are defined by regulation as:

that information which identifies the specific functions to be performed by a structure, system, or component of a facility, and the specific values or ranges of values chosen for controlling

⁹ 10 C.F.R. § 54.3(a); NRC Inspection Manual, Ch. 0326, “Operability Determinations & Functionality Assessments for Conditions Adverse to Quality or Safety,” ADAMS Accession No. ML13274A578, at 2.

¹⁰ 10 C.F.R. pt. 50, App’x A. “The General Design Criteria are also considered to be generally applicable to other types of nuclear power units and are intended to provide guidance in establishing the principal design criteria for such other units.” *Id.*

¹¹ 10 C.F.R. pt. 50, App’x A, at I.

parameters as reference bounds for design. These values may be (1) restraints derived from generally accepted “state of the art” practices for achieving functional goals, or (2) requirements derived from analysis (based on calculation and/or experiments) of the effects of a postulated accident for which a structure, system, or component must meet its functional goals.¹²

Appendix A to 10 C.F.R. Part 100 sets forth the seismic design basis for nuclear power plants by requiring that each plant develop an operating basis earthquake (OBE) and safe shutdown earthquake.¹³

b. The Hosgri Evaluation Is Not Part Of The Plant’s Seismic Design Basis

In their Answers, PG&E and the NRC Staff attempt to distract the Commission from the issues relevant to this *de facto* license amendment proceeding by focusing on the fact that the HE appears in some capacity in Diablo Canyon’s current licensing basis. These assertions have no bearing on whether a *de facto* license amendment has taken place and therefore should be disregarded. As made clear above, a nuclear power plant’s seismic *design basis*, which is part of the CLB, focuses on two postulated earthquakes—the operating basis earthquake and the safe shutdown earthquake.¹⁴ PG&E and the Staff point out that the HE has been part of Diablo

¹² 10 C.F.R. § 50.2.

¹³ See 10 C.F.R. pt. 100, App’x A, at III(c), (d).

¹⁴ PG&E’s implicit argument that Diablo Canyon is not subject to the requirements of Appendix A to 10 C.F.R. Part 100 borders on the absurd and should be rejected wholesale. See PG&E Answer, at 24. The lengthy seismic and regulatory history of Diablo Canyon clearly indicates that for well over 30 years, both PG&E and the NRC Staff have conducted their regulatory dealings as if the safety requirements in Appendix A to Part 100 have applied to Diablo Canyon. See SSER 7, at 2-3 to 2-4 (The DDE “was originally the equivalent of the event that was later formally defined as the safe shutdown earthquake in Appendix A to 10 CFR Part 100 The applicant still considers this to be the appropriate safe shutdown earthquake for this site as defined in Appendix A to 10 CFR Part 100.”). PG&E’s argument that Appendix A does not apply to Diablo Canyon is not only preposterous, given this long history, but would result in Diablo Canyon’s not being subject to any seismic design basis regulations at all, a result manifestly at odds with the Atomic Energy Act’s safety-focused objective. See also PG&E, License Amendment Request 11-05, “Evaluation Process for New Seismic Information and Clarifying the Diablo Canyon Power Plant Safe Shutdown Earthquake,” ADAMS Accession No. ML11312A166 (Oct. 20, 2011), at 1 (requesting NRC approval to designate the HE as Diablo Canyon’s SSE).

Canyon's CLB for some time.¹⁵ Indeed, in Revision 12 to the FSARU, issued in September 1998, PG&E noted that it had been "requested by the NRC to evaluate the plant's capability to withstand a postulated Richter Magnitude 7.5 earthquake centered along" the Hosgri Fault, and presented results of this evaluation.¹⁶

But until Revision 21 to the FSARU, issued in September 2013, without notice to FoE or the public, the HE was not part of Diablo Canyon's seismic design basis.¹⁷ This is evidenced by the narrowed scope of the HE analysis relative to the DDE/SSE analysis. Generally, as part of discharging its duties under General Design Criterion 2, a licensee is required to ensure that certain plant SSCs listed in Regulatory Guide 1.29, "Seismic Design Classification," will remain functional following the SSE.¹⁸ In the case of the HE, however, the NRC Staff did not subject PG&E to this requirement. Instead, NRC allowed PG&E to analyze a more limited scope of SSCs, entirely divorced from the approved list in Regulatory Guide 1.29, to ensure they would remain functional following the HE. The reduced scope of the HE analysis is due to the fact that the HE was inserted into the CLB *not as a change to the seismic design basis, but as a response to a request by NRC to conduct certain additional analysis*. Neither the fact that NRC requested PG&E to perform additional analysis of the Hosgri fault, nor the fact that the results of this analysis appear in the FSARU, affect the plant's seismic design basis.¹⁹

¹⁵ PG&E Answer, at 2-8; NRC Staff Answer, at 27.

¹⁶ PG&E, Diablo Canyon Power Plant, Units 1 and 2, Final Safety Analysis Report Update, Rev. 12 (Sep. 1998), at 2.5-58 (*hereinafter* "FSARU Rev. 12").

¹⁷ A change to Diablo Canyon's seismic design basis requires a license amendment. *See infra* Section III(b).

¹⁸ NRC, Regulatory Guide 1.29, "Seismic Design Classification," Rev. 4 (March 2007), at 3 (implementing General Design Criterion 2 and providing a list of SSCs that "must be designed to withstand the effects of the SSE and remain functional").

¹⁹ This point is further demonstrated by a guidance document issued by *amicus curiae* Nuclear Energy Institute (NEI) intended to assist licensees in determining compliance with the Commission's seismic design basis requirements. That guidance document provides that compliance with seismic design basis is determined in accordance with NRC Regulatory Guide 1.29—the very guide that NRC declined to require

In any event, a statement by the NRC in SSER 7, which was issued before the plant received its operating license or submitted the plant's original Final Safety Analysis Report, cannot serve as proof that the HE is part of the plant's seismic design basis. Not every statement made in a safety evaluation is included within a plant's CLB—only “licensee commitments documented in NRC safety evaluations.”²⁰ The NRC Staff's statement that it considers the HE to be the SSE is not a licensee commitment and is therefore not part of Diablo Canyon's CLB.²¹ The mere fact that a statement by the NRC appears in a SSER does not insert that statement into a plant's CLB.

c. The Post-Fukushima Process Conducted Under 10 C.F.R. § 50.54(f) Does Not Supplant The Requirement That A Change To Diablo Canyon's Seismic Design Basis Be Achieved Through A License Amendment

PG&E, NRC Staff, and NEI attempt to sweep the *de facto* license amendment into the 10 C.F.R. § 50.54(f) regulatory process. But the post-Fukushima review is independent of PG&E's obligations under its license and cannot substitute for the licensing proceeding demanded by the Atomic Energy Act for the design basis changes effected by Revision 21 and any other changes to the license required as a result of the information in the PG&E Seismic Report. The § 50.54(f)

PG&E to follow in developing the HE. *See* NEI 97-04, Revised Appendix B, “Guidance and Examples for Identifying 10 CFR 50.2 Design Bases,” ADAMS Accession No. ML003771698.

²⁰ 10 C.F.R. § 54.3.

²¹ Moreover, this statement is in direct contradiction to PG&E's stated belief in SSER 7 that the *DDE*, not the HE, was the plant's SSE:

[The DDE] was originally the equivalent of the event that was later formally defined as the safe shutdown earthquake in Appendix A to 10 CFR Part 100. The applicant calls it the safe shutdown earthquake following the original terminology. In previous supplements to the Safety Evaluation Report, we have called it the safe shutdown earthquake following the terminology of Appendix A to 10 CFR Part 100.

The applicant still considers this to be the appropriate safe shutdown earthquake for this site as defined in Appendix A to 10 CFR Part 100.

SSER 7, at 2-3 to 2-4 (emphasis added).

process is a generally applicable requirement for all U.S. nuclear power plants to review the seismic hazards present for each plant and determine whether licensing changes might be warranted based on that review.²² FoE does not assert that all plants engaged in § 50.54(f) process are undergoing *de facto* license amendments, as NEI suggests.²³ Instead, FoE contends that NRC has *de facto* amended the license for Diablo Canyon through Revision 21 to the FSARU and continues to engage in a *de facto* license amendment proceeding based on the facts in this specific instance.

PG&E has a regulatory obligation to participate in the § 50.54(f) process and provide the NRC with the requested seismic hazard reevaluation, but this process cannot exempt PG&E from an obligation imposed by NRC regulations or its license. PG&E has been conducting, and continues to conduct, a seismic reevaluation since 2008, when the Shoreline fault was discovered. The fact that the NRC has asked all plants to reassess seismic hazards in light of the Fukushima Dai-Ichi Accident is no substitute for Diablo Canyon's pre-existing licensing obligations. For the reasons described herein and in FoE's Petition to Intervene, incorporating the seismic risk presented by the Shoreline fault into the license requires a license amendment. The Staff has improperly issued a *de facto* license amendment by approving FSARU Revision 21 and continues to conduct an ongoing *de facto* licensing proceeding with respect to any other license revisions, such as to the ground motion potential equations, required as a result of the additional information contained in the PG&E Seismic Report.

²² Letter from E. Leeds, 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, ADAMS Accession No. ML12053A340 (Mar. 12, 2012).

²³ Nuclear Energy Institute's Motion for Leave to File *Amicus Curiae* Brief, at 2.

III. ADDING THE HOSGRI EVALUATION TO DIABLO CANYON’S SEISMIC DESIGN BASIS AS THE SAFE SHUTDOWN EARTHQUAKE WITHOUT A LICENSE AMENDMENT PROCEEDING VIOLATES § 189a OF THE ATOMIC ENERGY ACT

In its Petition, FoE stated that the NRC was permitting PG&E to amend its license *de facto* “through back channels and informal discussion, rather than through the license amendment process required by the Atomic Energy Act.”²⁴ On September 10, 2014, the Staff publicly disclosed for the first time the existence of a revision (Revision 21) to the Final Safety Analysis Report Update (FSARU) for Diablo Canyon that confirms the *de facto* license amendment process FoE has described.²⁵ Staff’s argument in its decision on Dr. Peck’s DPO seems to have been that no license amendment was needed because the license has already been amended.²⁶ But Revision 21 accomplishes what PG&E proposed to do in LAR 11-05—to add the Hosgri Evaluation to the seismic design basis for the plant *and* to make the Hosgri Evaluation the SSE for Diablo Canyon.²⁷ This kind of change cannot be made without a license amendment proceeding, including an opportunity for the public to participate as required by § 189a of the Atomic Energy Act.

a. FSARU Revision 21 Changes The Safe Shutdown Earthquake For Diablo Canyon From The DDE To The Hosgri Evaluation Without Demonstrating Compliance With 10 C.F.R. Part 50, Appendix A, General Design Criterion 2 or 10 C.F.R. Part 100, Appendix A

The seismic design basis for Diablo Canyon is established in FSARU Sections 3.1, Conformance with General Design Criteria, and 3.2.1, Seismic Classification, in accordance with Regulatory Guide 1.70 “Standard Format and Content of Safety Analysis Reports for Nuclear Power Plants (LWR Edition).” The Guide states:

²⁴ Friends of the Earth, Petition to Intervene and Request for Hearing, at 6.

²⁵ NRC, “DPO Case File for DPO-2013-002,” at 61, 62, 67, 68, and 72 (*hereinafter* “DPO Case File”).

²⁶ DPO Case File at 66-68.

²⁷ PG&E, License Amendment Request 11-05, “Evaluation Process for New Seismic Information and Clarifying the Diablo Canyon Power Plant Safe Shutdown Earthquake,” ADAMS Accession No. ML11312A166 (Oct. 20, 2011).

This section [of the FSAR] should identify those structures, systems, and components important to safety that are designed to withstand the effects of a Safe Shutdown Earthquake (see Section 2.5) and remain functional. These plant features are those necessary to ensure:

1. The integrity of the reactor coolant pressure boundary,
2. The capability to shut down the reactor and maintain it in a safe condition, or
3. The capability to prevent or mitigate the consequences of accidents that could result in potential offsite exposures comparable to the guideline exposures of 10 CFR Part 100.²⁸

Revision 20 to the FSARU for Diablo Canyon describes the DDE and supporting safety analysis as satisfying the requirements of 10 C.F.R. Part 50, Appendix A, General Design Criterion 2 and thus is equivalent to the SSE described in 10 C.F.R. 100, Appendix A.²⁹ To establish the DDE, PG&E committed to ensure that plant SSCs listed in Regulatory Guide 1.29 (Seismic Design Classification) would remain functional following a DDE/SSE event.³⁰ As required by 10 C.F.R. § 50.55a, PG&E demonstrated that the combined accident and DDE/SSE loads did not exceed ASME Code acceptance limits for the reactor coolant pressure boundary.

Revision 21 (1) adds the Hosgri Evaluation to the seismic design basis, (2) makes it a Safe Shutdown Earthquake, and (3) adds the Shoreline fault zone as a “lesser included case under the Hosgri evaluation,”³¹ without making any of these required demonstrations.³² A Hosgri earthquake does not meet the requirements of 10 C.F.R. Part 50, General Design Criterion 2. Because the HE was not part of the seismic design basis, PG&E did not include a safety evaluation of a Hosgri earthquake scenario in the FSARU, as required by 10 C.F.R. § 50.34 for

²⁸ Regulatory Guide 1.70 “Standard Format and Content of Safety Analysis Reports for Nuclear Power Plants (LWR Edition),” ADAMS Accession No. ML011340122 (Nov. 30, 1978).

²⁹ FSARU Rev. 20, Section 2.5.

³⁰ See also NRC, Regulatory Guide 1.26, “Quality Group Classifications and Standards for Water-, Steam-, and Radioactive-Waste-Containing Components of Nuclear Power Plants,” ADAMS Accession No. ML070290283 (March 2007).

³¹ FSARU (Rev. 21), Section 2.5.3.9.3.

³² FSARU (Rev. 21) Section 2.5.5.9.

seismic design bases. The Hosgri Evaluation was instead included in FSARU Section 3.7.6 as an answer to an NRC question during the licensing process. Moreover, PG&E did not ensure that SSCs listed in Regulatory Guide 1.29 would remain functional following a Hosgri earthquake. The Hosgri Evaluation qualified equipment necessary to shut the plant down but did not take into account any possible accident loads, such as from a fire during the shut down process, as does the DDE.³³

b. FSARU Revision 21 Requires A License Amendment

Changes made to the FSARU for Diablo Canyon in Revision 21, such as (1) adding the Hosgri Evaluation to the seismic design bases in the FSARU, (2) asserting that it now qualifies as a Safe Shutdown Earthquake for Diablo Canyon,³⁴ and (3) including activity on the Shoreline fault as a “lesser included case under the Hosgri evaluation,”³⁵ cannot be made except through a license amendment. PG&E’s responsibility for its failure to conduct even a 10 C.F.R. § 50.59 screen to determine whether a license amendment might be necessary is a separate issue, not to be confused with the question before the Commission here. The point here is that 10 C.F.R. § 50.59 requires a license amendment in certain circumstances in order to ensure that the safety analyses for the plant, the basis on which the plant is licensed, remain valid and up to date.³⁶

Section 50.59 states, in relevant part:

A licensee *shall* obtain a license amendment pursuant to § 50.90 prior to implementing a proposed change, test, or experiment if the change, test, or experiment would:

...

³³ FSARU (Rev. 20) Section 3.7.6.

³⁴ 10 C.F.R. Part 100, Appendix A, (c) defines the Safe Shutdown Earthquake—singular—as the earthquake “which produces the maximum vibratory ground motion for which certain structures, systems, and components are designed to remain functional.” The regulation does not permit a plant to have two SSEs in its seismic design basis. For Diablo Canyon, the only SSE that meets the requirements of Appendix A to Part 100 and General Design Criterion 2 is the DDE.

³⁵ FSARU Rev. 21, Section 2.5.3.9.3.

³⁶ 10 C.F.R. § 50.71(e).

(ii) Result in more than a minimal increase in the likelihood of occurrence of a malfunction of a structure, system, or component (SSC) important to safety previously evaluated in the final safety analysis report (as updated); [or]

...

(viii) Result in a departure from a method of evaluation described in the FSAR (as updated) used in establishing the design bases or in the safety analyses.

Revision 21 triggers at least these two criteria of § 50.59(c)(2).

Section 50.34(b) requires the original FSAR to include a safety analysis demonstrating that the General Design Criterion 2 design basis is satisfied.³⁷ PG&E made such a demonstration for all earthquake faults within 75 miles of the site known at the time, with the exception of the Hosgri fault. The safety analysis included development of a ground motion value, which PG&E asserted to be the design basis controlling parameter (0.4 g) to ascertain the stress Diablo Canyon would have to withstand following a DDE/SSE event. PG&E included in the FSAR, as required by § 50.34(b), a demonstration that the SSCs listed in Regulatory Guide 1.29 would meet the design basis requirements of GDC 2 and Part 100, Appendix A.

By PG&E's own admission the new seismic information, described in more detail *infra* in Section IV, shows that ground motion from not just the Hosgri fault, but from what is now known to be the Hosgri-Simeon, the Shoreline, Los Osos, and San Luis Bay faults, at Diablo Canyon could exceed the design basis controlling parameter, the DDE/SSE (0.4 g). This information requires PG&E to either (1) demonstrate that possible ground motion from this newly discovered seismic landscape is bounded by the DDE/SSE or (2) update the FSAR to alter the design bases to include a new SSE.

Had PG&E chosen option (1) and attempted to update the FSARU with the higher ground motion using the DDE/SSE as a benchmark, as the license requires, the seismic stress would

³⁷ 10 C.F.R. § 50.34(b).

have exceeded ASME Code acceptance limits for the reactor coolant pressure boundary, major structures (such as the reactor containment and auxiliary building), and the established qualification limits for SSCs listed as important to safety (under Regulatory Guide 1.29). NRC acknowledged as much by recognizing that predicted ground motion from the Hosgri and Shoreline faults were likely to exceed those from the DDE.³⁸ A change to the facility as described in the FSARU that results in exceeding the limits for seismic qualification requires NRC approval because of the increased likelihood of malfunction of SSCs important to safety during an earthquake.³⁹

PG&E chose option (2): to update the FSAR to alter the seismic design basis and method of evaluation for the SSE, at the Staff's direction and with their approval, by making Revision 21 to the FSARU. Such a change requires a license amendment under 10 C.F.R. § 50.59(c)(2)(viii) because using the Hosgri Evaluation yields non-conservative results when compared to the DDE (the existing FSARU method).⁴⁰ PG&E similarly proposed to make the Hosgri Evaluation the Safe Shutdown Earthquake in LAR 11-05 and the NRC Staff indicated their intent to deny the proposal because it would decrease the margin of safety to an unacceptable level.⁴¹

Revision 21 also fails to comply with 10 C.F.R. Part 50, Appendix A, General Design Criterion 2 and 10 C.F.R. Part 100, Appendix A (c), which requires the licensee to demonstrate

³⁸ NRC Letter, "Diablo Canyon Power Plant, Units Nos. 1 and 2 – NRC Review of Shoreline Fault (TAC Nos. ME5306 and ME5307)," ADAMS Accession No. ML 120730106 (Oct. 12, 2012), at 4 ("The NRC recognizes that using the DDE as the basis of comparison will most likely result in the Shoreline fault and the Hosgri earthquake being reported as having greater ground motion than the SSE.").

³⁹ NRC, Regulatory Guide 1.187, "Guidance for Implementation of 10 C.F.R. 50.59, Changes Tests, and Experiments," ADAMS Accession No. ML003759710 (Nov. 2000). Regulatory Guide 1.187 endorsed NEI 96-07, "Guidelines for 10 C.F.R. 50.59 Evaluations," ADAMS Accession No. ML003636043, as an acceptable method for implementation of 10 C.F.R. § 50.59 (*hereinafter* "NEI 96-07").

⁴⁰ *See also* NEI 96-07. PG&E admits that less conservative "damping values and other assumptions (such as material strengths) were used in connection with the 1977 HE structural evaluation and excess (and unnecessary) conservatism was eliminated". PG&E's Answer at 30. Whether or not they think the conservatism was "excess," some of the margin of safety was eliminated.

⁴¹ NRC draft document, "Basis for DE Denial of Diablo Canyon 1&2 LAR 11-05," at 3, ADAMS Accession No. ML13354B992.

that certain SSCs will remain functional following the Safe Shutdown Earthquake. Such SSCs are those necessary to assure (1) the integrity of the reactor coolant pressure boundary, (2) the capability to shut down the reactor and maintain it in a safe condition, and (3) the SSCs needed to prevent or mitigate the consequences of accidents would remain functional given the maximum earthquake potential based on local geology.⁴² PG&E has not demonstrated the Hosgri Evaluation can meet each of these criteria.

c. The NRC's Approval Of Revision 21 Is A *De Facto* License Amendment

Both the Staff and PG&E argue vigorously that the Staff's change to Diablo's license is not a license amendment because no license amendment application was filed and no proceeding was initiated. But it is settled law that "it is the *substance* of the NRC action that determines entitlement to a section 189(a) hearing, *not* the particular label the NRC chooses to assign."⁴³

FSARU Revision 21 not only triggered at least two criteria of 10 C.F.R. § 50.59(c), but Revision 21 also granted PG&E additional operating authority, thus meeting the definition of a *de facto* license amendment set forth by the Commission. In *Cleveland Electric Illuminating Co.*, the Commission stated that a *de facto* license amendment has occurred, and hearing rights are implicated, where the change granted the licensee "greater operating authority" or otherwise "alter[ed] the original terms of the license."⁴⁴ Revision 21 accomplishes both. It allows PG&E to operate Diablo Canyon with a reduced margin of safety by changing the seismic design basis for

⁴²See also NRC, Regulatory Guide 1.70 "Standard Format and Content of Safety Analysis Reports for Nuclear Power Plants (LWR Edition)," ADAMS Accession No. ML011340122 (Nov. 30, 1978).

⁴³*Citizens Awareness Network, Inc. v. NRC*, 59 F.3d 284, 295 (1st Cir. 1995) (emphasis added). *Accord, Mass. v. NRC*, 878 F.2d 1516, 1521 (1st Cir. 1989) ("The fact that the NRC did not call its decision to restart a 'reinstatement' of the license is not controlling"); *Columbia Broadcasting Sys., Inc. v. United States*, 316 U.S. 407, 416 (1942) ("[T]he particular label placed upon [its action] by the Commission is not necessarily conclusive, for it is the substance of what the Commission has purported to do and has done which is decisive.").

⁴⁴*Cleveland Elec. Illuminating Co. (Perry Nuclear Power Plant)*, CLI-96-13, 44 NRC 315, 326-27 (1996) (footnotes omitted).

the plant and effectively exempting the Shoreline fault, a fault located with 600 meters of the plant, from meeting General Design Criterion 2 and Part 100, Appendix A (Safe Shutdown) requirements to which the plant was licensed. Thus, by the standard set forth by the Commission in *Perry*, Revision 21 is a *de facto* license amendment.

In short, the Staff is in the midst of doing through a *de facto* license amendment proceeding what PG&E initially proposed: for example, to change the license so that, in dealing with new seismic data, the company may choose the less conservative of the Hosgri Evaluation analytical framework or the DDE analytical framework, rather than having to demonstrate the plant's safety using both postulated earthquake evaluations. In the Staff's disposition of Dr. Peck's DPO, which was released for the first time in September 2014,⁴⁵ the Staff revealed that a part of the license had already been amended by Revision 21, which inserted the Hosgri Evaluation methodology into Diablo Canyon's seismic design basis. Thus, Revision 21, a *de facto* license amendment standing on its own, clearly indicates that the larger *de facto* license amendment proceeding detailed in Petitioner initial filing is underway and continues. It began when PG&E and the NRC Staff in positions closest to the plant recognized that to apply the Hosgri Evaluation to the newly discovered Shoreline fault, it would be necessary to amend the existing license. PG&E, with the encouragement of the NRC Staff, decided to file a license amendment (LAR 11-05) with the Commission. But the Commission staff internally expressed doubts about designating the Hosgri Evaluation as a Safe Shutdown Earthquake and signaled to PG&E that the Staff planned to deny the amendment request.⁴⁶ Relying on the Fukushima § 50.54(f) process as pretext, PG&E subsequently withdrew its license amendment proposal. Instead, the Staff amended the license *de facto* through Revision 21 and other documents,

⁴⁵ DPO Case File at 61.

⁴⁶ NRC draft document, "Basis for DE Denial of Diablo Canyon 1&2 LAR 11-05," at 3, ADAMS Accession No. ML13354B992.

without the opportunity for public participation called for in AEA § 189a(a)(1)(A).⁴⁷ This *de facto* proceeding continues today.⁴⁸

IV. THE HOSGRI EVALUATION CANNOT “BOUND” THE SHORELINE AND OTHER FAULTS BECAUSE THAT EVALUATION IS SPECIFIC TO THE HOSGRI FAULT

Revision 21 to the FSARU is evidence that the NRC has issued at least one *de facto* license amendment in the ongoing *de facto* amendment proceeding to address new seismic information about the area around Diablo Canyon. PG&E’s justification for its claim that the Hosgri analysis “bounds” the Shoreline fault evidences another *de facto* amendment in the works. As noted in passing in PG&E’s Answer, the company released a new analysis reporting on its seismic studies, the PG&E Seismic Report, on September 10, 2014.⁴⁹ The PG&E Seismic Report describe significant new geophysical data gathered for faults near Diablo Canyon including the Hosgri, Shoreline, San Simeon, San Luis Bay, and Los Osos faults, and concludes that many of these faults are capable of producing much greater earthquakes than previously thought.

PG&E contends in its Seismic Report, as they do in their Answer, that even given this new information, the ground motions predicted for the plant are “bounded by the 1977 Hosgri spectrum” and 1991 LTSP response spectra,^{50,51} and therefore require no changes in the SSCs in

⁴⁷ The critical difference between LAR 11-05 and Revision 21 is that the public was excluded from the process in the latter. Indeed, if it had not been for the release of Dr. Peck’s DPO and the subsequent Staff disposition, the public would still be entirely unaware of changes made in the way the seismic safety of this nuclear power plant is being determined.

⁴⁸ As part of the Fukushima § 50.54(f) process, PG&E is required to provide NRC with a “seismic hazard evaluation” no later than March 2015. See NRC Letter, “Diablo Canyon Power Plant, Units Nos. 1 and 2 – NRC Review of Shoreline Fault (TAC Nos. ME5306 and ME5307),” ADAMS Accession No. ML 120730106 (Oct. 12, 2012), encl. 1, and 5-7. FoE expects that the conclusions in this evaluation will constitute further *de facto* amendments to Diablo Canyon’s license in addition to the *de facto* license amendment already effected by the issuance of Revision 21 to the plant’s FSARU.

⁴⁹ PG&E Answer, at 11.

⁵⁰ PG&E Seismic Report, Ch. 13 at 20.

order to withstand the newly-discovered potential earthquakes. This claim is in error for two reasons: (1) the PG&E Seismic Report describes substantially more seismic capability than previously identified during the licensing of Diablo Canyon; and (2) PG&E's reassurances about the potential ground motion at Diablo associated with these findings are dependent upon the substitution of new, entirely different assumptions for those used in either the DDE or the Hosgri Evaluation.

First, as the PG&E Seismic Report shows, the company had an incomplete picture of the seismic potential in the area around Diablo Canyon in 1977. The Shoreline fault, which was then unknown, is now known to connect to the Hosgri fault in such a way that a rupture on one fault could trigger a rupture on the other. The two faults together are 145 km in length, far longer than the 110 km the Hosgri fault was previously thought to be. In 1977, the San Simeon fault was not known to connect to the Hosgri fault; PG&E's Seismic Report now describes the two faults as structurally connected. During the original DDE analysis, PG&E presumed there was no connection between the San Simeon and Hosgri faults and that joint rupture was not possible.⁵² PG&E's Seismic Report now says these faults are so interconnected that they are assumed to rupture together. We now know a great deal more about the potential for seismic activity in the area of Diablo Canyon, particularly that the known faults are longer than they first appeared to be and connected in ways that increase the greatest potential energy that could be released along the faults.

Second, in light of the different ground motion prediction equations used in the Hosgri analysis and in the PG&E Seismic Report, the conclusions of the two are incommensurable. To

⁵¹ To the extent PG&E might argue that FSARU Revision 21 now includes the Shoreline Fault Zone as a lesser included case under the Hosgri Evaluation, the PG&E Seismic Report shows this assertion to be baseless.

⁵² *Pacific Gas & Electric Co.* (Diablo Canyon Nuclear Power Plant (Units 1 and 2)), LBP-79-26, 10 NRC 453, 472-73 (1979).

determine the amount of ground motion caused by the energy released in the rupture of a particular fault that will reach Diablo, NRC uses certain assumptions called ground motion prediction equations to arrive at the “ground motion response spectra.”⁵³ These spectra predict how much of the energy from an earthquake, and which frequencies of vibration, will be attenuated as they travel from the fault to Diablo, and therefore, how much of the seismic energy will reach the plant structure. The Double Design Earthquake applies one specification of ground motion spectra to arrive at the conclusion that such an earthquake at a specified distance could produce 0.4 g of ground motion at the plant.

To evaluate an earthquake on the *Hosgri* fault, however, NRC agreed to allow PG&E to apply a different set of ground motion potential equations, which are site-specific to Diablo Canyon (1977 HE spectrum).⁵⁴ The analysis in chapter 13 of PG&E’s Seismic Report applies yet another set of new and novel ground motion prediction equations from those used to evaluate either the DDE *or* the Hosgri earthquake. For this analysis, PG&E developed a new set of ground motion prediction equations that further differ from those used to arrive at the DDE, Hosgri, and LTSP ground motion prediction equations.

The new ground motion prediction equations used by PG&E to justify their conclusion that the Hosgri Evaluation is the bounding analysis for all the new seismic data will require a license amendment. The FSARU provides ground motion prediction equations used to bound DDE (0.4 g) and Hosgri (0.75 g) events.⁵⁵ Section 2.5.3.10 (and References 12 and 24) of the

⁵³ NRC Standard Review Plan 2.5.2.6 Ground Motion Response Spectra; Reg. Guide 1.60 “Design Response Spectra for Seismic Design of Nuclear Power Plants.”

⁵⁴ See FSARU Section 2.5.3.10.4 (Rev. 21) (“...[T]he 1991 LTSP ground motion response spectra does not replace or modify the DE, DDE, or 1977 Hosgri response spectra described above.”)

⁵⁵ NRC Standard Review Plan 2.5.2.6 Ground Motion Response Spectra; Reg. Guide 1.60 “Design Response Spectra for Seismic Design of Nuclear Power Plants” incorporated into the Final Safety Analysis Report as Updated for Diablo Canyon, Rev. 21, section 2.5.3.10; *Pacific Gas & Electric Co.* (Diablo Canyon Nuclear Power Plant, Unit 1 & 2); Atomic Safety and Licensing Appeal Board, 13 NRC

FSARU describes these ground motion response spectra. PG&E used neither the DDE nor the Hosgri ground motion prediction equations to calculate the ground motion potential of the new seismic data.

The ground motion prediction equations used to arrive at the DDE of 0.4 g are, and were at the time they were used, peer-reviewed, scientifically accepted, NRC-approved assumptions that were in the FSARU and part of the seismic design basis. In response to NRC questions about how Diablo Canyon would respond to ground motion produced during a Hosgri event, the NRC reviewed and approved a revised set of ground motion potential equations that produced the 0.75 g value for predicted ground motion at the plant. FSARU section 2.5.3.10.3 incorporates NRC Supplement No. 5 to the Safety Evaluation Report (Sept. 1976), which permitted PG&E to use a different set of ground motion potential equations for that fault.⁵⁶ However, the ground motion prediction equations used in the 2014 PG&E Seismic Report are an entirely new set of assumptions, not found in either the seismic design basis or elsewhere in the FSARU.⁵⁷ The predictions of the two different sets of equations are not comparable. Thus PG&E compares apples to oranges when it uses the PEER ground-motion prediction equations to argue that the

903, 936 (1981) (describing Staff's decision to apply different ground motion prediction equations to a Hosgri event than the equations required by Reg. Guide 1.60).

⁵⁶ It bears noting that the ground motion prediction equations approved for the Hosgri evaluation were found by former Commissioners Bradford and Gilinsky to significantly reduce the safety margin built in to the DDE. *See Opinion of Gilinsky and Bradford*, 1982 WL 31523, at 5-6 ("Every advantage was taken of slack in safety margins left in the pre-Hosgri analysis, both in developing the response spectrum and in its application.").

⁵⁷ Indeed, PG&E was required by the California legislation ordering the seismic review to submit its analysis to an Independent Peer Review Panel (IPRP) formed to review the ongoing seismic studies at Diablo Canyon. It appears that PG&E ignored this requirement and simply released the Seismic Report without submitting the report to the IPRP. *See* "Critics allege the Diablo Canyon seismic studies lacked proper review," *New Times SLO* (Oct. 8, 2014), at <http://www.newtimeslo.com/news/11514/critics-allege-the-diablo-canyon-seismic-studies-lacked-proper-review/>

ground motions possible from ruptures on the studied faults are bounded by the 1977 Hosgri and 1991 LTSP ground motion response spectrum.⁵⁸

PG&E is required to evaluate these data under the requirements of NRC regulations and the Diablo Canyon license, not their own invented, non-peer reviewed, non-NRC approved methods. PG&E's repeated substitution of revised ground motion equations, each of which seems to systematically counterbalance the increased potential for seismic energy being reported in the fault system around Diablo, does not inspire confidence in the utility's conclusions that the plant remains safe.

Thus PG&E's claim that the 1977 Hosgri earthquake scenario and LTSP "bound" the potential seismic energy released from the Shoreline, San Simeon, Los Osos, and San Luis Bay faults is entirely illogical. The Hosgri analysis is specific to that fault and, even if it could be applied to other faults, the only meaningful way to determine whether one "bounded" the other would be to compare the results using the same ground motion prediction equations used to analyze the Hosgri earthquake. Instead, PG&E has applied an entirely new set of assumptions in its 2014 Seismic Report, as it did in its 2011 report to the NRC.⁵⁹ PG&E states that the analysis of ground motion potentials in the PG&E Seismic Report are based on a constantly evolving, entirely new set of ground motion potential equations from those used in either the 1977 Hosgri Evaluation or the 1991 LTSP.⁶⁰ Thus, the result of the first calculation, done with a particular set of assumptions and data, cannot rationally be compared, let alone be asserted to somehow "bound," the result of a second calculation performed with an entirely different set of assumptions and augmented data.

⁵⁸ PG&E Seismic Report, Ch. 13 at 12.

⁵⁹ Pacific Gas and Electric Company (PG&E), 2011. *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; www.pge.com/myhome/edusafety/systemworks/dcpp/shorelinereport/.

⁶⁰ PG&E Answer, at 30-31.

The illogic of PG&E’s position in light of the newly published findings is obvious on its face. PG&E states that the Shoreline and Hosgri faults are capable of rupturing together along their entire 145-kilometer length, a part of which is located only 600 meters from the plant; it is therefore difficult indeed to understand how the company could conclude that the Hosgri fault alone, at 100 kilometers in length and located five kilometers from the plant, is capable of a more powerful impact on Diablo Canyon. The only possible explanation for such an otherwise irrational claim lies in the ground motion prediction equations and perhaps other assumptions used in the two calculations – in the case of Hosgri, approved by the Commission; in the case of the new PG&E report, equations that have not been subjected to peer or public review, let alone approved for incorporation into the FSARU as part of the seismic design basis.

V. THE DIABLO CANYON *DE FACTO* LICENSE AMENDMENT IS NOT APPROPRIATELY CONSIDERED UNDER 10 C.F.R. § 2.206

a. The Current Proceeding is a De Facto License Amendment.

Both the Staff and PG&E erroneously argue that Petitioner’s claim should be filed under 10 C.F.R. § 2.206. That section provides that “[a]ny person may file a request to *institute* a proceeding to modify, amend, or revoke” a provision of an existing license.⁶¹ The Commission often takes the position that citizens who seek to institute a proceeding to enforce the provisions of a license should submit their requests through the § 2.206 process. Thus, the § 2.206 process has two hallmarks: (1) it provides a place for a citizen to initiate an effort to change or enforce an existing license provision; and (2) it focuses on enforcing or changing settled license provisions.

By contrast, FoE’s Petition is filed with respect to *licensing changes* in a *de facto* license amendment proceeding that has already been *initiated by the NRC Staff and PG&E*. Petitioner asks for the process due in such a license amendment process under § 189(a)(1)(A) of the

⁶¹ 10 C.F.R. § 2.206(a) (emphasis added).

Atomic Energy Act, the opportunity for a public review of changes in the license to consider whether Diablo Canyon can withstand the maximum potential earthquake from the Shoreline Fault.

The fact that Petitioner cites § 50.59 as a guide to NRC policy regarding when an action, such as a change in the FSAR, would require a license amendment, does not convert its Petition into a request under § 2.206. Section 50.59 does provide guidance to licensees with respect to when a license amendment is necessary; but the principles enunciated therein are also a means to determine whether the NRC Staff has initiated or should initiate a license amendment.⁶² See LBP-13-07, *In the Matter of Southern California Edison Co.* (San Onofre Generating Station, Units 2 and 3) where the ASLB was asked by the Commission to determine whether a confirmatory action letter issued to the company constituted a *de facto* license amendment. There, the ASLB noted that § 50.59 “establishes standards that may guide this Board in resolving that issue.”

Whether or not PG&E did a § 50.59 analysis on the proposed change, however, is irrelevant as to the nature of the Diablo Canyon proceeding now before the NRC. As both the NRC Staff and PG&E point out, the decision whether to do a § 50.59 review is entirely up to the licensee. While the *criteria* of § 50.59 may be used as an indicator of when an action constitutes a license amendment,⁶³ whether the licensee has discharged its duty to undertake such an analysis is an enforcement matter with which this Petition is not concerned.

⁶² *Southern California Edison Co.* (San Onofre Nuclear Generating Station, Units 2 and 3), LBP-13-07, ASLBP No. 13-924-01-CAL-BD01 (May 13, 2013), slip op. at *23, *vacated on other grounds by* 2013 WL 6384599 (Dec. 5, 2013).

⁶³ *Id.*

b. The § 2.206 Petition Process Does Not Provide An Opportunity For Meaningful Relief.

In its Answer, the Staff avers that “FOE is no stranger to the § 2.206 process.” That is true, but its experience suggests only the futility of seeking redress through that process. On June 18, 2012, FoE and named members initiated a claim seeking enforcement action against the licensee for its failure to comply with 10 C.F.R. § 50.59 when replacing steam generators. This petition was referred to Executive Director for Operations (EDO) for consideration as a § 2.206 petition. Nearly two years and four months later, and nearly a year and four months after the plant’s owner announced that the plant would be closed permanently, the EDO has not responded to FoE’s petition, although FoE’s counsel continues to receive phone calls at roughly quarterly intervals from EDO staff assuring him that the Staff is busily working on a Proposed Director’s Decision.

VI. CONCLUSION

At the close of its Answer, PG&E makes a remarkable statement: that “the regulations and guidance do not require that the . . . assumptions from the 30-year old analysis be combined with new seismic hazards information” to determine the operability of Diablo Canyon.⁶⁴ The “assumptions” referred to are evidently the duly adopted provisions of the Diablo Canyon license regarding the transmission of seismic ground motion to the plant, for in the next sentence the licensee claims that “the safety of current operation has been established by showing that revised ground motions are less than the licensing basis ground motions.”⁶⁵

These sentences encapsulate the arguments made by the licensee and supported by the Staff in this litigation. The licensee and the Commission Staff are prepared to play fast and loose

⁶⁴ PG&E Answer, at 30-31.

⁶⁵ PG&E Answer, at 31.

with the license granted by the NRC, under which PG&E is permitted to operate Diablo Canyon, and with the Atomic Energy Act. Inconvenient provisions of the license, which might require actions to strengthen the plant be taken in light of the increased power of the potential seismic activity reported in the PG&E Seismic Report, are instead to be ignored by amending the license in closed door conversations between the licensee and the Staff, rather than through the open public process required by the Atomic Energy Act.

Thus the fundamental question before the Commission in this case is whether it will insist that its Staff and the licensees adhere to the terms of the Commission's regulations, or whether the Commission will endorse the Staff's end run around the Atomic Energy Act and Commission rules. We urge that the Commission correct the Staff's error, and require a public license amendment proceeding on the implications of the new seismic findings on the safety of continued operation of the Diablo Canyon plant.

In the past the Commission has taken the position that licenses authorize only what is explicitly allowed, and the courts agree.⁶⁶ The Commission should affirm that position by convening an ASLB and directing it to grant FoE's Petition to Intervene and Request for a Hearing in the ongoing *de facto* license amendment proceeding.

⁶⁶ *Citizens Awareness Network, Inc., v. NRC*, 59 F.3d 284, 294 (1st Cir. 1995) ("Regulated conduct which is neither delineated, nor reasonably encompassed within the delineated categories of authorized conduct, presumptively remains unlicensed.").

Respectfully submitted,

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Date: October 14, 2014

**BEFORE THE UNITED STATES
NUCLEAR REGULATORY COMMISSION**

In the Matter of)	
)	Docket Nos. 50-275
PACIFIC GAS & ELECTRIC COMPANY)	50-323
)	
(Diablo Canyon Power Plant))	October 14, 2014

CERTIFICATE OF SERVICE

I hereby certify that, on this date, the “Friends of the Earth’s Reply to NRC Staff’s and Pacific Gas & Electric Company’s Answers and Proposed *Amicus Curiae* Nuclear Energy Institute’s Brief in Response to Petition to Intervene and Request for Hearing” was served via the Electronic Information Exchange system.

Signed (electronically) by Jessica Olson

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