

rights, including the right to privacy over this issue. The DPO petitioner has a key role in determining whether or not the DPO and Director's decision become available publicly.

- The former DCPD SRI applied for and was selected for a highly sought after position within the agency. He was not reassigned.
- The NRC encourages and welcomes differing opinions and offers several paths for staff for officially document their differing views.

Background Documents

[NON-PUBLIC] Non-concurrence NCP 2011-103, dated November 7, 2011

Non-concurrence NCP 2012-01, dated January 26, 2012 [publically available in ADAMS]

[NON-PUBLIC] Differing Professional Opinion 2013-02, dated July 18, 2013

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Audience/Stakeholders

Internal

Allegations Coordinator
Office of Public Affairs (OPA)
Office of Congressional Affairs (OCA)
Office of Federal and State Materials and Environmental Management Programs (FSME)
Office of Nuclear Regulatory Research (RES)
Office of Nuclear Security and Incident Response (NSIR)
Office of Nuclear Material Safety and Safeguards (NMSS)
Office of General Counsel (OGC)
Office of the Inspector General (OIG)
Office of the Executive Director of Operations (OEDO)
Office of the Advisory Committee on Reactor Safeguards (ACRS)
Office of New Reactors (NRO)
Office of Nuclear Reactor Regulation (NRR)
Regions
Commission

External

General Public

San Luis Obispo Mothers for Peace (<http://mothersforpeace.org/>)

The Alliance for Nuclear Responsibility (<http://a4nr.org>)

U.S. Congressional representatives for the area around DCPD:

Senator Dianne Feinstein
Senator Barbara Boxer
Representative Lois Capps (CA-24th)

State and local Government agencies, including:

California Governor's Office of Emergency Services,
California Public Utilities Commission,
California Independent Peer Review Panel (IPRP),
California Energy Commission, and
California Coastal Commission.

Industry groups (e.g., Nuclear Energy Institute)

Communication Team

The primary responsibility of the communication team is to ensure that it conveys a consistent, accurate, and timely message to all stakeholders. The team consists of the project management, technical, and communication staff named below.

Team Member	Position	Organization	Telephone
Troy Pruett	Division Director (Acting)	RIV/DRP	817-200-1291
Wayne Walker	Branch Chief	R-IV/DRP/RPB-A	817-200-1148
Ryan Alexander	Sr. Project Engineer	R-IV/DRP/RPB-A	817-200-1195
Thomas Hipschman	Sr. Resident Inspector - DCP	R-IV/DRP/RPB-A	805-595-2354
John Reynoso	Resident Inspector - DCP	R-IV/DRP/RPB-A	805-595-2354
Thomas Farnholtz	Branch Chief	RIV/DRS/EB1	817-200-1243
Jon Ake	Senior Seismologist	RES/DE/SGSEB	301-251-7695
Eric Oesterle	Acting Branch Chief	NRR/DORL/LPLIV	301-415-1014
Balwant Singal	DCPP Project Manager	NRR/DORL/LPLIV	301-415-3016
Scott Burnell	Public Affairs Officer	OPA	301-415-8204
Jenny Weil	Congressional Affairs	OCA	301-415-1691
Amy Powell	Associate Director	OCA	301-415-1673
Victor Dricks	Public Affairs Officer	RIV	817-200-1128
Lara Uselding	Public Affairs Officer	RIV	817-200-1519
Bill Maier	State Liaison Officer	RIV	817-200-1267
Elaine Keegan	License Renewal	NRR/DLR	301-415-8517
Cathy Kanatas	Attorney	OGC	301-415-2321
Nick DiFrancesco	Japan Lessons Learned	JLD	301-415-1115

Communications Tools

The communication team may and have used any of the following tools to communicate with our stakeholders:

Internal Briefings

The communication team will conduct internal briefings as required to keep internal stakeholders informed of activities and messages.

Public Meetings

In May 2009, a town hall public meeting was conducted in San Luis Obispo, California, to discuss the Shoreline Fault. In September 2010, a two-day public workshop was conducted in San Luis Obispo, California, to present topics of interest regarding seismic issues. In January 2011, a public meeting was conducted in San Luis Obispo, California, between DCPD licensee representatives and NRC staff to discuss the results of the Shoreline Fault Zone report. In November 2012, the NRC held a public meeting to discuss the results of its RIL in which the staff determined that the new SFZ is bounded by the Hosgri.

In December 2013, Region IV held a public meeting to discuss our annual assessment DCPD's performance in 2012 through mid-2013, and a similar meeting was held in May 2014 to discuss our annual assessment for the entire 2013 inspection year. During both these meetings, the staff provided status relative to DCPD's actions to date in response to the post-Fukushima actions, including the seismic and flooding reevaluation activities, and the mitigating strategies and spent fuel pool instrumentation orders.

Information Availability

The staff has placed publically available documents regarding seismic issues at the DCPD in ADAMS. Presentation materials and videos of all public meetings have been posted on the public NRC web site.

Press Releases/Meeting Notices

Issuance of press releases regarding key decisions and actions relative to DCPD will be considered by the Region as needed and consistent with OPA guidance. The most recent press release issued for DCPD announced the annual (2012) assessment public meeting in San Luis Obispo on December 18, 2013. A meeting notice for the next annual assessment meeting (for CY2013), held May 22, 2014, in San Luis Obispo was issued.

Past & Present Activities for Communicating with Stakeholders

	Activity / Report / Document Title (ADAMS/Reference number, as appropriate)	Lead Office	Date
1	Submitted 50.72 notification with an operability assessment to the NRC (Event Number: 44675)	PG&E	November 21, 2008
2	FAQ developed	Region IV	November 26, 2008
3	Summary of tsunami hazard (ML090820140 and ML083400496)	RES	December 8, 2008
4	Action Plan submitted to the NRC (ML090720505)	PG&E	December 17, 2008

	Activity / Report / Document Title (ADAMS/Reference number, as appropriate)	Lead Office	Date
5	The NRC concluded the Action Plan and schedule are reasonably complete and comprehensive in scope for this study. (ML090820113)	NRR	January 5, 2009
6	Issue summary of results of a deterministic seismic hazard assessment in a Research Information Letter (ML090330278)	RES	April 8, 2009
7	Presentation of more definitive results during a Seismological Society of America meeting. NRC staff members plan to attend.	USGS and PG&E	April 9, 2009
8	Issue a safety evaluation regarding the operability of DCPD based on a deterministic hazard assessment and a preliminary review of the tsunami hazard by RES.	NRR DE & DORL	April 30, 2009
9	Complete an operability evaluation of potential ground deformation	PG&E	April 30, 2009
10	Support a town-hall meeting, conducted by Region IV, in which the Shoreline Fault is expected to be discussed.	NRR, NRO, & RES	May 28, 2009
11	Meeting with PG&E to discuss status	PG&E	January 5, 2010
12	PG&E to submit Secondary Rupture Hazard Analysis	PG&E	February 29, 2010
13	NRR/ Division of Operating Reactor Licensing (DORL) to submit Research Assistance Request for review of Secondary Rupture	NRR	April 29, 2010
14	Meeting with RES, NRO, and NRR/DORL to discuss User Need Request to determine future actions regarding the Shoreline Fault	NRR	March 29, 2010
15	RES to provide confirmatory review of secondary rupture analysis	RES	July 31, 2010
16	RES to review Evaluation of Shear-Velocity at the Independent Spent Fuel Storage Installation (ISFSI)	RES	July 31, 2010
17	Brief the Chairman on the status of the Shoreline Fault	NRR	August 11, 2010
18	Seismic Workshop in San Luis Obispo	Region IV	September 8 and 9, 2010
19	Complete seismicity studies	PG&E	December 2010
20	Complete geophysical studies	PG&E	December 2010
21	Complete geologic studies	PG&E	December 2010
22	Complete Shoreline Fault source characterization for integration into final report.	PG&E	December 2010
23	Complete ground motion studies to be integrated into final report.	PG&E	December 2010

	Activity / Report / Document Title (ADAMS/Reference number, as appropriate)	Lead Office	Date
24	Meeting on LTSP Amendment	NRR/ DORL	December 9, 2010
25	Research Assistance Request for pre-application discussions on LTSP Amendment	NRR/ DORL	March 2011
26	Research User Need Request to support review of LTSP Amendment	NRR/ DORL	TBD
27	Interim reports will not be complete until PG&E integrates all data into final report; therefore, interim reports will not be submitted to stakeholders for review until all data are integrated into final report in December.	NRR/DE	January 2011
28	Complete final Shoreline report	PG&E	January 2011
29	Research User Need Request to support review of Final Shoreline Report and update RIL 09-001	NRR/ DORL	January 4, 2011
30	Regional Meeting in California to discuss final Shoreline Fault zone report	Region IV	January 19, 2011
31	Second Meeting on LTSP Amendment	NRR/ DORL	January 26, 2011
32	Third Meeting on LTSP Amendment	NRR/ DORL	March 2011
33	LTSP Amendment submittal (LAR 11-05)	PG&E	October 20, 2011
34	The NRC held an annual assessment meeting and discussed seismic at Diablo	RIV	June 2011
35	The NRC issued the RIL	NRR	October 10, 2012
36	Regional Meeting in California to discuss NRC's review of the Shoreline Fault	Region IV	November 28, 2012
37	Regional Meeting in California to discuss annual performance assessment for CY 2012 (Note – this meeting was held late in 2013 when the govt. shutdown resulted in cancellation of planned meeting 10/16/2013)	Region IV	December 18, 2013
38	Written response to questions posed by U.S. Senate Environmental & Public Works subcommittee staff	NRR (w/ OCA)	Late January 2014
39	Regional Meeting in San Luis Obispo to discuss annual performance assessment for CY 2013	Region IV	May 22, 2014
40	Diablo Canyon issued the ABN-1632 seismic report to the state of California	NRR/JLD	August XX, 2014

List of Applicable Acronyms and Abbreviations

2-D/3-D	Two-Dimensional/Three-Dimensional (relative to seismic mapping studies)
ACRS	NRC's Advisory Committee on Reactor Safety
ASLB	NRC's Atomic Safety and Licensing Board
ASW	DCPP Auxiliary Salt Water System
CLB	Current Licensing Basis
DCNPP or DCPP	Diablo Canyon (Nuclear) Power Plant
DDE	Double Design Earthquake (DCPP specific term, equivalent to SSE)
DE	Design Earthquake (DCPP specific term, equivalent to OBE)
DGEIS	Draft Generic Environmental Impact Statement
DPO	Differing Professional Opinion
GMC	Ground Motion Characterization (relative to SSHAC process)
HE	Hosgri Event (i.e., seismic event occurring on the Hosgri fault)
IPRP	Independent Peer Review Panel (multi-agency panel of seismic hazard specialists established by the California Public Utilities Commission)
LAR	License Amendment Request
LBVP	DCPP's Licensing Basis Verification Project
LTSP	PG&E's 1991 Long Term Seismic Program
NCP	Non-Concurrence Paper
NEPA	National Environmental Policy Act
NTTF	NRC's Japan Lessons Learned Near Term Task Force
OBE	Operating Basis Earthquake
PG&E	Pacific Gas & Electric
PGA	Peak Ground Acceleration
RG	Regulatory Guide
RIL	Office of Research Information Letter
RIS	Regulatory Information Summary
SER / SSER	Safety Evaluation Report / Supplement to Safety Evaluation Report
SFZ	Shoreline Fault Zone
SMA	Seismic Margin Analysis
SPRA	Seismic Probabilistic Risk Analysis
SRI	Senior Resident Inspector
SRP	Standard Review Plan
SSC	Systems, Structures, and/or Components
SSC	Seismic Source Characterization (relative to SSHAC process)
SSE	Safe Shutdown Earthquake
SSHAC	Senior Seismic Hazard Analysis Committee
TIA	Task Interface Agreement
TS	Technical Specification
U/FSAR	Updated/Final Safety Analysis Report

Timeline of Seismic Issues at DCP

4/12/62 Initial version of 10 CFR 100 was issued (revised in 1996)

Prior to 1969 The original seismic study included geological and seismic investigations to validate the acceptability of the site. This included regional studies and detailed offshore investigations, including trenching, core drilling and geological mapping near the site. During this review, 10 CFR 100 was in the early stages of development, and the concepts of SSE and OBE were still being developed.

2/23/69 Construction permit issued for Unit 1. PG&E concluded, and the AEC concurred, that the earthquake design bases for Diablo Canyon would be a peak horizontal ground acceleration (PGA) of 0.4g for safety-related structures (DDE) and a PGA of 0.2g for operational-related structures (DE). These seismic design criteria were based on consideration of two design-basis earthquakes: a magnitude 7.25 earthquake on the Nacimiento fault 20 miles from the site, and a magnitude 6.75 aftershock at the site associated with a large earthquake on the San Andreas fault. It was also concluded that there was no surface displacement hazard in the site vicinity. This conclusion was based on the absence of any displacement of the 80,000 year-old and 105,000 year-old marine terraces underlying the site area.

12/9/70 Construction permit issued for Unit 2

2/20/71 Final version of 10 CFR 50, Appendix A, General Design Criteria, was issued

1971 Oil company geoscientists discovered an offshore fault zone, calling it the East Boundary Fault Zone. This zone later became known as the Hosgri fault.

11/13/73 Initial version of Appendix A to 10 CFR 100 was issued (further revised in 1977)

1973 Regulatory Guide (RG) 1.61, "Damping Values for Seismic Design of Nuclear Power Plants," was issued. The RG allowed more damping to be used in seismic evaluations than had previously been used in the DE and DDE at Diablo Canyon. PG&E used the RG 1.61 values in the Hosgri evaluation and did not revise the DE or DDE.

1/10/77 Revision of Appendix A to 10 CFR 100 was issued

6/3/77 PG&E submitted their Hosgri Report. This evaluation used the latest regulatory guidance, including 10 CFR 100, Appendix A. The new guidance from the NRC was not used to revise the DE and DDE.

1977 The Hosgri analysis was accepted by the NRC and documented in SER 34.

5/26/78 NRC staff documents a significant portion of its review of PG&E's Hosgri Report and seismic reevaluation in Supplement No. 7 to the SER (SSER 7). In particular, SSER 7 notes "we [NRC staff] require that the plant design be shown to be adequate for the Hosgri event and the applicant is proceeding with the work necessary to demonstrate this."

Timeline of Seismic Issues at DCPD (cont'd)

- 7/14/78 ACRS Letter to the Commission notes "The Applicant's analyses and tests related to the reevaluation of the structural and mechanical components for the Hosgri event have been subjected to an unprecedentedly intensive and comprehensive review by the NRC Staff..." However, the ACRS also noted that "the theory and analyses of earthquake and seismic wave generation, of seismic wave transmission and attenuation, and of soil-structure interaction are in a state of active development. The Committee recommends that the seismic design of Diablo Canyon be reevaluated in about ten years taking into account applicable new information."
- 11/15/78 NRC staff issues Supplement No. 8 of the SER (SSER 8) which includes a conclusion that "matters related to seismic design have now been resolved as discussed in this supplement. In part, the resolutions are based on requirements that we have stated." [The stated requirements included the design, analysis, and construction activities completed by PG&E in addressing the potential ground motion from an earthquake on the Hosgri fault.]
- 9/27/79 The Atomic Safety Licensing Board (ASLB) issues "...a Partial Initial Decision in this operating license proceeding, concluding that... (2) the Diablo Canyon plant will be able to withstand any earthquake that can reasonably be expected to occur on the Hosgri fault"
- 11/2/84 Operating license was issued for Unit 1. In response to the ACRS recommendation for PG&E to conduct a seismic reevaluation after approximately 10 years, the license contained License Condition 2.C.(7) requiring the licensee to perform further assessments of the seismic sources and ground motions applicable to DCPD, beyond that considered in the development of the Hosgri Event (HE). The Long Term Seismic Monitoring Program (LTSP) was developed by PG&E in response to License Condition 2.C(7).
- 8/25/85 Operating license was issued for Unit 2.
- 1989 Diablo Canyon submits their LTSP Report.
- June 1991 The NRC reviewed and accepted the results of the LTSP, as documented in SSER-34. The SSER included the following statement in Section 1.4: "The staff notes that the seismic qualification basis for Diablo Canyon will continue to be the original design basis plus the Hosgri evaluation basis, along with the associated analytical methods, initial conditions, etc."
- 1992 The PG&E – USGS Cooperative Research and Development Agreement (CRADA) was created to improve rapid earthquake notifications and develop new geosciences data and advanced analysis methods leading to reducing earthquake risks in PG&E's service territory in northern and central California (including ongoing research and review of DCPD and nearby region).
- 12/11/96 Revision of 10 CFR 100 was issued

Timeline of Seismic Issues at DCPD (cont'd)

2006	A new phase of the CRADA is implemented and includes both a large set of new field studies and the application of new advanced seismological techniques to small magnitude recorded earthquakes.
11/14/08	PG&E notified the NRC of a potential line of epicenters about one mile offshore from the plant. This was followed up on 11/21/08 with Event Notification No 44675. This line of epicenters became known as the Shoreline Fault Zone.
Dec 2008	Using the LTSP methods, PG&E completes a seismic margin assessment which demonstrates that the Shoreline Fault is bounded by the Hosgri evaluations.
4/8/09	The NRC issued Research Information Letter (RIL) 09-01, "Preliminary Deterministic Analysis of Seismic Hazard at Diablo Canyon NPP from Newly Identified Shoreline Fault." This independent study of potential impacts concluded adequate seismic margin exists for the Shoreline Fault.
1/2/10	Public meeting between NRC and PG&E was held to discuss what was known about the Shoreline fault.
Jan 2010	PG&E submitted a progress report on the Shoreline Fault Action Plan.
Sept 2010	The NRC sponsored a seismic workshop in San Luis Obispo, CA, to help inform the public about seismic evaluations and design. Independent seismic experts were invited to make presentations.
Sept 2010	DCPD SRI becomes aware that the PG&E preliminary results show peak ground acceleration for the Shoreline Fault is in excess of the values used in the DDE.
Oct 2010	DCPD SRI questions PG&E on the capability/operability of SSCs to withstand the Shoreline Fault acceleration using the DE/DDE evaluation method.
Dec 2010	PG&E concluded that no operability evaluation was needed to compare the Shoreline Fault ground acceleration to the DE/DDE evaluations. PG&E believed that they had documented that the LTSP had contained new seismic information and the NRC had allowed PG&E to address it through a seismic margin assessment and seismic PRA.
1/7/11	PG&E issued the results of their seismic evaluation in the Shoreline Report: "Report on the Analysis of the Shoreline Fault Zone, Central Coast California to the USNRC," (ADAMS ML110140400). This report included deterministic evaluations for the Shoreline, Los Osos, and San Luis Bay earthquake faults, as well as probabilistic hazard calculations. The licensee concluded that each of these faults were bounded by the existing LTSP.
6/3/11	Region IV submits Technical Interface Agreement (TIA) memorandum 2011-010 posing questions needed to help resolve seismic operability evaluation issues involving Diablo Canyon's use of the Hosgri and LTSP methods as the only bounding design basis conditions for newly identified faults.

Timeline of Seismic Issues at DCPD (cont'd)

8/1/11 TIA 2011-010 was issued by NRR. The TIA concluded that, "New seismic information developed by the licensee is required to be evaluated against all three of the seismic design basis earthquakes and the assumptions used in the supporting safety analysis as described in the FSARU. Comparison to the LTSP by itself is not sufficient to meet this requirement." **(NOTE: This TIA has been superseded by TIA 2012-012 dated November 19, 2012)**

9/18/11 NRC issues Inspection Report 05000275;323/201104.

10/20/11 In response to the operability evaluation violation in Inspection Report 05000275; 323/2011002, PG&E submitted a license amendment request (LAR) related to the Shoreline fault and methods of seismic evaluation.

11/23/11 PG&E initially commits to use the SSHAC Level 3 process to perform a probabilistic seismic hazard assessment. PG&E SSHAC Level 3 plan revised in July 2012 to reflect the NRC's evaluation request in March 2012 pursuant to the 10 CFR 50.54(f) letter. Once completed (anticipated March 2015), the PG&E SSHAC Level 3 study will update/replace the PG&E LTSP.

11/29/11 PG&E conducts SSHAC workshop #1 in San Luis Obispo, CA. The workshop is open to the public and presentations are posted on PG&E's website. NRC seismologists attend the workshop as observers. This workshop was for both the Seismic Source Characterization (SSC) and Ground Motion Characterization (GMC) portions of the SSHAC study. However, later they would decide to combine their GMC workshops with SONGS (SCE) and Palo Verde (APS). As such, the consortium ultimately re-conducted GMC SSHAC workshop #1, so this workshop essentially became SSC SSHAC workshop #1 for DCPD.

12/15/11 The NRC's Branch Chief for DCPD discussed the LAR with PG&E.

Feb 2012 Issuance of RIL 12-01 is delayed to support the agency's seismic and flooding 50.54(f) letter effort. An NRC inter-office agreement was reached to require PG&E to submit the results of the seismic hazard reevaluation in terms that compare the 50.54(f) letter results to the Diablo Canyon DDE.

03/12/12 50.54(f) Request for Information letters are issued for seismic and flooding hazard reevaluations. PG&E was specifically requested to report the seismic results by comparing them to the DDE (the SSE-equivalent for DCPD).

May 2012 Issuance of RIL 12-01 is delayed until assumptions concerning shear wave travel in generic vs. site-specific material are verified.

10/12/12 NRC issued RIL 2012-01. The cover letter stated that the NRC has concluded that the Shoreline fault was considered to be a lesser included case of the Hosgri event, and should be documented as such in the UFSAR.

Sept -

Oct 2012 Internal NRC discussions occurred about the acceptability of the LAR under the acceptance review criteria. The NRC staff believed that PG&E thought they were asking for an administrative clarification by trying to get the HE declared as the SSE, however doing so would actually require a major review using the latest SRP criteria. DORL asks the RIV Branch Chief to discuss this difference with PG&E.

10/25/12 Diablo Canyon withdraws the LAR submitted in October 2011.

11/6/12 PG&E conducts SSC SSHAC workshop #2 in San Luis Obispo, CA. The workshop is open to the public and presentations are posted on PG&E's website. NRC seismologists attend the workshop as observers.

11/9/12 NRC held a meeting to discuss the results of RIL 2012 and concluded that ground shaking from the Shoreline fault earthquake scenarios are less than the Hosgri and LTSP ground motions for which the plant was previously evaluated.

11/19/12 NRC issued TIA 2011-010, "Revised Response to Task Interface Agreement – Diablo Canyon Seismic Qualification Current Licensing and Design Basis, TIA 2011-010 (TIA 2012-012) (TAC NOS. ME9840 and ME9841)"

11/27/12 PG&E completes seismic walkdowns for accessible areas required by 50.54(f) letter (ML123330362, ML123330375)

11/28/12 NRC held a public meeting in San Luis Obispo to help inform the public about the results of RIL 2012-01. Twenty-three NRC personnel from multiple offices were in attendance to explain different aspects, including post-Fukushima actions.

3/19/13 PG&E, Southern California Edison (San Onofre), and Arizona Power Service (APS - Palo Verde) jointly conduct GMC SSHAC workshop #1 in Oakland, CA. The workshop is not open to the public but presentations are posted on the Southwestern US Ground Motion Characterization Project website. NRC seismologists attend the workshop as observers.

June 2013 PG&E completes seismic walkdowns (including inaccessible areas) required by 50.54(f) letter.

June 2013 NRC completes inspection of seismic walkdown efforts.

Oct 2013 PG&E and APS jointly conduct GMC SSHAC workshop #2 in Berkeley, CA. The workshop is open to the public and presentations are posted on the Southwestern US Ground Motion Characterization Project website. NRC seismologists attend the workshop as observers.

March 2014 PG&E conducts SSC SSHAC workshop #3 in San Luis Obispo, CA. This workshop was open to the public, and was the final planned SSC SSHAC workshop.

March 2014 PG&E and APS jointly conducted GMC SSHAC workshop #3 in Berkeley, CA. This workshop was open to the public, and was the final planned GMC SSHAC workshop.

Future Events:

- August 2014 PG&E expected to submit **SEISMIC REPORT** to State of California (IPRP to review). A copy will be provided to NRC for review.
- March 2015 PG&E due to submit ground motion response spectrum to the NRC in response to March 2012 50.54(f) request. Current information from the SSHAC process supports the expected conclusion that the new ground motion response spectrum will be bounded by the original HE ground motion response spectrum.
- June 2017 PG&E due to submit the results of the new Seismic PRA to the NRC in response to 50.54(f) request.

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Design/Initial Licensing Basis Questions (DE/DDE/Hosgri/Tsunami)

1. When was the Hosgri fault identified?

1971. During geological investigations in support of the DCPD operating license applications, oil company geoscientists discovered a major zone of faulting a few miles off shore. When the DCPD Final Safety Analysis Report (FSAR) was initially submitted for NRC review in 1973, it briefly described the offshore fault zone, calling it the East Boundary Fault Zone. The zone became known as the Hosgri fault.

2. How was the Hosgri fault addressed in the licensing and design of DCPD?

Although the original OBE and SSE values of 0.2g and 0.4g were specified as part of the design basis (calculation) in 1968, the 0.75g Hosgri event was incorporated in the licensing basis (along with the OBE and SSE) prior to issuance of the DCPD units' operating licenses in 1984 and 1985.

Upon discovery of the Hosgri fault (1971), PG&E reanalyzed and significantly upgraded the structures, systems, and components to accommodate the postulated ground motion values (up to 0.75g) from the Hosgri fault.

The NRC staff reviewed and accepted PG&E's revised seismic analysis in the Supplement to Safety Evaluation Report 7 (SSER 7) in 1978.

The Advisory Committee on Reactor Safeguards (in 1978) and Atomic Safety Licensing Board (in 1979) subsequently reviewed the licensee's and NRC staff analyses of the revised seismic impact and as-constructed tests and analyses (including the 0.75g value associated with the Hosgri event). Both the ACRS and ASLB concluded that the revised seismic design basis was appropriately conservative and there was reasonable assurance that both units could be operated at full power without undue risk to the health and safety of the public.

(See Questions #4 & #5 below for additional specifics.)

3. How are the design basis earthquakes defined? How are they different?

Each design basis earthquake is defined in terms of a peak ground acceleration and a corresponding response spectrum that is constructed of peak accelerations at various frequencies. The peak ground accelerations for each of the three design basis earthquakes are:

DE: 0.2g
DDE: 0.4g
HE: 0.75g

The DE response spectrum is enveloped by the DDE response spectrum at all frequencies, and the DDE response spectrum is enveloped by the HE response spectrum at all frequencies. In addition to the magnitudes of the spectra being different, the shapes of the spectra are also different. This is due to differences in how the

response spectra were developed as well as differences in the hypothetical earthquake that each design basis level is based on. Generally speaking, the response spectra were constructed based on modified versions of similar real earthquakes, normalized to the desired peak ground acceleration. Specific real earthquake records were carefully selected for the construction of each response spectrum, due to the fact that the magnitude of the earthquake and the distance from the site will cause the response spectra to peak at different frequencies.

4. Is it accurate to state that the DCPD operating license defines the DDE to be the SSE?

Yes. For the Diablo Canyon, the Double Design Earthquake (DDE) is equivalent to the Safe Shutdown Earthquake (SSE). During initial licensing of the Diablo Canyon site, two design basis earthquakes (ground motion) were established. The operating basis earthquake (OBE) represents the ground motion reasonably expected during the lifetime of the plant. At DCPD, this is called the Design Earthquake (DE), and is 0.2g. The safe shutdown earthquake is defined as having twice the acceleration of the operating basis earthquake to ensure safety margin. At DCPD, this is called the Double Design Earthquake, and is 0.4g. Pacific Gas and Electric (PG&E, the licensee) was required to show that all equipment necessary for continued operation without undue risk to the health and safety of the public would withstand the OBE/DE (i.e., remain functional), and that all safety-related equipment needed to safely shut the plant down and maintain a safe shutdown condition would withstand the SSE/DDE.

The licensee obtained the construction permits for both Diablo Canyon units and had begun plant construction before it became aware of the Hosgri fault, located offshore. The fault was studied in detail as part of a collaborative research program between PG&E and the U.S. Geological Survey (USGS). The NRC worked with the USGS office to ensure that the seismic hazard was properly characterized. This effort determined that the Hosgri fault could produce up to 0.75g ground motion at the Diablo Canyon site (called the Hosgri Evaluation, or HE). However the frequency of such a large earthquake was far smaller than what is considered under the safe shutdown earthquake requirements (i.e., unlikely to occur during the life of the plant), thus, it was categorized as an extreme event that was beyond the intent of the SSE requirements. However, the NRC did not grant authorization to operate the plant until the additional external hazard presented by the Hosgri fault was adequately addressed. PG&E addressed the issue by demonstrating that the plant equipment needed to safely shut down the plant and maintain a safe shutdown condition could also withstand 0.75g ground motion. This effort required re-evaluation, testing, and plant modifications beyond the approved DDE seismic design bases, and provided additional margin. This aspect of the design and licensing basis is unique to Diablo Canyon.

5. Is it accurate to state that the SSE/DDE requires the licensee to ensure that this type of earthquake would not damage the reactor pressure boundary components (which are needed to ensure the cooling water can cool the core while the reactor is shut down) using ASME code acceptance limits as per 10 CFR 50.55a?

Yes, the reactor pressure boundary components, and all safety-related equipment needed to safely shut the plant down and maintain a safe shutdown condition, must be able to withstand the SSE/DDE. At Diablo Canyon, this was demonstrated through a combination of calculations and tests. Because the ASME, Section III requirements for design of pressure boundary components and supports were not mandated by 10 CFR 50.55a until the mid-1980's, the acceptance criteria for DCPD rely on a combination of

the ASME Code and ANSI Code for piping, applicable at the time of initial licensing, that provide an equivalent level of safety assurance as required by 10 CFR 50.55a.

In addition, during the licensing of Diablo Canyon, PG&E demonstrated that all structures, systems and components that are required to remain functional following a DDE/SSE would also remain functional during a postulated HE event (0.75g). In most cases, following extensive plant upgrading, each component met the same standard for the HE as it had under the SSE. In a limited number of cases, the NRC approved alternative Code criteria; thus these components still meet the applicable Code. The limited cases were individually approved and specifically documented in the NRC's safety evaluation report. The NRC's approach and conclusions were also independently reviewed by the Advisory Committee on Reactor Safeguards (ACRS), and the Atomic Safety and Licensing Board (ASLB). The ACRS reviewed the NRC staff criteria utilized in the seismic re-evaluation of DCPD for the postulated Hosgri event and concluded that "...the staff's approach leads to an acceptable level of safety for DCPD." The ASLB held hearings on the DCPD seismic issues, and in a partial decision issued September 27, 1979, the ASLB concluded "...the Diablo Canyon plant will be able to withstand any earthquake that can reasonably be expected to occur on the Hosgri fault".

- 6. Is it accurate to state that meeting the SSE/DDE also means that the licensee has to test and model some of the other reactor's structures, systems and components (SSCs) to ensure they can withstand the sort of shaking that could be caused by the SSE/DDE?**

Yes, licensees are required to demonstrate through modeling, testing, and evaluation that specific structures, systems, and components are seismically qualified up to the DDE/SSE. As discussed in the answer to Question 5, this same rigor was also required for Diablo Canyon up to the HE (0.75g) design basis for the same equipment.

- 7. Is it accurate to state that NRC did not require the licensee to meet all of the requirements of the SSE/DDE when it came to its Hosgri earthquake analysis (and that this is basically what you sent in the documents)?**

No. The functional requirements remained the same, and were met. As indicated in the answer to Question 5, although a limited number of components relied on alternative Code acceptance criteria to demonstrate functionality up to the HE, those components still meet the applicable Code.

- 8. What size tsunami is the plant designed/built to withstand?**

The design basis tsunami is 35 feet. The DCPD site sits atop a coastal bluff, 85 feet above sea level, decreasing its vulnerability to a tsunami hazard. The ~~only~~ safety-related system that has components within the projected sea wave zone is the Auxiliary Saltwater (ASW) System. The ASW pump motors are housed in watertight compartments within the intake structure. The intake structure is designed with an elevated air intake (48 feet) so that the ASW pumps can operate during the design combination of a tsunami and storm wave run up.

- 9. How is the plant designed for each design basis earthquake? How are those design criteria/methodologies/analytical methods different? Why are they different?**

[Answer under development.]

Long Term Seismic Program (LTSP) Questions

1. Why is there a LTSP?

In 1984 the NRC issued the operating license for Diablo Canyon Unit 1. The license included License Condition 2.C.(7) which required further assessment of the seismic sources and ground motions applicable to DCP, beyond that considered in the development of the Hosgri Event. The LTSP was developed by PG&E in response to this NRC mandated License Condition.

2. What is the Long Term Seismic Program (LTSP)?

The LTSP is a "seismic margin analysis" included as an original plant license condition. The LTSP addressed concerns at the time the plant was licensed; including uncertainty related to the Hosgri Fault. This license condition required PG&E to develop and implement the program to reevaluate the seismic design bases used for the DCP.

3. Did the NRC accept and approve use of the LTSP at Diablo Canyon?

In 1985 Diablo submitted the LTSP to the NRC. The LTSP included updated information on seismic hazard curves and a new deterministic ground motion response spectrum, governed by a Richter Magnitude 7.2 earthquake on the Hosgri Fault. The implementation of the LTSP included a deterministic seismic margin assessment and a seismic probabilistic risk assessment/seismic hazard analysis.

In 1991 the NRC documented acceptance of the LTSP results in SSER-34. The LTSP used much more modern techniques than had been used for the DE and the DDE. The LTSP methods were consistent with the Hosgri event review method. Section 1.4 of SSER 34 stated, "The staff notes that the seismic qualification basis for Diablo Canyon will continue to be the original design basis plus the Hosgri evaluation basis, along with the associated analytical methods, initial conditions, etc." As part of the close-out of License Condition No. 2.C.(7), PG&E committed to maintain the LTSP.

4. What is the difference between the Hosgri method and the LTSP method?

The LTSP was derived using the Hosgri event. The LTSP uses seismic response data in a statistical model that is 16% more conservative than the Hosgri event. New seismic data bounded by the LTSP model is well below the Hosgri evaluation method.

5. Was Diablo Canyon's sole use of the LTSP appropriate for evaluating the Shoreline Fault?

No. In August 2011, the NRC issued TIA 2011-010. The TIA stated: "New seismic information developed by the licensee is required to be evaluated against all three of the seismic design basis earthquakes and the assumptions used in the supporting safety analysis as described in the FSARU. Comparison to the LTSP by itself is not sufficient to meet this requirement.

Following issuance of the TIA, the NRC documented a violation for the failure to perform an operability evaluation in NRC Report 05000275; 323/201105. The violation has low

safety significance because NRC reviews concluded the Hosgri event bounds the Shoreline fault.

TIA 2012-012 was issued on November 19, 2012. This TIA superseded TIA 2011-010 and identified that the Shoreline scenario should be considered a lesser included case under the Hosgri evaluation and that the licensee should update the FSAR , as necessary.

The NRC's independent evaluation, documented in RIL 12-01, concluded that there is very little evidence that the Shoreline fault has ever been active. While its size was used to create a worst reasonable case ground motion curve, the region shows only some symptoms of a fault. There is no evidence that there is slippage, which would indicate this was an active fault in the past. Therefore, it is reasonable to bound the Shoreline fault by the LTSP/Hosgri method.

Shoreline Fault Questions

1. When was the Shoreline Fault identified?

November 2008. PG&E notified the NRC of a potential line of epicenters about one mile offshore from the plant. This was followed up on 11/21/08 with Event Notification No 44675. This line of epicenters became known as the Shoreline Fault Zone.

2. Where is the Shoreline fault located?

The closest segment of the Shoreline fault is located about 600 meters (1970 feet) southwest of the Power Block (the reactors) and 300 meters (985 feet) southwest of the Intake Structure.

3. What are the characteristics of the Shoreline fault?

Studies conducted in 2009 and 2010 concluded that the Shoreline fault is a right-lateral strike slip fault, approximately 23 kilometers (14.3 miles) in length, with a slip rate between 0.2 and 0.3 millimeters per year. The closest segment of the fault is located about 600 meters southwest of the Power Block (the reactors) and 300 meters southwest of the Intake Structure.

The studies also updated information on other faults in the region. The licensee concluded that predicted ground motions from the Hosgri fault have decreased and predicted ground motions from earthquakes on the Los Osos and San Luis Bay fault zones have increased.

4. What method was used to evaluate the Shoreline fault?

In November 2008 Diablo Canyon used the LTSP method to evaluate the Shoreline Fault. The analysis demonstrated that the Shoreline Fault was bounded by the Hosgri Fault. The Shoreline Fault has not been evaluated using the DE/DDE method.

In November 2012, the NRC concluded that it was appropriate to treat the Shoreline fault as a special case, and that using the same methods and criteria as was used for the LTSP/Hosgri, this case was bounded by the LTSP/Hosgri evaluation. This was because the Shoreline Fault frequency and peak ground acceleration at the plant were shown to be less than what LTSP/Hosgri would produce at the plant.

5. Has the NRC evaluated the Shoreline Fault?

In April 2009 the NRC issued Research Information Letter (RIL) 09-01, "Preliminary Deterministic Analysis of Seismic Hazard at Diablo Canyon NPP from Newly Identified Shoreline Fault." This was an independent study of potential impacts of the Shoreline Fault. The NRC concluded that adequate seismic margin existed and the plant was safe to operate.

The NRC concluded that it was appropriate to use the same methods and criteria as was used for the LTSP/Hosgri to evaluate the Shoreline fault. This was because the

Shoreline Fault frequency and peak ground acceleration at the plant were below what LTSP/Hosgri would produce at the plant.

6. Was Diablo Canyon's sole use of the LTSP appropriate for evaluating the Shoreline Fault?

No. The design and licensing basis for Diablo Canyon included two different evaluation methods with two different acceptance criteria which could be considered bounding. The licensee could not use the method that had been used to evaluate and accept the Hosgri event without the NRC agreeing that this was appropriate for new seismic information. No blanket set of rules was created from the original review that could be used without the NRC involvement.

In August 2011, the NRC issued TIA 2011-010. The TIA stated: "New seismic information developed by the licensee is required to be evaluated against all three of the seismic design basis earthquakes and the assumptions used in the supporting safety analysis as described in the FSARU. Comparison to the LTSP by itself is not sufficient to meet this requirement.

Following issuance of the TIA, the NRC documented a violation for the failure to perform an operability evaluation in NRC Report 05000275; 323/201105. The violation has low safety significance because NRC reviews concluded the Hosgri event bound the Shoreline fault.

The NRC's independent evaluation, documented in RIL 2012-01, concluded that there is very little evidence that the Shoreline fault has ever been active. While its size was used to create a worst reasonable case ground motion curve, the region shows only some symptoms of a fault. There is no evidence that there is slippage, which would indicate this was an active fault in the past. Therefore, it is reasonable to bound the Shoreline fault by the LTSP/Hosgri method.

7. Is there a threat of a tsunami from an earthquake occurring on the Shoreline fault zone?

No. PG&E's final report on the Shoreline fault zone indicates that the faulting mechanism is principally a right-lateral strike-slip. It is highly unusual for strike-slip faulting to cause a sizable tsunami. Most seismically induced tsunamis result from reverse faulting events, which have the capacity to cause rapid vertical displacement of the sea floor.

8. Why are they safe to operate?

Diablo Canyon has completed an operational evaluation to show the plant is safe to operate. The NRC reviewed and agreed the evaluation indicates the plant is safe to withstand earthquake hazards. Based on what the NRC has independently verified and detailed in RIL 2012-01, Diablo Canyon has an operational assessment in place to show that the plant is built to withstand the most severe expected ground motion at the site. If new information suggests the facility is not safe the NRC would take immediate action to resolve the issue.

- 9. Why is the NRC allowing Diablo Canyon to operate when experts inside and outside the NRC believe the Shoreline Fault represents a threat to the plant and serious questions have been raised regarding whether the facility meets NRC's license requirements?**

When the NRC set out to perform an independent assessment of the Shoreline Fault we put together a team of NRC seismic experts as well as a team of consultants from outside the agency to ensure that we had the right expertise to perform the analysis and that the resulting document would be technically defensible. Our independent deterministic analysis of the Shoreline Fault determined that the ground shaking at the plant site that could result from earthquakes on the Shoreline Fault is bounded by the larger ground motions that could result at the plant site from earthquakes on the Hosgri fault. Based on the NRC's independent analysis of the fault displacements and ground motions from the Shoreline Fault, and the conclusion that these ground motions are less than those used in the Hosgri evaluation, the Shoreline Fault does not pose a new safety hazard to the Diablo Canyon Power Plant.

The former NRC senior resident inspector has questioned how the Shoreline Fault fits within the seismic design and licensing basis of Diablo Canyon, and the November 2013 Union of Concerned Scientists report echoes this concern. The NRC has determined that the ground motions from the Shoreline Fault should be considered a lesser included case under the Hosgri event, which the plant was evaluated for during original licensing.

The Hosgri evaluation was a major effort undertaken at the time of Diablo Canyon's licensing and underwent an extensive review by NRC seismic experts as well as consultants from outside the agency. For the Hosgri evaluation, PG&E performed a new set of calculations for equipment that was needed to safely shutdown the plant, they took out electrical cabinets and shake table tested them again to a higher level, and in cases where equipment could not meet the Hosgri level, plant modifications were made. Specifically, the turbine building required extensive modification, above ground outdoor water storage tanks were also modified significantly, and other major modifications were performed on the fuel handling building crane, turbine building cranes, electrical equipment, and the diesel fuel oil transfer system. Both the ASLB and the ACRS performed extensive reviews of the NRC's unique approach to the Hosgri Evaluation, and agreed with the staff's results. The plant was evaluated and licensed for the Hosgri ground motions; therefore the facility does meet NRC's license requirements.

- 10. Is it accurate to state that generally speaking, when a licensee does not meet its license requirements, there are 3 typical options: 1) NRC can order the reactor to shut down until the license requirements are met, 2) NRC can approve a set of mitigation measures the licensee could take that would satisfy the license requirements, or 3) NRC can approve a license amendment to alter the requirements of the license?**

The options listed are valid approaches that could be used to address a licensee's failure to meet a requirement, but there are many other avenues available that licensees and NRC could consider to restore compliance and ensure that safety and security are maintained. NRC licensees are ultimately responsible for ensuring the safe operation of the plant and for meeting all the applicable requirements, and they have an obligation to recognize and address safety problems and potential non-compliances. If a licensee is

not meeting those requirements, they must evaluate the issue and determine its safety significance, and take timely and appropriate corrective action to ensure adequate safety is maintained and to restore compliance. It should be recognized that not all departures from NRC requirements involve an impact to safety. There are substantial safety margins and redundancy built into nuclear power plants.

Many potential paths to resolution are built into the NRC's regulations or specified in the licenses and technical specifications. Some provide very specific actions the licensee must take, including shutting the reactor down if the issue cannot be resolved quickly, while others provide flexibility to identify and consider possible options. Depending on the situation and its significance, the NRC also has a number of enforcement options available (such as issuing violations, civil penalties, and Orders) if a licensee is not meeting its regulatory requirements. These options are described in the enforcement guidance listed on NRC's Enforcement web page at <http://www.nrc.gov/about-nrc/regulatory/enforcement.html>. The NRC Enforcement Policy describes the process NRC uses to assess and disposition violations of NRC requirements to ensure that NRC's enforcement actions properly reflect the significance of the violations.

Regardless of the resolution path followed, the NRC will take whatever action is necessary to ensure that adequate protection of public health and safety is maintained.

11. Is it accurate to state that NRC has not done any of the options listed in Question 11 (above) for DCPD to address NRC's own conclusion that the reactor has likely not met its SSE/DDE license requirements when it considers the ground shaking that could be caused by Shoreline earthquake?

No. As discussed below, the NRC has concluded that the existing DCPD design basis is sufficient to withstand ground motions from the Shoreline fault, and DCPD remains capable of withstanding ground shaking associated with the design characteristics approved for the DDE/SSE. The NRC has not identified a safety issue at Diablo Canyon in this case.

Shortly after PG&E notified the NRC of the potential for a new fault (later referred to as the Shoreline Fault), it provided the NRC with sets of initial scientific data and information related to the hypothesized fault. Based on this initial information, the NRC staff immediately performed a preliminary review of possible implications of the Shoreline fault to the DCPD to determine if an immediate safety concern existed. The NRC continued to review new data and information on the Shoreline fault resulting from a collaborative effort between the U.S. Geological Survey and PG&E.

The NRC's October 12, 2012, letter to PG&E provided, in part, a summary of the results of NRC's independent assessment (which included independent external experts) of the licensee's January 7, 2011 Shoreline Fault analysis report (the detailed assessment is in NRC's Research Information Letter (RIL) 12-01 "Confirmatory Analysis of Seismic Hazard at the Diablo Canyon Power Plant from the Shoreline Fault Zone"). The licensee's report provided NRC with new geological, geophysical, and seismological data on the Shoreline fault, obtained using up-to-date methods and technologies. The NRC's independent assessment determined that the Shoreline fault could create ground motion lower than the ground motion for which the plant had previously been evaluated (i.e., the 0.75g, HE). As such, the NRC's October 12, 2012, letter concluded that the

existing design basis for the plant is sufficient to withstand ground motions from the Shoreline fault.

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State of California Seismic Report (AB-1632)

Background

California Assembly Bill 1632 (Blakeslee, Chapter 722, Statutes of 2006) directs the California Energy Commission to assess the potential vulnerability of California's largest baseload power plants, Diablo Canyon Power Plant and San Onofre Nuclear Generating Station to a major disruption due to a seismic event or plant aging; to assess the impacts of such a disruption on system reliability, public, safety, and the economy; to assess the costs and impacts from nuclear waste accumulating at these plants; and to evaluate other major issues related to the future role of these plants in the state's energy portfolio. The licensee has used the most state of the art methodologies using 2D and 3D mapping to compile this report. This is different methodology than what was used for the 2011 Shoreline Fault.

Planned Communication Activities

The contents on this communication plan, supplemented by information provided by PG&E/Diablo Canyon, should be used to accomplish these actions.

Timeframe	Action	Responsible Party(ies)
T - 1	PG&E notifies NRC of seismic report submittal to the state of California	PG&E
T = 0	PG&E/Diablo Canyon Power Plant submit seismic report to the state of California and issue a press release	PG&E
Promptly (within T+1 business day)	Region IV notifies the Communications Team of PG&E's actions as currently understood and implements the Communications Plan	R-IV/RPB-A
	Entirety of Communications Team notifies applicable Senior Managers in their respective reporting chain	R-IV; NRR/DORL; NRR/DIRS; OPA; OCA; OGC
	OPA available to use Communications Plan to answer media inquiries. NO blog OR press release planned.	R-IV; OPA
Within T+2 business days	Other actions??	???
As requested	Complete a Commissioners Assistants Brief	R-IV; NRR

Questions and Answers

1. What is the impact of this new information on seismic design and licensing of DCP? Has the licensee entered this new information into the corrective action program and performed an operability evaluation?

As required by the NRC, as document in RIL 2012-001, PG&E has entered the new preliminary seismic information into their corrective action program. The results of the study are used to assess the impact on the current design and licensing basis of DCP.

In response to the NRC's review of the January 2011 Shoreline Fault Report, PG&E made the following commitment to the NRC:

"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 (Reference 2)." Reference 2 is NRC letter 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," March 12, 2012.

Region IV, including the resident inspectors, have taken an initial review of PG&E's assessment of this new information to verify that it does not affect the plant's ability to operate safely and to be able to remain safely shutdown following an earthquake.

The initial evaluation of this new information does not invalidate the NRC's standing assessment that the plant is built to withstand a 7.5 magnitude earthquake, or 0.75 ground motion on the Hosgri. The RIL documents the NRC's assessment of the seismic hazard at DCP. The Hosgri fault, which was reviewed by the NRC, still bounds the Shoreline Fault even though it appears the shoreline fault may be more capable. Further analysis on-site by PG&E has determined that DCP is still within its design to withstand the longer, more capable shoreline fault. (It produces more energy but over a wider area, which is why the PG&E states that it is still bounded by the Hosgri).

2. Has DCP provided the seismic report to the NRC?

This new information, required by the state of California ABN 1632, has been presented to the NRC as a condition of the RIL and shows that the Shoreline fault may be longer and more capable. (Simply put, it produces more energy but over a wider area, which is why PG&E states that it is still bounded by Hosgri).

3. How will the AB 1632 seismic report be coordinated with the 50.54(f) required submittal in March 2015?

The NRC has reviewed the plant's corrective action program documentation for this new information. All indications are that the Shoreline fault remains bounded by the Hosgri fault for which the plant was licensed to withstand. This new information does not negate or invalidate the NRC's assessment laid out in the RIL and therefore the plant remains safe to operate.

The 1000-page document has also been given to the Japan Lessons Learned Directorate to be incorporated into the 50.54(f) review. Consistent with the UFSAR, the new preliminary information regarding regional source characterization (i.e. fault capability) and potential site ground motion will be evaluated in accordance with the process defined by the NRC in their Fukushima 50.54(f) letter, through the SSHAC process and a final Seismic Hazard and Ground Motion Response Spectra (GMRS) will be submitted to the NRC by March 2015. The updated Seismic Hazards/GMRS will be

used as input to an updated Seismic Probabilistic Risk Assessment (SPRA), which will be submitted to the NRC by June 2017.

(If pushed on any “unknowns” in the report: If necessary, actions could include orders to halt operations if new information suggests there is an immediate safety concern. The NRC will fulfill its mandate to protect public health and safety).

(If asked what thins the plant has done since Fukushima: It is important to note that DCCP is an industry leader in implementing FLEX which was a post-Fukushima industry initiative to have extra equipment available remotely in the event of a beyond design basis event).

4. Why is the report “final” for the state but “preliminary” for the NRC?

For the state, the report is final. However, for the NRC, this information will be incorporated in the more comprehensive 50.54(f) analysis due to the NRC in March 2015. Because the licensee must notify the NRC of any new seismic information, they have shared this report with the NRC and entered this information into their corrective action program. The NRC has reviewed the corrective action program evaluation and agrees based on the information provided that the Hosgri is still bounding.

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Los Osos and San Luis Bay Faults

1. Did the licensee and NRC evaluate the Los Osos and San Luis Bay Faults?

Yes. The Los Osos and San Luis Bay Faults are also near Diablo Canyon. They were studied and reported to the NRC as part of the LTSP. These faults were mentioned in PG&E's January 2011 Shoreline Report for comparison, though no new data on these faults was presented.

The NRC reviewed these faults under its review of the LTSP, and concluded they were bounded by the Hosgri event and there was no specific need to discuss them in the Updated Final Safety Analysis Report.

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Research Information Letter (RIL) Questions

1. What is a RIL?

RILs are documents issued by the Office of Nuclear Regulatory Research (RES) to the NRC Regulatory and Regional Offices that summarize, synthesize, and/or interpret significant research information, provide new or revised information, and discuss how that information may be used in regulatory activities. RIL's allow NRC Regulatory Offices or Regional Offices to readily understand what new information has been obtained, and the significance of that information for current and future licensing reviews or other regulatory activities.

2. What is the purpose of RIL 2009-001?

Research Information Letter (RIL) 2009-001 was issued on April 8, 2009. RIL 2009-001 was initiated for RES to complete an independent analysis of the Shoreline Fault.

In RIL 2009-001, the NRC concluded that the seismic-loading levels predicted for a maximum magnitude earthquake on the Shoreline fault were below those levels for which the plant was previously analyzed in the LTSP.

3. What is the purpose of RIL 2012-01?

Research Information Letter 2012-01 was issued on September 19, 2012. RIL 2012-01 was initiated for RES to complete an independent analysis of seismic hazard at the Diablo Canyon Power Plant from the Shoreline Fault Zone.

The NRC's independent evaluation, documented in RIL 2012-01, concluded that there is very little evidence that the Shoreline fault has ever been active. While its size was used to create a worst reasonable case ground motion curve, the region shows ~~only~~ some symptoms of a fault. There is no evidence that there is slippage, which would indicate this was an active fault in the past. Therefore, it is reasonable to bound the Shoreline fault by the LTSP/Hosgri method.

4. Now that the RILs have been issued, is PG&E done with its studies?

No. PG&E has performed additional studies including three-dimensional (3-D) marine and two-dimensional (2-D) onshore seismic reflection profiling, additional potential field mapping, Global Positioning System monitoring, and the feasibility of installing an ocean bottom seismograph network. These activities are being used to further refine the characterization of those seismic sources and ground motions most important to the DCP: the Hosgri, Shoreline, Los Osos, and San Luis Bay fault zones and other faults within the Southwestern Boundary zone. PG&E are performing seismic and flooding walkdowns per the March 2012 50.54(f) request from the NRC. The results from PG&E's actions will be due in March 2015.

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“Sewell” Report / Tsunami

Background

In March of 2004, as part of the review for the Diablo Canyon Independent Spent Fuel Storage Installation (ISFSI) license review, the Center for Nuclear Waste Regulatory Analysis (CNWRA, a division of Southwest Research Institute), transmitted to the NRC a Tsunami Hazard Study that applied to the Diablo Canyon site. Within the scope of the CNWRA review of the Diablo Canyon ISFSI application, a CNWRA contractor, Dr. Robert Sewell, developed a draft report (the “Sewell Report”) on the potential for landslide tsunamis impacting the site. The report postulated wave elevations from potential landslide tsunami scenarios that could exceed the current licensing basis tsunami height for Diablo Canyon.

CNWRA did not endorse Dr. Sewell’s work, but did transmit the report to the NRC to inform the NRC of developments in the landslide generated tsunami area of study. The Sewell Report was reviewed by the Seismic Issues Technical Advisory Group (SITAG) in the NRC’s Office of Research. In November 2005, the SITAG review concluded that the tsunami scenarios contained in the Sewell Report were based on rudimentary modeling with little geologic and geotechnical data. SITAG further concluded that the study should not be used in any licensing actions.

In February 2006, the Office of Nuclear Reactor Regulation’s (NRR’s) Division of Engineering terminated further consideration of the Sewell Report, based on NRC participation in other cooperative government reviews of tsunami hazards under the President’s Office of Science and Technology Policy (OTSP). NRR concluded that the OTSP effort would provide a more technically credible forum to broaden the NRC’s understanding of tsunamis and inform efforts to reassess the tsunami design criteria in the Standard Review Plan.

The design basis tsunami for DCPD considers distantly-generated tsunamis and locally-generated tsunamis. The design basis tsunami is the greater of these tsunamis and is 34.6 feet. Additionally, DCPD sits atop a coastal bluff, 85 feet above sea level, decreasing its vulnerability to a tsunami hazard.

The intake structure auxiliary salt water pump room vents are extended with steel snorkels to prevent seawater ingestion due to splash-up during the design flood event and is thus ensured of operation during extreme tsunami drawdown and combined tsunami and storm wave conditions. The only safety-related system that has components within the projected sea wave zone is the auxiliary salt water system. The auxiliary salt water pump motors are housed in watertight compartments within the intake structure. These compartments are designed for a combination tsunami-storm wave activity to elevation +48 feet MLLW (+45.4 feet MSL). The massive concrete intake structure ensures that the pumps remain in place and operate during extreme wave events. The intake structure is arranged to provide redundant paths for seawater to the pumps, ensuring a dependable supply of seawater.

A 2011 staff overview of Diablo Canyon

(<http://adamswebsearch2.nrc.gov/webSearch2/main.jsp?AccessionNumber=ML111290158>) includes reference to a 2010 PG&E report on updated tsunami hazards

(<http://peer.berkeley.edu/tsunami/tasks/task-1-tsunami-hazard-analysis/>), part of an academic review of California tsunami hazard.

After identification of the Shoreline fault in 2008, PG&E determined that the tsunami hazard threat from Shoreline is relatively small since it is a strike-slip fault rather than a reverse fault and there is not expected to exceed the design basis. The NRC performed an evaluation of the tsunami hazard and an independent deterministic seismic hazard analysis of the fault based on information provided by the licensee to confirm DCP's conclusions regarding safe operation.

After the earthquake and tsunami in Japan on March 11, 2011, the NRC issued in March 2012 a request for information (also known as a 50.54(f) letter) requesting each nuclear power plant to re-evaluate the flooding hazard at their site, including tsunami. This re-evaluation is due from DCP in March 2015. DCP was given 3 years to respond due to the technical complexities involved in their re-evaluation.

Key Messages

- The NRC did not publicly release the draft report for two reasons:
 1. Although the staff considered the report during the licensing of DCP Independent Spent Fuel Storage Installation (ISFSI), it did not form the basis for any licensing action
 2. The draft report was considered preliminary and its conclusions based on limited data and methods
- The design basis tsunami for DCP considers distantly-generated tsunamis and locally-generated tsunamis. The design basis tsunami is the greater of these tsunamis and 34.6 ft. Additionally, DCP sits atop a coastal bluff, 85 ft above sea level, decreasing its vulnerability to a tsunami hazard
- The NRC licensed DCP independent spent fuel storage installation based on its conclusion that the probable maximum tsunami flooding at the proposed ISFSI was adequately addressed by PG&E, based on the licensee's assessment of more recent tsunami information in the area, as well as the much higher elevations of the ISFSI site and transporter route relative to the previously analyzed hazard for the power plant. This conclusion was reached with full consideration of this report.
- The NRC is continuing to re-evaluate the tsunami hazard. After the earthquake and tsunami in Japan on March 11, 2011, the NRC issued in March 2012 a request for information (also known as a 50.54(f) letter) requesting each nuclear power plant to re-evaluate the flooding hazard at their site, including tsunami. This re-evaluation is due from DCP in March 2015. DCP was given 3 years to respond due to the technical complexities involved in their re-evaluation.
- DCP's ability to withstand large waves and the maximum wave height at the intake structure were determined through extensive and detailed scaled model wave testing. The only safety-related components within the project sea wave zone (auxiliary salt water system) are protected from tsunami effects.

Questions and Answers

1. Why did the NRC decide to not release the draft report to the public?

The NRC did not release the report for two reasons. First, although considered during the licensing of DCPD ISFSI, it did not form the basis for that licensing action. Second, the draft report was considered preliminary and its conclusions based on limited data and methods.

2. What has the NRC done to evaluate the report?

The NRC was assisted by experts from the Center for Nuclear Waste Regulatory Analyses (CNWRA) in performing a comprehensive safety and technical review of PG&E's license application for an ISFSI. The CNWRA, in turn, contracted the services of Dr. Robert Sewell specifically to assess PG&E's application with respect to tsunami hazards.

The NRC and CNWRA concluded that the probable maximum tsunami flooding at the proposed ISFSI was adequately addressed by PG&E, based on PG&E's assessment of more recent tsunami information in the area, and the much higher elevations of the ISFSI site and transporter route relative to the previously analyzed hazard for the power plant.

The CNWRA assessed the information in Dr. Sewell's report upon receiving it in November 2003. The report was forwarded for NRC's consideration in March 2004, after CNWRA had completed its review of the DCPD ISFSI application. Both the principal investigator for the CNWRA, an expert geologist and seismologist, and the NRC determined that the findings in the report were too speculative to be considered in current licensing decisions, but that they might warrant further review by the NRC. In February 2005, the NRC staff initiated further review of the report, consistent with its efforts to assess the December 2004 tsunami in southeast Asia. In May 2005, the NRC directed that a special review of the report be performed by NRC seismic experts. That group reached its preliminary conclusions on Dr. Sewell's report in November 2005, and completed its evaluation in January 2006.

3. Why did it take the NRC group of seismic experts from SITAG so long to review the report?

The NRC group made an initial assessment of the hazard and the credibility of the report and determined that a 6 to 12 month review time frame was appropriate in consideration of NRC's other high priority safety and regulatory issues currently under development. The preliminary assessment was completed in November 2005, with revisions in January 2006.

4. Was the concern about the tsunami hazard potential at DCPD related to the December 2004 earthquake and tsunami in Sumatra and the Indian Ocean?

No. The study of the potential tsunami hazard was performed during the licensing of the proposed ISFSI at the DCPD site, prior to the 2004 event in the Indian Ocean. In response to the tsunami in Sumatra and the Indian Ocean, PG&E initiated its own study of the tsunami threat to DCPD. A 2011 staff overview of Diablo Canyon

(<http://adamswebsearch2.nrc.gov/webSearch2/main.jsp?AccessionNumber=ML111290158>) includes reference to a 2010 PG&E report on updated tsunami hazards (<http://peer.berkeley.edu/tsunami/tasks/task-1-tsunami-hazard-analysis/>), part of an academic review of California tsunami hazard.

Following the earthquake and tsunami in Japan on March 11, 2011, the NRC issued a demand for information letter (also referred to as a 50.54(f) letter) in March 2012 requesting information from each nuclear power plant regarding the current flooding hazard at the site, using the most up-to-date methodologies. DCP's response to this letter is due March 12, 2015. DCP was given three years to complete this re-evaluation due to the technical complexities involved at their site.

5. Are coastal nuclear facilities safe today from the tsunami threat?

Yes, the coastal nuclear facilities are safe from the threat of tsunamis. The NRC has licensed a number of nuclear facilities on the US Pacific, Atlantic, and Gulf coasts. These facilities include commercial nuclear reactors, ISFSI's, and research and test reactors (RTR's). The NRC has determined that public health and safety continue to be maintained for these facilities.

The NRC design philosophy for natural phenomena hazards, such as tsunamis, is based on consideration of the most severe of the natural phenomena that have been historically reported for the site and surrounding area with sufficient margin for limited accuracy, quantity, and period of time for which the historical data have been accumulated. Existing nuclear facilities were licensed consistent with this design philosophy.

In general, facilities located along the Pacific coastline are more likely to be impacted by tsunamis due to the more frequent occurrence of large earthquakes along the margins of the Pacific Ocean. Deep ocean trenches off the coasts of Alaska, the Kuril Islands, Japan, and South America are well known for their large earthquakes and as potential sources for Pacific-wide tsunamis. The most recent damaging tsunami along the Pacific coast was caused by the 1964 magnitude 9.2 Alaskan earthquake with a wave height of 21 ft recorded in Crescent City, far from DCP. Tsunamis generated by local sources, such as submarine landslides, also have the potential to impact coastal sites. The design of nuclear facilities along the Pacific coast was based on historical tsunami information and considered both local and distant tsunami sources as well as local onshore and offshore topography. Hence the facilities have been designed for the largest recorded tsunami effect with additional safety margins.

Therefore the NRC staff believes that there continues to be adequate protection of public health and safety from the tsunami threat to nuclear facilities on the Pacific coastline.

The design basis tsunami for DCP considers distantly-generated tsunamis and locally-generated tsunamis. The design basis tsunami is the greater of these tsunamis and 34.6 ft. Additionally, DCP sits atop a coastal bluff, 85 ft above sea level, decreasing its vulnerability to a tsunami hazard. DCP's ability to withstand large waves and the maximum wave height at the intake structure were determined through extensive and detailed scaled model wave testing. The ~~only~~ safety-related

components within the project sea wave zone (auxiliary salt water system) are protected from tsunami effects.

6. Has NRC assessed the potential impact of a tsunami, as predicted by Dr. Sewell, on the DCPD and public safety?

The NRC's assessment of potential tsunami hazard is ongoing and the DCPD response to the 50.54(f) letter is due March 2015. However, the NRC has concluded that the tsunami scenarios described by Dr. Sewell in the report are based on preliminary data and analysis and should not be used as a basis for any licensing action. NRC continues to evaluate the potential tsunami hazard for coastal nuclear facilities to ensure the most up to date scientific information is assessed and properly considered.

7. What is the NRC doing to address any generic implications for coastal sites other than DCPD?

Following the March 11, 2011 earthquake and tsunami in Japan, the NRC issued a 50.54(f) letter requiring each nuclear plant to re-evaluate their flooding hazards, including tsunami. The NRC used criteria to prioritize each site's response due date, ranging from 2013 to 2015. Once the NRC receives the response, experts will evaluate the data to determine if additional action is required.

8. Has NRC discussed the results of their review of the report with Dr. Sewell and has he responded to NRC's comments?

The NRC has discussed the findings with the NRC's contractor CNWRA, who subcontracted the study to Dr. Sewell.

9. If the NRC was dissatisfied with the draft report it received from Dr. Sewell, why didn't it return the report to him and require he make the changes necessary to address the staff's concerns?

After the SITAG's findings that the report's conclusions were based on limited data and methods, the NRC determined that it would be more effective to spend its resources participating in several ongoing initiatives to reassess tsunami hazards sponsored by NOAA, USGS, and the White House Office of Science and Technology Policy, rather than further reviewing or revising Dr. Sewell's report.

Following the March 11, 2011 earthquake and tsunami in Japan, the NRC issued a 50.54(f) letter requiring each nuclear plant to re-evaluate their flooding hazards, including tsunami. The NRC used criteria to prioritize each site's response due date, ranging from 2013 to 2015. Once the NRC receives the response, experts will evaluate the data to determine if additional action is required.

10. What actions has the NRC taken to ensure it is correct in addressing the areas it used to discount Dr. Sewell's report?

A 2011 staff overview of Diablo Canyon
(<http://adamswebsearch2.nrc.gov/webSearch2/main.jsp?AccessionNumber=ML111290158>) includes reference to a 2010 PG&E report on updated tsunami hazards

(<http://peer.berkeley.edu/tsunami/tasks/task-1-tsunami-hazard-analysis/>), part of an academic review of California tsunami hazard.

Following the March 11, 2011 earthquake and tsunami in Japan, the NRC issued a 50.54(f) letter requiring each nuclear plant to re-evaluate their flooding hazards, including tsunami. This re-evaluation must be completed using current methodologies and data. Therefore, the re-evaluation, when received in March 2015, will address these areas. The NRC will then review and evaluate this response and determine what, if any, actions are needed.

11. How has the tsunami hazard been changed based on the identification of the Shoreline fault?

After identification of the Shoreline fault in 2008, PG&E determined that the tsunami hazard threat from Shoreline is relatively small since it is a strike-slip fault rather than a reverse fault and there is not expected to exceed the design basis. The NRC performed an evaluation of the tsunami hazard and an independent deterministic seismic hazard analysis of the fault based on information provided by the licensee to confirm DCCP's conclusions regarding safe operation.

12. Why hasn't anything been done with this report post-Fukushima?

After the SITAG's findings that the report's conclusions were based on limited data and methods, the NRC determined that the report should not be used as a basis for any licensing action.

However, following the March 11, 2011 earthquake and tsunami in Japan, the NRC issued a 50.54(f) letter requiring each nuclear plant to re-evaluate their flooding hazards, including tsunami. This re-evaluation must be completed using current methodologies and data. Therefore, the re-evaluation, when received in March 2015, will address these areas. The NRC will then review and evaluate this response and determine what, if any, actions are needed.

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Non-concurrence and DPO Questions

1. Was the former DCPD SRI reassigned because he filed two non-concurrences?

No. The DPO petitioner was not reassigned. He applied for an instructor position in his area of expertise at the NRC's technical training center in Chattanooga, TN, at about the time he wrote his Non-Concurrence Paper (NCP). He was competitively selected for this sought-after position, and reported to his new assignment in September 2012. Resident inspector assignments are limited to 7 years to ensure objectivity. It is common for resident inspectors to apply for their next job when a desirable position comes open.

2. When were the non-concurrences filed?

Two non-concurrences were filed by the DCPD SRI.

11/7/11. The DCPD SRI submitted NCP 2011-103, on inspection report 05000275; 323/201104.

1/26/12. The DCPD SRI submitted NCP 2012-01, on inspection report 05000275; 323/201105.

3. What were the non-concurrences?

Both non-concurrences involve the same subject; regulatory actions in response to the discovery of the Shoreline Fault.

NCP 2011-103 was filed by the DCPD SRI on the basis that no violation was issued (as he had submitted in the draft report) related to operability evaluation of the Shoreline fault in Report 2011-04. NCP 2011-103 was dispositioned finalizing the violation in IR 2011-05 issued on 2/14/12.

NCP 2012-01 was filed by the DCPD SRI because the SRI believed the violation in NRC IR 2011-05 should be for an inadequate operability evaluation of the Shoreline Fault rather than not doing an operability evaluation until June 2012. The SRI believed the facility should be shutdown or the license amended to reflect the Shoreline fault. NCP 2012-01 was discussed with NRC stakeholders representing NRR/DE, NRR/DORL, RIV, and RES. NCP 2012-01 was dispositioned as a multi-office staff position which concluded that a violation for having no operability evaluation from January 2011 to June 2011 existed because the licensee completed the RIS 2005-020 immediate (interim) operability evaluation in June 2011. Additionally, the offices involved in NCP 2012-01 acknowledged that a final operability evaluation could not be completed by the licensee until the NRC decided what requirements and methods should be applied to new seismic information. At the time of Inspection Report 2011-05 issuance it was expected that the requirements and methods would be addressed in a License Amendment Request that was under consideration. However, by 3Q/2012, enough progress had been made on RIL 2012-01 for NRR and RES to conclude that the LTSP method of analysis used in the immediate operability assessment was sufficient to evaluate the Shoreline fault and that the Shoreline Fault should be considered a lesser included case of the Hosgri event.

4. When was the DPO filed?

July 18, 2013. The former DCPD SRI filed Differing Professional Opinion (DPO) 2013-02 associated with the regulatory response following the discovery of the Shoreline Fault.

NRC employees are encouraged to file a DPO if they believe an agency decision is in error. The DPO process is in keeping with the agency's open and collaborative working environment.

5. What is the DPO?

DPO 2013-02 restated the issues presented in NCP 2012-01 and added a concern that a license amendment was needed incorporate the shoreline fault into Diablo Canyon's FSAR as described in the RIL 12-01 cover letter. The added concern was that the NRC did not review or take action on the Los Osos and San Luis Bay faults.

6. What is the status of the DPO?

On August 2, 2013, DPO 2013-002 was assigned to NRR for review. The DPO Panel was established on September 3, 2013.

As part of the agency's open and collaborative work environment, the NRC has established the DPO program as a means for employees to have their concerns reviewed by high level managers. The DPO Program is a formal process that allows all employees and contractors to have their differing views on established, mission-related issues considered by the highest level managers in their organizations, i.e., Office Directors and Regional Administrators. The process also provides managers with an independent, three-person review of the issue (one person chosen by the employee). After a decision is issued to an employee, he or she may appeal the decision to the Executive Director for Operations (or the Chairman for those offices reporting to the Commission).

7. Will the decision regarding the DPO be made public?

Maybe. The DPO process is discussed in Management Directive 10.159 (a publically available document). However, the DPO process for a specific review is an internal, non-public process. The DPO petitioner has rights, including the right to privacy over any issues raised in the process. The DPO petitioner has a key role in determining whether or not the DPO and Director's decision become available publicly.

8. Was the SRI wrongfully reassigned after filing two non-concurrences and a DPO?

No. The SRI's wording in the DPO could be viewed by some to mean he was reassigned following the filing of the non-concurrences against his will. As noted in Q&A #1 above, the SRI applied for and was selected to a highly sought instructor position at the NRC's Technical Training Center.

9. Timeline of Events associated with the NCPs and DPO:

11/7/11	DCPP SRI submits Non-Concurrence NCP 2011-103. The SRI non-concurs on Inspection Report 05000275; 323/2011004 because the proposed violation involving the Shoreline Fault operability evaluation was not issued.
11/9/11	NCP 2011-103 is dispositioned by Region IV. The operability evaluation issue was documented as an Unresolved Item in Inspection Report 05000275; 323/2011002 and dispositioned as a violation in Inspection Report 05000275; 323/2011005.
4Q/2011	The DCPP SRI continues to question the enforcement action associated with the Shoreline Fault operability evaluation. Several meetings between multiple NRC offices are conducted to discuss the Shoreline Fault.
1/26/12	DCPP SRI submits NCP 2012-01, non-concurring on inspection report 05000275; 323/201105. The SRI believed the violation in NRC Report 2011-05 should be for an inadequate operability evaluation of the Shoreline Fault rather than not doing an operability evaluation until June 2012. The SRI believed the facility should be shutdown or the license amended to reflect the Shoreline fault.
Feb 2012	DCPP SRI applies for instructor position vacancy at the Technical Training Center (TTC).
02/12-07/13	RIV management frequently encourages the DCPP SRI to submit a Differing Professional Opinion (DPO) during several discussions involving seismic issues.
May 2012	DCPP SRI is selected for instructor position at the Technical Training Center (TTC).
Sept 2012	The (now former) DCPP SRI reports to the TTC as a training instructor.
Oct. 1, 2012	Response to NCP 2012-01 issued. NCP 2012-01 was discussed with NRC stakeholders representing NRR/DE, NRR/DORL, RIV, and RES. NCP 2012-01 was dispositioned as a multi-office staff position which concluded that a violation for having no operability evaluation from January 2011 to June 2011 existed because the licensee completed the RIS 2005-020 immediate (interim) operability evaluation in June 2011. Additionally, the offices involved in NCP 2012-01 acknowledged that a final operability evaluation could not be completed by the licensee until the NRC decided what requirements and methods should be applied to new seismic information. At the time of Report 2011-05 issuance it was expected that the requirements and methods would be addressed in a License Amendment Request that was under consideration. However, by 3Q/2012, enough progress had been made on RIL 2012-01 for NRR and RES to conclude that the LTSP method of analysis used in the immediate operability assessment was sufficient to evaluate the Shoreline fault and

that the Shoreline Fault should be considered a lesser included case of the Hosgri event.

- 7/18/13 Former SRI submits a DPO regarding the agency's regulatory actions associated with the Shoreline Fault.
- 8/2/13 DPO 2013-002 was assigned to NRR for an independent review.
- 9/3/13 Director, NRR establishes a DPO Ad Hoc Review Panel (DPO Panel) for DPO 2013-002 with three NRC staff members who have been independent of the initial concerns raised by the former DCPD SRI.
- 4/3/14 DPO Panel completes its review of DPO 2013-002 and submits its report to the Director, NRR.
- 5/29/14 Director, NRR issues his decision on DPO 2013-002 by memo to the former DCPD SRI.
- 8/25/14 Associated Press article released discussing the DPO.

RIS 2005-20, 2013-005, and Operability Evaluation Questions

1. What is a RIS?

A RIS is a Regulatory Issue Summary. Regulatory issue summaries are used to (1) communicate and clarify NRC positions on regulatory matters, (2) inform the nuclear industry of opportunities for regulatory relief, (3) communicate NRC endorsement of industry guidance, (4) provide guidance on the scope of information that should be provided in licensing applications, and (5) request the voluntary participation of the nuclear industry in NRC-sponsored pilot programs or the voluntary submittal of information. A RIS does not communicate new or revised NRC requirements.

2. How does the RIS apply to failures to meet design requirements (e.g.; General Design Criteria (GDC))?

RIS 2013-005 restated the NRC's position regarding operability evaluations for nonconforming conditions related to design and licensing requirements. The failure to meet GDC, as described in the licensing basis (e.g., nonconformance with the Current Licensing Basis (CLB) for protection against flooding, seismic events, tornadoes) should be treated as a nonconforming condition and is an entry point for an operability determination if the nonconforming condition calls into question the ability of SSCs to perform their specified safety function(s) or necessary and related support function(s). If the licensee determination concludes that the Technical Specification (TS) SSC is nonconforming but operable or the necessary and related support function is nonconforming but functional, it would be appropriate to address the nonconforming condition through the licensee's corrective action program.

If the licensee's evaluation concludes that the TS SSC is inoperable, then the licensee must enter its TS Action Statement and follow the applicable required actions.

3. Can the licensee have a nonconformance with requirements and still operate?

Yes. RIS 2005-20, Revision 1, "Revision to NRC Inspection Manual Part 9900 Technical Guidance, 'Operability Determinations & Functionality Assessments for Resolution of Degraded or Nonconforming Conditions Adverse to Quality or Safety,'" describes the actions licensees must take to evaluate nonconforming conditions.

For the Shoreline fault, the NRC issued a violation for Diablo Canyon's failure to perform an operability evaluation. The licensee completed the evaluation and the NRC concluded that the guidance in RIS 2005-20 had been met. In particular:

The use of the LTSP was appropriate to characterize and bound the faults as part of the operability evaluation process. Additionally, the LTSP had already been reviewed by the NRC and is consistent with the Hosgri evaluation method which is included in the UFSAR. It is expected that final corrective actions will involve an update to the UFSAR that describes current seismic information and how new seismic information will be evaluated.

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Enforcement Questions

1. Did the NRC issue any violations involving the Shoreline Fault?

Yes. Inspection Report 2011-05 documented a violation for the failure to perform an operability evaluation of the Shoreline fault.

2. What corrective actions did Diablo Canyon take in response to the violation?

Diablo Canyon completed an operability evaluation for the Shoreline fault which met the guidance in RIS 2005-020. Diablo Canyon submitted a LAR to clarify the UFSAR; however, the LAR has since been withdrawn. Diablo Canyon is currently performing seismic evaluations to support their response to the NRC's March 2012 50.54(f) letter.

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Current Licensing Questions

1. What are the Current Seismic Qualification Design Basis requirements at DCP?

Appendix A to Part 50, General Design Criteria for Nuclear Power Plants, *Criterion 2, "Design bases for protection against natural phenomena."* Criterion 2 required that structures, systems, and components important to safety shall be designed to withstand the effects of natural phenomena, such as earthquakes, without loss of capability to perform their safety functions. Criterion 2 also stated that design bases for these structures, systems, and components shall reflect:

- Appropriate 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 accumulated,
- Appropriate combinations of the effects of normal and accident conditions with the effects of the natural phenomena and the importance of the safety functions to be performed.

10 CFR 100, Appendix A, "Seismic and Geologic Siting Criteria for Nuclear Power Plants," for establishing the three DCP design basis earthquakes:

- Design earthquake (*Operating Basis Earthquake*) - That earthquake which could reasonably be expected to affect the plant site during the operating life of the plant; it is that earthquake which produces the vibratory ground motion for which those features of the nuclear power plant necessary for continued operation without undue risk to the health and safety of the public are designed to remain functional.
- Double design earthquake (*Safe Shutdown Earthquake*) - That earthquake based upon an evaluation of the maximum earthquake potential which produces the maximum vibratory ground motion for which certain structures, systems, and components are designed to remain functional.

Hosgri Event - a special postulated earthquake applicable only to DCP.

[See Q&As for "Design/Initial Licensing Basis Questions" for additional background]

2. Did Diablo Canyon submit a license amendment request for the Shoreline Fault?

Yes. Diablo Canyon submitted a license amendment request (LAR) on October 11, 2011. PG&E wanted the NRC to approve using the Hosgri/LTSP method as the only method for evaluating new seismic information (including the Shoreline fault) and for approval of a method to combine LOCA and seismic loads.

In December 2011, the licensee discussed the LAR with the Region IV Branch Chief for Diablo Canyon. PG&E stated that the LAR was changed to ask for the Hosgri event to become the safe shutdown earthquake. PG&E believed that the NRC had previously decided this point because the NRC had concluded that Hosgri was the SSE.

NRR/DORL subsequently confirmed that pre-application meetings in mid-2011 had not included discussion of the HE as the SSE.

3. Did the NRC accept PG&E's amendment request for the Shoreline Fault?

PG&E withdrew the amendment request on October 25, 2012.

During the NRC acceptance review the NRC noted that PG&E had not submitted all of the information needed to review the Hosgri method against the Standard Review Plan (SRP) requirements.

4. Why was the LAR withdrawn?

While the NRC evaluated how the operability evaluation for the Shoreline fault should be performed, PG&E concluded that gaining NRC approval for a LAR was the best resolution. Parts of PG&E's October 2011 LAR were intended to clarify the licensing basis by revising safe shutdown earthquake. PG&E requested that the NRC designate the Hosgri event as the safe shutdown earthquake at Diablo Canyon.

During the NRC review of the LAR, the NRC required that the Hosgri fault be assessed against the acceptance criteria for the DDE. Since PG&E had not performed or submitted such an evaluation, the LAR was not accepted and Diablo Canyon withdrew the LAR.

On March 12, 2012, the NRC issued a 50.54(f) letter to all power reactor licensees requiring a seismic hazard re-evaluation. The NRC specifically required PG&E to compare the results of this re-evaluation to the DDE. The NRC expects that the seismic re-evaluation at Diablo Canyon will yield results very similar to the LTSP results, because the methods and data are similar.

5. Did the NRC allow PG&E to bypass Diablo Canyon seismic licensing requirements?

No. All seismic hazard information collected to date has been evaluated by the NRC. The NRC concluded that the Hosgri analysis completed in 1973 (as part of the initial station FSAR) bounds all of the seismic information involving the Shoreline, Los Osos, and San Luis Bay faults

6. I heard NRC's Cliff Munsen say to the California Energy Commission that the NRC expects Diablo will exceed its DDE once it completes this ongoing seismic review. What does it mean when the NRC says they will exceed their DDE? What changes will the plant be required to make? If none, why not?

The Hosgri and DDE are separate methods for evaluating seismic information. As a result of the 50.54(f) letter review the NRC expects that Diablo Canyon will select a single method consistent with the already NRC reviewed LTSP for evaluating new seismic information. The change to a single method for evaluating seismic information will need to be reflected in the UFSAR.

7. When will Diablo Canyon's FSAR reflect the correct seismic information?

The NRC expects the UFSAR will be revised following completion of the 50.54(f) letter reviews. Diablo Canyon's initial response is due by March 2015. Diablo Canyon's risk assessment, if assigned a high priority, will be due no later than April 2018.

8. When does the FSAR need to be updated with new seismic information?

Per the requirements of 10 CFR 50.71(e), all reactor licensees are required to periodically update the FSAR to reflect, in part, all safety analyses and evaluations performed by the licensee in support of approved LARs or in support of conclusions that changes did not require a license amendment in accordance with 10 CFR 50.59(c)(2). FSAR is required to be evaluated for updates approximately every 24 months, depending on the station specific refueling cycles.

As such, if subsequent seismic analyses, including PG&E's response to the 50.54(f) seismic re-evaluation, results in the licensee submitting an LAR (and assuming it is approved by the NRC), then the evaluation would be required to be included as an FSAR update per 50.71(e).

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50.54(f) Questions

1. When was the 50.54(f) letter issued?

March 2012.

2. What is the purpose of the seismic 50.54(f) letter?

Diablo Canyon is being required to reevaluate the seismic hazards at their site. This reevaluation uses both modern methods and updated information. Additionally, Diablo Canyon is required to provide an assessment of the plant's ability to cope with the reevaluated hazard. The NRC will use this information to determine if additional regulatory action is appropriate.

3. When is Diablo required to provide a response?

No later than March 2015.

4. What actions will be required following the NRC's review of Diablo's response?

For facilities in the Western United States, within approximately 30 days of receipt of the last submittal, the NRC will determine the acceptability of the licensee's proposed risk evaluation approach and priority for completion. At the latest this would be April 2015.

If the NRC assigns a high priority Diablo Canyon will need to complete their risk evaluation over a period not to exceed 3 years from the date of the prioritization. At the latest this would be April 2018. If assigned a lower priority, the risk evaluation would need to be completed by April 2019.

5. Doesn't Diablo Canyon already have a Seismic PRA? If so, why is their completion date April 2018?

The March 12, 2012 orders (<http://pbadupws.nrc.gov/docs/ML1205/ML12053A340.pdf>) state that "Within 3 years of the date of this information request, each WUS addressee is requested to submit a written response consistent with the requested information, seismic hazard evaluation, items 1 through 7 above."

Therefore by March 2015, DCPD must submit a written response documenting their seismic hazard evaluation up to selecting of a risk evaluation approach. The two approaches that could be used are Seismic Margin Analysis (SMA) or Seismic PRA (SPRA). DCPD has committed to performing a SPRA using the new ground motion spectra. Later in the March 2012 order, it states, "For hazard reevaluations that the NRC determines demonstrate the need for a higher priority, addressees are requested to complete the risk evaluation ... over a period not to exceed 3 years from the date of the prioritization." Since DCPD will be completing the SPRA, this statement in the order applies, and thus DCPD's due date for completion in early 2018.

6. Why is it expected to take several years to complete the review?

The expectation that the seismic issues will take some years to resolve at DCPD is not a safety concern. The NRC has followed the seismic re-evaluation process since the beginning at DCPD. The NRC will continue to evaluate seismic data to ensure our understanding of the seismic hazard is informed and that there is no new challenge to safety.

By following the rigorous NRC-approved process, which will take several years. It is expected that PG&E will produce a single seismic hazard analysis for NRC review using the latest available methods. If approved by the NRC, these results can then be used to clarify the Diablo Canyon seismic licensing basis.

7. What is SSHAC? What is SSHAC Level 3?

10 CFR 100.23, paragraphs (c) and (d) require that the geological, seismological, and engineering characteristics of a site and its environs be investigated in sufficient scope and detail to permit an adequate evaluation of the Safe Shutdown Earthquake (SSE) Ground Motion for the site. In addition, 10 CFR 100.23, paragraph (d)(1), "Determination of the Safe Shutdown Earthquake Ground Motion," requires that uncertainty inherent in estimates of the SSE be addressed through an appropriate analysis such as a probabilistic seismic hazard analysis (PSHA).

In response to these requirements, in 1997, the NRC published NUREG/CR-6372, "Recommendations for Probabilistic Seismic Hazard Analysis: Guidance on Uncertainty and the Use of Experts." Written by the Senior Seismic Hazard Analysis Committee (SSHAC), the NUREG provides guidance regarding the manner in which the uncertainties in PSHA should be addressed using expert judgment.

The SSHAC Level 3 process uses a panel of independent experts to study all available seismic data, identify the need for new data, and use the latest seismic analysis tools to develop a Seismic Source Characterization (SSC) and Ground Motion Characterization (GMC) in creating a risk-informed seismic hazard estimate (i.e. the PSHA). The NRC was intimately involved in the development of this formal methodology. This is a new method that did not exist at the time of licensing for the current generation of nuclear power plants, but is now required for applicants seeking a new reactor license.

8. Why is the NRC giving the Western U.S. plants more time (than the Central and Eastern U.S.) to complete their seismic reevaluation when the seismic risks in the Western U.S. are greater?

A typical SSHAC Level 3 study (which is the process being used by all of the plants in the U.S. to perform a seismic hazard reevaluation) takes 3 - 4 years.

The SSHAC study produces the seismic hazard models that are needed to perform the seismic reevaluation. When Fukushima occurred, the Central and Eastern US plants (CEUS) were in the middle of conducting a SSHAC Level 3 study sponsored by the NRC, DOE, and EPRI, so when the 50.54(f) letters went out the CEUS already had the models they needed to perform the seismic reevaluation, which is why we gave them a shorter period of time to respond to the 50.54(f) letter.

The Western U.S. does not have a regional model like the CEUS – so the NRC required all Western U.S. plants to complete a SSHAC Level 3 study in order to develop site-specific seismic hazard models. The Western U.S. plants were given three years to complete the SSHAC study and their seismic reevaluations. This is a significant amount of work to complete in three years and is realistically the fastest timeline that the Western U.S. plants would be able to adhere to while still following the rigorous requirements of a SSHAC Level 3 study.

9. Why does the NRC believe it is ok to wait until 2016 or later for safety improvements to be in place?

The NRC has established reasonable schedules for nuclear power plants to comply with the Orders and requests for information. We expect many nuclear power plants will achieve compliance ahead of the established schedules and will closely monitor each plant's progress through the required six-month status updates.

The Near Term Task Force (NTTF) report concluded that with the current regulatory approach and the current plant capabilities, the sequence of events which occurred at the Fukushima accident are unlikely to occur in the United States. While the NRC concluded that the NTTF recommendations would enhance safety, the staff determined that none of the NTTF report findings identified an imminent hazard to the public health and safety. As such, continued safe operation of nuclear power plants is warranted while the safety improvements required by the orders are implemented.

10. Why did the NRC approve industry's request for a six month extension in submitting the Central and Eastern U.S. seismic reevaluations?

The seismic hazard reevaluations for the Central and Eastern U.S. (CEUS) were originally due in September 2013. The NRC approved a six month extension in order for industry to update the ground motion model, as this effort incorporates a significant amount of new information and data for CEUS seismic hazards. The CEUS ground motion model was developed from 2002-2004 with updates in 2006 and now updates in 2013. (The seismic source characterization model was developed from 2008-2011). The updated ground motion model should ultimately yield more accurate results. The reevaluations for the CEUS are now due in March 2014.

11. Why is PG&E conducting new seismic studies?

The ongoing seismic studies that PG&E is conducting right now are being conducted as a new chapter in their Long Term Seismic Program as well as in response to the California Energy Commission's AB 1632 Report, which specifically recommended enhanced 2-D and 3-D seismic studies. With the NRC's issuance of the 50.54(f) letter, which in part requires re-evaluation of seismic hazard using current NRC guidance, the technical integration team of the SSHAC study has been empowered to take all of the information from these seismic studies, analyze it, and evaluate it in terms of the seismic hazard assessment. So the data collected from the various seismic studies and surveys will be fed into the SSHAC study and hazard re-evaluation as part of PG&E's response to the 50.54(f) letter.

12. In an October 12, 2012, letter to Diablo Canyon, the NRC states that “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.”

Is it accurate to state that this means that the licensee has not shown that it meets the requirements in its license that the reactor and its safety systems be capable of withstanding the ground shaking associated with the DDE/SSE earthquake using the methods specified in the SSE/DDE?

No. The quoted statement is referring to a comparison the NRC requested licensees make in a March 12, 2012 request for information. The NRC's March 12, 2012 letter requested PG&E to perform a re-evaluation of the seismic hazards at the DCPD site, using the NRC-approved SSHAC Level 3 method. The request for information, issued in response to recommendations of the Near-Term Task Force review of the accident at the Fukushima Dai-ichi nuclear facility, requests the licensee to compare the results of its seismic re-evaluation using the latest methods to the current seismic design basis (the DDE for Diablo Canyon) and as-built design margins. The NRC specifically requested that licensees compare the results of their seismic re-evaluation to the DDE/SSE to ensure that the information received from every nuclear power plant was comparable across the industry.

The March 12, 2012 letter specifically recognized that the new seismic data obtained through the NRC-specified process may result in higher ground motion when compared to the DDE/SSE, and lays out a process that licensees and NRC will follow in such situations. The quoted statement recognized that the DCPD seismic licensing and design basis is unique in that it includes the DE, the DDE, and the much larger HE ground motion. The NRC expects PG&E to include the Hosgri and Shoreline faults in its re-evaluation, and in its comparison of the new seismic information against the DDE. The October 12, 2012 letter continues by stating that “...it is appropriate to include these scenarios, along with any new seismic information that may be developed, in the risk-informed, performance-based [Ground Motion Response Spectra] GMRS and then follow the process set forth in the March 12, 2012, request for information, to determine whether any additional regulatory action is needed.” It makes sense that including the much larger Hosgri fault and the Shoreline fault in the re-evaluation will likely result in a seismic hazard that exceeds the DDE, even after accounting for the low frequency of occurrence of such a large earthquake.

The NRC's request in no way reflects negatively on the level of safety assurance provided by the current design basis and actual construction of US plants. The results will not invalidate the original analyses. Instead, they are intended to be used to assess the current level of seismic safety across the entire industry by taking advantage of advances in seismic evaluation techniques and much more seismic data, and to determine whether further regulatory action is needed. For example, if new information is uncovered that would suggest the Shoreline fault is more capable than currently believed, the NRC expects that the licensee will provide an evaluation that describes actions DCPD has taken or plans to take to address the higher seismic hazard relative to its design basis. The NRC staff will independently assess the new information and determine if it changes the staff's current position that ground motion associated with the Shoreline fault is at or below the HE.

13. What specific seismic studies is PG&E conducting?

In general there are two types of data. There is data that can help you better characterize the seismic sources (faults) and there is data that can help you better characterize the ground motions (shaking at the site).

Specific new studies being conducted by PG&E for seismic source characterization (most have already occurred):

- Onshore 2D/3D Seismic Reflection Surveys
- Onshore Geologic Mapping
- Onshore Light Detection and Ranging (LiDAR) Mapping (topographic mapping)
- Offshore Multi Beam Echo Sounds (MBES) Mapping (of the sea floor)
- Offshore 2D/3D Low Energy Seismic Reflection Surveys
- Potential Field Mapping (gravity and magnetic surveys)

Specific new studies being conducted by PG&E for ground motion characterization:

- Ocean Bottom Seismometers
- New seismic station near power block to record small earthquakes
- Finite Fault Simulations and Dynamic Rupture Models (working with various research groups including the Southern California Earthquake Center – SCEC and the Pacific Earthquake Engineering Research Center - PEER)

14. What is the status of the 3D mapping?

PG&E has completed low-energy two-dimensional (2D) and three-dimensional (3D) seismic mapping, along with high-energy 3D seismic on-shore mapping. The issue is with the offshore high-energy 3D mapping. In order to perform the offshore high-energy 3D testing, PG&E needed to obtain 12 permits from State and Federal agencies. In November 2012, the California Coastal Commission rejected the permit request for the high-energy 3D offshore mapping. PG&E is now considering whether to conclude that its obligation to the state has been met and pursue final certification (Coastal Consistency Certification).

15. Why did the Coastal Commission reject the permit?

The seismic surveys rely on the use of air guns to generate high energy acoustic pulses capable of passing through ocean waters and penetrating from six to nine miles into the seafloor. The key Coastal Commission issue of concern was the project's significant and unavoidable impacts to marine resources. Specifically, seismic surveys are among the very loudest anthropogenic underwater sound sources and can cause disturbance, injury, and loss of a large number of marine species due to air gun noise. The California Coastal Commission ultimately denied the permit application due to the potential detrimental effects to marine mammals and other wildlife in the area.

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Non-Responsive Record

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DCPP Licensing Basis Verification Project (LBVP)

[From Licensee Status Briefing in August 2012,
& Updated in Sept. 2013 for new RA briefing]

Purpose

The primary purpose of the Licensing Basis Verification Project (LBVP) is to perform an objective evaluation to determine if the DCPD licensing basis has been adequately maintained, and to correct any identified deficiencies. Additional goals are to provide an enhanced FSAR with clear current licensing basis (CLB) defined for plant personnel, and to enhance knowledge transfer of the Diablo Canyon Power Plant Current Licensing Basis.

Objectives

1. Evaluate facility and analysis changes since completion of Amendment 85 of the original FSAR in 1980 through the current revision of the FSAR update
2. Evaluate the adequacy of the 10 CFR 50.59 evaluations
3. Determine and document DCPD's committed compliance with 10 CFR 50, Appendix A, "General Design Criteria and Division I Regulatory Guides for Power Reactors.
4. Correct any licensing basis deficiencies discovered.
5. Correct any deficiencies in the licensing basis searchable document databases.
6. Improve the current licensing basis full-text search capabilities.
7. Perform component design basis reviews of eight selected systems, after the completion of the licensing basis verification and correction of any deficiencies in these systems.
8. Provide an updated tool to aid in operability determinations.

Who Is Involved with the LBVP?

PG&E Oversight with work done by Chicago Bridge and Iron (CB&I – formerly Shaw, Stone & Webster), partnered with Westinghouse (DCPD NSSS Supplier). CB&I has the lead. Westinghouse is responsible for various FSAR sections including Accident Analysis Chapter 15, RCS, RHR, Reactor, and others.

- Phase I (February – October 2010)
Phase I of the LBVP reviewed and evaluated design and analysis changes to the Component Cooling Water (CCW) and Auxiliary Feedwater (AFW) systems.
- Phase II (September 2010 – 2015)
Phase II of the LBVP is evaluating all the remaining licensing basis changes. The methodology of Phase II will be to adjust to the revised scope based on the Phase I

findings, lessons learned, and recommendations, all of which was addressed in the Phase I summary Report.

Licensing Basis Reviews (signed off by PG&E):

Establish the licensing basis requirements (e.g., General Design Criteria, Reg. Guides, Generic Letters, etc.) along with the source documents (PG&E specific commitments in letters, etc.). Draft FSAR revision with licensing basis requirements. LBR reviewed internally by PG&E and by an Independent Review Board.

System Reviews

Following the LBR, validate the licensing basis requirements and FSAR implementation into plant documents (design documents, procedures, WCAPs, drawings, calculations). Finalize FSAR/DCM revisions. FSAR revisions will include identification of the source and implementing documents. System Review reviewed internally by PG&E and by an Independent Review Board.

Component Design Basis Reviews: (8 systems chosen):

Status

- Component Cooling Water - complete
- 230-kV System - complete
- 500-kV System - complete
- Emergency Diesel Generator – in progress
- Auxiliary Feedwater System - finished following the LBR and System Review
- Auxiliary Salt Water System - finished following the LBR and System Review
- SSPS System - finished following the LBR and System Review
- Residual Heat Removal - finished following the LBR and System Review

Corrective Action Program Update

Over 1000 SAP Notifications have been initiated to date. Six potential LARs being reviewed by PG&E staff.

Enhanced FSAR Update

The FSARU Enhancement is a synthesis of three other licensing bases document sets:

- The Safety Evaluation Report and its supplements
- NRC letters to PG&E
- And PG&E letters to the NRC.

Current schedule

DCPP committed to the NRC to complete the LBVP by 12/31/2015. Completion clarified in document DCL-12-003 as follows: Completion of LBVP Phase II includes completion of applicable licensing basis reviews, system reviews, component design basis report reviews, electronic database upgrades, implementation of new current licensing basis search tools, and correction of licensing basis deficiencies that do not require prior NRC approval. In addition, completion of LBVP Phase II includes submittal of License

Amendment Requests (LARs) and initiating design changes. The completion of the design changes and the receipt of approved LARs will extend beyond the completion date of December 31, 2015.

NRC Conclusions (as of Sept. 2013)

1. The licensee is performing a good review of their Licensing Basis.
2. They are identifying and correcting errors.
3. They continue to evaluate and improve the LBVP process
4. The process is not perfect. The NRC is still identifying problems with Licensing Basis Documents and how the licensee implements their licensing basis.
5. The Summer 2013 Component Design Basis Inspection (Inspection Report 2013-007) noted a significant improvement in Licensing Basis Documents at the site.

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Non-Responsive Record

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Public Cancer Risks

Refer to “Communications Plan: Analysis of Cancer Risks in Populations Living Near Nuclear Facilities – Phase 2 Pilot Studies” ([ML13274A664](#)), maintained by RES, for the most current information.

The following Q&As noted are likely to be of particular interest to DCPD stakeholders (page number in RES communication plan indicated):

Page 9:

- Q1. Why has the U.S. Nuclear Regulatory Commission (NRC) asked the National Academy of Sciences (NAS) to conduct this study now?
- Q3. Which seven sites will be included in the pilot study?
- Q4. Which additional nuclear facilities could be included in the study?

Page 10:

- Q6. Does the NRC suspect that cancer mortality rates are elevated around nuclear power plants?
- Q7. How can I be sure that the nuclear power plant is not causing cancer? If I lived near a power plant, how might I be exposed to radiation? For example, if my house is 2 miles away from a reactor, am I being exposed whenever I am at my house?

Page 11:

- Q11. I live near a nuclear power plant and my husband died of cancer. Will this study prove that living near the plant caused the cancer?
- Q14. Why do some local cancer studies around some nuclear plants show increased cancer rates and some show no increase?

Page 12:

- Q17. What will the NRC do if the results indicate an increase in cancer risk in some populations that live near a specific nuclear facility?

Page 13:

- Q21. How does the NRC ensure the validity of the licensee’s reporting of off-site doses and environmental monitoring results?

Page 15:

- Q23. Where can the public find more information on the study?

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Emergency Preparedness Concerns

Background

In November 2005, Diablo Canyon Power Plant revised its emergency plan without prior NRC approval. This change removed a table used to assist in making protective action recommendations to the offsite authorities during an emergency event. The change resulted in developing protective action recommendations directly from specific protective action zones, which did not explicitly identify the ocean areas. Therefore, this change to the emergency plan reduced the effectiveness of the plan and required NRC approval prior to implementation. This issue is currently being evaluated using our significance determination process and through traditional enforcement. The preliminary determination is a Severity Level III with an associated White finding, but that is subject to change following further review. A choice letter has NOT been issued.

Key Messages

- The licensee made a change to an emergency plan procedure that inadvertently removed the ocean from a table that provided guidance on making protective action recommendations.
- The individuals responsible for making protective action recommendations are highly trained and qualified individuals (they are senior reactor operators so they have to go through a rigorous training and evaluation process to obtain a license and must undergo continuing training and periodic evaluation to maintain the license).
- The licensee recommends protective actions to the state and local officials, who make the actual call about what protective actions to take.
- The county had procedures in place that included evaluating the ocean for evacuation.
- Therefore, at no time was the public going to be allowed to stay in an area that had the potential for radioactivity if an event had occurred.
- This is a preliminary determination, is still undergoing evaluation through our processes, and is subject to change upon further review.

Questions and Answers

Under development.

From: Dudek, Michael
Sent: Friday, August 29, 2014 4:57 PM
To: Gilles, Nanette
Subject: RE: Diablo Canyon Shoreline Fault

Will do. We are still working on it. Tuesday.

Sent from an NRC Blackberry
Michael I. Dudek

(b)(6)

From: Gilles, Nanette
Sent: Friday, August 29, 2014 03:55 PM Eastern Standard Time
To: Dudek, Michael; Rosales-Cooper, Cindy
Subject: RE: Diablo Canyon Shoreline Fault

When the staff has decided who will attend this briefing, please send me the list of attendees.

Thanks,
Nan

From: Dudek, Michael
Sent: Friday, August 29, 2014 12:41 PM
To: Gilles, Nanette
Subject: RE: Diablo Canyon Shoreline Fault

Nan: The staff has asked a couple of follow-up questions regarding, specifically, what the Chairman is looking for in the requested briefing next week. Does the Chairman want the history of the DPR/ Diablo seismic/ etc.; or does she want an overview of the staff's technical reviews to date?

Any insights that can be provided on this briefing would be greatly appreciated.

Respectfully,
Michael I. Dudek

Michael I. Dudek | OEDO Executive Technical Assistant | U.S. NRC
✉: Michael.Dudek@nrc.gov | ☎: (301) 415-6500 | BB: (b)(6)

From: Gilles, Nanette
Sent: Thursday, August 28, 2014 11:55 AM
To: Dudek, Michael
Cc: Goode, Catina
Subject: RE: Diablo Canyon Shoreline Fault

Mike,

Ignore my last e-mail. I misread your note. I now see that it is the staff that is trying to get access to the report through the e-portal.

As we discussed on the phone, the Chairman would like clarification regarding whether the study commissioned by the State is publicly available or is expected to be made publicly available this week.

In addition, the Chairman requests a briefing by the staff's seismology experts – Cliff Munson, Jon Ake, and Dojan (not sure of last name) next week regarding the DPO and the new data from the State-commissioned study. Please work with Catina to find an appropriate time on the Chairman's calendar that the staff can support.

Thanks,
Nan

Nanette V. Gilles
Policy Advisor for Reactors
Office of Chairman Macfarlane
U.S. Nuclear Regulatory Commission
301-415-1830

From: Gilles, Nanette
Sent: Thursday, August 28, 2014 10:38 AM
To: Dudek, Michael
Subject: RE: Diablo Canyon Shoreline Fault

Thanks, Mike. Very interesting that the State commissioned the study, yet they don't have access to the report. I'd appreciate any additional information that you get.

From: Dudek, Michael
Sent: Thursday, August 28, 2014 10:35 AM
To: Gilles, Nanette
Subject: RE: Diablo Canyon Shoreline Fault

Morning Nan!

The "new data" comes from a study commissioned by the State of CA. The staff has not seen it (yet), but they are trying to get a preview of the report today. They are currently in discussions with PG&E requesting access to the report thru a secure web portal. As more details become available, I will pass them along.

Hope this help. Please let me know if you need any additional information.

Michael I. Dudek
Michael I. Dudek | OEDO Executive Technical Assistant | U.S. NRC
✉: Michael.Dudek@nrc.gov | ☎: (301) 415-6500 | BB: (b)(6)

From: Gilles, Nanette
Sent: Thursday, August 28, 2014 9:52 AM
To: Dudek, Michael
Subject: Diablo Canyon Shoreline Fault

Mike,

Shana said that there was some discussion at the morning meeting with the EDO regarding a letter that PG&E is expected to send to the state of CA around Sept. 9th that will state that they have identified higher ground motions from the Shoreline Fault than originally reported, although those ground motions are still bounded by the Hosgri EQ. Can you find out where this new data came from and whether the staff has seen it?

Thanks,
Nan

Nanette V. Gilles
Policy Advisor for Reactors
Office of Chairman Macfarlane
U.S. Nuclear Regulatory Commission
301-415-1830

From: West, Steven
Sent: Friday, August 29, 2014 4:32 PM
To: Rosales-Cooper, Cindy; Rini, Brett; Sheron, Brian
Cc: Zimmerman, Roy; Brock, Kathryn
Subject: RE: Heads Up: Chairman Briefing Request on Diablo Canyon DPO and Seismic Info

Cindy,

I don't need anything more. I just wanted to make sure we had considered whether or not Mike should attend. Since you're confident the Chairman's interest in the DPO only involves process, you've done that. Thanks for getting back to me.

Have a great holiday.

Steve

From: Rosales-Cooper, Cindy
Sent: Friday, August 29, 2014 4:09 PM
To: Rini, Brett; West, Steven; Sheron, Brian
Cc: Zimmerman, Roy; Brock, Kathryn
Subject: RE: Heads Up: Chairman Briefing Request on Diablo Canyon DPO and Seismic Info

Steve/Brian/Brett,

The EDO and Roy don't think it is necessary for Mike Case to participate. They believe that it is best to let Renee Pedersen handle any DPO process related questions the Chairman may raise. The EDO and Roy made this decision after we heard from Nan Gilles that the Chairman wants to hear from the seismic experts, Cliff and Jon, and also have someone to provide information related to the DPO process.

I can call you on Tuesday to explain further if you'd like.

Cindy

From: Rini, Brett
Sent: Friday, August 29, 2014 1:27 PM
To: Rosales-Cooper, Cindy
Subject: FW: Heads Up: Chairman Briefing Request on Diablo Canyon DPO and Seismic Info

Cindy,

Please see Steve's e-mail below and talk to Dudek about whether Mike Case should participate.

Thanks,

Brett

From: West, Steven
Sent: Friday, August 29, 2014 1:26 PM
To: Rini, Brett; Thomas, Brian; Burke, John
Cc: Case, Michael; Sheron, Brian; Iyengar, Raj
Subject: RE: Heads Up: Chairman Briefing Request on Diablo Canyon DPO and Seismic Info

Please make sure Cindy knows that Mike Case chaired the DPO panel and make an explicit determination about whether or not Mike should attend the briefing.

Steve

From: Rini, Brett
Sent: Friday, August 29, 2014 11:05 AM
To: Thomas, Brian; Burke, John
Cc: Case, Michael; Sheron, Brian; West, Steven; Iyengar, Raj
Subject: Heads Up: Chairman Briefing Request on Diablo Canyon DPO and Seismic Info

Brian T, John,

FYI, the Chairman has asked for a briefing next week on Diablo Canyon from the seismic folks. Jon Ake is listed below in the OEDO request. NRR has the lead. Please ensure RES is involved where necessary.

Mike, CCing you for awareness related to the DPO.

Brett

From: Rosales-Cooper, Cindy
Sent: Friday, August 29, 2014 11:02 AM
To: Rini, Brett
Subject: FW: Chairman Briefing Request

RES to participate?

From: Dudek, Michael
Sent: Friday, August 29, 2014 11:01 AM
To: Markley, Michael; Walker, Wayne
Cc: Jackson, Diane; Rosales-Cooper, Cindy; Munson, Clifford; Ake, Jon; Franovich, Mike; Whaley, Sheena; Sebrosky, Joseph; Campbell, Andy; Kock, Andrea; Flanders, Scott
Subject: Chairman Briefing Request

Morning Mike, Wayne! With all of the focus this week on the Diablo Canyon DPO and the new data from the State-commissioned study, I have gotten a request that the Chairman would like a briefing by the staff's seismology experts – Cliff Munson, Jon Ake, etc. The Chairman would like this as soon as next week.

Request 1 – Can you please coordinate with the applicable folks and provide me with a plan of action?

Request 2 – Can you please review the provided date/ times and recommend one that works for the staff. The Chairman is available next week for this briefing:

- Thursday, September 4th, 9:30am – 10:00am, or
- Thursday, September 4th, 3:30pm – 4:00pm.

Apologies for the short turnaround!

Respectfully,

Michael I. Dudek

Michael I. Dudek | OEDO Executive Technical Assistant | U.S. NRC

✉: Michael.Dudek@nrc.gov | ☎: (301) 415-6500 | BB: (b)(6)

From: Zimmerman, Roy
Sent: Friday, August 29, 2014 2:05 PM
To: Satorius, Mark; Rosales-Cooper, Cindy; Johnson, Michael
Cc: Dudek, Michael; Brock, Kathryn; Galloway, Melanie; Sampson, Michele
Subject: RE: Heads Up: Chairman Briefing Request on Diablo Canyon DPO and Seismic Info

Your point is valid that although the Panel's report is done, the DPO is open until the appeal is complete and you can always ask the Panel to do more.....although appears unlikely. Being that the Chairman wants to hear about the DPO it can be handled successfully without a DPO panelists involvement, but would be more challenging. Asking Renee is a sound move.

From: Satorius, Mark
Sent: Friday, August 29, 2014 1:58 PM
To: Zimmerman, Roy; Rosales-Cooper, Cindy; Johnson, Michael
Cc: Dudek, Michael; Brock, Kathryn; Galloway, Melanie; Sampson, Michele
Subject: RE: Heads Up: Chairman Briefing Request on Diablo Canyon DPO and Seismic Info

I don't disagree, however, the DPO will not be finished when the chairman briefing takes place.

From: Zimmerman, Roy
Sent: Friday, August 29, 2014 1:54 PM
To: Rosales-Cooper, Cindy; Satorius, Mark; Johnson, Michael
Cc: Dudek, Michael; Brock, Kathryn; Galloway, Melanie
Subject: RE: Heads Up: Chairman Briefing Request on Diablo Canyon DPO and Seismic Info

I'll weigh in first. I don't see a problem with Mike attending and see some benefit. I would have had a problem if the DPO was not complete. It would not be appropriate to have any detailed discussion on the appeal details as that is a work in progress.

From: Rosales-Cooper, Cindy
Sent: Friday, August 29, 2014 1:30 PM
To: Satorius, Mark; Johnson, Michael; Zimmerman, Roy
Cc: Dudek, Michael; Brock, Kathryn; Galloway, Melanie
Subject: FW: Heads Up: Chairman Briefing Request on Diablo Canyon DPO and Seismic Info

Mark/Roy/Mike,
Steve West has asked that an explicit determination be made about whether or not Mike Case should participate in the Chairman's briefing. Mike Case chaired the DPO panel.

Thanks,
Cindy

From: West, Steven
Sent: Friday, August 29, 2014 1:26 PM
To: Rini, Brett; Thomas, Brian; Burke, John
Cc: Case, Michael; Sheron, Brian; Iyengar, Raj
Subject: RE: Heads Up: Chairman Briefing Request on Diablo Canyon DPO and Seismic Info

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Steve

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Cc: Jackson, Diane; Rosales-Cooper, Cindy; Munson, Clifford; Ake, Jon; Franovich, Mike; Whaley, Sheena; Sebrosky, Joseph; Campbell, Andy; Kock, Andrea; Flanders, Scott
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Apologies for the short turnaround!

Respectfully,
Michael I. Dudek
Michael I. Dudek | OEDO Executive Technical Assistant | U.S. NRC
✉: Michael.Dudek@nrc.gov | ☎: (301) 415-6500 | BB: (b)(6)

From: Bowers, Anthony
Sent: Tuesday, September 02, 2014 12:01 PM
To: Jandovitz, John
Subject: FW: Weekly Regional Coordination Summary from OEDO - 8/29/14 - ~~Official Use Only~~ - ~~Security Related Information~~
Attachments: [Untitled].pdf

Fyi...this is a weekly summary that we are responsible for putting together and sending to the Regions on Friday. I will forward past summaries for your awareness.

From: Peduzzi, Francis
Sent: Friday, August 29, 2014 12:06 PM
To: Dean, Bill; Lew, David; McCree, Victor; Wert, Leonard; Brown, Frederick; Pederson, Cynthia; Roberts, Darrell; Dapas, Marc; Kennedy, Kriss; Dorman, Dan
Cc: Brock, Kathryn; Galloway, Melanie; Bowers, Anthony
Subject: Weekly Regional Coordination Summary from OEDO - 8/29/14 - ~~Official Use Only~~ - ~~Security Related Information~~

Good Afternoon Everyone,

Tony is out for the day so here's the weekly e-mail regarding topics/items that might be of interest to the Regions discussed here in OEDO within the last week. Your feedback is welcomed.

Items Briefed at the EDO Morning Events / Staff Meeting:

Non-Responsive Record

Operating Reactors

- Non-Responsive Record
- Non-Responsive Record
- Non-Responsive Record
- On August 27, 2014, the Nuclear News Flash article on the Senate Committee on Environment and Public Works' intent to hold a hearing on Diablo Canyon and associated seismic concerns, generated a lot of OEDO interest. The EDO scheduled an afternoon strategy meeting with RIV, NRR, OPA, OCA, and OGC to align on path forward and messaging (communication plan) to address leaked DPO, and anticipated seismic information (report) by State of California authorities.

New Reactors

N/A

Materials Users

N/A

Spent Fuel Storage & Transportation

N/A

Other:

-

Non-Responsive Record

-

Non-Responsive Record

Thanks and have a great weekend,

F. Paul Peduzzi
Executive Technical Assistant
U.S. Nuclear Regulatory Commission
Office of the Executive Director for Operations
PH: 301-415-1167
Cell: (b)(6)

From: Dudek, Michael
Sent: Tuesday, September 02, 2014 12:46 PM
To: Rosales-Cooper, Cindy
Subject: Question?? RE: summary of action items from internal meeting to discuss Diablo Canyon seismic report project plan

Cindy: Just an FYI, evidently there has been A LOT of meetings about this among the staff. The most recent of which resulted in NRR/ DORL identifying following people to support the Chairman's Briefing on Thursday: Mike Case, Cliff Munson, Neil O'Keefe, Kamal Manoly, and Mike Markley (DORL)

Comments/ concerns?!?

Michael I. Dudek | OEDO Executive Technical Assistant | U.S. NRC
✉: Michael.Dudek@nrc.gov | ☎: (301) 415-6500 | BB: (b)(6)

From: Sebrosky, Joseph
Sent: Tuesday, September 02, 2014 11:22 AM
To: Whaley, Sheena; Oesterle, Eric; Markley, Michael; Singal, Balwant; Munson, Clifford; DiFrancesco, Nicholas; Walker, Wayne; Farnholtz, Thomas; Buchanan, Theresa; Jackson, Diane; Li, Yong; Manoly, Kamal; Ake, Jon; Stovall, Scott; Bowman, Gregory; Bowen, Jeremy; Williams, Megan; Dudek, Michael; Case, Michael
Cc: Kock, Andrea; Thomas, Brian; OKeefe, Neil; Hipschman, Thomas; Alexander, Ryan
Subject: summary of action items from internal meeting to discuss Diablo Canyon seismic report project plan

To all,

The purpose of this email is to summarize the action items that came out of the meeting described below associated with Diablo Canyon seismic issues. The action items that resulted from the meeting are as follows:

- Draft Project Plan to Review State of California report
 - By COB on 9/2 NRO to provide a list of information needs from PG&E to support an assessment of changes to seismic core damage frequency (consistent with CEUS process) or the alternative approach to provide a list of equipment that is of concern and its seismic capacity in the 20 to 40 Hz range.
 - By mid afternoon on 9/3 DORL provides list to PG&E and request made on whether or not they can provide the information by 9/22
 - By end of the week draft project plan updated to include the following:
 - Changes to draft milestones based on feedback from PG&E on time frame for information needs
 - Reflect that the state of California report will most likely include updated information for faults other than the Shoreline fault and the staff's review will not be based on changes to information on the Shoreline fault but changes to faults like the San Luis Bay and Los Osos faults that were discussed in the PG&E's 2011 report and the staff's 2012 evaluation.
 - Include a request that the folks that are to get access to the State of California report through the electronic reading room two days prior to its release are:
 - Megan Williams (RIV), Cliff Munson (NRO), Scott Stovall (RES), and Yong Li (NRR/DE)

- Chairman Briefing
 - DORL has the action to come up with the talking points for the 9/4/14 scheduled briefing of the Chairman.
 - DORL has the action to work with the following people that have been identified to support the briefing: Mike Case, Cliff Munson, Neil O'Keefe, Kamal Manoly, and Mike Markley (DORL)

Let me know if I missed something or if you have any questions.

Thanks,

Joe

-----Original Appointment-----

From: Sebrosky, Joseph

Sent: Friday, August 29, 2014 11:55 AM

To: Sebrosky, Joseph; Whaley, Sheena; Oesterle, Eric; Markley, Michael; Singal, Balwant; Munson, Clifford; DiFrancesco, Nicholas; Walker, Wayne; Farnholtz, Thomas; Buchanan, Theresa; Jackson, Diane; Li, Yong; Manoly, Kamal; Ake, Jon; Stovall, Scott; Bowman, Gregory

Cc: Kock, Andrea; Thomas, Brian; OKeefe, Neil; Hipschman, Thomas; Alexander, Ryan

Subject: internal meeting to discuss Diablo Canyon seismic report project plan

When: Tuesday, September 02, 2014 9:30 AM-10:00 AM (UTC-05:00) Eastern Time (US & Canada).

Where: HQ-OWFN-11B02-12p

Scheduler updated to include latest information regarding Chairman briefing, which will be discussed during the status of other items



8/29/2014
Chairman
Briefing Request

Scheduler updated to include additional RES members and others and to provide email below from Jon Ake regarding possible near term information needs from PG&E regarding new seismic information and to add a new agenda item to discuss the status of related items



A few thoughts
Bridge Line

Bridgeline has been arranged

Number: 888-677-0690

Passcode: (b)(6)

Purpose: Internal meeting with key management and technical staff to discuss draft project plan to review Diablo Canyon seismic report, identify changes to the plan and confirm near-term milestones, and to provide status of related items

Outcome: Changes identified, near term actions confirmed

Agenda:

BEST AVAILABLE COPY

I. Draft Project plan



Display Name of
California act...

II. Identification of Changes that need to be made

III. Near term activities

- a. NRC identifies information needs to perform CEUS study
- b. Identification of individual to be granted electronic reading room access on 9/8 to review the report prior to its public release on 9/10
- c. Identification of available resources including whether or not John Stamatakos can be used

IV. Other issues

- a. Status of Communication plan
- b. Status of Chairman briefing
- c. Status of Petition
- d. Congressional request for report

V. Next steps

VI. Wrapup

Project Plan for NRC Staff Review of PG&E's Report to the State of California Regarding Seismic Faults Near the Diablo Canyon Power Plant

9/3/14 Version

NOTE: This is a living document and will be updated as necessary. Please note the date on the cover.

Document Point of Contacts:

Joseph.Sebrosky@nrc.gov

Nick.DiFrancesco@nrc.gov



Japan Lessons Learned

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PURPOSE OF THE REVIEW OF THE STATE OF CALIFORNIA REPORT

This project plan documents steps necessary for NRC staff to quickly assess the information found in the report provided by Pacific Gas and Electric (PG&E) to the State of California related to Seismic Faults near the Diablo Canyon Power Plant (DCPP). The purpose of the assessment is to determine what, if any, changes need to be made to the approach outlined in the March 12, 2012, request for information associated with new seismic information (see ADAMS Accession No., [ML12053A340](#))

BACKGROUND

California Assembly Bill 1632 (Blakeslee, Chapter 722, Statutes of 2006) directs the California Energy Commission to assess the potential vulnerability of California's largest baseload power plants, Diablo Canyon Power Plant and San Onofre Nuclear Generating Station to a major disruption due to a seismic event or plant aging; to assess the impacts of such a disruption on system reliability, public, safety, and the economy; to assess the costs and impacts from nuclear waste accumulating at these plants; and to evaluate other major issues related to the future role of these plants in the state's energy portfolio. The licensee has used the most state of the art methodologies using 2D and 3D mapping to compile this report. This is a different and more extensive data set than what was used for in PG&E's 2011 Shoreline Fault evaluation (ADAMS Accession No. [ML110140431](#)).

Based on information that PG&E has verbally provided, PG&E has indicated that length, and magnitude of the Shoreline fault is greater than that assumed in a 2011 report provided to the NRC. PG&E has also indicated that the soil properties found in the 2011 report have also been updated based on new information. It is the staff's preliminary understanding that in addition to providing changes to the Shoreline fault characteristics that new information is provided in the State of California report relative to other faults in the area (e.g., Los Osos, and San Luis Bay).

PG&E's operability evaluation, which is available to the staff, states the following:

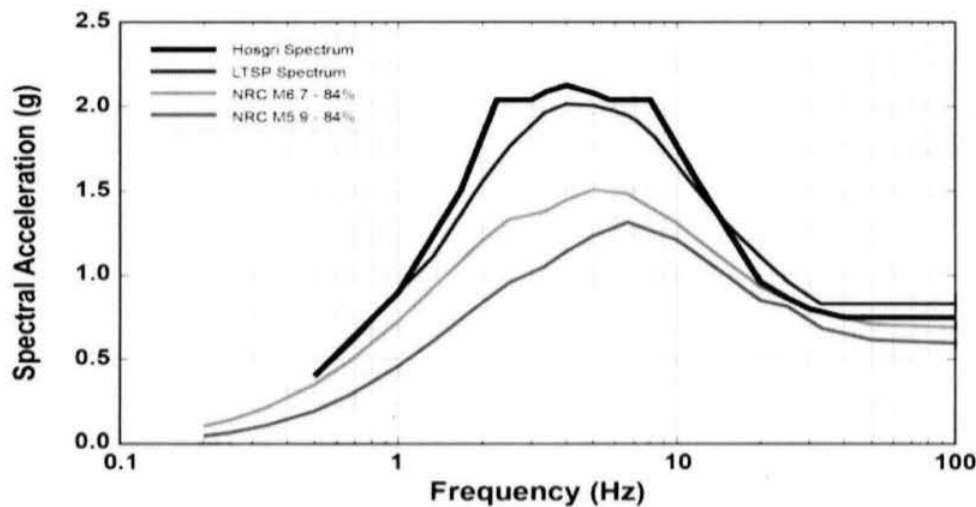
Based on the preliminary results of the studies that are under review, it has been determined that the Shoreline Fault Zone may be more capable than summarized in the January 2011 report, but the deterministic response spectra are still bounded by those for the Hosgri and LTSP earthquakes.

The staff previous evaluation of the Shoreline Fault can be found in Research Information Letter (RIL) 12-01 "Confirmatory Analysis of Seismic Hazard at the Diablo Canyon Power Plant from the Shoreline Fault Zone" (ADAMS Accession No. [ML121230035](#)). The staff's deterministic evaluation includes several scenarios and resulted in the conclusion that the Shoreline Fault is bounded by the Hosgri and LTSP spectrum. The graph below is from the RIL.

As can be seen in the graph from the RIL the staff's magnitude 6.7 earthquake scenario is essentially equal to the Hosgri spectrum in the 20 to 40 Hz range. PG&E's assessment in the 2011 report was based on a magnitude 6.5 earthquake. Based on recent conversations with PG&E they now believe that the Shoreline Fault is capable of generating a 6.7 magnitude earthquake. There are several differences in PG&E's assessment of the Shoreline Fault found in their 2011 report and the staff's assessment found in the RIL. The staff understands that PG&E believes that based on new information relative to the Shoreline Fault and soil properties in the area that Shoreline Fault deterministic ground motion response spectrum is still bounded by the Hosgri and LTSP spectrum.

The issue is the staff's review of the new information and whether the staff's deterministic evaluation in the RIL will be updated based on the new information or if an alternate approach will be used to assess the new information pending expected receipt in March 2015 of an

assessment of new seismic information in accordance with the senior seismic hazard analysis committee (SSHAC) process outlined in the March 12, 2012, 50.54(f) letter.



In addition, in the NRC's October 12, 2012, letter) transmitting the Shoreline Fault to PG&E (ADAMS Accession No. [ML120730106](#)), the NRC placed its assessment of the Shoreline Fault in context with the process outlined in the March 12, 2012 50.54(f) letter. The October 12, 2012 letter contained the following guidance relative to the discovery of new seismic information:

The NRC staff understands that the seismic evaluations described in the March 12, 2012, request for information are currently in progress at DCP, and PG&E plans to acquire new offshore and onshore two-and three-dimensional seismic reflection data to identify and characterize faults in the vicinity of DCP. If during the collection of the data, new faults are discovered or information is uncovered that would suggest the Shoreline fault is more capable than currently believed, the staff expects that the licensee 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. The staff will use this information to independently assess whether the new fault or new information related to the Shoreline fault challenges or changes the staff's current position that the motions associated with the Shoreline fault are at or below those levels of the HE and L TSP ground motions.

PG&E has been informed that based on the NRC staff's understanding that the State of California report will contain new information relative to the Shoreline Fault, the NRC staff expects PG&E to provide an interim evaluation that describes actions taken or planned to address the higher seismic evaluation.

Other Faults

The PG&E 2011 Shoreline Fault report and the staff's RIL also discuss other seismic faults near Diablo Canyon including the Los Osos and San Luis Bay faults. It is the staff's preliminary understanding that PG&E's report to the State of California will also include new information relative to these faults.

PRODUCTS TO BE REVIEWED

- PG&E report to the State of California relative to Seismic Faults near Diablo Canyon
- PG&E's interim evaluation that describes actions taken or planned to address the higher seismic hazard relative to the design basis

REVIEW PROCESS

The staff will review the new seismic information when it is provided the opportunity. Based on the new information the staff may assess the new information in accordance with the process that has recently been used for Central and Eastern U.S. (CEUS) plants that is found in a March 11, 2014, letter from EPRI (ADAMS Accession No. [ML14083A586](#)).

The proposed milestones and timeframes for reviewing PG&E's report are as follows based on the assumption that the report will be publicly released on September 10, 2014.

Timeframe	Action	Responsible Party(ies)
Sept 3	NRC staff identifies information that it will quickly need from PG&E to support a possible review in accordance with the process found in the CEUS study above. PG&E will be asked to provide feedback on whether or not it can provide information by Sept 22.	NRC review team
Sept 8	PG&E provides feedback to the staff on whether or not it can provide information to the staff by Sept 22	PG&E
Sept 8	Key NRC review team members review the State of California report prior to its public release. Changes to the project plan and communication plan are identified	NRC review team
Sept 10	PG&E provides report and interim evaluation to the NRC	PG&E
Sept 15	NRC identifies any additional information needs that it has to complete its preliminary evaluation	NRC review team
Sept 22	PG&E completes providing NRC staff with information necessary for the staff to complete its preliminary evaluation	PG&E
Sept 29	NRC review team completes its preliminary assessment of new Shoreline fault information and makes recommendation to management on how to proceed	NRC review team
October 3	NRC management makes decision on how to proceed	NRC management

REVIEW TEAM

The following are the proposed members of the review team subject to management approval

NRR Projects: Eric Oesterle, Balwant Singal, Joe Sebrosky, Nick DiFrancesco

NRR technical: Kamal Manoly, Yong Li

NRO technical: Cliff Munson, Britt Hill, John Stamatakos (contractor)

RES: Jon Ake

Region IV: Wayne Walker, Theresa Buchanan, Megan Williams, Tom Hipschman

COMMUNICATION PLAN

A communication plan has been developed for the PG&E report. The NRC review team will update the communication plan based on its assessment of the new information.

From: Dudek, Michael
Sent: Wednesday, September 03, 2014 11:38 AM
To: Bowers, Anthony
Subject: FW: Diablo Canyon Shoreline Fault

Michael I. Dudek | OEDO Executive Technical Assistant | U.S. NRC
✉: Michael.Dudek@nrc.gov | ☎: (301) 415-6500 | BB: (b)(6)

From: Gilles, Nanette
Sent: Friday, August 29, 2014 1:59 PM
To: Dudek, Michael
Subject: RE: Diablo Canyon Shoreline Fault

The Chairman wants to understand exactly what Mr. Peck was taking issue with in his DPO. We've heard over and over that he did not have a safety concern, yet that isn't how it is being presented in (most of) the media. She also wants to understand, **from a technical standpoint**, what the State-commissioned study did differently that resulted in the conclusion that the Shoreline Fault is more capable than previously thought and why we can still say that it is bounded by Hosgri.

I suggest staff also be ready to address the current licensing basis and our basis for saying that the Shoreline Fault was bounded by the Hosgri fault, if asked. For example, the draft Comm Plan says:

The NRC's independent evaluation, documented in RIL 2012-01, concluded that there is very little evidence that the Shoreline fault has ever been active. While its size was used to create a worst reasonable case ground motion curve, the region shows only some symptoms of a fault. There is no evidence that there is slippage, which would indicate this was an active fault in the past. Therefore, it is reasonable to bound the Shoreline fault by the LTSP/Hosgri method.

This makes it sound like, because we don't think the Shoreline fault was really ever active, we can "therefore" bound it by the Hosgri method. I suspect there's more to it.

From: Dudek, Michael
Sent: Friday, August 29, 2014 12:41 PM
To: Gilles, Nanette
Subject: RE: Diablo Canyon Shoreline Fault

Nan: The staff has asked a couple of follow-up questions regarding, specifically, what the Chairman is looking for in the requested briefing next week. Does the Chairman want the history of the DPR/ Diablo seismic/ etc.; or does she want an overview of the staff's technical reviews to date?

Any insights that can be provided on this briefing would be greatly appreciated.

Respectfully,
Michael I. Dudek
Michael I. Dudek | OEDO Executive Technical Assistant | U.S. NRC
✉: Michael.Dudek@nrc.gov | ☎: (301) 415-6500 | BB: (b)(6)

From: Gilles, Nanette
Sent: Thursday, August 28, 2014 11:55 AM

To: Dudek, Michael
Cc: Goode, Catina
Subject: RE: Diablo Canyon Shoreline Fault

Mike,

Ignore my last e-mail. I misread your note. I now see that it is the staff that is trying to get access to the report through the e-portal.

As we discussed on the phone, the Chairman would like clarification regarding whether the study commissioned by the State is publicly available or is expected to be made publicly available this week.

In addition, the Chairman requests a briefing by the staff's seismology experts – Cliff Munson, Jon Ake, and Dojan (not sure of last name) next week regarding the DPO and the new data from the State-commissioned study. Please work with Catina to find an appropriate time on the Chairman's calendar that the staff can support.

Thanks,
Nan

Nanette V. Gilles
Policy Advisor for Reactors
Office of Chairman Macfarlane
U.S. Nuclear Regulatory Commission
301-415-1830

From: Gilles, Nanette
Sent: Thursday, August 28, 2014 10:38 AM
To: Dudek, Michael
Subject: RE: Diablo Canyon Shoreline Fault

Thanks, Mike. Very interesting that the State commissioned the study, yet they don't have access to the report. I'd appreciate any additional information that you get.

From: Dudek, Michael
Sent: Thursday, August 28, 2014 10:35 AM
To: Gilles, Nanette
Subject: RE: Diablo Canyon Shoreline Fault

Morning Nan!

The "new data" comes from a study commissioned by the State of CA. The staff has not seen it (yet), but they are trying to get a preview of the report today. They are currently in discussions with PG&E requesting access to the report thru a secure web portal. As more details become available, I will pass them along.

Hope this help. Please let me know if you need any additional information.

Michael I. Dudek
Michael I. Dudek | OEDO Executive Technical Assistant | U.S. NRC
✉: Michael.Dudek@nrc.gov | ☎: (301) 415-6500 | BB: (b)(6)

From: Gilles, Nanette
Sent: Thursday, August 28, 2014 9:52 AM
To: Dudek, Michael
Subject: Diablo Canyon Shoreline Fault

Mike,

Shana said that there was some discussion at the morning meeting with the EDO regarding a letter that PG&E is expected to send to the state of CA around Sept. 9th that will state that they have identified higher ground motions from the Shoreline Fault than originally reported, although those ground motions are still bounded by the Hosgri EQ. Can you find out where this new data came from and whether the staff has seen it?

Thanks,
Nan

Nanette V. Gilles
Policy Advisor for Reactors
Office of Chairman Macfarlane
U.S. Nuclear Regulatory Commission
301-415-1830

From: Dudek, Michael
Sent: Wednesday, September 03, 2014 8:42 AM
To: Sebrosky, Joseph; Markley, Michael; OKeefe, Neil; Kanatas, Catherine; Munson, Clifford; Manoly, Kamal; Stovall, Scott
Cc: Case, Michael
Subject: RE: info: update on status of 9/4/14 chairman briefing on Diablo seismic issues

Good morning! I discussed this briefing today at the 7:45am OEDO morning meeting and received no dissention from Mike Johnson, Roy Zimmerman, or Mike Weber regarding the staff's path forward (approach or proposed presenters discussed below). Scott Stovall should attend in lieu of Mike Case per Mark Satorius' direction.

I have also coordinated with Joe Sebrosky and will distribute the final version of the presentation to the OEDO when it is available.

Thank you all for your excellent coordination on this! Very much appreciated!

Michael I. Dudek

Michael I. Dudek | OEDO Executive Technical Assistant | U.S. NRC

✉: Michael.Dudek@nrc.gov | ☎: (301) 415-6500 | BB: (b)(6)

From: Sebrosky, Joseph
Sent: Wednesday, September 03, 2014 5:14 AM
To: Markley, Michael; OKeefe, Neil; Kanatas, Catherine; Munson, Clifford; Manoly, Kamal; Stovall, Scott
Cc: Case, Michael; Dudek, Michael
Subject: RE: info: update on status of 9/4/14 chairman briefing on Diablo seismic issues

Mike Markely,

EDO and DEDO level are the level of management that expressed concern. Mike Dudek is supposed to check with Mike Johnson this morning on the approach and let us know if there are any issues with the proposal below.

Mike Dudek - let me know if I am missing something.

Thanks,

Joe

From: Markley, Michael
Sent: Tuesday, September 02, 2014 3:34 PM
To: Sebrosky, Joseph; OKeefe, Neil; Kanatas, Catherine; Munson, Clifford; Manoly, Kamal; Stovall, Scott
Cc: Case, Michael; Dudek, Michael
Subject: RE: info: update on status of 9/4/14 chairman briefing on Diablo seismic issues

Mike Case called. He is fine with giving the DPO portion. At what level of management objection was expressed? Mike will support if needed but sees no major problem of supporting this as the spokesperson on the DPO.

From: Sebrosky, Joseph
Sent: Tuesday, September 02, 2014 2:37 PM

To: OKeefe, Neil; Kanatas, Catherine; Munson, Clifford; Manoly, Kamal; Markley, Michael; Stovall, Scott

Cc: Case, Michael; Dudek, Michael

Subject: info: update on status of 9/4/14 chairman briefing on Diablo seismic issues

To all,

The purpose of this email is to provide you with an update on the status of the 9/4/14 Chairman briefing on diablo seismic issues.

- Senior management has expressed a concern that it may not be appropriate for a member of the DPO panel to brief the Chairman because the decision is not yet finalized.
- The thought is that Neil O'Keefe, who was involved in dispositioning a DPV with similar issues, will brief the Chairman on the DPV and available information in ADAMS on the DPO.
 - If this decision is approved by the senior management, Neil will provide the bullets by 1:00 pm eastern tomorrow for the DPV/DPO portion of the briefing (this has been discussed with Neil)
 - I will work with DORL to develop the bullets for the State of California report that is embedded in the attached request from Mike Dudek.
 - You will be provided a consolidated list of bullets by 1:00 pm tomorrow, with the thought that all comments are provided by COB tomorrow.
 - Comments will be addressed and a revised version provided to you early Thursday morning.
- Cathy Kanatas of OGC will be attending the briefing.
- Renee Pederson has also requested to attend the briefing
- RES will have a rep at the briefing in lieu of Mike Case, this will most likely be Scott Stovall.
- Bottom line is that the proposed participants for the tentatively scheduled briefing at 9:15 on Thursday will be: Neil O'Keefe (RIV), Cathy Kanatas (OGC), Cliff Munson (NRO), Kamal Manoly (NRR/DE), Mike Markley (DORL), Scott Stovall (RES), and possibly Renee Pedersen (OE).

Once the plan has been discussed and approved by senior management I will send out an email to a broader audience letting them know this is the plan. For now, I thought it appropriate that the people being considered for the briefing are aware of the revised plan.

Let me know if I am missing something or if you have any questions.

Thanks,

Joe Sebrosky
Senior Project Manager
Japan Lessons-Learned Division
Office of Nuclear Reactor Regulation
joseph.sebrosky@nrc.gov
301-415-1132

From: Weber, Michael
Sent: Wednesday, September 03, 2014 6:14 PM
To: Ash, Darren; Carpenter, Cynthia; Cohen, Miriam; Dapas, Marc; Dean, Bill; Dorman, Dan; Flanagan, James; Galloway, Melanie; Haney, Catherine; Holahan, Patricia; Holian, Brian; Johnson, Michael; Mamish, Nader; McCrary, Cheryl; McCree, Victor; Ordaz, Vonna; Pederson, Cynthia; Rich, Thomas; Satorius, Mark; Sheron, Brian; Tracy, Glenn; Wiggins, Jim; Wylie, Maureen; Zimmerman, Roy
Subject: FYI - BIWEEKLY MEETING WITH THE CHAIRMAN (OUO - ~~SENSITIVE INTERNAL INFORMATION~~)

~~OFFICIAL USE ONLY - SENSITIVE INTERNAL INFORMATION~~

Good afternoon. Earlier today, Michael Johnson, Darren, Roy, and I met with the Chairman and her staff for a biweekly update meeting.

Non-Responsive Record

The Chairman next inquired about the status of the EDO's review of the appeal on the Differing Professional Opinion regarding seismic risks at Diablo Canyon. We noted that the EDO is actively reviewing the appeal and should complete his decision on schedule.

Non-Responsive Record

Non-Responsive Record

Darren updated the Chairman on the following topics:

- Non-Responsive Record
- Non-Responsive Record
- Non-Responsive Record

Roy provided the Chairman with updates on:

- [Redacted] Non-Responsive Record
- [Redacted] Non-Responsive Record
- [Redacted] Non-Responsive Record
- [Redacted] Non-Responsive Record
- [Redacted] Non-Responsive Record
- [Redacted] Non-Responsive Record
- [Redacted] Non-Responsive Record
- [Redacted] Non-Responsive Record

At the end of the meeting, I shared with the Chairman highlights from last week's meeting of the Organization of Agreement States and the general status of Project Aim 2020.

That's all. Enjoy your day!

~~OFFICIAL USE ONLY - SENSITIVE INTERNAL INFORMATION~~

Mike

Michael Weber
Deputy Executive Director for Transformation
U.S. Nuclear Regulatory Commission

301-415-1705
Mail Stop O16E15



From: Dudek, Michael
Sent: Wednesday, September 03, 2014 1:35 PM
To: Sprogeris, Patricia
Subject: Phone Bridge - Chairman Briefing RE: Diablo Canyon Shoreline Fault

Patti - Could you please set up a phone bridge for me tomorrow? Please? ☺

The main presenters for tomorrow's briefing on Diablo for the Chairman will be a Region IV employee who will need a phone bridge (~10 people).

Thanks!

Michael I. Dudek

Michael I. Dudek | OEDO Executive Technical Assistant | U.S. NRC

✉: Michael.Dudek@nrc.gov | ☎: (301) 415-6500 | BB: (b)(6)

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Sent: Friday, August 29, 2014 1:59 PM
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Subject: RE: Diablo Canyon Shoreline Fault

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Any insights that can be provided on this briefing would be greatly appreciated.

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301-415-1830

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Policy Advisor for Reactors
Office of Chairman Macfarlane
U.S. Nuclear Regulatory Commission
301-415-1830

From: Dudek, Michael
Sent: Tuesday, September 02, 2014 8:32 AM
To: Rosales-Cooper, Cindy; Pedersen, Renee
Cc: Zimmerman, Roy; Brock, Kathryn
Subject: RE: Heads Up: Chairman Briefing Request on Diablo Canyon DPO and Seismic Info

Renee – I received your phone call and I just received follow-up information from the Chairman's Office regarding their request. Please see below and then I will call you.

The Chairman wants to understand exactly what Mr. Peck was taking issue with in his DPO. We've heard over and over that he did not have a safety concern, yet that isn't how it is being presented in (most of) the media. She also wants to understand, **from a technical standpoint**, what the State-commissioned study did differently that resulted in the conclusion that the Shoreline Fault is more capable than previously thought and why we can still say that it is bounded by Hosgri.

I suggest staff also be ready to address the current licensing basis and our basis for saying that the Shoreline Fault was bounded by the Hosgri fault, if asked. For example, the draft Comm Plan says:

The NRC's independent evaluation, documented in RIL 2012-01, concluded that there is very little evidence that the Shoreline fault has ever been active. While its size was used to create a worst reasonable case ground motion curve, the region shows only some symptoms of a fault. There is no evidence that there is slippage, which would indicate this was an active fault in the past. Therefore, it is reasonable to bound the Shoreline fault by the LTSP/Hosgri method.

This makes it sound like, because we don't think the Shoreline fault was really ever active, we can "therefore" bound it by the Hosgri method. I suspect there's more to it.

Michael I. Dudek
Michael I. Dudek | OEDO Executive Technical Assistant | U.S. NRC
✉: Michael.Dudek@nrc.gov | ☎: (301) 415-6500 | BB: (b)(6)

From: Rosales-Cooper, Cindy
Sent: Friday, August 29, 2014 4:11 PM
To: Pedersen, Renee
Cc: Zimmerman, Roy; Brock, Kathryn; Dudek, Michael
Subject: FW: Heads Up: Chairman Briefing Request on Diablo Canyon DPO and Seismic Info

Hi Renee,
The EDO and Roy would like you to participate in the briefing instead of Mike Case.

Thanks
Cindy

From: Rosales-Cooper, Cindy
Sent: Friday, August 29, 2014 3:26 PM
To: Pedersen, Renee
Cc: Brock, Kathryn
Subject: FW: Heads Up: Chairman Briefing Request on Diablo Canyon DPO and Seismic Info

Hi Renee,

I got your voicemail. I just spoke with Nan Gilles in the Chairman's Office. The Chairman wants to hear from the seismic experts and also understand the issue raised in the DPO.

Cindy

From: Satorius, Mark

Sent: Friday, August 29, 2014 2:02 PM

To: Rosales-Cooper, Cindy; Johnson, Michael; Zimmerman, Roy; Pedersen, Renee

Cc: Dudek, Michael; Brock, Kathryn; Galloway, Melanie; Sampson, Michele

Subject: RE: Heads Up: Chairman Briefing Request on Diablo Canyon DPO and Seismic Info

Cindy – I think we would benefit from bouncing this off Renee Pederson and get her views on mike's participation in the chairman's briefing. Pls follow up.

From: Rosales-Cooper, Cindy

Sent: Friday, August 29, 2014 1:30 PM

To: Satorius, Mark; Johnson, Michael; Zimmerman, Roy

Cc: Dudek, Michael; Brock, Kathryn; Galloway, Melanie

Subject: FW: Heads Up: Chairman Briefing Request on Diablo Canyon DPO and Seismic Info

Mark/Roy/Mike,

Steve West has asked that an explicit determination be made about whether or not Mike Case should participate in the Chairman's briefing. Mike Case chaired the DPO panel.

Thanks,

Cindy

From: West, Steven

Sent: Friday, August 29, 2014 1:26 PM

To: Rini, Brett; Thomas, Brian; Burke, John

Cc: Case, Michael; Sheron, Brian; Iyengar, Raj

Subject: RE: Heads Up: Chairman Briefing Request on Diablo Canyon DPO and Seismic Info

Please make sure Cindy knows that Mike Case chaired the DPO panel and make an explicit determination about whether or not Mike should attend the briefing.

Steve

From: Rini, Brett

Sent: Friday, August 29, 2014 11:05 AM

To: Thomas, Brian; Burke, John

Cc: Case, Michael; Sheron, Brian; West, Steven; Iyengar, Raj

Subject: Heads Up: Chairman Briefing Request on Diablo Canyon DPO and Seismic Info

Brian T, John,

FYI, the Chairman has asked for a briefing next week on Diablo Canyon from the seismic folks. Jon Ake is listed below in the OEDO request. NRR has the lead. Please ensure RES is involved where necessary.

Mike, CCing you for awareness related to the DPO.

Brett

From: Rosales-Cooper, Cindy
Sent: Friday, August 29, 2014 11:02 AM
To: Rini, Brett
Subject: FW: Chairman Briefing Request

RES to participate?

From: Dudek, Michael
Sent: Friday, August 29, 2014 11:01 AM
To: Markley, Michael; Walker, Wayne
Cc: Jackson, Diane; Rosales-Cooper, Cindy; Munson, Clifford; Ake, Jon; Franovich, Mike; Whaley, Sheena; Sebrosky, Joseph; Campbell, Andy; Kock, Andrea; Flanders, Scott
Subject: Chairman Briefing Request

Morning Mike, Wayne! With all of the focus this week on the Diablo Canyon DPO and the new data from the State-commissioned study, I have gotten a request that the Chairman would like a briefing by the staff's seismology experts – Cliff Munson, Jon Ake, etc. The Chairman would like this as soon as next week.

Request 1 – Can you please coordinate with the applicable folks and provide me with a plan of action?

Request 2 – Can you please review the provided date/ times and recommend one that works for the staff. The Chairman is available next week for this briefing:

- Thursday, September 4th, 9:30am – 10:00am, or
- Thursday, September 4th, 3:30pm – 4:00pm.

Apologies for the short turnaround!

Respectfully,
Michael I. Dudek

Michael I. Dudek | OEDO Executive Technical Assistant | U.S. NRC

✉: Michael.Dudek@nrc.gov | ☎: (301) 415-6500 | BB: (b)(6)

From: Dudek, Michael
Sent: Thursday, September 04, 2014 3:24 PM
To: Satorius, Mark; Johnson, Michael; Zimmerman, Roy; Weber, Michael
Cc: Jolicoeur, John; Gilles, Nanette; Bowers, Anthony; Cubbage, Amy; Castleman, Patrick; Segala, John
Subject: FYI - Today's Chairman's Briefing On Diablo Canyon Seismic
Attachments: [Non-Responsive Record]; Diablo State of California seismic report review plan revision 2.docx

FYI – Please see the attachments above that describe the topics discussed during the briefing held this morning between the Chairman and Cliff Munson (NRO). During this meeting, discussions were held on: (1) the technical aspects of the faults near the Diablo Canyon plant (length of fault, slip rates and how they're calculated, etc.), and (2) and NRR's approach for handling PG&E's report when it comes out next week from the State-commissioned seismic study.

The briefing was well received by the Chairman. The only take-away was that she stated that she would like to be briefed again once the staff has reviewed PG&E's report.

If you have any comments or concerns regarding this briefing, please do not hesitate to ask.

Respectfully,

Michael I. Dudek

Michael I. Dudek | OEDO Executive Technical Assistant | U.S. NRC

✉: Michael.Dudek@nrc.gov | ☎: (301) 415-6500 | BB: [Redacted]

(b)(6)

Project Plan for NRC Staff Review of PG&E's Report to the State of California Regarding Seismic Faults Near the Diablo Canyon Power Plant

9/43/14 Version

NOTE: This is a living document and will be updated as necessary. Please note the date on the cover.

Document Point of Contacts:

Joseph.Sebrosky@nrc.gov

Nick.DiFrancesco@nrc.gov



Japan Lessons Learned

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PURPOSE OF THE REVIEW OF THE STATE OF CALIFORNIA REPORT

This project plan documents steps necessary for NRC staff to quickly assess the information found in the report provided by Pacific Gas and Electric (PG&E) to the State of California related to Seismic Faults near the Diablo Canyon Power Plant (DCPP). The purpose of the assessment is to determine what, if any, changes need to be made to the approach outlined in a the March 12, 2012, request for information issued pursuant to 10 CFR 50.54(f) (see ADAMS Accession No. ML12053A340).

The March 12, 2012, request for information provides a process for performing a seismic hazard reevaluation and to provide the results of this reevaluation to the staff. The staff will use this information to determine whether a license should be modified, suspended, or revoked. In performing this assessment the staff will also consider the supplemental information related to the March 12, 2012, request for information provided in an NRC letter dated February 20, 2014 associated with new seismic information (see ADAMS Accession No. ML12053A340)(ADAMS Accession No. ML14030A046). The February 20, 2014, letter includes guidance regarding operability and reportability. As stated in the February 20, 2014, letter:

"as always, the safety of the operating plants is of paramount importance. The NRC will follow established regulatory processes, including the backfit rule, in determining whether additional requirements are warranted."

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The expected outcome of the review is a recommendation to management as to whether or not the March 12, 2012, request for information process should continue to be followed or if there is new information that suggests there is an immediate safety concern that would require action in accordance with established regulatory processes (e.g., Order).

BACKGROUND

California Assembly Bill 1632 (Blakeslee, Chapter 722, Statutes of 2006) directs the California Energy Commission to assess the potential vulnerability of California's largest baseload power plants, Diablo Canyon Power Plant and San Onofre Nuclear Generating Station to a major disruption due to a seismic event or plant aging; to assess the impacts of such a disruption on system reliability, public, safety, and the economy; to assess the costs and impacts from nuclear waste accumulating at these plants; and to evaluate other major issues related to the future role of these plants in the state's energy portfolio. The licensee has used the most state of the art seismic evaluation methodologies included using 2D and 3D mapping to compile this report. This is a different and more extensive data set than what was used for in PG&E's 2011 Shoreline Fault evaluation (ADAMS Accession No. ML110140431).

Based on information that PG&E has verbally provided to the NRC, PG&E has indicated that the length, and magnitude of the Shoreline fault is greater than that assumed in a 2011 PG&E report provided to the NRC. PG&E has also indicated that the soil properties found in the 2011 report have also been updated based on new information. It is the staff's preliminary understanding that in addition to providing changes to the Shoreline fault characteristics that new information is provided in the State of California report relative to other faults in the area (e.g., Los Osos, and San Luis Bay).

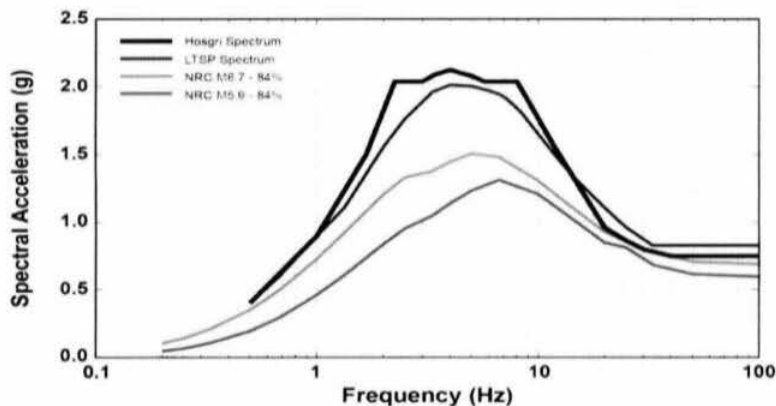
PG&E's operability evaluation, which is available to the staff, states the following:

Based on the preliminary results of the studies that are under review, it has been determined that the Shoreline Fault Zone may be more capable than summarized in the January 2011 report, but the deterministic response spectra are still bounded by those for the Hosgri and LTSP earthquakes.

The staff previous evaluation of the Shoreline Fault can be found in Research Information Letter (RIL) 12-01 "Confirmatory Analysis of Seismic Hazard at the Diablo Canyon Power Plant from the Shoreline Fault Zone" (ADAMS Accession No. [ML121230035](#)). The staff's deterministic evaluation includes several scenarios and resulted in the conclusion that the Shoreline Fault is bounded by the Hosgri and LTSP spectrum. The graph below is from the RIL.

As can be seen in the graph from the RIL the staff's magnitude 6.7 earthquake scenario is essentially equal to the Hosgri spectrum in the 20 to 40 Hz range. PG&E's assessment in the 2011 report was based on a magnitude 6.5 earthquake. Based on recent conversations with PG&E they now believe that the Shoreline Fault is capable of generating a 6.7 magnitude earthquake. There are several differences in PG&E's assessment of the Shoreline Fault found in their 2011 report and the staff's assessment found in the RIL. The staff understands that PG&E believes that based on new information relative to the Shoreline Fault and soil properties in the area that Shoreline Fault deterministic ground motion response spectrum is still bounded by the Hosgri and LTSP spectrum.

The issue is the staff's review of the new information and whether the staff's deterministic evaluation in the RIL will be updated based on the new information or if an alternate approach will be used to assess the new information pending expected receipt in March 2015 of an assessment of new seismic information in accordance with the senior seismic hazard analysis committee (SSHAC) process outlined in the March 12, 2012, 50.54(f) letter.



In addition, in the NRC's October 12, 2012, letter transmitting [NRC's review of the Shoreline Fault Report](#) to PG&E (ADAMS Accession No. [ML120730106](#)), the NRC placed its assessment of the Shoreline Fault in context with the process outlined in the March 12, 2012 50.54(f) letter. The October 12, 2012 letter contained the following guidance relative to the discovery of new seismic information:

The NRC staff understands that the seismic evaluations described in the March 12, 2012, request for information are currently in progress at DCP, and PG&E plans to acquire new offshore and onshore two-and three-dimensional seismic reflection data to identify and characterize faults in the vicinity of DCP. If during the collection of the data, new faults are discovered or information is uncovered that would suggest the Shoreline fault is more capable than currently believed, the staff expects that the licensee 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. The

staff will use this information to independently assess whether the new fault or new information related to the Shoreline fault challenges or changes the staff's current position that the motions associated with the Shoreline fault are at or below those levels of the HE and L TSP ground motions.

PG&E has been informed that based on the NRC staff's understanding that the State of California report will contain new information relative to the Shoreline Fault, the NRC staff expects PG&E to provide an interim evaluation that describes actions taken or planned to address the higher seismic evaluation.

Other Faults

The PG&E 2011 Shoreline Fault report and the staff's RIL also discuss other seismic faults near Diablo Canyon including the Los Osos and San Luis Bay faults. It is the staff's preliminary understanding that PG&E's report to the State of California will also include new information relative to these faults.

PRODUCTS TO BE REVIEWED

- PG&E report to the State of California relative to Seismic Faults near Diablo Canyon
- PG&E's interim evaluation that describes actions taken or planned to address the higher seismic hazard relative to the design basis

REVIEW PROCESS

The staff will review the new seismic information when it is provided the opportunity. Based on the new information the staff may assess the new information in accordance with the process that has recently been used for Central and Eastern U.S. (CEUS) plants that is found in a March 11, 2014, letter from EPRI (ADAMS Accession No. [ML14083A586](#)).

The proposed milestones and timeframes for reviewing PG&E's report are as follows based on the assumption that the report will be publicly released on September 10, 2014.

Timeframe	Action	Responsible Party(ies)
Sept 3	NRC staff identifies information that it will quickly need from PG&E to support a possible review in accordance with the process found in the CEUS study above. PG&E will be asked to provide feedback on whether or not it can provide information by Sept 22.	NRC review team
Sept 8	PG&E provides feedback to the staff on whether or not it can provide information to the staff by Sept 22	PG&E
Sept 8	Key NRC review team members review the State of California report prior to its public release. Changes to the project plan and communication plan are identified	NRC review team
Sept 10	PG&E provides report and interim evaluation to the NRC	PG&E
Sept 15	NRC identifies any additional information needs that it has to complete its preliminary evaluation	NRC review team
Sept 22	PG&E completes providing NRC staff with information necessary for the staff to complete its preliminary evaluation	PG&E
Sept 29	NRC review team completes its preliminary assessment of new Shoreline fault information and makes recommendation to management on how to proceed	NRC review team
October 3	NRC management makes decision on how to proceed	NRC management

REVIEW TEAM

The following are the proposed members of the review team subject to management approval

NRR Projects: Eric Oesterle, Balwant Singal, Joe Sebrosky, Nick DiFrancesco

NRR technical: Kamal Manoly, Yong Li

NRO technical: Cliff Munson, Britt Hill, John Stamatakos (contractor)

RES: Jon Ake

Region IV: Wayne Walker, Theresa Buchanan, Megan Williams, Tom Hipschman

COMMUNICATION PLAN

A communication plan has been developed for the PG&E report. The NRC review team will update the communication plan based on its assessment of the new information.

From: Dudek, Michael
Sent: Thursday, September 04, 2014 8:51 AM
To: Bowers, Anthony
Subject: Fw: Chairman briefing tomorrow on Diablo Canyon

Sent from an NRC Blackberry
Michael I. Dudek

(b)(6)

From: Markley, Michael
Sent: Wednesday, September 03, 2014 04:07 PM Eastern Standard Time
To: Dudek, Michael; Sebrosky, Joseph
Cc: Oesterle, Eric; Kanatas, Catherine; Manoly, Kamal; OKeefe, Neil; Stovall, Scott; Pedersen, Renee; Roth(OGC), David; Walker, Wayne; Munson, Clifford; Bowers, Anthony; Hiland, Patrick; Lund, Louise
Subject: RE: Chairman briefing tomorrow on Diablo Canyon

Mike,

Jennifer Uhle informed me that the direction has changed. **The only ones expected to attend are: Neil O'Keefe, Cliff Munson, and Joe Sebrosky.** Renee, Kamal, and myself are now asked not to attend. The focus is on the technical issues and not the DPO.

Please clarify if you have a different understanding.

Mike

From: Dudek, Michael
Sent: Wednesday, September 03, 2014 3:35 PM
To: Sebrosky, Joseph
Cc: Oesterle, Eric; Markley, Michael; Kanatas, Catherine; Manoly, Kamal; OKeefe, Neil; Stovall, Scott; Pedersen, Renee; Roth(OGC), David; Walker, Wayne; Munson, Clifford; Bowers, Anthony
Subject: RE: Chairman briefing tomorrow on Diablo Canyon

A phone bridge has been set up - 888-748-8559, Participant passcode: (b)(6)

Michael I. Dudek | OEDO Executive Technical Assistant | U.S. NRC
✉: Michael.Dudek@nrc.gov | ☎: (301) 415-6500 | BB: (b)(6)

From: Sebrosky, Joseph
Sent: Wednesday, September 03, 2014 3:29 PM
To: Dudek, Michael
Cc: Oesterle, Eric; Markley, Michael; Kanatas, Catherine; Manoly, Kamal; OKeefe, Neil; Stovall, Scott; Pedersen, Renee; Roth(OGC), David; Walker, Wayne; Munson, Clifford
Subject: FW: Chairman briefing tomorrow on Diablo Canyon

Mike Dudek,

Below is guidance from senior management that suggest there will only be two people in the room (me and Cliff) and one or two people on the (Neil and Wayne).

I will get the word out to a broader audience tomorrow. For now I thought you needed to know immediately that this is the plan. We still need a bridge with the new plan.

Thanks,

Joe

From: Dapas, Marc

Sent: Wednesday, September 03, 2014 3:22 PM

To: Uhle, Jennifer; Gilles, Nanette

Cc: Johnson, Michael; Sebrosky, Joseph; Lund, Louise; Jackson, Diane; Munson, Clifford; Walker, Wayne; OKeefe, Neil

Subject: RE: Chairman briefing tomorrow on Diablo Canyon

Wayne Walker will also participate as he has the history on the "Sewell Report".

From: Uhle, Jennifer

Sent: Wednesday, September 03, 2014 2:20 PM

To: Gilles, Nanette

Cc: Johnson, Michael; Sebrosky, Joseph; Lund, Louise; Dapas, Marc; Jackson, Diane; Munson, Clifford

Subject: Chairman briefing tomorrow on Diablo Canyon

Nan,

Mike Johnson and Roy Zimmerman informed me that the Chairman meeting tomorrow at 9:15 on Diablo Canyon seismic issues will be focused on technical issues associated with the recent findings on the Shoreline fault and how it impacts safety and the licensing basis. As such, we have cut down the attendance to Neil O'Keefe, Joe Sebrosky and Cliff Munson. Jon Ake is on vacation and is not able to call in. We think this is more of a question and answer session. We have some slides if needed.

Thanks,

Jennifer

Subject: Chairman's Briefing RE: Diablo Canyon Shoreline Fault
Location: O-17D01

Start: Thu 09/04/2014 9:15 AM
End: Thu 09/04/2014 10:00 AM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Organizer: Dudek, Michael
Required Attendees: OKeefe, Neil; Kanatas, Catherine; Munson, Clifford; Manoly, Kamal; Markley, Michael; Stovall, Scott; Pedersen, Renee
Optional Attendees: Rosales-Cooper, Cindy; Jackson, Diane; Campbell, Andy; Kock, Andrea

Date/ Time – Thursday, 9/4; 9:15-10:00AM;

Location – O-17D01

Attendees – Neil O'Keefe (RIV), Cathy Kanatas (OGC), Cliff Munson (NRO), Kamal Manoly (NRR/DE), Mike Markley (DORL), Scott Stovall (RES), and Renee Pedersen (OE).

Subject – The Chairman wants to understand exactly what Mr. Peck was taking issue with in his DPO. We've heard over and over that he did not have a safety concern, yet that isn't how it is being presented in (most of) the media. She also wants to understand, **from a technical standpoint**, what the State-commissioned study did differently that resulted in the conclusion that the Shoreline Fault is more capable than previously thought and why we can still say that it is bounded by Hosgri.

I suggest staff also be ready to address the current licensing basis and our basis for saying that the Shoreline Fault was bounded by the Hosgri fault, if asked. For example, the draft Comm Plan says:

The NRC's independent evaluation, documented in RIL 2012-01, concluded that there is very little evidence that the Shoreline fault has ever been active. While its size was used to create a worst reasonable case ground motion curve, the region shows only some symptoms of a fault. There is no evidence that there is slippage, which would indicate this was an active fault in the past. Therefore, it is reasonable to bound the Shoreline fault by the LTSP/Hosgri method.

This makes it sound like, because we don't think the Shoreline fault was really ever active, we can "therefore" bound it by the Hosgri method. I suspect there's more to it.

From: Brock, Kathryn
Sent: Thursday, September 04, 2014 3:49 PM
To: Sampson, Michele
Subject: RE: DPO

Importance: High

I just left you a voice message. I should have given you more details when you called a little while ago. Melanie is expecting:

- The draft decision today for internal review
 - Review by Melanie, Renee and Roy
- After the internal review must have it to Mark by COB on Friday
 - Mark is out of town but we have his personal email address (b)(6)
 - Mark will review over the weekend so he can make the decision by the 8th.
- I have a few more details for you, but that is the most important stuff.

Sorry...I thought we would talk on Tuesday and I would have given you this info.

From: Brock, Kathryn
Sent: Friday, August 29, 2014 3:00 PM
To: Sampson, Michele
Subject: DPO

Hi. I have some info to pass on to you from Melanie. Will you call me (or I'll try you) on Tuesday? I hope you had a great time in Florida.

From: Bowers, Anthony
Sent: Friday, September 05, 2014 12:06 PM
To: Jandovitz, John
Cc: Dudek, Michael
Subject: FW: NEED TO DISCUSS DIABLO CANYON SEISMIC REPORT

FYI...

From: Bowers, Anthony
Sent: Friday, September 05, 2014 12:05 PM
To: Walker, Wayne
Subject: RE: NEED TO DISCUSS DIABLO CANYON SEISMIC REPORT

Will do.

Have a good weekend.

Tony

From: Walker, Wayne
Sent: Friday, September 05, 2014 12:04 PM
To: Bowers, Anthony
Subject: RE: NEED TO DISCUSS DIABLO CANYON SEISMIC REPORT

Tony,

Just to keep in touch. I think next week will be a busy week for Diablo Canyon and would ask that you keep me informed in advance if possible on when the DPO appeal decision will be transmitted and what the decision is. I am trying to keep my Regional Administrator informed prior to the decision possibly going public. Thanks.

Wayne

From: Bowers, Anthony
Sent: Wednesday, July 30, 2014 12:53 PM
To: Walker, Wayne
Subject: RE: NEED TO DISCUSS DIABLO CANYON SEISMIC REPORT

Wayne,

Per our discussion and below request regarding Diablo Canyon DPO (Appeal) on DC seismic issues, the DPO is currently in-process with the OEDO for review. Several meetings regarding subject are scheduled over the next few weeks.

Once more information becomes available, I will advise.

Tony

From: Walker, Wayne
Sent: Wednesday, July 30, 2014 9:37 AM
To: Bowers, Anthony
Subject: NEED TO DISCUSS DIABLO CANYON SEISMIC REPORT

Tony,

I tried your phone but could not leave a message. I am the BC for Diablo Canyon and I need to discuss with you the DPO on DC seismic issues and a soon to be released seismic report for DC. My office number is 817-200-1148 and cell (b)(6). Thanks.

Wayne

From: Brock, Kathryn
Sent: Friday, September 05, 2014 8:55 AM
To: Pedersen, Renee; Galloway, Melanie; Zimmerman, Roy
Cc: Sampson, Michele
Subject: RE: Update on where we are with DPO draft

Categories: DPO FOIA

I just talked with Michele. She will send the draft to the three of you within the next half hour.

From: Pedersen, Renee
Sent: Friday, September 05, 2014 8:32 AM
To: Galloway, Melanie; Zimmerman, Roy
Cc: Brock, Kathryn; Holahan, Patricia; Solorio, Dave; Sewell, Margaret
Subject: RE: Update on where we are with DPO draft

Melanie,

I'm working at home today on the DPO Program Assessment that is due to the EDO by the end of the month. (Unfortunately, I'm behind schedule because of the focus on Diablo Canyon and (b)(6)

(b)(6)

However, I will make this review a priority when I get it.

If you need to contact me, please feel free to call me at home at (b)(6)

Renée

From: Galloway, Melanie
Sent: Friday, September 05, 2014 8:16 AM
To: Zimmerman, Roy; Pedersen, Renee
Cc: Brock, Kathryn
Subject: Update on where we are with DPO draft

I've talked with Kathryn regarding the status of the above from Michele since we had hoped to have the draft by noon yesterday. Michele was also out of the office Tuesday and half a day Wed. Kathryn was going to touch base with Michele early today to get a better sense of when we would have something to look at.

Kathryn, please send an email to us 3 when you know.

Our goal was to have had our comments incorporated for Mark's consideration this weekend by COB today and to email it to his home address. Without having it yesterday, I may be hard pressed to complete my review today. If others are in the same boat, I want to share Mark's home email address so if you choose you can email him your comments this weekend. It is (b)(6)

Thanks for your help.

Of note, I also heard yesterday that the state's report was not going to be publicly available until Sept. 10 so Mark might be able to issue his decision on the 9th.

From: Sampson, Michele
Sent: Monday, September 08, 2014 4:49 PM
To: Segala, John
Subject: FW: DPO Response

Michele Sampson

Chief, Licensing Branch
Spent Fuel Storage and Transportation Division
Phone: 301-287-9077

From: Sampson, Michele
Sent: Monday, September 08, 2014 4:36 PM
To: Kreuter, Jane
Cc: Galloway, Melanie; Satorius, Mark; Zimmerman, Roy; Brock, Kathryn; Pedersen, Renee
Subject: DPO Response

Jane,

I have incorporated all of the comments. Please prepare the document for Mark's signature. I believe that he intends to sign the document tomorrow morning.

[View ADAMS P8 Properties ML14251A453](#)
[Open ADAMS P8 Document \(Differing Professional Opinions Appeal Decision Involving Seismic Issues at Diablo Canyon \(DPO-2013-002\)\)](#)

Thank you,
Michele Sampson, Chief
Licensing Branch
U.S. Nuclear Regulatory Commission
Office of Nuclear Material Safety and Safeguards
Spent Fuel Storage and Transportation Division
Mail Stop 3WFN-14A44
Washington, D.C. 20555-0001
Phone: 301-287-9077

From: Dudek, Michael
Sent: Monday, September 08, 2014 2:29 PM
To: Sampson, Michele
Cc: Segala, John
Subject: RE: Tasking for NRR
Attachments: Draft Response.docx

Michele: The staff has provided some insights into this that "we" really need to be delicate on how we approach this because they are currently processing a SECY for Commission direction on how updated natural hazards will be incorporated into the licensing basis. They do not want to get too far ahead of the pending SECY Paper. So, please see below for what they recommend:

In addition to raising awareness of the complexity of the DCPD seismic licensing basis, you have illustrated the need for the agency to ensure there are clear guidelines for staff and licensees regarding how changes in natural hazards should be evaluated. This awareness is particularly timely and important as we move forward with the Fukushima Near Term Task Force Recommendations. Specifically, the NRC staff will be considering such concerns as we continue the implementation of Recommendation 2.3, the reevaluation of seismic and flooding hazards; develop the implementation of Recommendation 2.2, "Periodic Confirmation of External Hazards;" and develop the implementation of the additional issue of evaluating other external natural hazards.

(note: Other external hazards does not have a Recommendation number. It came out of an appropriations bill. See SECY-12-0025.)

If you need anything else, please do not hesitate to ask.

Michael I. Dudek

Michael I. Dudek | OEDO Executive Technical Assistant | U.S. NRC

✉: Michael.Dudek@nrc.gov | ☎: (301) 415-6500 | BB: (b)(6)

From: Sampson, Michele
Sent: Monday, September 08, 2014 10:17 AM
To: Dudek, Michael
Cc: Segala, John
Subject: Tasking for NRR

Mike,

Please work with Trent to word an action for NRR. One of the issues associated with this DPO was a lack of clarity regarding the seismic licensing basis and how new seismic information should be evaluated and incorporated into the facility safety analysis. From John's discussion, Dan Dorman may have an idea of the action he wants to propose.

Following this is the paragraph where we would add an action:

Nevertheless, your questioning attitude and perseverance were key to ensuring that the licensee and staff fully evaluated the implications of the Shoreline fault zone. In addition to raising awareness of the complexity of the DCPD seismic licensing basis, you have illustrated the need for the agency to ensure there are clear guidelines for staff and licensees regarding how changes in natural hazards should be evaluated. This awareness is particularly timely and important as we move forward with the Fukushima Near Term Task Force Recommendations.

I have attached the draft text of the full response for context. Please note it does not incorporate Mark's comments.

I need the input by 1:30 pm today.

Thank you,
Michele Sampson, Chief
Licensing Branch
U.S. Nuclear Regulatory Commission
Office of Nuclear Material Safety and Safeguards
Spent Fuel Storage and Transportation Division
Mail Stop 3WFN-14A44
Washington, D.C. 20555-0001
Phone: 301-287-9077

The purpose of this memorandum is to inform you of my considerations and conclusions regarding the appeal you submitted on June 23, 2014, on the subject Differing Professional Opinion (DPO). The DPO Program is addressed in Management Directive 10.159, "The NRC Differing Professional Opinions Program." I appreciate your efforts to provide a thorough description of your concerns and the supporting documentation in both your initial DPO and the subsequent appeal.

BACKGROUND

Your DPO is rooted in the Diablo Canyon Power Plant (DCPP) seismic licensing history and how the licensing basis is applied to the plant today. Although I know you are intimately familiar with this background, it serves as a reference for those less acquainted with the details who may read this response. In 1968, when the DCPP Unit 1 Construction Permit was issued to Pacific Gas and Electric (PG&E), the seismic evaluation had been completed under the Atomic Energy Commission's requirements. Based on the information available at the time, the design earthquake (DE) was defined as having a peak ground acceleration of 0.2 g, and the double design earthquake (DDE) was a doubling of the DE earthquake to ensure safety-related structures, systems, and components would function as expected after the earthquake, 0.4 g. In 1973, PG&E became aware of the Hosgri fault. PG&E evaluated the Hosgri fault using Regulatory Guide 1.61, "Damping Values for Seismic Design of Nuclear Power Plants" October 1973. Though not included in the construction application, NRC reviewed PG&E's evaluation of the Hosgri fault and required PG&E to make plant modifications to be able to withstand the 0.75 g peak ground acceleration associated with the Hosgri fault. The operating license for Unit 1, issued in 1984, was based on review of the Final Safety Analysis Report Update which included two different seismic methodologies, the DDE and the Hosgri evaluation, as documented in NUREG-0675, "Safety Evaluation Report Related to the Operation of Diablo Canyon Power Plant, Units 1 and 2," Supplement No. 7, dated May 1978. Given expected advances in the science of seismic evaluation, the license was also conditioned to require a confirmatory seismic study over the first 10 years of operation, referred to as the Long Term Seismic Program (LTSP). The NRC's review and acceptance of PG&E's report on the LTSP are discussed in NUREG-0675, "Safety Evaluation Report Related to the Operation of Diablo Canyon Nuclear Power Plant, Units 1 and 2," Supplement No. 34, dated June 1991 (SSER 34), and in NRC letter dated April 14, 1992, "Transmittal of Safety Evaluation Closing Out Diablo Canyon Long-Term Seismic Program (TAC Nos. M80670 and M80671)."

In November 2008, PG&E reported identification of a new offshore fault, subsequently identified as the Shoreline fault zone. The initial licensee evaluation in Event Report No. 44675 indicated that the newly identified fault was "smaller than the Hosgri fault, which is the current bounding seismic feature for DCPP." In January 2011, PG&E submitted the "Report on the Analysis of the Shoreline Fault Zone, Central Coast California" (Agencywide Documents Access and Management System (ADAMS) Accession Number ML110140431) which documented the investigation of the Shoreline fault zone and its relationship to other seismic sources in proximity to the DCPP. In October 2011, PG&E submitted license amendment request 11-05, ADAMS Accession No. ML11312A166. This amendment request proposed to revise the licensing basis, as described in the Final Safety Analysis Report Update and Technical Specifications (TS), to provide requirements for the actions, evaluations, and reports necessary when PG&E identifies new seismic information relevant to the design and operation of DCPP. PG&E submitted a withdrawal request for license amendment request 11-05, on October 25, 2012, ADAMS Accession Number ML12300A105. The withdrawal request followed the issuance of the NRC letter, "Diablo Canyon Power Plant, Units Nos. 1 and 2 - NRC Review of Shoreline Fault (TAC Nos. ME5306 and ME5307)," dated October 12, 2012, and the NRC Research Information Letter 12-01, "Confirmatory Analysis of Seismic Hazard at the Diablo Canyon

Power Plant from the Shoreline Fault Zone," dated September 2012. The conclusion of the review from the Research Information Letter 12-01, executive summary is excerpted below:

"In this review of the hazard from the Shoreline fault, the NRC compared the resulting deterministic seismic ground motions to loading levels for which the plant has been previously reviewed, specifically the Hosgri Earthquake (HE) ground motion response spectrum as described in NUREG-0675, "Safety Evaluation Report Related to the Operation of Diablo Canyon Power Plant, Units 1 and 2," Supplement No. 7 (NRC, 1978), and the LTSP ground motion response spectrum as detailed in NUREG-0675, Supplement No. 34 (NRC, 1991). The results indicate that deterministic seismic-loading levels predicted for all the Shoreline fault earthquake scenarios developed and analyzed by the NRC are at, or below, those levels for the HE ground motion and the LTSP ground motion. The HE ground motion and the LTSP ground motion are those for which the plant was evaluated previously and demonstrated to have reasonable assurance of safety.

NRC staff confirmed withdrawal request by letter dated October XX, 2012, ADAMS Accession Number ML12289A076.

As described in the chronology section of your DPO, beginning in 2010, as the senior resident inspector for Diablo Canyon, you raised concerns with your Region IV management regarding the adequacy of PG&E's evaluation of the Shoreline fault zone. You were engaged in the agency's consideration of this issue and participated in two non-concurrences prior to submitting the DPO. On July 19, 2013, you submitted this DPO documenting your concerns. The statement of concerns from your DPO is summarized as follows:

1. The NRC did not enforce the Diablo Canyon Technical Specifications with respect to this seismic issue, because the new seismic information showed that required structures, systems and components could be exposed to greater vibratory motion than previously considered for the safe shutdown earthquake.
2. PG&E's operability evaluation following the development of the new seismic information was inadequate, because the new seismic information was not compared correctly to the plant's licensing basis.
3. The NRC failed to enforce 10 CFR 50.59 requirements that PG&E obtain an amendment to its license, because the new seismic information showed that more than a minimal increase would occur in the likelihood of malfunction of structures, systems and components important to safety.
4. The NRC failed to adequately address the Los Osos and San Luis Bay faults, which could produce ground motions in excess of the safe shutdown earthquake ground motion.

The DPO Ad Hoc Review Panel was established on September 3, 2013. The Ad Hoc Review Panel met with you on October 23, 2013, and then periodically throughout its review to further discuss your concerns. The Ad Hoc Review Panel focused its review on the agreed to statement of concerns, as summarized above. The panels' conclusions are summarized for each concern:

1. The panel noted that your DPO was instrumental in identifying the complexity of the range of conditions considered in the DCPD Final Safety Analysis Report Update seismic evaluation. However, the panel concluded that given appropriate comparisons, the potential ground motions from the Shoreline fault zone do not exceed the levels of acceleration considered in the design and licensing of DCPD for required structures, systems and components.
2. The panel noted that this concern is based upon your conclusion that there is only one appropriate evaluation method for new seismic information, specifically to substitute the

new seismic information into the original DDE method. The panel concluded that the licensee's evaluation method was acceptable given that the Final Safety Analysis Report Update identifies both the DDE and the Hosgri evaluation.

3. The panel concluded that an amendment to the license was not required because the Shoreline fault zone ground motions do not exceed the levels evaluated in the DCPD design and licensing. This conclusion relies upon the determination that there is more than one appropriate evaluation method for evaluating new seismic information. The Hosgri evaluation methods for structures used higher damping values than the DDE evaluation. Based on the staff's findings in NUREG-0675, Supplement No. 7, the higher damping values used in the Hosgri evaluation are consistent with Regulatory Guide 1.61 and were realistic and acceptable. The panel concluded that substituting the new seismic information into the calculation construct of the DDE would offer little insight as to how the structures, systems, and components would perform because the older analytical techniques were overly conservative and no longer technically justified. The panel found that the licensee's evaluation, comparison against the Hosgri Evaluation and the LTSP was an acceptable method. Because the results of the evaluation show that the Shoreline fault zone is bounded by the licensing basis, there is no potential violation of the 10 CFR 50.59 requirements.
4. The panel agreed with you that the NRC staff did not clearly and explicitly consider the potential ground motions from the Los Osos and San Luis Bay fault. However, the panel noted that both the Los Osos and San Luis Bay faults had previously been evaluated in the LTSP. Additionally, these faults were evaluated from a risk perspective by NRC staff in Research Information Letter 12-01. The panel concluded that the Los Osos, San Luis Bay, and the Shoreline faults do not exceed the level of ground motion already considered in the design and licensing of DCPD.

On May 29, 2014, the Director, Office of Nuclear Reactor Regulation, provided you with his decision on your DPO. The Office Director agreed with the Ad Hoc Review Panel's report with respect to your specific technical concerns. However, he noted that your DPO highlighted the need for the agency to further evaluate how new information on natural hazards should be considered in the regulatory process and his expectation that the work currently underway on the Fukushima Near Term Task Force Recommendations 2.1 and 2.2, would address this issue.

On June 23, 2014, you filed a DPO appeal. In the appeal, you restated your concern that the facility licensing basis, as described in the Final Safety Analysis Report Update must be used as the basis for review of the Shoreline Fault zone. You specifically noted concern with the Ad Hoc Review Panel report's conclusions, noting that they were based on the "inappropriate assumption" that a combination of the DDE safety analysis and Hosgri evaluation could be considered the licensing basis. You asserted that the current licensing basis identifies the DDE as the safe shutdown earthquake and that all new ground motions, such as in the Shoreline Fault zone, must be evaluated using the assumptions, methodology, load combinations, and acceptance limits associated with the DDE evaluation. Your concerns include the licensee's failure to perform an analysis of the Shoreline Fault zone ground motions using the methodology associated with DDE and subsequently, the agency's failure to take appropriate enforcement action to require the analysis to be performed.

EXECUTIVE DIRECTOR FOR OPERATIONS REVIEW AND DECISION

When I received your appeal, I initiated a review of relevant information related to DPO 2013-002. I reviewed a number of documents including, but not limited to, the DPO you originally submitted, the Ad Hoc Review Panel's report dated April 3, 2014, the Office Director's decision regarding your DPO, your appeal of the Office Director's decision, and the Office Director's

statement of views on the contested issues in your DPO appeal. To understand the issues fully, I met with members of the Ad Hoc Review Panel on July 28, 2014, and I met with you on July 30, 2014. My review was focused on the agreed upon issues that you raised in your DPO submittal.

In the appeal, you noted your agreement with the Ad Hoc Review Panel's conclusion that issues raised in the DPO do not result in a significant or immediate safety concern. You also state agreement that the potential ground motions from the Shoreline fault zone do not exceed the levels considered during licensing of the plant. However, you have narrowly defined the licensing basis and approved methodology for seismic evaluation as being limited to the methodology associated with the DDE from the original license application. Based on your exclusion of the Hosgri evaluation from the licensing basis, your appeal reiterates your belief that a license amendment is required to revise the DDE evaluation to the higher ground motions associated with the new seismic information. Additionally, you recommend the agency initiate enforcement action for the failure to take appropriate actions to address the new seismic information associated with the Shoreline fault zone.

I would like to commend you on a package that was well-researched, and insightful. Based on my review, discussion with the Ad Hoc Review Panel, and our interview, I agree that there is no significant or immediate safety concern associated with the issue you have raised. However, you have highlighted the complexity of the Diablo Canyon licensing basis as documented in the Final Safety Analysis Report Update, which is a direct result of how the licensing basis was augmented during the original licensing process, between issuance of the construction permit in 1968 and issuance of the operating licensing in 1984. While I appreciate your concern with the clarity of the Final Safety Analysis Report Update, I am unable to arrive at the same conclusion whereby you exclude the Hosgri evaluation and associated methodologies from the licensing basis.

Nevertheless, your questioning attitude and perseverance were key to ensuring that the licensee and staff fully evaluated the implications of the Shoreline fault zone. In addition to raising awareness of the complexity of the DCPD seismic licensing basis, you have illustrated the need for the agency to ensure there are clear guidelines for staff and licensees regarding how changes in natural hazards should be evaluated. This awareness is particularly timely and important as we move forward with the Fukushima Near Term Task Force Recommendations.

In accordance with Management Directive 10.159, a summary of this DPO appeal decision will be included in the Weekly Information Report posted on the NRC's public web site to advise interested employees and members of the public of the outcome. The public records for this DPO are available in the DPO case file package in ADAMS Accession No. MLXXXXXXX.

I want to thank you for bringing your concerns to my attention. Your DPO was well thought out and researched. As you know, our agency relies on its staff members to raise concerns regarding decisions so that they can be properly considered. Your perseverance in raising these concerns demonstrates your dedication to safety that is the foundation of the agency's excellent staff, and I applaud your efforts in this regard. I take concerns such as the ones you raised very seriously, and hope that my interactions with you have demonstrated my efforts to consider and fairly evaluate your concerns in making my decision.

Comment [M1]: Are there any potential additional actions that need to be considered for NRR's follow-up?

From: Gilmer, James
Sent: Monday, September 08, 2014 8:41 AM
To: Pohida, Marie
Subject: More on Diablo Canyon

Good Morning!

Hope you had a good weekend. Here's more on DC, including upcoming Barbara Boxer hearings on earthquake risk. I'm confident the RCS piping and vessel supports can handle a 9.0 on the Richter Scale, but not so much the fuel.

Jim

NRC Says Differing Professional Opinion On Diablo Canyon Earthquake Concerns Will Be Addressed. In a letter to the editor of the San Luis Obispo (CA) Tribune (9/5, 126K) Lara Uselding, NRC spokeswoman with the Region IV public affairs office in Arlington, Texas, wrote that the "word on the street" as reflected in a recent editorial and letter to the editor is that the NRC "has not answered one of its current employee's differing professional opinion and is hiding its contents. This is incorrect." Uselding said a "differing professional opinion (DPO) is one of many paths the NRC encourages staff to use for officially documenting their differing views, including an open door policy and a non-concurrence process." Uselding outlines the agency's guidance for implementing the DPO process, and that Michael Peck's appeal of an earlier rejection would come under "additional review from the executive director of operations."

Editorial Urges Further Investigation Of Diablo Canyon Safety Concerns. In an editorial, the Sacramento (CA) Bee (9/6, 582K) writes that a "leaked report" by Nuclear Regulatory Commission inspector Michael Peck report which advises the Diablo Canyon nuclear plant be shut down to further assess seismic safety "once again raises key questions about the plant's ability to withstand an earthquake." The editorial argues that "the NRC should not be rubber-stamping PG&E's requests or minimizing concerns," and that "the NRC has been less than transparent in responding to the concerns of a respected member of its own staff." The Bee notes that "Sen. Barbara Boxer...plans to hold hearings on earthquake risks at Diablo Canyon," and concludes "If it takes a congressional hearing to get straight answers from the NRC, we strongly support that step."

From: Dudek, Michael
Sent: Tuesday, September 09, 2014 9:58 AM
To: Gilles, Nanette
Cc: Jolicoeur, John; Cubbage, Amy; Castleman, Patrick
Subject: RE: Status of Diablo Canyon State of California Report Regarding Seismic Issues

Absolutely. As soon as I know the information requested, I will pass it along. ☺

Michael I. Dudek | OEDO Executive Technical Assistant | U.S. NRC
✉: Michael.Dudek@nrc.gov | ☎: (301) 415-6500 | BB: (b)(6)

From: Gilles, Nanette
Sent: Tuesday, September 09, 2014 9:56 AM
To: Dudek, Michael
Cc: Jolicoeur, John; Cubbage, Amy; Castleman, Patrick
Subject: RE: Status of Diablo Canyon State of California Report Regarding Seismic Issues

Thanks, Mike. I'd appreciate a follow-up on:

- 1- how the staff decides to move forward with respect to dispositioning the State report, once that decision is made
- 2- what the DPO author decides with respect to public release of the appeal response

Thanks,
Nan

From: Dudek, Michael
Sent: Tuesday, September 09, 2014 8:12 AM
To: Gilles, Nanette
Cc: Jolicoeur, John; Cubbage, Amy; Castleman, Patrick
Subject: FYI: Status of Diablo Canyon State of California Report Regarding Seismic Issues

FYI – Please see the staff's recent update on the Diablo Canyon State of California seismic report below. Please let me know if you have any follow-up comments/ concerns.

Michael I. Dudek | OEDO Executive Technical Assistant | U.S. NRC
✉: Michael.Dudek@nrc.gov | ☎: (301) 415-6500 | BB: (b)(6)

From: Sebrosky, Joseph
Sent: Tuesday, September 09, 2014 6:14 AM
To: Markley, Michael; Munson, Clifford; Stovall, Scott; Kock, Andrea; Williams, Megan; Li, Yong; Oesterle, Eric
Cc: Weil, Jenny; Manoly, Kamal; Lund, Louise; Dudek, Michael; Case, Michael; Burnell, Scott; Hay, Michael; Franovich, Mike; Whaley, Sheena; Bowman, Gregory; Bowen, Jeremy; Moreno, Angel; Balazik, Michael; Singal, Balwant; Farnholtz, Thomas; Kanatas, Catherine; Hipschman, Thomas; Reynoso, John; Ake, Jon; Folk, Kevin; DiFrancesco, Nicholas; Balazik, Michael; Reynoso, John; Hill, Brittain; Walker, Wayne; Uselding, Lara; Buchanan, Theresa; Keegan, Elaine; Jackson, Diane; Wittick, Brian; Harris, Brian; Roth(OGC), David; Kanatas, Catherine; OKeefe, Neil
Subject: info and action: status of diablo canyon state of california report regarding seismic issues

To all,

The purpose of this email is to inform you of the current status of the Diablo Canyon State of California report that contains new seismic information.

Access to Report

Yesterday Cliff Munson, Scott Stovall, and Megan Williams received access to the report through an electronic reading room portal. PG&E also made arrangements for Officials from the State of California to review the report prior to its public release. Cliff, Scott, and Megan have begun their quick look review of the report. PG&E is still targeting public release of the report tomorrow (i.e., 9/10/14). There is an internal meeting today scheduled for 2:00 pm eastern for Cliff, Scott, and Megan to provide their insights based on their quick look review of the report and to determine what if any changes need to be made to the communication plan.

Highlights of 9/9/14 PG&E Phone Call

PG&E was previously provided with a list of 6 information needs that the staff believed would be necessary to calculate a seismic core damage frequency (SCDF) based on new seismic information that is believed to be in the State of California report. PG&E was requested to inform the staff if the information could be provided in the September 2014 time frame. During yesterday's phone call PG&E informed the staff that some of the information necessary to develop a SCDF based on changes to the attributes of the Shoreline, Los Osos, and San Luis Bay faults and the soil properties near the site will not be available until March of 2015. There is a short phone call scheduled for this morning at 8:30 am (eastern) with Cliff Munson to discuss the path forward for the staff's review of the State of California report information. Thoughts being considered are:

- Perform a focused deterministic calculation using PG&E's new seismic information (including the fault and soil property changes) as inputs into a staff developed model. The calculation could provide a limited updated ground motion response spectrum to be compared against the Hosgri spectrum. This calculation is limited in that it would not be a complete revision to the staff's deterministic evaluation captured in RIL 12-01, but it is thought the information the calculation could provide could be useful in developing a recommendation to management on how to proceed.
- If the 8:30 meeting results in going forward with this recommendation the project plan will be updated to reflect this and the revised project plan will be discussed with a broader audience at the 2:00 pm eastern meeting scheduled today to discuss Cliff's, Scott's and Megan's assessment of information in the State of California report.

- DORL will brief NRR upper management on the results of yesterday's call including informing Jennifer Uhle that in the short term there is not sufficient information to calculate a seismic core damage frequency

On a different note, I will be working with DORL management to develop a publicly available meeting summary to capture the highlights of yesterday's phone call with PG&E. I believe that the development of such a summary is consistent with the guidance in NRR office instruction COM-203, "Informal Interfacing and Exchange of Information with Licensees and Applicants." If such a summary is developed I will ensure that RIV, and NRO are on concurrence and that prior to release of the summary OPA is consulted.

Status of Other Items

- There is a possibility that the DPO, the DPO recommendation, and the DPO appeal, will be made publicly available this week. DORL is working on coordinating updating the DPO communication plan based on the public availability of this information.

Let me know if you have any questions.

Thanks,

Joe Sebrosky

From: Dudek, Michael
Sent: Tuesday, September 09, 2014 3:36 PM
To: Gilles, Nanette
Cc: Jolicoeur, John; Cubbage, Amy; Castleman, Patrick
Subject: FYI: info: status of public release of Diablo Canyon State of California report
Attachments: nrr dd 9-9 diablo brief.docx

FYI – Looks like tomorrow is the day.

Michael I. Dudek | OEDO Executive Technical Assistant | U.S. NRC

✉: Michael.Dudek@nrc.gov | ☎: (301) 415-6500 | BB: (b)(6)

From: Sebrosky, Joseph
Sent: Tuesday, September 09, 2014 12:19 PM
To: Markley, Michael; Munson, Clifford; Stovall, Scott; Kock, Andrea; Williams, Megan; Li, Yong; Oesterle, Eric
Cc: Weil, Jenny; Manoly, Kamal; Lund, Louise; Dudek, Michael; Case, Michael; Burnell, Scott; Hay, Michael; Franovich, Mike; Whaley, Sheena; Bowman, Gregory; Bowen, Jeremy; Moreno, Angel; Balazik, Michael; Singal, Balwant; Farnholtz, Thomas; Kanatas, Catherine; Hipschman, Thomas; Reynoso, John; Ake, Jon; Folk, Kevin; DiFrancesco, Nicholas; Balazik, Michael; Reynoso, John; Hill, Brittain; Walker, Wayne; Uselding, Lara; Buchanan, Theresa; Keegan, Elaine; Jackson, Diane; Wittick, Brian; Harris, Brian; Roth(OGC), David; Kanatas, Catherine; OKeefe, Neil; Uhle, Jennifer; Lund, Louise
Subject: info: status of public release of Diablo Canyon State of California report

To all,

Based on my discussions with Philippe Soenen of PG&E, PG&E is targeting the public release of the State of California report for 11:00 am Pacific time (2:00 pm eastern) on 9/10/14. PG&E intends to do the following:

- Issue an announcement
- Issue a press release
- Make the document publicly available on their website
- Provide a hard copy to the County
- Walk a copy of the report to us to be provided to the document control desk in accordance with 10 CFR 50.4 requirements

On a different note, Mike Markley, Eric Oesterle, and I briefed Jennifer Uhle on the status of Diablo seismic issues using the attached briefing sheet.

No action required on your part. Thought you should know.

Let me know if you have any questions.

Thanks,

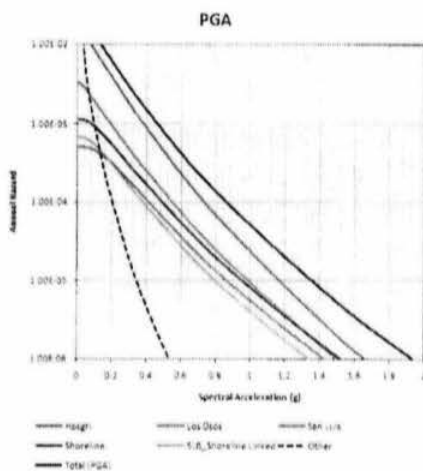
Joe Sebrosky
301-415-1132

Purpose: To inform Jennifer of the current status of Diablo Seismic issues including inability to calculate seismic core damage frequency (SCDF) in the near term.

Outcome: Clear understanding of current status and direction as appropriate provided

Agenda:

- I. Background
 - a. 8/28/14 received direction from NRR/DD to consider using CEUS approach for assessing new Diablo Canyon seismic information (i.e., calculate seismic core damage frequency (SCDF)
 - b. Project plan developed for reviewing State of California report information
 - c. 9/3/14 information needs for calculating SCDF provided to PG&E
 - d. 9/4/14 Chairman briefed including SCDF approach
 - e. 9/8/14 PG&E informs staff that updated curves to calculate SCDF will not be available until March 2015



- II. Current status
 - a. Project plan being revised to consider following approach
 - i. Qualitative discussion of changes to SCDF based on sensitivity information in State of California report
 - ii. Focused updated deterministic calculation using NRC developed ground motion model
 - iii. Determination on whether in-structure response spectra analysis discussed in DPO can be performed by PG&E using new information
- III. Other issues
 - a. Status of review of State of California report
 - i. Updates on when report will be made publicly available
 - b. Status of release of DPO information
 - c. Status of Friends of the Earth Petition
- IV. Next steps
- V. Wrapup

From: ADAMS p8_icm_service
Sent: Tuesday, September 09, 2014 2:07 PM
To: ICM_STARS_OEDO
Subject: STARS OEDO Office Notification (OEDO-14-00621)

OEDO Ticket has been closed by Jaegers, Cathy (cej) on 09/09/2014. 

Last User Comment has been added to a Ticket by Jaegers, Cathy (cej) on 09/09/2014. The comment was -
/s/EDO and dispatched 9/9/14 (Scanned Version sent to M. Peck and cc's).

The Ticket information is below.

Ticket Info

Activity Information

Case Number	OEDO-14-00621
Status	Complete
Activity Type	Task
EDO Due Date	
SECY Due Date	
Requested Due Date	
Assigned Offices	OEDO
Routing Copies to	
EDO Point of Contact	Sampson, Michele (mxs14)
Other Parties	

Incoming ADAMS Accession

Date of Incoming

Incoming ADAMS Package

Frequency

Incoming Information

Originator	Michele Sampson
Originator Organization	OEDO
Task	

Addressee Name

Addressee

Affiliation

Incoming Received Date 09/09/2014

Subject Differing Professional Opinions Appeal Decision Involving Seismic
Issues at Diablo Canyon (DPO-2013-002)

Description

Process Information

Special Instructions

Type

Special Instructions

Near Term

Comment

Requested Action Type Memo

Cross Reference Numbers DPO-2013-002

Signature Level OEDO - EDO

OIG Recommend

OEDO Concurrence

OCM Concurrence

OCA Concurrence

From: Pedersen, Renee
Sent: Tuesday, September 09, 2014 5:18 PM
To: Galloway, Melanie; Sampson, Michele
Cc: Segala, John; Sewell, Margaret; Solorio, Dave
Subject: RE: Draft WIR

Melanie, Michele,

Here is the ADAMS package.

The record was added into DPC as immediate public release about a half hour ago. It should be available tomorrow. We will let you know. As far as being timely enough, it will be in ADAMS. If OPA needs to reference it, then it would be OK and they can ~~use~~ the ML number. It just won't show up in the WIR until next week.

[View ADAMS P8 Properties ML14252A743](#)

[Open ADAMS P8 Document \(DPO Case File-DPO-2013-002 \(Public\)\)](#)

From: Galloway, Melanie
Sent: Tuesday, September 09, 2014 5:09 PM
To: Pedersen, Renee; Sampson, Michele
Cc: Segala, John
Subject: RE: Draft WIR

Just to be clear: we issue WIRs "for the week ending." In this case, it would be for Sept. 12 which means at the earliest it won't go out until next week. Is that timely enough?

From: Pedersen, Renee
Sent: Tuesday, September 09, 2014 4:23 PM
To: Sampson, Michele; Galloway, Melanie
Cc: Segala, John; Sewell, Margaret; Brenner, Eliot
Subject: RE: Draft WIR

Thanks Michele!! We are working on the ADAMS record as we speak. I'll send you the ML number as soon as I get it.

From: Sampson, Michele
Sent: Tuesday, September 09, 2014 4:18 PM
To: Galloway, Melanie
Cc: Pedersen, Renee; Segala, John
Subject: Draft WIR

Melanie,
Attached is a draft WIR for the DPO Appeal Decision. Trent Wertz in NRR has reviewed it and I've incorporated his comments.

Renee is putting together the public case file and will provide the ML number when it is available. I have a placeholder in the WIR at the end to include that information. Please let me know if you have any comments, or any additional information that you may need.

Thank you,
Michele Sampson, Chief
Licensing Branch
U.S. Nuclear Regulatory Commission
Office of Nuclear Material Safety and Safeguards
Spent Fuel Storage and Transportation Division
Mail Stop 3WFN-14A44
Washington, D.C. 20555-0001
Phone: 301-287-9077

From: Jaegers, Cathy
Sent: Tuesday, September 09, 2014 2:16 PM
To: Sampson, Michele; Kreuter, Jane
Subject: Closeout for DPO Memo re: Seismic Issues at Diablo Canyon

Here is the signed and dated document that is in ADAMS. Distribution has been made to M. Peck, cc's and for OEDO. Please make any remaining distribution, complete the profile and declare in ADAMS.

[View ADAMS P8 Properties ML14251A453](#)

[Open ADAMS P8 Document \(Differing Professional Opinions Appeal Decision Involving Seismic Issues at Diablo Canyon \(DPO-2013-002\)\)](#)

From: NRC Daily Notes <EDO.GroupAccount@nrc.gov>
Sent: Wednesday, September 10, 2014 4:00 PM
To: EDO GroupAccount
Cc: Pena, Alex
Subject: NRC Daily Notes for September 10, 2014

~~OFFICIAL USE ONLY - SENSITIVE INTERNAL INFORMATION~~

Daily Notes for September 10, 2014

NRR

Non-Responsive Record

~~(OUO-SI)~~

On September 10, the Differing Professional Opinion (DPO) Case File (DPO-2013-002) concerning seismic issues at Diablo Canyon Power Plant, Units 1 and 2, was made publicly available in ADAMS at Accession No. ML14252A743.

OEDO

Non-Responsive Record

Non-Responsive Record

From: Rothschild, Trip
Sent: Wednesday, September 10, 2014 5:39 PM
To: Segala, John
Subject: RE: DPO Case File-DPO-2013-002 is now public

A belated thanks for getting this to me so quickly.

From: Segala, John
Sent: Wednesday, September 10, 2014 4:04 PM
To: Rothschild, Trip
Subject: FW: DPO Case File-DPO-2013-002 is now public
Importance: High

Trip,

Please see link below.

Thanks, John

John Segala
Executive Technical Assistant (Rotation)
Office of the Executive Director for Operations
U.S. Nuclear Regulatory Commission
✉: John.Segala@nrc.gov | ☎: 301-415-1992 | BB: (b)(6)

From: Pedersen, Renee
Sent: Wednesday, September 10, 2014 11:10 AM
To: Satorius, Mark
Cc: Galloway, Melanie; Sampson, Michele; Segala, John; Zimmerman, Roy; Brenner, Eliot; Holahan, Patricia; Dorman, Dan; Hilton, Nick; Solorio, Dave; Sewell, Margaret
Subject: FYI: DPO Case File-DPO-2013-002 is now public
Importance: High

Mark,

Just wanted to let everyone know that the DPO Case File is now publicly available. Please let us know if we can be of further assistance.

Renée

From: Hasan, Nasreen
Sent: Wednesday, September 10, 2014 11:04 AM
To: Pedersen, Renee; Sewell, Margaret
Subject: DPO Case File-DPO-2013-002

Document is publicly available now.

[View ADAMS P8 Properties ML14252A743](#)
[Open ADAMS P8 Document \(DPO Case File-DPO-2013-002 \(Public\).\)](#)

*Thank you,
Nasreen Hasan
Administrative Assistant
Office of Enforcement
Location / Mailstop: O-4A15A
Office #: (301)415-2741
Fax: (301)415-3431*

From: Bowers, Anthony
Sent: Wednesday, September 10, 2014 3:47 PM
To: Segala, John
Subject: Draft WIR Input for DPO 2013-002.docx
Attachments: Draft WIR Input for DPO 2013-002.docx

Office of the Executive Director for Operations (EDO)
Items of Interest

EDO Decision on Differing Professional Opinion (DPO) 2013-002 Appeal: Diablo Canyon
Seismic Issues (DPO 2013-002)

On September 9, 2014, the Executive Director for Operations (EDO) issued a decision on the appeal of DPO 2013-002, concerning seismic issues at the Diablo Canyon Nuclear Power Plant (DCNPP). The EDO's decision on the appeal supported both the DPO panel's independent technical conclusions and subsequent NRR's Office Director's decision that there was not a significant or immediate concern with seismic safety at DCP, and that the licensee and staff had followed appropriate processes for technical specification operability of plant equipment and Title 10 Code of Federal Regulations 50.59 evaluations with a reasonable technical and safety rationale. The EDO noted that the DPO raised awareness of the complexity of the DCNPP seismic licensing basis, but also illustrated the need for the agency to ensure there are clear guidelines for staff and licensees regarding how changes in natural hazards should be evaluated for all licensees. The public records for this DPO are available in the DPO case file package in ADAMS (MLXXXXXX).

From: Segala, John
Sent: Wednesday, September 10, 2014 3:55 PM
To: Galloway, Melanie
Cc: Pedersen, Renee; Sampson, Michele
Subject: RE: Draft WIR

Melanie,

In an attempt to shorten the WIR, Tony Bowers helped me came up with the following:

Office of the Executive Director for Operations (EDO)
Items of Interest

EDO Decision on Differing Professional Opinion (DPO) 2013-002 Appeal: Diablo Canyon Seismic Issues (DPO 2013-002)

On September 9, 2014, the Executive Director for Operations (EDO) issued a decision on the appeal of DPO 2013-002, concerning seismic issues at the Diablo Canyon Nuclear Power Plant (DCNPP). The EDO's decision on the appeal supported both the DPO panel's independent technical conclusions and subsequent Office of Nuclear Reactor Regulation (NRR) Director's decision that there was not a significant or immediate concern with seismic safety at DCP, and that the licensee and staff had followed appropriate processes for technical specification operability of plant equipment and Title 10 Code of Federal Regulations 50.59 evaluations with a reasonable technical and safety rationale. The EDO noted that the DPO raised awareness of the complexity of the DCNPP seismic licensing basis, but also illustrated the need for the agency to ensure there are clear guidelines for staff and licensees regarding how changes in natural hazards should be evaluated for all licensees. The public records for this DPO are available in the DPO case file package in ADAMS (ML14252A743).

Please let me know if this still captures the key messages.

Thanks, John

From: Galloway, Melanie
Sent: Tuesday, September 09, 2014 5:09 PM
To: Pedersen, Renee; Sampson, Michele
Cc: Segala, John
Subject: RE: Draft WIR

Just to be clear: we issue WIRs "for the week ending." In this case, it would be for Sept. 12 which means at the earliest it won't go out until next week. Is that timely enough?

From: Pedersen, Renee
Sent: Tuesday, September 09, 2014 4:23 PM
To: Sampson, Michele; Galloway, Melanie
Cc: Segala, John; Sewell, Margaret; Brenner, Eliot
Subject: RE: Draft WIR

Thanks Michele!! We are working on the ADAMS record as we speak. I'll send you the ML number as soon as I get it.

From: Sampson, Michele
Sent: Tuesday, September 09, 2014 4:18 PM
To: Galloway, Melanie
Cc: Pedersen, Renee; Segala, John
Subject: Draft WIR

Melanie,
Attached is a draft WIR for the DPO Appeal Decision. Trent Wertz in NRR has reviewed it and I've incorporated his comments.

Renee is putting together the public case file and will provide the ML number when it is available. I have a placeholder in the WIR at the end to include that information. Please let me know if you have any comments, or any additional information that you may need.

Thank you,
Michele Sampson, Chief
Licensing Branch
U.S. Nuclear Regulatory Commission
Office of Nuclear Material Safety and Safeguards
Spent Fuel Storage and Transportation Division
Mail Stop 3WFN-14A44
Washington, D.C. 20555-0001
Phone: 301-287-9077

From: Galloway, Melanie
Sent: Wednesday, September 10, 2014 1:31 PM
To: Segala, John
Cc: Sampson, Michele
Subject: FW: draft DPO Comm Plan
Attachments: Draft mini-Comm Plan on DCPD DPO.docx

Importance: High

Is this Comm Plan and the WIR helpful to OPA in terms of talking points? Do you know where OPA is on those talking points and what assistance they might need from us?

From: Pedersen, Renee
Sent: Wednesday, September 10, 2014 10:03 AM
To: Galloway, Melanie
Cc: Sampson, Michele; Segala, John; Sewell, Margaret; Solorio, Dave
Subject: FW: draft DPO Comm Plan
Importance: High

Melanie,

I wanted to bring this to your attention based on what I understood as Mark's desire to have speaking points for the Diablo Canyon DPO and additional Diablo Canyon issues.

I'm not sure if the employees have coordinated with OEDO. I looked at an earlier communication plan (after the fact) and provided comments. I have not had a chance to review this, but will and make appropriate comments.

In addition, the DPO Case File is still with DPC. I'll let you know when it is replicated and available in ADAMS via the public web site.

Renée

From: Oesterle, Eric
Sent: Wednesday, September 10, 2014 9:55 AM
To: Buchanan, Theresa; Uselding, Lara; Burnell, Scott; Walker, Wayne; Hipschman, Thomas; Hill, Brittain; Sebrosky, Joseph; Pedersen, Renee; Pruett, Troy; Williams, Megan
Cc: Markley, Michael
Subject: draft DPO Comm Plan
Importance: High

Everyone,

Good morning. Attached please find a draft of the DPO Comm plan that was discussed at the 8:30 call this AM. This is provided to you for comment. Please note that it reflects real-time action on the DPO Appeal and incorporates comments from the discussion this morning on the AB-1632 Seismic Report. Much of the Q&A comes from the "living-DCPD Comm Plan" that is being maintained by RIV (the highlighted questions are troublesome to NRR/DORL but we understand that RIV prefers to maintain these). I have included a question at the end about whether new information in the AB-1632 report could impact the DPO conclusions. Also note

that the Comm Plan does not contain a timeline as we are already real-time. Please let me know if you have any questions or comments.

Eric R. Oesterle

Acting Branch Chief

NRR/DORL/LPL4-1

301-415-1014



Communications Plan –
Diablo Canyon Power Plant Topics of Interest
Differing Professional Opinion and Appeal

Background

The former SRI at the Diablo Canyon Power Plant (DCPP) submitted non-concurrence papers (NCPs) in January 2011 and January 2012, followed by a Differing Professional Opinion (DPO) in July 2013 detailing a disagreement with the NRC about how new seismic information should be compared to the plant's current seismic license requirements. DPO 2013-02 restated the issues presented in NCP 2012-01 and added a concern that a license amendment was needed incorporate the Shoreline fault into Diablo Canyon's FSAR as described in the RIL 12-01 cover letter. The added concern was that the NRC did not review or take action on the Los Osos and San Luis Bay faults. In accordance with Management Directive 10.159, a DPO Ad Hoc Review Panel was established to review the DPO submittal, meet with DPO submitter, and issues a DPO report including conclusions and recommendations regarding disposition of the issues presented in the DPO. The panel completed its report in May 2014 and a decision on the DPO was rendered in letter dated May 29, 2014, to the DPO submitter. The DPO submitter appealed the decision to the EDO in accordance with the NRC's DPO process. The EDO completed his consideration of the DPO appeal on September 9, 2014, concluding that he was in agreement with the original decision.

The purpose of this communication plan is to provide key messages associated with the EDO's decision on the DPO appeal and public release of the DPO Case File.

Key Messages:

1. The NRC appreciates members of the staff bring issues like this to its attention
2. The NRC encourages the use of non-concurrences and the Differing Professional Opinion (DPO) process
3. The NRC reviews all non-concurrences and DPOs thoroughly and believes that this is a healthy and necessary part the regulatory process
4. The NRC believes that, in the end, all of our regulatory decisions are better because of this process
5. The NRC has an obligation to protect the individual(s) submitting non-concurrences and DPOs and takes that obligation seriously
6. The DPO process is a non-public process and it is a strictly controlled and formalized process
7. Persons serving on the DPO Panels are independent of the issues raised in the DPO
8. Upon disposition of the DPO via a Director's decision, the DPO submitter has appeal rights to the EDO

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9. While the DPO is under review or appeal, NRC is prohibited from engaging in discussions with external stakeholders regarding the specifics of the of the DPO submittal
10. After the EDO's decision on the appeal, the DPO submitter has the right to make the DPO case file public to the extent that personal privacy information and SUNSI information is not contained in the DPO
11. Regarding the DPO for Diablo Canyon, the NRC has been and will continue to be as open and scrutable as possible while protecting the privacy rights of the individual
12. The NRC does not know the source of the public release of the Diablo Canyon DPO submittal prior to the EDO rendering a decision on the appeal
13. The NRC can, however, comment on a few aspects of the DPO appeal review
 - o A Director's Decision has been made and the DPO appeal to the EDO has been finalized
 - o The EDO and the DPO submitter have both agreed that the issues raised in the DPO do not present an immediate safety concern for Diablo Canyon
 - o The NRC has sought permission from the DPO submitter to allow the DPO case file to be made publicly available and the DPO submitter has agreed
 - o We would expect the public release of the DPO case file to be within a few days of the EDO's appeal decision
14. Regarding the operational status of Diablo Canyon Power Plant, Units 1 and 2
 - o The plant remains within its approved design and licensing basis
 - o There are no current operability concerns resulting from the DPO
 - o The recent earthquake in the Napa Valley did not reach Diablo Canyon – it was neither felt nor detected

Communication Team

The primary responsibility of the communication team is to ensure that it conveys a consistent, accurate, and timely message to all stakeholders. The team consists of the project management, technical, and communication staff named below.

Team Member	Position	Organization	Telephone
Troy Pruett	Division Director (Acting)	RIV/DRP	817-200-1291
Wayne Walker	Branch Chief	R-IV/DRP/RPB-A	817-200-1148
Ryan Alexander	Sr. Project Engineer	R-IV/DRP/RPB-A	817-200-1195
Thomas Hipschman	Sr. Resident Inspector - DCP	R-IV/DRP/RPB-A	805-595-2354
John Reynoso	Resident Inspector - DCP	R-IV/DRP/RPB-A	805-595-2354
Thomas Farnholtz	Branch Chief	RIV/DRS/EB1	817-200-1243

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Jon Ake	Senior Seismologist	RES/DE/SGSEB	301-251-7695
Eric Oesterle	Acting Branch Chief	NRR/DORL/LPLIV	301-415-1014
Balwant Singal	DCPP Project Manager	NRR/DORL/LPLIV	301-415-3016
Renee Pedersen	DPO PM	OE/CRB	301-415-2742
Scott Burnell	Public Affairs Officer	OPA	301-415-8204
Angel Moreno	Congressional Affairs	OCA	301-415-1691
Amy Powell	Associate Director	OCA	301-415-1673
Victor Dricks	Public Affairs Officer	RIV	817-200-1128
Lara Uselding	Public Affairs Officer	RIV	817-200-1519
Bill Maier	State Liaison Officer	RIV	817-200-1267

Non-concurrence and DPO Questions

[NOTE – this information is generally NON-PUBLIC, but is provided as background only]

NOTE: General FAQs on the DPO Program are included on the DPO Web site (look under Employee Resources—Employee Concerns.

1. Was the former DCPD SRI reassigned because he filed two non-concurrences?

No. Michael Peck was not reassigned. He applied for an instructor position in his area of expertise at the NRC's technical training center in Chattanooga, TN, at about the time he submitted his non-concurrence in accordance with the Non-Concurrence Process described in MD 10.158. He was competitively selected for this sought-after position, and reported to his new assignment in September 2012. Resident inspector assignments are limited to 7 years to ensure objectivity. It is common for resident inspectors to apply for their next job when a desirable position comes open.

2. When were the non-concurrences filed?

Two non-concurrences were filed by the DCPD SRI.

11/7/11. The DCPD SRI submitted NCP 2011-103, on inspection report 05000275; 323/201104.

1/26/12. The DCPD SRI submitted NCP 2012-01, on inspection report 05000275; 323/201105.

3. What were the non-concurrences?

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Both non-concurrences involve the same subject; regulatory actions in response to the discovery of the Shoreline Fault.

NCP 2011-103 was filed by the DCPD SRI on the basis that no violation was issued (as he had submitted in the draft report) related to operability evaluation of the Shoreline fault in Report 2011-04. NCP 2011-103 was dispositioned finalizing the violation in IR 2011-05 issued on 2/14/12. (The employee requested that the NCP be non-public.)

NCP 2012-01 was filed by the DCPD SRI because the SRI believed the violation in NRC IR 2011-05 should be for an inadequate operability evaluation of the Shoreline Fault rather than not doing an operability evaluation until June 2012. The SRI believed the facility should be shutdown or the license amended to reflect the Shoreline fault. NCP 2012-01 was discussed with NRC stakeholders representing NRR/DE, NRR/DORL, RIV, and RES. NCP 2012-01 was dispositioned as a multi-office staff position which concluded that a violation for having no operability evaluation from January 2011 to June 2011 existed because the licensee completed the RIS 2005-020 immediate (interim) operability evaluation in June 2011. Additionally, the offices involved in NCP 2012-01 acknowledged that a final operability evaluation could not be completed by the licensee until the NRC decided what requirements and methods should be applied to new seismic information. At the time of Inspection Report 2011-05 issuance it was expected that the requirements and methods would be addressed in a License Amendment Request that was under consideration. However, by 3Q/2012, enough progress had been made on RIL 2012-01 for NRR and RES to conclude that the LTSP method of analysis used in the immediate operability assessment was sufficient to evaluate the Shoreline fault and that the Shoreline Fault should be considered a lesser included case of the Hosgri event. (The employee supported public release of the NCP ADAMS ML121A173.)

4. When was the DPO filed?

July 18, 2013. The former DCPD SRI filed Differing Professional Opinion (DPO) 2013-02 associated with the regulatory response following the discovery of the Shoreline Fault.

NRC employees are encouraged to file a DPO if they believe an agency decision is in error. The DPO process is in keeping with the agency's open and collaborative working environment.

5. What is the DPO?

DPO 2013-02 restated the issues presented in NCP 2012-01 and added a concern that a license amendment was needed incorporate the shoreline fault into Diablo Canyon's FSAR as described in the RIL 12-01 cover letter. The added concern was that the NRC did not review or take action on the Los Osos and San Luis Bay faults.

6. What is the status of the DPO?

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A decision on the DPO was issued by the Office Director for NRR on May 29, 2014 consistent with the NRC's process included in MD 10.159. The DPO submitter appealed this decision to the EDO on June 23, 2014, and the appeal was thoroughly evaluated by the EDO and decision on the appeal was rendered on September 9, 2014.

As part of the agency's open and collaborative work environment, the NRC has established the DPO program as a means for employees to have their concerns reviewed by high level managers. The DPO Program is a formal process that allows all employees and contractors to have their differing views on established, mission-related issues considered by the highest level managers in their organizations, i.e., Office Directors and Regional Administrators. The process also provides managers with an independent, three-person review of the issue (one person chosen by the employee). After a decision is issued to an employee, he or she may appeal the decision to the Executive Director for Operations (or the Chairman for those offices reporting to the Commission).

7. Will the decision regarding the DPO be made public?

The NRC supports openness and will include a summary of the disposition of the DPO in the Commission's Weekly Information Report included on the NRC Web site (see Commission Documents under the Document Collections in the NRC Library). The DPO submitter has been contacted regarding the EDO's decision on the DPO appeal and has communicated support for the public release of the DPO Case File (with appropriate redactions). The DPO Case File should be publicly available within a few days of the EDO's DPO appeal decision.

8. Was the SRI wrongfully reassigned after filing two non-concurrences and a DPO?

No. As noted in Q&A #1 above, the SRI applied for and was selected to a highly sought instructor position at the NRC's Technical Training Center. The NRC does not tolerate retaliation for engaging in the NCP or the DPO Program and both MDs reiterate this policy and direct employees to resources in the event they believe that they have been retaliated against.

9. Would the DPO panel's conclusions or the DPO appeal decision change based on the new seismic information found in the State of California report?

PG&E, the licensee for Diablo Canyon, is providing a report to the State of California that includes the results of its most recent evaluation of the seismic hazards for the Diablo Canyon facility. The NRC understands that the report will be provided to the State of California on September 10, 2014, and that a copy will be provided to the NRC as well. Prior to performing a detailed review of this report, the NRC is not able to ascertain whether the new seismic information contained in the report would change the DPO panel's conclusions or the DPO appeal decision. The NRC understands that PG&E plans to incorporate the findings from this report into their ongoing analysis required by the NRC Post-Fukushima task force recommendations that are due in March 2015. The NRC believes this more rigorous analysis will provide the most accurate assessment of faults affecting the DCCP. In addition, the NRC

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staff's review of the new seismic information in the report notes that PG&E's evaluation concludes that the ground motions resulting from the faults discussed in the report (i.e., Shoreline, Hosgri, San Simeon, Los Osos, and San Luis Bay) continue to be bounded by the Hosgri analysis that was used during licensing of the plant.

NRC Resident Inspectors and Region IV staff looked at the licensee's corrective action process assessment of new preliminary information concerning DCPD seismic and licensing bases. The licensee's information indicates reasonable assurance of public health and safety after a seismic event.

The NRC staff will continue to review the new information provided in the report in accordance with the NRC's inspection process. The NRC will take additional regulatory action as appropriate if the new information associated with the Faults around DCPD cause NRC to question PG&E's conclusions.

From: Galloway, Melanie
Sent: Thursday, September 11, 2014 11:47 AM
To: Dudek, Michael
Subject: FW: Query: updated comm plan for Diablo Canyon

FYI

From: Helton, Shana
Sent: Thursday, September 11, 2014 10:23 AM
To: Galloway, Melanie
Cc: Niedzielski-Eichner, Phillip
Subject: RE: Query: updated comm plan for Diablo Canyon

Melanie,

Thank you so much for your help, we did get it. Is the living comm plan kept on a SharePoint site somewhere or in ADAMS? I've got a hard copy, and we have everything pertaining to the State commissioned seismic study and the DPO (thank you!) -- but I think the Chiefs of Staff are looking for a link so they can check in on updates to the larger comm plan, the one titled "Communications Plan – Diablo Canyon Power Plant Topics of Interest." The hard copy version we have is date/time stamped 8/27/2014 9:03 AM, as the last update.

Thank you,
Shana

From: Galloway, Melanie
Sent: Thursday, September 11, 2014 9:17 AM
To: Helton, Shana
Cc: Bubar, Patrice; Bloomer, Tamara; Niedzielski-Eichner, Phillip
Subject: RE: Query: updated comm plan for Diablo Canyon

I've asked my staff to look into it and will get back to you.

From: Helton, Shana
Sent: Wednesday, September 10, 2014 4:54 PM
To: Galloway, Melanie
Cc: Bubar, Patrice; Bloomer, Tamara; Niedzielski-Eichner, Phillip
Subject: Query: updated comm plan for Diablo Canyon

Hi Melanie,

Has staff updated their communication plan on Diablo Canyon? The Chiefs of Staff are interested in seeing whatever is the latest and greatest. If you have an ADAMS link or SharePoint link that would work very well.

Thank you so much for your help!
Shana

*Shana R. Helton, Deputy Chief of Staff
Office of Chairman Allison M. Macfarlane
U.S. Nuclear Regulatory Commission
Mail Stop: O-16 G4*

Office: 301-415-1716
Fax: 301-415-3504

From: Dudek, Michael
Sent: Thursday, September 11, 2014 8:29 AM
To: Gilles, Nanette
Cc: Cabbage, Amy; Castleman, Patrick
Subject: FYI: Comm Plan for DPO & Appeal
Attachments: Draft mini-Comm Plan on DCPD DPO_final.docx

Importance: High

FYI

Michael I. Dudek | OEDO Executive Technical Assistant | U.S. NRC

✉: Michael.Dudek@nrc.gov | ☎: (301) 415-6500 | BB: (b)(6)

From: Oesterle, Eric
Sent: Wednesday, September 10, 2014 12:32 PM
To: Sebrosky, Joseph; Markley, Michael; Munson, Clifford; Stovall, Scott; Kock, Andrea; Williams, Megan; Li, Yong
Cc: Weil, Jenny; Manoly, Kamal; Lund, Louise; Dudek, Michael; Case, Michael; Burnell, Scott; Hay, Michael; Franovich, Mike; Whaley, Sheena; Bowman, Gregory; Bowen, Jeremy; Moreno, Angel; Balazik, Michael; Singal, Balwant; Farnholtz, Thomas; Kanatas, Catherine; Hipschman, Thomas; Reynoso, John; Ake, Jon; Folk, Kevin; DiFrancesco, Nicholas; Balazik, Michael; Reynoso, John; Hill, Brittain; Walker, Wayne; Uselding, Lara; Buchanan, Theresa; Keegan, Elaine; Jackson, Diane; Wittick, Brian; Harris, Brian; Roth(OGC), David; Kanatas, Catherine; OKeefe, Neil
Subject: Comm Plan for DPO & Appeal
Importance: High

Everyone,

Attached for your use and for Region to fold into their "living DCPD Comm Plan" is the DPO & Appeal Comm Plan. It has been extensively coordinated with the Comm Plan for the PG&E Seismic Report (AB 1632) that is being issued today. The EDO has provided his decision on the DPO Appeal and the DPO Case File has been made public. As a result of these actions, we are issuing this DPO Comm Plan for timely use. If you have any questions please contact me. Thanks.

Eric R. Oesterle
Acting Branch Chief
NRR/DORL/LPL4-1
301-415-1014



The entire email (including attached draft mini-Comm Plan, which was redacted) may be found as document G/12 in interim response #3 in FOIA/PA-2014-0488 (ML15033A280).

From: Sebrosky, Joseph
Sent: Wednesday, September 10, 2014 10:44 AM
To: Markley, Michael; Munson, Clifford; Stovall, Scott; Kock, Andrea; Williams, Megan; Li, Yong; Oesterle, Eric
Cc: Weil, Jenny; Manoly, Kamal; Lund, Louise; Dudek, Michael; Case, Michael; Burnell, Scott; Hay, Michael; Franovich, Mike; Whaley, Sheena; Bowman, Gregory; Bowen, Jeremy; Moreno, Angel; Balazik, Michael; Singal, Balwant; Farnholtz, Thomas; Kanatas, Catherine; Hipschman, Thomas; Reynoso, John; Ake, Jon; Folk, Kevin; DiFrancesco, Nicholas; Balazik,

From: Dudek, Michael
Sent: Thursday, September 11, 2014 11:50 AM
To: Sebrosky, Joseph
Subject: RE: info: status of diablo canyon state of california report regarding seismic issues

Joe... Is the big 85+ page Comm Plan a living document some place that the Chairman's office can easily view it? SharePoint site, etc.?

Michael I. Dudek | OEDO Executive Technical Assistant | U.S. NRC
✉: Michael.Dudek@nrc.gov | ☎: (301) 415-6500 | BB: (b)(6)

From: Sebrosky, Joseph
Sent: Wednesday, September 10, 2014 11:19 AM
To: Markley, Michael; Munson, Clifford; Stovall, Scott; Kock, Andrea; Williams, Megan; Li, Yong; Oesterle, Eric
Cc: Weil, Jenny; Manoly, Kamal; Lund, Louise; Dudek, Michael; Case, Michael; Burnell, Scott; Hay, Michael; Franovich, Mike; Whaley, Sheena; Bowman, Gregory; Bowen, Jeremy; Moreno, Angel; Balazik, Michael; Singal, Balwant; Farnholtz, Thomas; Kanatas, Catherine; Hipschman, Thomas; Reynoso, John; Ake, Jon; Folk, Kevin; DiFrancesco, Nicholas; Balazik, Michael; Reynoso, John; Hill, Brittain; Walker, Wayne; Uselding, Lara; Buchanan, Theresa; Keegan, Elaine; Jackson, Diane; Wittick, Brian; Harris, Brian; Roth(OGC), David; Kanatas, Catherine; OKeefe, Neil
Subject: RE: info: status of diablo canyon state of california report regarding seismic issues

To all,

I apologize, I previously sent you the wrong version. Attached is the correct version of the communication plan.

Joe Sebrosky
X1132

From: Sebrosky, Joseph
Sent: Wednesday, September 10, 2014 10:44 AM
To: Markley, Michael; Munson, Clifford; Stovall, Scott; Kock, Andrea; Williams, Megan; Li, Yong; Oesterle, Eric
Cc: Weil, Jenny; Manoly, Kamal; Lund, Louise; Dudek, Michael; Case, Michael; Burnell, Scott; Hay, Michael; Franovich, Mike; Whaley, Sheena; Bowman, Gregory; Bowen, Jeremy; Moreno, Angel; Balazik, Michael; Singal, Balwant; Farnholtz, Thomas; Kanatas, Catherine; Hipschman, Thomas; Reynoso, John; Ake, Jon; Folk, Kevin; DiFrancesco, Nicholas; Balazik, Michael; Reynoso, John; Hill, Brittain; Walker, Wayne; Uselding, Lara; Buchanan, Theresa; Keegan, Elaine; Jackson, Diane; Wittick, Brian; Harris, Brian; Roth(OGC), David; Kanatas, Catherine; OKeefe, Neil
Subject: info: status of diablo canyon state of california report regarding seismic issues

To all,

PG&E is still scheduled to release their State of California report at 11:00 am pacific, 2:00 pm eastern. Attached is the communication plan that is associated with this effort. Please note that it indicates that an NRC blog is possible. OPA is working on developing the blog language separately from the attached communication plan.

Other items

Eric Oesterle is leading the effort to finalize a communication plan associated with the DPO given that the DPO, the DPO response and the DPO appeal decision will likely be made publicly available in the short term. A draft has been provided to a smaller audience for their comment.

The entirety of this email, including the attached draft Comm Plan, which was redacted, may be found as document G/12 in interim response #3 in FOIA/PA-2014-0488 (ML14033A280).

From: Pedersen, Renee
Sent: Thursday, September 11, 2014 2:07 PM
To: Segala, John; Cianci, Sandra; Schumann, Stacy
Cc: Sampson, Michele; Galloway, Melanie; Bowers, Anthony
Subject: RE: WIR input - EDO Decision on Diablo Canyon DPO Appeal

Thanks. We will use this summary on our internal DPO Web site.

Renée

From: Segala, John
Sent: Thursday, September 11, 2014 1:46 PM
To: Cianci, Sandra; Schumann, Stacy
Cc: Pedersen, Renee; Sampson, Michele; Galloway, Melanie; Bowers, Anthony
Subject: WIR input - EDO Decision on Diablo Canyon DPO Appeal

Sandy/Stacy,

Melanie has approved the following WIR input.

Per our discussion yesterday, please add it to the September 12th WIR.

Please let me know if you have any questions.

Thanks, John

Office of the Executive Director for Operations (EDO)
Items of Interest

EDO Decision on Differing Professional Opinion (DPO) 2013-002 Appeal: Diablo Canyon Seismic Issues (DPO 2013-002)

On September 9, 2014, the Executive Director for Operations (EDO) issued a decision on the appeal of DPO 2013-002, concerning seismic issues at the Diablo Canyon Nuclear Power Plant (DCNPP). The EDO's decision on the appeal supported both the DPO panel's independent technical conclusions and subsequent Office of Nuclear Reactor Regulation (NRR) Director's decision that there was not a significant or immediate concern with seismic safety at DCP, and that the licensee and staff had followed appropriate processes for technical specification operability of plant equipment and Title 10 Code of Federal Regulations 50.59 evaluations with a reasonable technical and safety rationale. The EDO noted that the DPO raised awareness of the complexity of the DCNPP seismic licensing basis, but also illustrated the need for the agency to ensure there are clear guidelines for staff and licensees regarding how changes in natural hazards should be evaluated for all licensees. The public records for this DPO are available in the DPO case file package in ADAMS (ML14252A743).

From: Pedersen, Renee
Sent: Thursday, September 11, 2014 8:24 AM
To: Dudek, Michael; Foster, Jack; Solorio, Dave
Cc: Sewell, Margaret; Sampson, Michele; Galloway, Melanie; Segala, John
Subject: RE: Did the Commission ever see this?

FYI, in accordance with the DPO guidance, a summary of the case will be included in the upcoming WIR.

From: Dudek, Michael
Sent: Thursday, September 11, 2014 7:36 AM
To: Foster, Jack; Solorio, Dave
Cc: Pedersen, Renee; Sewell, Margaret
Subject: RE: Did the Commission ever see this?

Thanks Jack! I have been communicating (at length) with the Commission about this. No additional actions are needed.

Michael I. Dudek | OEDO Executive Technical Assistant | U.S. NRC
✉: Michael.Dudek@nrc.gov | ☎: (301) 415-6500 | BB: (b)(6)

From: Foster, Jack
Sent: Thursday, September 11, 2014 6:23 AM
To: Dudek, Michael; Solorio, Dave
Cc: Pedersen, Renee; Sewell, Margaret
Subject: FW: Did the Commission ever see this?

Mike,

For your awareness. Tammy is asking SECY if the Commission has seen DPO Case File (DPO-2013-002) concerning seismic issues at Diablo Canyon Power Plant, Units 1 and 2. See below.

Thanks,
Jack



Jack Foster, ETA
Office of the Executive Director for Operations MS O-16-E4
U.S. Nuclear Regulatory Commission
Washington, DC 20555
(301) 415-6250

From: Bloomer, Tamara
Sent: Wednesday, September 10, 2014 5:45 PM
To: Laufer, Richard; Foster, Jack; Chen, Yen-Ju
Subject: Did the Commission ever see this?

On September 10, the Differing Professional Opinion (DPO) Case File (DPO-2013-002) concerning seismic issues at Diablo Canyon Power Plant, Units 1 and 2, was made publicly available in ADAMS at Accession No. ML14252A743.

Tamara E. Bloomer
Policy Advisor for Materials
Office of Commissioner Ostendorff
301-415-2896

From: Wiggins, Jim
Sent: Wednesday, September 17, 2014 7:14 AM
To: Johnson, Michael; Dapas, Marc
Subject: RE: Periodic meeting with the Chairman

Another indication of the continuing connection between the NRC at the staff level and markey's staff. What a shame now that there is no such thing as internal deliberations. It's really good to be KMA+7.

From: Johnson, Michael
Sent: Wednesday, September 17, 2014 6:44 AM
To: Dapas, Marc; Satorius, Mark; Weber, Michael; Zimmerman, Roy; Ash, Darren; Dorman, Dan; Wiggins, Jim; Tracy, Glenn; Haney, Catherine; Sheron, Brian; Holian, Brian; Carpenter, Cynthia; Flanagan, James; Cohen, Miriam; Galloway, Melanie; Pederson, Cynthia; McCree, Victor; Dean, Bill; Rich, Thomas; McCrary, Cheryl; Holahan, Patricia; Wylie, Maureen
Cc: Kennedy, Kriss
Subject: RE: Periodic meeting with the Chairman

Good. Thanks Marc.

Mike

From: Dapas, Marc
Sent: Tuesday, September 16, 2014 8:59 PM
To: Satorius, Mark; Johnson, Michael; Weber, Michael; Zimmerman, Roy; Ash, Darren; Dorman, Dan; Wiggins, Jim; Tracy, Glenn; Haney, Catherine; Sheron, Brian; Holian, Brian; Carpenter, Cynthia; Flanagan, James; Cohen, Miriam; Galloway, Melanie; Pederson, Cynthia; McCree, Victor; Dean, Bill; Rich, Thomas; McCrary, Cheryl; Holahan, Patricia; Wylie, Maureen
Cc: Kennedy, Kriss
Subject: Periodic meeting with the Chairman

This afternoon I had a periodic meeting (via VTC) with the Chairman. The topics discussed were:

(1)

Non-Responsive Record

Non-Responsive Record

(b)

Non-Responsive Record

(c)

Non-Responsive Record

- (2) Diablo Canyon: I discussed NRC staff plans to review the licensee's seismic report (required to be submitted by the licensee (Pacific Gas and Electric (PG&E)) to the State of California under legislation AB 1632) which indicates that the shoreline fault is more energetic and capable than previously

assumed. I noted that the Chairman had been recently briefed by Cliff Munson from RES on the AB 1632 report and the staff's preliminary assessment that the report did not contain any new information that would call into question the NRC's previous safety conclusion that the shoreline fault was bounded by ground accelerations associated with the Hosgri fault (0.75g). I further explained that the NRC staff was reviewing the licensee's associated operability evaluation and that there was a meeting on Thursday afternoon with the licensee to provide staff-generated questions deriving from our review of the AB 1632 report/licensee operability evaluation.

I discussed the recently submitted Friends of Earth petition claiming that the manner in which the NRC reviewed the shoreline fault, i.e., issuing NRC Research Information Letter 12-01, "Confirmatory Analysis of Seismic Hazard at the Diablo Canyon Power Plant from the Shoreline Fault Zone" dated September 2012, was a defacto license amendment, and by not treating it as such, the public was not afforded the opportunity to comment on the NRC's evaluation of the plant's seismic adequacy.

I informed the Chairman that Senator Markey's office had submitted some very specific questions to the NRC regarding the 50.59 process used by PG&E when it replaced major equipment such as steam generators, reactor coolant system components, and the reactor vessel head. The questions are focused on whether PG&E should have analyzed a scenario involving Hosgri fault generated ground motions coupled with a loss-of-coolant-accident. I indicated that the staff is evaluating the licensee's disposition of this issue. I noted that the questions from Senator Markey's office were submitted to the NRC only two or three days after we had identified the issue and engaged the licensee.

(3)

Non-Responsive Record

That's all ☺

From: Bowers, Anthony
Sent: Friday, September 19, 2014 1:50 PM
To: Johnson, Michael
Subject: Request from NRR - Confirmation of EDO's intent Regarding Diablo Canyon DPO Appeal
Attachments: FW: Did PG&E and the NRC work together to spin news on Diablo Canyon quake safety?

Mike,

Please advise. See below e-mail chain. I wanted to reach out to you before I engaged Mark on this topic. Key points:

- NRR wants to ensure to ensure that EDO staff are aware that NRR DORL management has recommended to NRR senior management that OIG be informed of the assertion in the attached email that PG&E and NRC worked together to release the DPO the same day as the State of California report; (this has the flavor of an allegation). Additionally, the Associate Press (and others) article in the news today suggests that NRC has already notified the IG, however I have been unable to confirm that this is true.
- NRR is looking to confirm with OEDO that the position taken in the DPO appeal is such that the operability determination for Diablo should have also included a comparison to the DDE. NRR states that this issue is important because NRR has a new operability determination for Diablo based on the new seismic information in the State of California report that they are reviewing.

Let me know if you need any additional information.

Tony

From: Sebrosky, Joseph
Sent: Friday, September 19, 2014 6:35 AM
To: Dudek, Michael
Cc: Bowers, Anthony; Markley, Michael; Oesterle, Eric
Subject: RE: Proposed Questions to PG&E

Thanks - (b)(6) I will work with Tony to discuss the issue below, and to ensure the EDO staff is aware that in the attached email NRR DORL management has recommended to NRR senior management IG be informed of the assertion in the attached email that PG&E and NRC worked together to release the DPO the same day as the State of California report.

Joe

From: Dudek, Michael
Sent: Friday, September 19, 2014 6:18 AM
To: Sebrosky, Joseph; Bowers, Anthony
Subject: Re: Proposed Questions to PG&E

Morning Joel! (b)(6) so I will not be in the office.
Tony Bowers will carry the ball for this. He'll be able to break down any barriers that you need.

Sent from an NRC Blackberry
Michael I. Dudek
(b)(6)

From: Sebrosky, Joseph
Sent: Thursday, September 18, 2014 05:20 PM Eastern Standard Time
To: Dudek, Michael
Cc: Walker, Wayne; OKeefe, Neil; Oesterle, Eric; Markley, Michael; Karas, Rebecca; Lupold, Timothy
Subject: FW: Proposed Questions to PG&E

Mike,

I am going to give you a call on this. We need to confirm with the EDO's office that the position taken in the DPO appeal is that the operability determination for Diablo should have also included a comparison to the DDE. The issue is important because we have a new operability determination for Diablo based on the new seismic information in the State of California report that we are reviewing.

I have been asked by my management to check with the EDO's office on this.

I will try to call you later tonight or early tomorrow to discuss.

Thanks,

Joe

From: Sebrosky, Joseph
Sent: Thursday, September 18, 2014 9:34 AM
To: Hiland, Patrick
Cc: Ake, Jon; Li, Yong; Markley, Michael; Lupold, Timothy; Karas, Rebecca; Ross-Lee, MaryJane; Oesterle, Eric; Wilson, George; Walker, Wayne; OKeefe, Neil; Hipschman, Thomas; Munson, Clifford; Manoly, Kamal; Hill, Brittain
Subject: RE: Proposed Questions to PG&E

Pat,

The purpose of this email is to provide you with the reference documents that I discussed with you this morning that serves as the basis for why I believe it is important to understand PG&E's position on whether or not in-structure motions (different damping values and comparisons) have been done. Specifically I referenced information that is in the DPO. The DPO case file can be found at: [ML14252A743](#)

The case file is 164 pages long. The most important portion of the case file to me is the last 5 pages (i.e., 159 – 164) that documents the EDO's appeal decision. The 5 page document provides a concise history of the issue and also includes the following discussion on page 4:

Nevertheless, your questioning attitude and perseverance were key to ensuring that the licensee and staff fully evaluated the implications of the Shoreline fault zone. You correctly noted that the seismic hazard should be evaluated for not only comparison of the ground motion response spectra, but also the plant's design and construction to ensure continued safe operation.

I understand that the in-structure motions calculations were not part of the basis for the operability determination that was made in the October 2012 time frame. Nevertheless it would appear to me that the EDO agrees that they should have been done. Based on the need to support the new operability

determination I would like to understand PG&E's position on the matter before we proceed. **No position will be provided to PG&E during the phone call - we are in listening mode.** I believe further robust internal discussion needs to take place and management may need to provide direction before a determination is made on what we need to do to support the review of PG&E's operability determination.

Please let me know if you have any questions, or if you think I am missing something.

Thanks,

Joe

From: Sebrosky, Joseph

Sent: Thursday, September 18, 2014 5:38 AM

To: Hill, Brittain; Manoly, Kamal; Munson, Clifford

Cc: Ake, Jon; Li, Yong; Markley, Michael; Lupold, Timothy; Karas, Rebecca; Ross-Lee, MaryJane; Hiland, Patrick; Oesterle, Eric; Wilson, George; Walker, Wayne; OKeefe, Neil; Hipschman, Thomas

Subject: RE: Proposed Questions to PG&E

To all,

The purpose of this email is to clearly state the purpose of two meetings today regarding Diablo given the concerns raised by DE and NRO in the email chain below. The first meeting follows the agenda below and there is a followon meeting right after the PG&E discussion that is for the staff only. The purpose of agenda item III in the first meeting is to get PG&E's perspective on the issue. No decisions are being made. From DORL's perspective I believe we need to understand PG&E's position (i.e., whether or not they performed the calculations and if not the basis they believe the calculations are not necessary to demonstrate operability) to inform the internal discussion after the meeting.

If there is a problem with the sequence of the calls please let me know now. The bottom line is I believe PG&E's perspective is important to understand in supporting headquarters input to the assessment of operability. If you want to have a meeting before the PG&E call (given that we are having a meeting right after the call) please let me know so that I can schedule it.

Thanks,

Joe

- I. PG&E provide a hi-level discussion of changes between the 2011 shoreline fault report and the information in the 2014 State of California report
 - a. During the discussion the staff would like PG&E to address the following
 - i. Basis for selection of the magnitude scaling relationship used in the State of California report
 - ii. The basis for the changes in the geometry of the faults
 - iii. The impact of using NGA-West2 based ground motion prediction equation (GMPEs) in the State of California report versus NGA-West GMPEs used in the PG&E 2011 Shoreline fault report
 1. The report states the sensitivity analysis (Chapter 13) compares results from the CA 1632 bill (new CCSIP report the NRC is reviewing) and the new GMPEs from PEER NGA West2 project. Later it states the 4 NGAs are equally weighted (pgs 9, 18) by 25%, but other places it references 5 NGA West2 models (pages 10 & 19). Please explain the apparent discrepancy
- II. PG&E provide a discussion of the site-response approach used in the State of California report

- a. Staff believes this is embedded in a 2014 Technical Evaluation Report entitled "Site Conditions Evaluation," which is reference in Chapter 13 as: Technical Report GEO.DCPP.TR.14.06, June 2014
- III. PG&E provide a discussion on whether or not in-structure motions (different damping values and comparisons) have been done
- IV. Next steps
- V. Wrapup

From: Hill, Brittain

Sent: Wednesday, September 17, 2014 5:32 PM

To: Manoly, Kamal; Munson, Clifford

Cc: Ake, Jon; Li, Yong; Markley, Michael; Lupold, Timothy; Karas, Rebecca; Ross-Lee, MaryJane; Hiland, Patrick; Oesterle, Eric; Sebrosky, Joseph

Subject: Re: Proposed Questions to PG&E

Without the clarification on damping, we end up with the same confusing issues as 2 non concurrences, a DPO, the 2014 union Conc sci report, and recent petition by FOE. If damping clarified, stops all this confusion in its tracks and gives clear basis for decisions. This is not a pure engineering exercise, and what you are portraying as "noise" is an important consideration in clearly explaining why or why not we think DCP is safe to operate. If there still are dissenting views, I suggest we discuss them at tomorrow's meeting before call.

Britt

Sent from Brittain Hill's PDA

(b)(6)

From: Manoly, Kamal

Sent: Wednesday, September 17, 2014 04:58 PM Eastern Standard Time

To: Hill, Brittain; Munson, Clifford

Cc: Ake, Jon; Li, Yong; Markley, Michael; Lupold, Timothy; Karas, Rebecca; Ross-Lee, MaryJane; Hiland, Patrick; Oesterle, Eric; Sebrosky, Joseph

Subject: RE: Proposed Questions to PG&E

I mentioned RG 1.61 to illustrate a point. I know from my involvement with Diablo since the mid-eighties that the plant was licensed to damping values that are different from RG 1.61. I also knew that some components are governed by DDE and others by Hosgri. From doing actual design of components in nuclear plants, designers know that some components may be governed by OBE and others by SSE. Still, the argument about damping should not be relevant to altering the evaluation done by PG&E in 2011 except for the change of ground motion (old shoreline line vs. new shoreline hazard). That is the only variable of significance. The rest is in the noise level from an engineering standpoint.

Kamal Manoly

Senior Level Technical Advisor for Structural Mechanics

Division of Engineering

Office of Nuclear Reactor Regulation

301-415-2765

From: Hill, Brittain

Sent: Wednesday, September 17, 2014 4:17 PM

To: Manoly, Kamal; Munson, Clifford

Cc: Ake, Jon; Li, Yong; Markley, Michael; Lupold, Timothy; Karas, Rebecca; Ross-Lee, MaryJane; Hiland, Patrick; Oesterle, Eric; Sebrosky, Joseph

Subject: Re: Proposed Questions to PG&E

Please read ch 2,3, and 5 in DCP SAR to see that Hosgri is not limiting demand - can be either HE or DDE. PGE also didnt use RG 1.61 damping for all Cat1 SSCs. Please look at SAR for their mix. Unless they identify appropriate damping etc, we simply cannot state that new info is bounded by existing lic basis. If new Shoreline exceeds DDE, and DDE is the SSE and limiting GM (NOT Hosgri!) for some SSCs, we certainly need PGE to state what damping is appropriate for new info: DDE, HE, RG1.61, or something else.

Britt

Sent from Brittain Hill's PDA

(b)(6)

From: Manoly, Kamal

Sent: Wednesday, September 17, 2014 04:06 PM Eastern Standard Time

To: Munson, Clifford

Cc: Ake, Jon; Hill, Brittain; Li, Yong; Markley, Michael; Lupold, Timothy; Karas, Rebecca; Ross-Lee, MaryJane; Hiland, Patrick; Oesterle, Eric; Sebrosky, Joseph

Subject: Proposed Questions to PG&E

Cliff,

I see no relevance or value from asking PG&E question #5 about "In-structure motions (different damping values & appropriate comparisons)". The sole focus should be on confirming that PG&E new shoreline fault ground motion estimate is reasonable and acceptable to the staff. With such confirmation, then, the hazard from the shoreline fault would be bounded by the "Old" Hosgri. That should be the end point of our assessment of the CA report.

Introducing a question as to whether the damping values to be used for the 2014 hazard estimate of the shoreline fault may be different from that used in the 2011 evaluation would be pointless and shifting the focus to a totally unrelated issue. You will never find any documented reference that correlates slight change in hazard vs damping values for structural materials. Remember, in RG 1.61 we prescribe (for a specific structural material) a single damping value to be used by ALL plants in the US for OBEs and another for ALL SSEs regardless of the location. The reason is based on acceptable understanding that viscous structural damping would generally be lower at lower deformation level. We know that ground motion estimates for OBEs and SSEs vary greatly from low seismic regions such as the Gulf States vs. high seismic regions such as CA. For this reasoning, asking the question about the effect of different damping values on in-structural response due to slight change in hazard would be worthless and totally distracting from the central issue in the CA report.

Kamal Manoly

Senior Level Technical Advisor for Structural Mechanics

Division of Engineering

Office of Nuclear Reactor Regulation

301-415-2765

DPO Appeal Decision Template/Instructions

MEMORANDUM TO: DPO Submitter

FROM: EDO

SUBJECT: DIFFERING PROFESSIONAL OPINION APPEAL DECISION
INVOLVING (ISSUE) (DPO-YYYY-NNN)

GENERAL INSTRUCTIONS:

The DPO Appeal Decision should be a factual discussion focused on the DPO and the appeal decision (including the rationale for the appeal decision). It should not include personnel performance type issues. If these issues are necessary to be addressed, they should be addressed separately. Issues outside the scope of the DPO, but related to the DPO (e.g., DPO process issues, concerns of retaliation, etc.) may be addressed after the discussion of the conclusion. Although the DPO Appeal Decision is being issued to the individual employee, the submitter may request that the DPO case file be made public. Therefore, the DPO Appeal Decision has the ability to affect and/or influence the entire staff and the NRC's public image.

The format of the DPO Appeal Decision is meant to be flexible to accommodate each unique DPO. The DPO Appeal Decision should serve as a stand alone document on the DPO issues and their disposition. The DPO Appeal Decision should address the following elements:

Introduction/purpose statement, for example:

The purpose of this memorandum is to inform you of my considerations and conclusions regarding the appeal you submitted on September 25, 2006, on the subject Differing Professional Opinion (DPO).

BACKGROUND

Identify relevant background and process information such as (1) the issues/concerns that lead to the DPO submittal (2) the date of DPO submittal; (3) the issues raised in the DPO (4) the date the DPO Panel was established; (5) the date of the DPO Decision issued by Office Director or Regional Administrator, (6) the conclusions and recommendations in the DPO Decision, and (7) the basis for the appeal.

EXECUTIVE DIRECTOR FOR OPERATIONS REVIEW AND DECISION

Discussion of how the appeal decision was made, e.g., after reviewing the DPO Panel's report, meeting with the DPO Panel, meeting with the submitter, meeting with the staff, reviewing the submitter's comments on the DPO Panel's report.

The basis for the decision.

Conclusion.

Closing statement thanking the submitter for raising the concern(s). For example:

DPO Appeal Process Checklist

- ✓ EDO has complete discretion to conduct review of DPO appeal in any manner deemed appropriate.
- ✓ Past practice has been for TRPS specialist to brief EDO on summary of case. EDO subsequently interviews submitter, DPO Panel, and possibly staff involved with established position at issue and office manager. OE (DVPM) and TRPS specialist attend all meetings.
- ✓ EDO may choose to establish another independent review of issues.
- ✓ Time should be charged to Activity Code ZG0007.

DPO Appeal Deliverables

- ☐ DPO Appeal Decision
 - DVPM provides guidance/template for DPO Appeal Decision.
 - DVPM usually reviews decision to ensure consistency with program goals.
 - OEDO specialist may contact DVPM for additional guidance on format and content and previous decisions.
 - DPO Appeal Decision is put in ADAMS as final document, iaw template OE-01, non-public, viewers limited to distribution.
 - DPO Appeal Decision should be delivered directly to submitter in sealed Addressee-Only envelope. (Submitter should be aware of decision before others.)
- ☐ Input to Weekly Information Report
 - DVPM provides template.
 - See examples from previous appeals posted on web.
<http://www.internal.nrc.gov/OE/dpo/closed-dpo-cases.html>
 - Goal is 2 weeks from date of DPO Appeal Decision.
- ☐ Followup Actions
 - EDO may choose to identify additional recommendations and followup actions (beyond those previously identified in DPO Decision) as a result of review.
 - If followup actions are identified, they should be assigned under separate correspondence to office manager and communicated to the submitter and OE (DPOPM.Resource@nrc.gov)
 - Goal is 2 weeks from date of DPO Appeal Decision.
 - Followup actions will be tracked until they are implemented.
 - Delays in schedule should be communicated to EDO, submitter, and DPOPM.Resource@nrc.gov

Contacts:
Renée Pedersen
Senior Differing Views Program Manager
Office of Enforcement/Concerns Resolution Branch
301-415-2742
Renée.Pedersen@nrc.gov

Marge Sewell
Safety Culture Specialist
Office of Enforcement/Concerns Resolution Branch
301-415-8045
Margaret.Sewell@nrc.gov

Topical Questions for DPO 2013-003: Submitter

Appreciation for his travel, the slides, the time and effort he has put into this issue.

Safety concerns – Do you have any remaining safety concerns related to the seismic information at Diablo Canyon?

Was there ever a safety concern with this new seismic information?

Tell the story – How have your concerns been addressed (or not) through the panel's review and Office Director's decision?

When did the agency fail to take action?

What do you think we should have the licensee do now?

You have indicated there should be a violation, how would characterize it as a safety violation or more in the realm of verbatim compliance?

Lessons Learned – What can the agency do better?

What could the licensee have done better?

Gaining Closure – As we work on the post-Fukushima actions, evaluating new seismic and flooding information is going to be important at many sites. How do you feel the information you have raised in your DPO could be used to help the agency as we move forward?

Retaliation – I get the sense you feel there have negative consequences from your filing the DPO, do you want to share your thoughts on the process.

*process issue - no safety concerns,
operability when
accountability for performance of the staff*

Topical Questions for DPO 2013-003: Review Panel

Review Panel Members

- Mike Case, Panel Chair – Director, Division of Engineering, RES
- Britt Hill – Senior Level Advisor, Division of Site Safety and Environmental Analysis, NRO
- Rudolph Bernhard – Sr. Reactor Analyst, Region II

Safety concerns – After completing the panel review, do you have any concerns that Diablo Canyon does not have adequate seismic protection given the identified fault information?

Tell the story – How did the panel evaluate the submitter's conclusion that the Hosgri evaluation was not a part of the current licensing basis?

How did the panel obtain and review the additional seismic information from PG&E?

Gaining Closure – Are there any other actions that you feel the agency should take on this issue to effectively close it out?

Is there anything else that I need to know about this issue that isn't in the report?

SUMMARY NOTES

DPO 2013-002 Appeal

Differing Professional Opinion Involving Seismic Issues at Diablo Canyon Nuclear Power Plant (DCNPP)

History

DPO Submittal Dated: July 19, 2013

DPO Panel Report Dated: April 3, 2014

DPO Decision Dated: May 29, 2014

DPO Appeal Submittal Dated: June 23, 2014

Office Director's Statement of Views Dated: June 27, 2014

Agreed/Resolved Issues

The issues raised in the DPO do not result in a significant or immediate safety concern.

The potential ground motion from the identified faults would not exceed the levels of ground motion already considered during design and licensing of the plant. [Using the methodology requested by the review panel, PG&E provided in-structure acceleration response spectra for the Shoreline fault which could be directly compared to the spectra available for the double-design earthquake (DDE) and the Hosgri Evaluation (HE) contained in the Section 3.7 of the safety analysis report. This new data was used by the panel to make this finding.]

Remaining Issue

The submitter believes the GDC 2 design basis for DCPD is demonstrated for the DDE. The HE is a non-conservative methodology and could not form a basis for evaluation of the Shoreline fault unless a license amendment was requested to authorize the HE methodology. Any conclusion that HE is bounding for the Shoreline fault is useful from the safety perspective, but does not resolve the compliance issue that the Shoreline fault was not evaluated within the context of the current licensing basis (DDE methodology).

From the appeal (p. 20): "The Panel's conclusions were based on the inappropriate assumption that GDC 2 SSC design basis was established by a combination of the DDE safety analysis and the HE. From this assumption, the Panel extrapolated that the new information was within the existing SSE GDC 2 design basis because the new ground motions were bound by either the DDE or the HE."

- The submitter acknowledges the Hosgri evaluation (HE) was a part of the application reviewed by the NRC for license approval of DCNPP; however he believes that it is not a part of the seismic design current licensing basis. And, even if it were a part of the licensing basis, the limiting parameter for design is the DDE (0.4 g), because it is the value used to evaluate the safety-related structures, systems and components (SSCs) for GDC 2 and 10 CFR Part 100, Appendix A.

- The submitter states that the licensing basis (DDE) does not bound the Shoreline fault. The submitter's appeal includes his assertion that the licensee must evaluate the Shoreline fault using the approved methodology of the licensing basis (the DDE evaluation methodology). Additionally, if the DDE methodology were used to evaluate the Shoreline fault, based on his experience at the plant and his review of the current licensing basis, there are plant SSCs which would fail to meet the American Society of Mechanical Engineers (ASME) Code acceptance criteria. The submitter notes application of the code limits as the appropriate measure for operability of the SSCs.
- Failure to submit a licensing amendment that presents the revised analyses and demonstrates that SSCs will still perform their safety function is identified as an on-going violation. The violation could only be corrected by submitting a license amendment request to either (1) incorporate the new seismic information using the DDE methodology and show that the SSCs remain operable under that methodology or request regulatory relief/exemption; or (2) establish a new methodology and demonstrate that the functional design bases requirements of GDC 2 are met by the new analyses.

Submitter's Requested Actions (Appeal page 21)

1. Disapprove the Panel Report.
2. Initiate regulatory enforcement action to address the ongoing non-compliances with Part 50, Appendix B, 10 CFR 50.59, and plant technical specifications at DCP.
3. Initiate a review to determine why the non-concurrence (NCP 2012-01) and the DPO process were not effective to address the outstanding DCP seismic issues.

Implications of Reversing the DPO Decision

If the decision were reversed, the licensee would be required to submit a license amendment request to revise their application to evaluate the safe shutdown earthquake (SSE) at the ground motion associated with either the Hosgri fault or the Shoreline fault. The application would either use the older methodology associated with the DDE or would apply a new methodology, like that used for the HE. While it appears much of the technical evaluation work is already done, the licensee would expend resources to package and submit the license amendment request. NRC would expend resources to review. I see two possible outcome scenarios.

Scenario A:

The amendment request is approved and the license would be revised.

Under this scenario, there would be a considerable expense of resources, but there would be no physical change to the facility or facility operations. It is a paperwork exercise.

Scenario B:

In doing the additional technical evaluation or reviewing the technical evaluation, the licensee or NRC finds that the SSCs do not meet current regulatory requirements and the amendment cannot be approved without physical modifications to the plant to enhance seismic capability.

Under this scenario, there is considerable expense of resources with potentially some increase in safety. However, given the analysis presented in the DPO panel report, this seems to be an exceedingly unlikely outcome. The panel identified that all seismic Category I SSCs were evaluated for the HE in the Prompt Operability Assessment. PG&E reanalyzed the ground motions from the Shoreline report to allow direct comparison of the in-structure responses to the responses in the licensing basis (DDE and HE). For some SSCs, the response spectra slightly (<10%) exceeded the DDE+HE spectrum at spectral frequencies of 30-50 Hz. The panel concluded that these slight exceedances were the result, in large part, of conservative damping values used by PG&E in the original licensing application (DDE) and would not be expected to significantly affect the performance of these types of SSCs.

My conclusions:

The submitter has very narrowly defined the licensing basis and approved methodology. If the submitter's definition of the licensing basis is correct, the issue he is raising is more akin to "verbatim compliance" rather than reasonable assurance.

Despite the volume of referenced information provided by the submitter, I see no clear-cut support for his very narrow definition of the licensing basis. Additionally, I believe that his narrow definition of licensing basis would be unreasonably restrictive for both licensees and the agency going forward. The implications would be a rigid adherence to outdated information and methodologies.

The pertinent conclusions of the review panel are that the licensing basis is complex and that the new seismic information does not exceed the levels considered during the design and licensing of the plant. The panel's report provides the "apples to apples" review of the seismic data which was missing from earlier evaluations. This detailed analysis does support the engineering judgment that was part of the basis for the earlier decisions on this issue.

I would recommend upholding the decision.

Questions for Consideration

For the submitter:

- As simply as possible, explain why you exclude the HE from the current licensing basis.
- Did you work with the licensee or OGC to help develop your understanding of the licensing basis as this issue moved forward?
- How do you feel DCPD personnel responded to the issue that you raised? (or) How responsive did you find DCPD to be when you raised this issue?
- You recommended initiating enforcement action. What specific violations do you feel should be considered for DCPD? What is still wrong with DCPD's compliance with NRC's regulatory requirements?
- What do you feel would be the result (or benefits) of overturning the decision?

- After reviewing the panel's report, do you still have a concern that there are SSCs which may not meet the requirements of GDC 2? (or) ...do you believe that plant modifications may be needed to ensure safety based on the new seismic information?
- What do you feel will be the result if the decision is upheld?

[In my review and my brief phone conversation with the submitter, he seems to have a negative perception of the differing opinions program. It may be worthwhile to tease out some of that information for the program as a whole.]

- In the DPO chronology [p. 23], you noted your reassignment from Diablo Canyon. Provide me with more information about how you feel this process affected you and your work.
- You are not satisfied with the results of the DPO. What aspects of the program do you feel worked well or didn't work well?

For the panel:

- How did the review panel evaluate the submitter's conclusion that the HE was not a part of the current licensing basis?
- If the submitter's definition of the licensing basis were valid, i.e., only the DDE should be considered the seismic licensing basis and the DDE methodology is the only approved method for evaluating the new seismic information, how would that change the results of the panel's review?
- In the panel's review, it was noted that the information previously provided by PG&E did not allow for direct comparison of the new information with the existing seismic licensing basis. Should that shortcoming have been identified sooner in the process? (or) Should we give consideration to changes in how we review information to ensure that this type of information is identified sooner?
- The submitter identifies the HE methodology as being non-conservative in relation to the DDE methodology. How would you characterize the differences between the two methodologies?
- After your review, do you have any concerns that DCCP does not have adequate seismic protection given the identified fault information?

General questions:

- Should OGC have been involved at some point to weigh in on the question of what constitutes the current licensing basis? It seems like this would be an issue that would be ripe for litigation should we try to reverse the decisions and take enforcement action.
- Are we learning the appropriate lessons from this DPO as we move forward with the post-Fukushima seismic and flooding analyses? Given that we know hazards will increase for some limited number of facilities, do we have guidelines in place to be sure that the licensees and NRC will be comparing the new data to existing licenses using the same starting point (will we have the similar questions about the licensing bases)?
- Given the public interest in this issue, have we ensured that the analyses used by the panel have been captured on the docket such that they can be publicly available (or properly withheld if they meet SUNSI criteria)?

2.5.4.7 Response of Soil and Rock to Dynamic Loading

Details of dynamic testing on site materials are contained in Appendices 2.5A and 2.5B of Reference 27 in Section 2.3.

2.5.4.8 Liquefaction Potential

As stated in Section 2.5.1.2.6.5, adverse hydrologic effects on foundations of Seismic Category I structures can be neglected due to the structures being founded on bedrock and the groundwater level lying well below final grade.

There is a small local zone of medium dense sand located northeast of the intake structure and beneath a portion of buried ASW piping that is not attached to the circulating water tunnels. This zone is susceptible to liquefaction during design basis seismic events (References 45 and 46). The associated liquefaction-induced settlements from seismic events are considered in the design of the buried ASW piping. (References 48 and 49)

2.5.4.9 Earthquake Design Basis

The earthquakes postulated for DCP site are discussed in Section 2.5.2.9, and a discussion of the design response spectra is in Section 3.7. Response acceleration curves for the site resulting from Earthquake B and Earthquake D-modified are shown in Figures 2.5-20 and 2.5-21, respectively. Response spectrum curves for the 7.5M Hosgri earthquake are shown in Figures 2.5-29 through 2.5-32.

2.5.4.10 Static Analysis

A discussion of the analyses performed on materials at the site is presented in Section 2.5.1.2.6, Site Engineering Properties.

2.5.4.11 Criteria and Design Methods

The criteria and methods used in evaluating subsurface material stability are presented in Section 2.5.1.2.6, Site Engineering Properties.

2.5.4.12 Techniques to Improve Subsurface Conditions

Due to the bearing of in situ rock being well in excess of the foundation pressure, no treatment of the in situ rock is necessary. Compaction specifications for backfill are presented in Section 2.5.1.2.6.4, Engineered Backfill.

2.5.5.7 Response of Soil and Rock to Dynamic Loading

Details of dynamic testing on site materials are contained in Appendices 2.5A and 2.5B of Reference 27 in Section 2.3.

2.5.5.8 Liquefaction Potential

As stated in Section 2.5.2.2.6.5, adverse hydrologic effects on foundations of PG&E Design Class I structures can be neglected due to the structures being founded on bedrock and the groundwater level lying well below final grade.

There is a small local zone of medium dense sand located northeast of the intake structure and beneath a portion of buried ASW piping that is not attached to the circulating water tunnels. This zone is susceptible to liquefaction during design basis seismic events (References 45 and 46). The associated liquefaction-induced settlements from seismic events are considered in the design of the buried ASW piping. (References 48 and 49)

2.5.5.9 Earthquake Design Basis

The earthquake design bases for the DCP site are discussed in Section 2.5.3.9, a discussion of the design response spectra is provided in Section 2.5.3.10, and the application of the earthquake ground motions to the seismic analysis of structures, systems, and components is provided in Section 3.7. Response acceleration curves for the site resulting from Earthquake B and Earthquake D-modified are shown in Figures 2.5-20 and 2.5-21, respectively. Response spectrum curves for the Hosgri earthquake are shown in Figures 2.5-29 through 2.5-32.

2.5.5.10 Static Analysis

A discussion of the analyses performed on materials at the site is presented in Section 2.5.2.2.6, Site Engineering Properties.

2.5.5.11 Criteria and Design Methods

The criteria and methods used in evaluating subsurface material stability are presented in Section 2.5.2.2.6, Site Engineering Properties.

2.5.5.12 Techniques to Improve Subsurface Conditions

Due to the bearing of in situ rock being well in excess of the foundation pressure, no treatment of the in situ rock is necessary. Compaction specifications for backfill are presented in Section 2.5.2.2.6.4, Engineered Backfill.

From: Pedersen, Renee
Sent: Tuesday, September 09, 2014 5:18 PM
To: Galloway, Melanie; Sampson, Michele
Cc: Segala, John; Sewell, Margaret; Solorio, Dave
Subject: RE: Draft WIR

Melanie, Michele,

Here is the ADAMS package.

The record was added into DPC as immediate public release about a half hour ago. It should be available tomorrow. We will let you know. As far as being timely enough, it will be in ADAMS. If OPA needs to reference it, then it would be OK and they can use the ML number. It just won't show up in the WIR until next week.

[View ADAMS P8 Properties ML14252A743](#)

[Open ADAMS P8 Document \(DPO Case File-DPO-2013-002 \(Public\)\)](#)

From: Galloway, Melanie
Sent: Tuesday, September 09, 2014 5:09 PM
To: Pedersen, Renee; Sampson, Michele
Cc: Segala, John
Subject: RE: Draft WIR

Just to be clear: we issue WIRs "for the week ending." In this case, it would be for Sept. 12 which means at the earliest it won't go out until next week. Is that timely enough?

From: Pedersen, Renee
Sent: Tuesday, September 09, 2014 4:23 PM
To: Sampson, Michele; Galloway, Melanie
Cc: Segala, John; Sewell, Margaret; Brenner, Eliot
Subject: RE: Draft WIR

Thanks Michele!! We are working on the ADAMS record as we speak. I'll send you the ML number as soon as I get it.

From: Sampson, Michele
Sent: Tuesday, September 09, 2014 4:18 PM
To: Galloway, Melanie
Cc: Pedersen, Renee; Segala, John
Subject: Draft WIR

Melanie,
Attached is a draft WIR for the DPO Appeal Decision. Trent Wertz in NRR has reviewed it and I've incorporated his comments.

Renee is putting together the public case file and will provide the ML number when it is available. I have a placeholder in the WIR at the end to include that information. Please let me know if you have any comments, or any additional information that you may need.

Thank you,
Michele Sampson, Chief
Licensing Branch
U.S. Nuclear Regulatory Commission
Office of Nuclear Material Safety and Safeguards
Spent Fuel Storage and Transportation Division
Mail Stop 3WFN-14A44
Washington, D.C. 20555-0001
Phone: 301-287-9077

Office of the Executive Director for Operations (EDO)
Items of Interest

EDO Decision on Differing Professional Opinion (DPO) 2013-002 Appeal: Diablo Canyon Seismic Issues (DPO 2013-002)

On September 9, 2014, the Executive Director for Operations (EDO) issued a decision on the appeal of DPO 2013-002, concerning seismic issues at the Diablo Canyon Nuclear Power Plant (DCNPP). The DPO submitted on July 19, 2013, stated that DCNPP had performed less than adequate corrective actions to incorporate new seismic information into the current licensing basis and that the licensee failed to demonstrate operability of the plant technical specification required structures, systems, and components. A DPO review panel was established on September 3, 2013. On April 3, 2014, the results of the panel's independent review were provided to the Director, Office of Nuclear Reactor Regulation (NRR). The panel concluded that while the DCNPP licensing history was complex and unique, the new seismic information would not exceed the levels of ground motion already considered during the design and licensing of the plant. Based on review of the panel's report and input from the DPO submitter, the Director, NRR, issued his decision on May 29, 2014, concluding that there was not a significant or immediate concern with seismic safety at DCNPP and that the licensee and staff had followed appropriate processes for technical specification operability of plant equipment and Title 10 Code of Federal Regulations 50.59 evaluations with a reasonable technical and safety rationale. The Office Director's decision was appealed to the EDO on June 23, 2014. The EDO's decision on the appeal supported both the DPO panel's technical conclusions and the Office Director's decision. The EDO noted that the DPO raised awareness of the complexity of the DCNPP seismic licensing basis, but also illustrated the need for the agency to ensure there are clear guidelines for staff and licensees regarding how changes in natural hazards should be evaluated for all licensees. The public records for this DPO are available in the DPO case file package in ADAMS (MLXXXXXX).

From: Pedersen, Renee
Sent: Tuesday, September 09, 2014 8:34 AM
To: Sampson, Michele
Cc: Sewell, Margaret
Subject: RE: DPO ADAMS Access

Michele,

Viewer rights in ADAMS should be limited to the employee (Michael Peck) and those on distribution and "DPO Staff" should be added as an owner. All NRC viewers should not have access.

Once you have the document profiled, have it declared OAR, do not leave the record in draft class.

Please call me if you have additional questions. In addition, as previously requested, it would help if you could just email us the Word version of the record.

cc: DPOPM (R. Pedersen, OE)
Backup DPOPM (M. Sewell, OE)
Director, OE (P. Holohan)
Director, NRR (D. Dorman)
DPO Panel members (Mike Case, Britt Hill, Rudolph Bernhard)

ADAMS DOCUMENT PROCESSING INSTRUCTIONS:

Use DPO ADAMS template OE-011

Name of record=DPO Appeal Decision

Document type= Differing Professional Opinion Case File

Case/reference number=DPO-2013-002

Keyword=OE-011

-----Original Message-----

From: Sampson, Michele
Sent: Tuesday, September 09, 2014 8:08 AM
To: Pedersen, Renee; Sewell, Margaret
Subject: DPO ADAMS Access

When we profile the response letter in ADAMS, is there a limited distribution for viewer rights or "NRC Users"?
If limited, what is the group name?

Thanks,
Michele Sampson

From: Pedersen, Renee
Sent: Monday, September 08, 2014 10:11 AM
To: Sampson, Michele
Subject: RE: Additional Info on DPO Process

Yes, it will probably only be a sentence. I'm off to do a presentation right now, but I'll send it to you when I get back (before 1:00).

From: Sampson, Michele
Sent: Monday, September 08, 2014 10:05 AM
To: Pedersen, Renee
Subject: Additional Info on DPO Process
Importance: High

Renee,
I understand that you are putting together a paragraph to summarize the DPO process to add to Mark's letter. Could you email me that paragraph by 1:00 pm today?

Mark is trying to sign the letter out today.

Thank you,
Michele Sampson, Chief
Licensing Branch
U.S. Nuclear Regulatory Commission
Office of Nuclear Material Safety and Safeguards
Spent Fuel Storage and Transportation Division
Mail Stop 3WFN-14A44
Washington, D.C. 20555-0001
Phone: 301-287-9077

From: Pedersen, Renee
Sent: Friday, September 05, 2014 4:26 PM
To: Sampson, Michele
Subject: RE: Question on DPO 2013-002
Attachments: DPO Appeal DecisionII.doc; Releasability Review of DPO Case Files-2014.docx

Michele,

Just follow the instructions in the guidance. I think you only need the decision memo, so I don't think you need to create a package. Make the decision non-public, limit distribution and go ahead and have it declared. Have the AA send us the ML number for the decision on the DPO appeal and we will include it in the DPO Case File folder. We will create a big pdf of all the relevant documents called the DPO Case File and take action to have it released as public (if we get request form employee in writing). I've included the instructions we ~~use~~ for releasability review FYI.

We will need a WIR for the appeal decision. NRR created one for the decision but it was held because of possible appeal. At this point, it may make sense for the OEDO to include both inputs for the WIR.

Renée

From: Sampson, Michele
Sent: Friday, September 05, 2014 3:35 PM
To: Pedersen, Renee
Subject: Question on DPO 2013-002

Renee,
In ADAMS, I see the folder for DPO 2013-002, and I understand that the final response is supposed to reference the DPO case file ML#. MD 10.159 says OEDO will provide the documents to you, but it isn't clear to me if OEDO should set up a package or if you will be setting up a package.

Thanks,
Michele Sampson, Chief
Licensing Branch
U.S. Nuclear Regulatory Commission
Office of Nuclear Material Safety and Safeguards
Spent Fuel Storage and Transportation Division
Mail Stop 3WFN-14A44
Washington, D.C. 20555-0001
Phone: 301-287-9077

DPO Decision Template/Instructions

MEMORANDUM TO: DPO Submitter

FROM: OD or RA

SUBJECT: DIFFERING PROFESSIONAL OPINION DECISION INVOLVING (ISSUE)
(DPO-YYYY-NNN)

GENERAL INSTRUCTIONS:

The DPO Decision should be a factual discussion focused on the DPO and the decision (including the rationale for the decision). It should not include personnel performance type issues. If these issues are necessary to be addressed, they should be addressed separately. Although the DPO Decision is being issued to the individual employee, the submitter may request that the DPO case file be made public. Therefore, the DPO Decision has the ability to affect and/or influence the entire staff and the NRC's public image.

The format of the DPO Decision is meant to be flexible to accommodate each unique DPO. For example, some DPOs include multiple issues. The DPO Panel's report may include conclusions and recommendations that do not align with each DPO concern. The format of the DPO Decision may be influenced by whether the OD or RA agrees or disagrees with all the conclusions, or whether the OD or RA agrees with some conclusions and disagrees with others.

Regardless of specific formatting, the DPO Decision should address the following elements:

Introduction/purpose: identify (1) issue and date of DPO submittal; (2) date DPO Panel was established; (3) date(s) (or statement) that DPO Panel met with submitter to establish a concise statement of the submitter's concern(s); (4) date (or statement) that submitter approved statement of concern(s).

Statement of how the decision was made, e.g., after reviewing the DPO Panel's report, meeting with the DPO Panel, meeting with the submitter, meeting with the staff, reviewing the submitter's

comments on the DPO Panel's report.

List of Concern(s)

DPO Panel conclusion(s)

DPO Panel recommendation(s)

Decision

Rationale

Closing statement thanking the submitter for raising the concern(s).

Notification that a summary of the DPO will be included in the Weekly Information Report to advise interested employees of the outcome when the case is closed.

Notification that the submitter will be included on correspondence involving the development/listing of followup actions and implementation schedules.

cc: DPOPM

Backup DPOPM

Director, OE

DPO Panel members

ADAMS DOCUMENT PROCESSING INSTRUCTIONS:

Use DPO ADAMS template OE-011

Name of record=DPO Decision

Document type= Differing Professional Opinion Case File

Case/reference number=DPO-YYYY-NNN

Keyword=OE-011

Make the record non-public

Limit viewers to those NRC employees on distribution and provide owner rights to "DPO Staff"

Declare the document as an OAR

Send email to DPOPM.Resource@nrc.gov with the ML # so that we can file the record in the ADAMS DPO Case Files folder for the specific DPO

Releasability Review of DPO Case Files

1. When the DPO is complete, the DPOPM will get input from the DPO submitter on whether they would like the DPO Case File non-public or public (with or without release of his or her identity).
2. If the DPO submitter does not want the DPO Case File made available to the public, then the DPO Case File will be profiled as non-public in ADAMS and normally made available to all NRC viewers. (There may be instances where it is appropriate to identify limited NRC viewers.)
3. If the DPO submitter would like discretionary release of the DPO Case File to the public, the organization responsible for the subject of the DPO is also responsible for performing a releasability review to support the discretionary release of the DPO Case File. (Note: Notwithstanding an individual's preference for public release of a DPO Case File, it is management's responsibility to determine whether public release (with or without redactions) is appropriate.
4. The OD/RA in the organization responsible for the subject of the DPO is also responsible for making the decision on the discretionary release of the DPO Case File (with or without redactions).
5. The OD/RA should identify a point of contact (POC) to assist and coordinate the releasability review of the DPO Case File (with or without redactions).
6. The POC may receive guidance from staff knowledgeable in the Freedom of Information Act and Privacy Act (FOIA), including the FOIA/PA Officer, OIS and the Assistant General Counsel Legal Counsel, Legislation and Special Projects, Office of General Counsel (OGC).
7. The releasability review should be performed in accordance with current agency practices and guidance, including the NRC Policy For Handling, Marking, and Protecting Sensitive Unclassified Non-Safeguards Information (SUNSI), MD 3.4, "Release of Information to the Public," and Yellow Announcement 2009-054, "New Freedom of Information Act Procedures."
8. Although DPO Case Files might be eligible for withholding under FOIA Exemption 5 because they reflect views, analysis, and recommendations that constituted part of the deliberative process, the releasability review should apply the "foreseeable harm" standard consistent with the current FOIA procedures included in Yellow Announcement 2009-054
9. As directed by President Obama in his Memorandum on FOIA issued on January 21, 2009, "The Government should not keep information confidential merely because public officials might be embarrassed by disclosure, because errors and failures might be revealed, or because of speculative or abstract fears."
10. The releasability review should consider the age, content, and character of the document in determining whether the agency reasonably foresees that the disclosure would harm an interest under FOIA Exemption 5.

11. Consistent with the goal of Exemption 5, the review should consider whether the names, titles, etc. of persons included in the DPO Case File (other than the DPO submitter who requested public release) be redacted to avoid inhibiting the open, frank, and candid exchange of opinions. In particular, the POC will contact individuals named or otherwise identified by position or function from the write-up regarding their desire for having specific identifying information redacted, as appropriate, in order to avoid a chilling effect during internal deliberations.
12. Consistent with the goal of Exemption 5, the review should consider the need to protect against public confusion by disclosure of reasons and rationale that are not in fact actual reasons for agency decisions. The DPO submitter's personal opinions and concerns in the submittal will be reviewed against the agency's evaluation in the DPO panel report and OD's/RA's final decision in light of the agency decision reflected regarding the subject of the DPO.
13. The releasability review shall be coordinated with the Assistant General Counsel Legal Counsel, Legislation and Special Projects (LC), OGC when DPO Case Files include attorney-client information or attorney work-product. The Assistant General Counsel, LC will coordinate the review with other Assistant General Counsels as necessary (e.g., the Assistant General Counsel Materials Litigation and Enforcement, OGC when the DPO Case File involves enforcement issues). DPO Case Files will not be released without the concurrence of OGC. (An email can be used to document OGC approval.)
14. The releasability review shall be coordinated with OI when DPO Case Files include investigative information and OE when DPO Case Files involve an enforcement action. DPO Case Files will not be released without the concurrence of OI or OE, as applicable. (An email can be used to document OI or OE approval.)
15. If the DPO Case File cannot be fully disclosed, NRC should make partial disclosures of nonexempt information unless the redactions would leave ~~only~~ essentially meaningless words or phrases.
16. If the DPO Case File should be withheld in its entirety due to the predecisional nature, the OD/RA should consider discretionary release (with or without redactions) when the matter is complete (e.g., after the enforcement process is complete).
17. The organization responsible for the subject of the DPO is also responsible for creating a redacted DPO Case File, if necessary. Redacted DPO Case Files will be profiled in ADAMS similar to the original DPO documents and will ~~use~~ the same document name, followed by the annotation, "-Redacted, Public."
18. A cover sheet will be included for a redacted DPO Case File to indicate that the record has been redacted e.g., "This record has been redacted prior to discretionary release." Because the release is discretionary and not based on a FOIA request, the cover sheet should NOT reference any specific FOIA Exemption.
19. The DPO Case File should be profiled in ADAMS using ADAMS Template OE-011, and filed in the DPO folder in the ADAMS main library.

20. If it takes substantial time to create a redacted DPO Case File, the non-public DPO Case File should be issued first and the redacted DPO Case File can be added to ADAMS at a later time.
21. When the releasability review is complete, the OD/RA will provide feedback to the DPO submitter when redactions are warranted or when a decision is made to withhold the entire document. This includes informing the DPO submitter that the decision to withhold the entire document may be revisited when agency actions are complete, i.e., after the enforcement process is complete.
22. The POC should email the ADAMS accession number for the final package to the DPO submitter and DPOPM.Resource@nrc.gov.

From: Pedersen, Renee
Sent: Thursday, September 11, 2014 8:24 AM
To: Dudek, Michael; Foster, Jack; Solorio, Dave
Cc: Sewell, Margaret; Sampson, Michele; Galloway, Melanie; Segala, John
Subject: RE: Did the Commission ever see this?

FYI, in accordance with the DPO guidance, a summary of the case will be included in the upcoming WIR.

From: Dudek, Michael
Sent: Thursday, September 11, 2014 7:36 AM
To: Foster, Jack; Solorio, Dave
Cc: Pedersen, Renee; Sewell, Margaret
Subject: RE: Did the Commission ever see this?

Thanks Jack! I have been communicating (at length) with the Commission about this. No additional actions are needed.

Michael I. Dudek | OEDO Executive Technical Assistant | U.S. NRC
✉: Michael.Dudek@nrc.gov | ☎: (301) 415-6500 | BB: (b)(6)

From: Foster, Jack
Sent: Thursday, September 11, 2014 6:23 AM
To: Dudek, Michael; Solorio, Dave
Cc: Pedersen, Renee; Sewell, Margaret
Subject: FW: Did the Commission ever see this?

Mike,

For your awareness. Tammy is asking SECY if the Commission has seen DPO Case File (DPO-2013-002) concerning seismic issues at Diablo Canyon Power Plant, Units 1 and 2. See below.

Thanks,
Jack



Jack Foster, ETA
Office of the Executive Director for Operations MS O-16-E4
U.S. Nuclear Regulatory Commission
Washington, DC 20555
(301) 415-6250

From: Bloomer, Tamara
Sent: Wednesday, September 10, 2014 5:45 PM
To: Laufer, Richard; Foster, Jack; Chen, Yen-Ju
Subject: Did the Commission ever see this?

On September 10, the Differing Professional Opinion (DPO) Case File (DPO-2013-002) concerning seismic issues at Diablo Canyon Power Plant, Units 1 and 2, was made publicly available in ADAMS at Accession No. ML14252A743.

Tamara E. Bloomer
Policy Advisor for Materials
Office of Commissioner Ostendorff
301-415-2896

From: Pedersen, Renee
Sent: Friday, September 05, 2014 12:19 PM
To: Sampson, Michele; Galloway, Melanie; Brock, Kathryn; Zimmerman, Roy
Cc: Sewell, Margaret; Holahan, Patricia; Solorio, Dave
Subject: Feedback on draft decision on DPO-2013-002
Attachments: Draft Appeal Response-comments from Renee.docx

Michele, thanks for working with Mark on his decision on the appeal. I appreciate that you are acting as his ghost writer for what he wants to include in his decision.

As the DPO PM, I offer the attached comments for the EDO's consideration as they relate to meeting the goals of the DPO Program.

In general, I think the response addresses Mark's key messages about this case. However (ok, tough love time) I don't think that it is as responsive to the submitter's reasons for his DPO and appeal as it could be. 33% of submitters in our targeted DPO survey did not think that the rationale for the final decision was clearly stated. We also have similar feedback from the OIG SCCS where employees responded that when decisions are made that are contrary to their opinion, only 54% believed that we effectively communicated why the decisions were made.

From the revised DPO MD:

The EDO or the Commission issues the DPO Appeal Decision in a memorandum to the submitter that includes the decision on the DPO appeal and the rationale for it, and any followup actions that are necessary. The level of detail must be sufficient so that an independent reader can understand the basis for the decision and outcome.

Although I can't say for sure, I do believe that the employee will want the DPO Case file public so you may even want to consider having someone from OPA review it for readability.

You may also want to beef up the discussion on followup actions, if appropriate after you talk more to NRR. This is good for the agency and can support employee satisfaction with the process. Mark may also choose to issue a separate memo with more detailed information tasking the staff with followup actions that will be tracked. This was another area where we got feedback that employees never heard back that "we did what we said we would do."

I understand that sometimes these issues can be challenging (and I'm certainly not saying I have all the answers!). If you have questions on my comments, you can contact me at home on (b)(6)

Renée

From: Sampson, Michele
Sent: Friday, September 05, 2014 9:57 AM
To: Galloway, Melanie; Brock, Kathryn; Zimmerman, Roy; Pedersen, Renee
Subject: RE: DPO 2013-002

One more thing I should have noted in my email below. My goal in the draft I provided was to focus on the text to provide Mark with an opportunity to confirm that I had correctly captured the message he wanted to convey. I recognize that there are additional boilerplate items that will need to be added when the text is

formatted into a memo. In particular, there are references to MD 10.159 and notice that the decision will be included in the WIR.

Additionally, I am available this afternoon if you have any specific questions or would like to discuss, from my notes, the approach that Mark has requested on the response.

Thank you,
Michele Sampson

Chief, Licensing Branch
Spent Fuel Storage and Transportation Division
Phone: 301-287-9077

From: Sampson, Michele
Sent: Friday, September 05, 2014 9:14 AM
To: Galloway, Melanie; Brock, Kathryn; Zimmerman, Roy; Pedersen, Renee
Subject: DPO 2013-002

Attached is draft text for the decision memo that will be issued by Mark. Please note, this draft is based on my notes from discussion with Mark regarding the approach he wanted to take with the response. I apologize that it was not provided sooner, but I just became aware of the expedited schedule late yesterday afternoon.

Thank you,
Michele Sampson, Chief
Licensing Branch
U.S. Nuclear Regulatory Commission
Office of Nuclear Material Safety and Safeguards
Spent Fuel Storage and Transportation Division
Mail Stop 3WFN-14A44
Washington, D.C. 20555-0001
Phone: 301-287-9077

The purpose of this memorandum is to inform you of my considerations and conclusions regarding the appeal you submitted on June 23, 2014, on the subject Differing Professional Opinion (DPO).

BACKGROUND

Your DPO is rooted in the Diablo Canyon Power Plant (DCPP) seismic licensing history and how the licensing basis is applied to the plant today. The In 1968, when the DCPP Unit 1 Construction Permit was issued, the seismic evaluation had been completed under the Atomic Energy Commission's requirements. Based on the information available at the time, the design earthquake (DE) was defined as having a peak ground acceleration of 0.2 g, and the double design earthquake (DDE) was a doubling of the DE earthquake to ensure safety-related structures, systems, and components would function as expected after the earthquake, 0.4 g. In 1973, the DCPP licensee, Pacific Gas and Electric (PG&E), became aware of the Hosgri fault. PG&E evaluated the Hosgri fault using Regulatory Guide 1.61, "Damping Values for Seismic Design of Nuclear Power Plants" October 1973. Though not included in the construction application, NRC reviewed the licensee's ~~applicant's~~ evaluation the Hosgri fault and required PG&E to make plant modifications to be able to withstand the 0.75 g peak ground acceleration associated with the Hosgri fault. The operating license for Unit 1, issued in 1984, was based on review of the Updated Final Safety Analysis Report which included two different seismic methodologies, the DDE and the Hosgri evaluation. Given expected advances in the science of seismic evaluation, the license was also conditioned to require a confirmatory seismic study over the first 10 years of operation, referred to as the Long Term Seismic Program.

Comment [PR1]: Should this be "applicant" because they didn't get the license until 1984?

In November 2008, PG&E reported identification of a new offshore fault, subsequently identified as the Shoreline fault zone. The initial evaluation in Event Report No. 44675 indicated that the newly identified fault was "smaller than the Hosgri fault, which is the current bounding seismic feature for DCPP." In January 2011, PG&E submitted the "Report on the Analysis of the Shoreline Fault Zone, Central Coast California" (Agencywide Documents Access and Management System (ADAMS) Accession Number ML110140431) which documented their investigation of the Shoreline fault zone and its relationship to other seismic sources in proximity to the DCPP. In September 2012, the NRC issued Research Information Letter 12-01, "Confirmatory Analysis of Seismic Hazard at the Diablo Canyon Power Plant from the Shoreline Fault Zone" (ADAMS Accession No. ML121230035). The conclusion of the review from the executive summary is excerpted below:

Comment [PR2]: Because this will likely be a public document, should we say anything about the outcome of this study, e.g., still bounded?

Comment [M3]: For some prior DPO's the response letter has also included a brief discussion of related non-concurrences from the filer. I have not included the related non-concurrences that were filed on this issue. However, if you would like it added for completeness, I can prepare additional paragraphs to discuss the 2011 and then 2012 non-concurrences.

"In this review of the hazard from the Shoreline fault, the NRC compared the resulting deterministic seismic ground motions to loading levels for which the plant has been previously reviewed, specifically the Hosgri Earthquake (HE) ground motion response spectrum as described in NUREG-0675, "Safety Evaluation Report Related to the Operation of Diablo Canyon Power Plant, Units 1 and 2," Supplement No. 7 (NRC, 1978), and the LTSP ground motion response spectrum as detailed in NUREG-0675, Supplement No. 34 (NRC, 1991). The results indicate that deterministic seismic-loading levels predicted for all the Shoreline fault earthquake scenarios developed and analyzed by the NRC are at, or below, those levels for the HE ground motion and the LTSP ground motion. The HE ground motion and the LTSP ground motion are those for which the plant was evaluated previously and demonstrated to have reasonable assurance of safety."

Beginning in 2010, as the senior resident inspector for Diablo Canyon, you raised concerns with your Region IV management regarding the adequacy of PG&E's evaluation of the

Comment [PR4]: Check with Region IV for accuracy. He may have been voicing concerns earlier.

Shoreline fault zone. In July 19, 2013, you submitted this DPO documenting your concerns.

The statement of concerns from your DPO is summarized as follows:

1. The NRC did not enforce the Diablo Canyon Technical Specifications with respect to this seismic issue, because the new seismic information showed that required structures, systems and components could be exposed to greater vibratory motion than previously considered for the safe shutdown earthquake.
2. PG&E's operability evaluation following the development of the new seismic information was inadequate, because the new seismic information was not compared correctly to the plant's licensing basis.
3. The NRC failed to enforce 10 CFR 50.59 requirements that PG&E obtain an amendment to their license, because the new seismic information showed that more than a minimal increase would occur in the likelihood of malfunction of structures, systems and components important to safety.
4. The NRC failed to adequately address the Los Osos and San Luis Bay faults, which could produce ground motions in excess of the safe shutdown earthquake ground motion.

Comment [PR5]: This is where you may want to include a short discussion of past NCPs to help tell the story that this employee has been raising issues and we have been following our processes to address his issues. Be careful in characterization because the previous NCPs may be related, but not exact issues in DPO.

The DPO Ad Hoc Review Panel was established on September 3, 2013. The Ad Hoc Review Panel met with you on October 23, 2013, and then periodically throughout their review to further discuss your concerns. The Ad Hoc Review Panel focused their review on the agreed to statement of concerns, as summarized above. The panels' conclusions are summarized for each concern:

1. The panel noted that your DPO was instrumental in identifying the complexity of the range of conditions considered in the DCCP Updated Final Safety Analysis Report seismic evaluation. However, the panel concluded that given appropriate comparisons, the potential ground motions from the Shoreline fault zone do not exceed the levels of acceleration considered in the design and licensing of DCCP for required structures, systems and components.
2. The panel noted that this concern is based upon your conclusion that there is only one appropriate evaluation method for new seismic information, specifically to substitute the new seismic information into the original DDE method. The panel concluded that the licensee's evaluation method was acceptable given that the Updated Final Safety Analysis Report identifies both the DDE and the Hosgri evaluation.
3. The panel concluded that an amendment to the license was not required because the Shoreline fault zone ground motions do not exceed the levels evaluated in the DCCP design and licensing. Therefore, there is no potential violation of the 10 CFR 50.59 requirements.
4. The panel agreed with you that the NRC staff did not clearly and explicitly consider the potential ground motions from the Los Osos and San Luis Bay fault. However, the panel noted that both the Los Osos and San Luis Bay faults had previously been evaluated in the Long Term Seismic Program. Additionally, these faults were evaluated from a risk perspective by NRC staff in Research Information Letter 12-01. The panel concluded that the Los Osos, San Luis Bay, and the Shoreline faults do not exceed the level of ground motion already considered in the design and licensing of DCCP.

On May 29, 2014, the Director, Office of Nuclear Reactor Regulation, provided you with his decision on your the-DPO-decision. The Office Director agreed with the Ad Hoc Review Panel's report with respect to your specific technical concerns. However, he noted that your DPO highlighted the need for the agency to further consider how new information on natural hazards should be considered in the regulatory process and his expectation that the work currently

underway on the Fukushima Near Term Task Force Recommendations 2.1 and 2.2, would address this issue.

On June 23, 2014, you filed a DPO appeal. In the appeal, you noted your agreement with the Panel's conclusion that issues raised in the DPO do not result in a significant or immediate safety concern. You also state agreement that the potential ground motions from the Shoreline fault zone do not exceed the levels considered during licensing of the plant. However, you have very narrowly defined the licensing basis and approved methodology for seismic evaluation as being limited to the methodology associated with the DDE from the original license application. Based on your exclusion of the Hosgri evaluation from the licensing basis, your appeal reiterates your belief that a license amendment is required to revise the DDE evaluation to the higher ground motions associated with the new seismic information. Additionally, you recommend the agency initiate enforcement action for the failure to take appropriate actions to address the new seismic information associated with the Shoreline fault zone.

Comment [PR6]: OK, time for candid feedback. If it was me, I'd be frustrated that you are telling me what I agreed with rather than capturing the 2 issues I clearly identified as the reason for the appeal that support my statement that the panel report had insufficient detail to support its conclusion. I'm not suggesting that you don't include the "it's safe" message, just be mindful of identifying his issues. This has been a repeated frustration by the employee. Include the evaluation of his issues in the next section.

EXECUTIVE DIRECTOR FOR OPERATIONS REVIEW AND DECISION

When I received your appeal, I initiated an extensive review of the available information related to DPO 2013-002. I reviewed many documents including, but not limited to, the DPO you originally submitted, the Ad Hoc Review Panel's report dated April 3, 2014, the Office Director's decision regarding your DPO, and your appeal of the Office Director's decision, and the Office Director's statement of views on the contended issues in your DPO appeal. To understand the issues fully, I met with members of the Ad Hoc Review Panel on July 28, 2014, and I met with you on July 30, 2014. My review was focused on the agreed upon issues that you raised in your DPO submittal, limited to the technical issues you raised.

Comment [M7]: This para is fairly standard boilerplate from prior appeal responses.

Comment [PR8]: Editorial comment—if you include one date, include them all.

I would like to commend you on a package that was well-researched, and insightful. Based on my review, discussion with the Ad Hoc Review Panel, and our interview, I agree that there is no significant or immediate safety concern associated with the issue you have raised. However, you have highlighted the complexity of the Diablo Canyon licensing basis as documented in the Updated Final Safety Analysis Report, which is a direct result of how the licensing basis was augmented during the original licensing process, between issuance of the construction permit in 1968 and issuance of the operating licensing in 1984. While I appreciate your concern with the clarity of the Updated Final Safety Analysis Report, I am unable to arrive at the same conclusion whereby you exclude the Hosgri evaluation from the licensing basis.

Comment [PR9]: The current wording may lead others to believe that the submitter raised other issues to the EDO, such as the possibility of retaliation.

Comment [PR10]: Once again, it's OK to highlight the "it's safe" message, but clearly articulate the rationale for the outcome of his issues. The results of our targeted survey indicated that 33% of submitters didn't think the rationale for DPO decisions were clearly stated.

Nevertheless, your questioning attitude and perseverance were key to ensuring the licensee and staff fully evaluated the implications of the Shoreline fault zone. In addition to raising awareness of the complexity of the DCPD seismic licensing basis, you have illustrated the need for the agency to ensure there are clear guidelines for staff and licensees regarding how changes in natural hazards should be evaluated. This awareness is particularly timely and important as we move forward with the Fukushima Near Term Task Force Recommendations.

Comment [M11]: Are there any potential additional actions that need to be considered for NRR's follow-up?

I want to thank you for bringing your concerns to my attention. Your DPO was well thought out and researched. As you know, our agency relies on its staff members to raise concerns regarding decisions so that they can be properly considered. Your perseverance in raising these concerns demonstrates your dedication to safety that is the foundation of the agency's excellent staff, and I applaud your efforts in this regard. I take concerns such as the ones you raised very seriously, and hope that my interactions with you have shown my complete and thorough review of your concerns in making my decision.

Comment [M12]: This para is fairly standard boilerplate from prior appeal responses.

From: Pedersen, Renee
Sent: Monday, September 08, 2014 8:57 AM
To: Galloway, Melanie
Subject: RE: DPO 2013-002

Because we want this to be a somewhat of a stand alone document, I'm going to send her a bit more for the introduction to address the process (DPO submittal, report decision appeal..)

From: Galloway, Melanie
Sent: Monday, September 08, 2014 8:53 AM
To: Pedersen, Renee
Subject: RE: DPO 2013-002

It's the same version. Michele will be working on Mark's comments today.

From: Pedersen, Renee
Sent: Monday, September 08, 2014 8:44 AM
To: Galloway, Melanie
Subject: RE: DPO 2013-002

Melanie,

I had a minor comment on what Michele sent to mark on Saturday. Is this version the same or does it include Mark comments?

From: Galloway, Melanie
Sent: Monday, September 08, 2014 8:41 AM
To: Pedersen, Renee
Subject: FW: DPO 2013-002

I see you were copied on this. What do you think?

Mark had very few comments and hopes to sign out today.

From: Sampson, Michele
Sent: Saturday, September 06, 2014 1:40 PM
To: (b)(6)
Cc: Zimmerman, Roy; Brock, Kathryn; Galloway, Melanie; Pedersen, Renee
Subject: DPO 2013-002

Attached is draft text for your review. On Friday, Renee, Kathy, Melanie, and Roy provided comments. I met with Roy on Friday afternoon to discuss the comments and have incorporated all of the comments into the current draft.

Thank you,
Michele Sampson, Chief
Licensing Branch
U.S. Nuclear Regulatory Commission
Office of Nuclear Material Safety and Safeguards
Spent Fuel Storage and Transportation Division

Mail Stop 3WFN-14A44
Washington, D.C. 20555-0001
Phone: 301-287-9077

From: Pedersen, Renee
Sent: Tuesday, September 09, 2014 4:01 PM
To: Solorio, Dave
Subject: RE: ACTION: Need Approval for Public Release of DPO Case File
Attachments: Anticipating Need for Public Release of DPO Case File

Dave,

We have already been working this issue to support a fast track. I believe that this happened while you were out, but you were copied.

From: Solorio, Dave
Sent: Tuesday, September 09, 2014 3:56 PM
To: Pedersen, Renee
Subject: RE: ACTION: Need Approval for Public Release of DPO Case File

What I don't understand was why he was able to respond so fast.

He must have known previously you were working to this goal?

He must have known, you don't state it, that the EDO wanted this released like yesterday? You just said the EDO wanted it public but didn't indicate timing of making it public.

Thanks
Dave

From: Pedersen, Renee
Sent: Tuesday, September 09, 2014 3:54 PM
To: Dorman, Dan
Cc: Wertz, Trent; Uhle, Jennifer; Evans, Michele; Case, Michael; Markley, Michael; Holahan, Patricia; Solorio, Dave; Sewell, Margaret
Subject: RE: ACTION: Need Approval for Public Release of DPO Case File

Thanks!!

From: Dorman, Dan
Sent: Tuesday, September 09, 2014 3:35 PM
To: Pedersen, Renee
Cc: Wertz, Trent; Uhle, Jennifer; Evans, Michele; Case, Michael; Markley, Michael; Holahan, Patricia; Solorio, Dave; Sewell, Margaret
Subject: Re: ACTION: Need Approval for Public Release of DPO Case File

Renee,

I approve release of the DPO Case File as discussed below.

Thanks

Dan

From: Pedersen, Renee

Sent: Tuesday, September 09, 2014 02:53 PM

To: Dorman, Dan

Cc: Wertz, Trent; Uhle, Jennifer; Evans, Michele; Case, Michael; Markley, Michael; Holahan, Patricia; Solorio, Dave; Sewell, Margaret

Subject: ACTION: Need Approval for Public Release of DPO Case File

Dan,

The EDO has issued his decision and the employee has asked that the DPO Case File be made available to the public.

We have previously communicated with your staff and they indicated that they did not see the need for any redactions in the DPO Case File.

In accordance with the guidance in MD 10.159, you are responsible for ensuring that information is appropriately released to the public.

Therefore, please confirm that you support public release of the complete DPO Case File.

If you have any questions, please let us know.

We are hoping to get this declared as a public OAR ASAP so it will be available to the public by tomorrow.

Renée

From: Pedersen, Renee
Sent: Tuesday, September 09, 2014 1:08 PM
To: Kreuter, Jane
Cc: Galloway, Melanie; Sampson, Michele
Subject: RE: Word Document of ML14251A453

Thanks!!

Do you know when the email will transmit this to the employee?

From: Kreuter, Jane
Sent: Tuesday, September 09, 2014 1:05 PM
To: Pedersen, Renee
Cc: Galloway, Melanie; Sampson, Michele
Subject: Word Document of ML14251A453

Renee,

Please find attached, per your request ML14251A453 in Word format. The formatting will not be the same as in ADAMS, so you may have to play with it.

Jane A. Kreuter
Administrative Assistant to the Executive Director for Operations
U.S. Nuclear Regulatory Commission



301-415-1701



301-415-2700



O16-E15



Jane.Kreuter@nrc.gov

I've learned that people will forget what you said, people will forget what you did, but people will never forget how you made them feel.

Maya Angelou

From: Benner, Eric
Sent: Tuesday, August 26, 2014 10:50 AM
To: Brenner, Eliot; Helton, Shana; Powell, Amy; Niedzielski-Eichner, Phillip; Castleman, Patrick; Bubar, Patrice
Cc: Dacus, Eugene; Rothschild, Trip; Weil, Jenny; Vietti-Cook, Annette
Subject: Re: Request from Sen. Feinstein for Diablo Canyon DPO

Thanks!

From: Brenner, Eliot
Sent: Tuesday, August 26, 2014 10:23 AM
To: Benner, Eric; Helton, Shana; Powell, Amy; Niedzielski-Eichner, Phillip; Castleman, Patrick; Bubar, Patrice
Cc: Dacus, Eugene; Rothschild, Trip; Weil, Jenny; Vietti-Cook, Annette
Subject: RE: Request from Sen. Feinstein for Diablo Canyon DPO

Mark's response was that he was trying to get it out this week.

From: Benner, Eric
Sent: Tuesday, August 26, 2014 9:02 AM
To: Helton, Shana; Powell, Amy; Niedzielski-Eichner, Phillip; Castleman, Patrick; Bubar, Patrice
Cc: Dacus, Eugene; Rothschild, Trip; Weil, Jenny; Vietti-Cook, Annette; Brenner, Eliot
Subject: RE: Request from Sen. Feinstein for Diablo Canyon DPO

Perfect...thanks.

From: Helton, Shana
Sent: Tuesday, August 26, 2014 8:56 AM
To: Powell, Amy; Benner, Eric; Niedzielski-Eichner, Phillip; Castleman, Patrick; Bubar, Patrice
Cc: Dacus, Eugene; Rothschild, Trip; Weil, Jenny; Vietti-Cook, Annette; Brenner, Eliot
Subject: RE: Request from Sen. Feinstein for Diablo Canyon DPO

Gene asked Mark about the timeline at the 8:30am this morning in a side-bar (I didn't hear the response) – I suggest we discuss at this morning's COS meeting following the affirmation session.

Thank you,
Shana

From: Powell, Amy
Sent: Tuesday, August 26, 2014 8:54 AM
To: Benner, Eric; Niedzielski-Eichner, Phillip; Castleman, Patrick; Bubar, Patrice
Cc: Dacus, Eugene; Helton, Shana; Rothschild, Trip; Weil, Jenny; Vietti-Cook, Annette; Brenner, Eliot
Subject: RE: Request from Sen. Feinstein for Diablo Canyon DPO

I know only that it is in appeal with the EDO. Eliot, given your adventures with this already this week, do you have a sense of timeline from OEDO for wrapping up? If not, we can check with OEDO.

Amy

From: Uselding, Lara
Sent: Thursday, September 18, 2014 12:58 PM
To: Brenner, Eliot; Burnell, Scott; Harrington, Holly
Subject: Fw: Did PG&E and the NRC work together to spin news on Diablo Canyon quake safety?

FYI
Lara Uselding
NRC Region 4 Public Affairs
817-200-1519

From: Markley, Michael
Sent: Thursday, September 18, 2014 11:09 AM
To: Willis, Dori
Cc: Kanatas, Catherine; Roth(OGC), David; Oesterle, Eric; Sebrosky, Joseph; Uselding, Lara; Lund, Louise
Subject: FW: Did PG&E and the NRC work together to spin news on Diablo Canyon quake safety?

Dori,

Aside from the obvious handling of the FOIA, whenever it is received, this reads like an allegation? What is the OAC view on this?

Mike Markley, Acting Deputy Director
DORL/NRR
301-415-5723

From: Uselding, Lara
Sent: Thursday, September 18, 2014 10:28 AM
To: Walker, Wayne; Hipschman, Thomas; Reynoso, John; Buchanan, Theresa; Sebrosky, Joseph; Sebrosky, Joseph; Markley, Michael
Subject: FW: Did PG&E and the NRC work together to spin news on Diablo Canyon quake safety?

From: Dricks, Victor
Sent: Thursday, September 18, 2014 9:16 AM
To: Dapas, Marc; Kennedy, Kriss; Pruett, Troy; Uselding, Lara; Brenner, Eliot
Subject: FW: Did PG&E and the NRC work together to spin news on Diablo Canyon quake safety?

FYI

Victor Dricks
Senior Public Affairs Officer
U.S. Nuclear Regulatory Commission / Region IV
1600 E. Lamar Blvd.
Arlington, Texas 76011
(817) 200-1128 (Office)

(b)(6)

 (Cell)

From: Bill Walker [mailto:bw.deadline@gmail.com]
Sent: Thursday, September 18, 2014 9:13 AM

To: Dricks, Victor

Subject: Did PG&E and the NRC work together to spin news on Diablo Canyon quake safety?

For Immediate Release: September 18, 2014

Expert Contacts:

Ben Schreiber, (202) 352-4223, bschreiber@foe.org

Dave Freeman, (310) 902-2147, greencowboysdf@gmail.com

Communications Contacts:

EA Dyson, (202) 222-0730, edyson@foe.org (East Coast)

Bill Walker, (510) 759-9911, bw.deadline@gmail.com (West Coast)

Did PG&E and the NRC work together to spin news on Diablo Canyon quake safety?

Friends of the Earth files Freedom of Information Act request

WASHINGTON, D.C. – Last week the Nuclear Regulatory Commission denied a dissent by the former chief inspector at the Diablo Canyon nuclear plant, who said new seismic data show the plant may be vulnerable to earthquakes of greater magnitude than allowed by its license. On the same day, Pacific Gas & Electric Co. released a long-awaited seismic study that, like the NRC's ruling, also claimed that Diablo Canyon is safe. Was the timing a coincidence? Friends of the Earth doubts it.

Today, Friends of the Earth, joined by Public Employees for Environmental Responsibility, Mothers for Peace and the Santa Lucia Chapter of the Sierra Club filed a Freedom of Information Act request to determine whether the NRC and PG&E improperly worked together on a public relations strategy to counteract widespread news coverage of the inspector's dissent. According to the FOIA request, filed with the NRC in Washington:

The PG&E seismic report, released on the same day [as the decision on the inspector's dissent] indicates a possible relationship between the regulator and its licensee that has brought up widespread public concern regarding the independence of the regulator. There have been numerous concerns as to how the two documents could have been released simultaneously, given that [the handling of the inspector's dissent] has been kept secret.

The FOIA filing comes three days after three PG&E executives and a top staff member of the California Public Utilities Commission were removed for improperly working together to appoint the company's preferred judge to a case stemming from a September 2010 gas line explosion that killed eight people in San Bruno, California.

"You don't have to look any further than today's headlines to see that PG&E is capable of trying to improperly influence a government regulator when its profits are on the line," said Damon Moglen, Senior strategic advisor for Friends of the Earth. "Unfortunately, the NRC's track record on this issue shows an unfortunate tendency to put PG&E's interests before those of public safety. We want to find out to what extent PG&E and the NRC worked together to spin the story that Diablo Canyon is safe, despite the mounting evidence that it is vulnerable to quakes more powerful than it was built to withstand."

San Luis Obispo County supervisor Bruce Gibson, a seismologist and member of the Independent Peer Review Panel for Diablo Canyon appointed by the CPUC, also questioned the timing of the release of PG&E's report.

"PG&E chose to finalize its entire report and release it to the public before it sought any comment from—or even contacted—the peer review panel," Gibson wrote in the San Luis Obispo Tribune. "It appears to me that PG&E's public relations staff advised them to get their story to the public before any detailed questions might be asked."

Dr. Michael Peck, the former chief inspector at Diablo Canyon, in June 2013 filed a dissent known as a Differing Professional Opinion, or DPO, raising concerns that the plant might not withstand an earthquake on one of several fault lines that were not known when it was designed and built more than 40 years ago. Peck called for the shutdown of the plant until and unless PG&E could prove it is safe.

For more than a year, the NRC kept Peck's DPO secret and took no action on it. On August 25, 2014, the Associated Press revealed the existence of Peck's document, prompting Sen. Barbara Boxer of California to call a hearing to examine NRC's handling of the dissent. On September 10, the NRC announced it had ruled against Peck. Within hours, PG&E released a seismic safety study the NRC had ordered in the wake of the Fukushima nuclear disaster in March 2011.

"PG&E's seismic safety study is one more example of its half-century history of trying to rationalize away the extreme earthquake hazards to the Diablo Canyon reactors," said Jane Swanson, San Luis Obispo Mothers for Peace. "Despite three earthquake faults identified near Diablo, the NRC has continued to allow this devil of a plant to continue to operate."

Under federal law, the NRC has 20 days to respond to the Freedom of Information Act request.

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Bill Walker
dba Deadline Now
Berkeley, CA
(510) 759-9911

Twitter: @deadlinenow
Facebook: DeadlineNow
Skype: deadlinenow
<http://www.deadlinenow.com>

From: Uselding, Lara
Sent: Tuesday, September 09, 2014 5:35 PM
To: Brenner, Eliot; Burnell, Scott; Harrington, Holly; McIntyre, David; Dricks, Victor
Subject: RE: Draft WIR

They said they will give me draft PR one hour before they issue to keep "close hold." I expect that at 10 a.m. pacific time and will share once I have it.

Per Joe Sebrosky, "PG&E is targeting the public release of the State of California report for 11:00 am Pacific time (2:00 pm eastern) on 9/10/14. PG&E intends to do the following:

- Issue an announcement
- Issue a press release
- Make the document publicly available on their website
- Provide a hard copy to the County
- Walk a copy of the report to us to be provided to the document control desk in accordance with 10 CFR 50.4 requirements"

From: Brenner, Eliot
Sent: Tuesday, September 09, 2014 4:16 PM
To: Burnell, Scott; Harrington, Holly; Uselding, Lara; McIntyre, David; Dricks, Victor
Subject: Re: Draft WIR

Scott, you don't need to be on the call.

Lara: 11 central or pacific? I thought PGE was going at 11am Pacific.

From: Burnell, Scott
Sent: Tuesday, September 09, 2014 05:03 PM
To: Brenner, Eliot; Harrington, Holly; Uselding, Lara; McIntyre, David; Dricks, Victor
Subject: Re: Draft WIR

I'll be in NRO Commission meeting unless you feel I need to be in discussion.

Sent from an NRC Blackberry
Scott Burnell

(b)(6)

From: Brenner, Eliot
Sent: Tuesday, September 09, 2014 04:59 PM
To: Harrington, Holly; Uselding, Lara; Burnell, Scott; McIntyre, David; Dricks, Victor
Subject: Re: Draft WIR

Let's talk at 9am. I kind of like giving him a couple of hours lead time. Laura do you know how to reach him in off hours? Like at maybe 7-8am Pacific?

From: Harrington, Holly
Sent: Tuesday, September 09, 2014 04:56 PM
To: Uselding, Lara; Brenner, Eliot; Burnell, Scott; McIntyre, David; Dricks, Victor
Subject: RE: Draft WIR

We can tweet; we can do a media advisory; we can do email. We can give SLO News tribune a bit of an early heads up, but what do you mean exclusive?

Holly Harrington

Senior Level Advisor
Office of Public Affairs
U.S. Nuclear Regulatory Commission

301.415.8203

From: Uselding, Lara
Sent: Tuesday, September 09, 2014 4:55 PM
To: Brenner, Eliot; Harrington, Holly; Burnell, Scott; McIntyre, David; Dricks, Victor
Subject: Re: Draft WIR

I'd like to give an exclusive to David Snead at SLO News Tribune. thoughts?

Lara Uselding
NRC Region 4 Public Affairs
817-200-1519

From: Brenner, Eliot
Sent: Tuesday, September 09, 2014 03:53 PM
To: Uselding, Lara; Harrington, Holly; Burnell, Scott; McIntyre, David; Dricks, Victor
Subject: Re: Draft WIR

Ok, let's talk at 9am. R4 can call my direct line. That is after my session with the chairman so I should have the 17th floor comments. Refresh my memory on rollout plans. Since we have the whole megilla, what about an email to reporters with a link?

From: Uselding, Lara
Sent: Tuesday, September 09, 2014 04:45 PM
To: Harrington, Holly; Brenner, Eliot; Burnell, Scott; McIntyre, David; Dricks, Victor
Subject: Re: Draft WIR

I have a diablo state report strategy call w HQ at 7:30 central time on what I can say tomorrow so let's talk before or after that if possible

Lara Uselding
NRC Region 4 Public Affairs
817-200-1519

From: Harrington, Holly
Sent: Tuesday, September 09, 2014 03:28 PM
To: Brenner, Eliot; Burnell, Scott; McIntyre, David; Uselding, Lara; Dricks, Victor
Subject: RE: Draft WIR

Mark Satorius just came down with a copy of his letter to Peck. He confirmed Peck has said he wants the whole package to go public. It's slated to go public tomorrow. I don't know what that does to our time table. Perhaps we all need to talk in the morning?

Holly Harrington

Senior Level Advisor
Office of Public Affairs
U.S. Nuclear Regulatory Commission

301.415.8203

From: Brenner, Eliot
Sent: Tuesday, September 09, 2014 4:25 PM
To: Burnell, Scott; McIntyre, David; Uselding, Lara; Dricks, Victor; Harrington, Holly
Subject: Fw: Draft WIR

I have absolutely no clue what a WIR is. Wow, it's real?

From: Pedersen, Renee
Sent: Tuesday, September 09, 2014 04:22 PM
To: Sampson, Michele; Galloway, Melanie
Cc: Segala, John; Sewell, Margaret; Brenner, Eliot
Subject: RE: Draft WIR

Thanks Michele!! We are working on the ADAMS record as we speak. I'll send you the ML number as soon as I get it.

From: Sampson, Michele
Sent: Tuesday, September 09, 2014 4:18 PM
To: Galloway, Melanie
Cc: Pedersen, Renee; Segala, John
Subject: Draft WIR

Melanie,
Attached is a draft WIR for the DPO Appeal Decision. Trent Wertz in NRR has reviewed it and I've incorporated his comments.

Renee is putting together the public case file and will provide the ML number when it is available. I have a placeholder in the WIR at the end to include that information. Please let me know if you have any comments, or any additional information that you may need.

Thank you,
Michele Sampson, Chief
Licensing Branch
U.S. Nuclear Regulatory Commission
Office of Nuclear Material Safety and Safeguards
Spent Fuel Storage and Transportation Division
Mail Stop 3WFN-14A44
Washington, D.C. 20555-0001
Phone: 301-287-9077

From: Markley, Michael
Sent: Thursday, August 28, 2014 12:23 PM
To: Walker, Wayne; Dudek, Michael
Cc: Hay, Michael; Kennedy, Kriss; Sebrosky, Joseph; Oesterle, Eric; Lund, Louise; Uhle, Jennifer
Subject: RE: Chairman's Office Question: Diablo Canyon Shoreline Fault

Mike,

The licensee has not agreed to give NRC an advance look at the report. We expect the NRC to receive the report at approximately the same time as it is provided to the State of California. The media and public would not be expected to have prior access to the report.

Mike

From: Walker, Wayne
Sent: Thursday, August 28, 2014 12:05 PM
To: Dudek, Michael
Cc: Hay, Michael; Kennedy, Kriss; Markley, Michael; Sebrosky, Joseph
Subject: RE: Chairman's Office Question: Diablo Canyon Shoreline Fault

Michael,

To the best of my knowledge the licensee has not released the report to anyone. Also the latest information we have is the report will be released to the State of California and us around September 9th.

Wayne

From: Dudek, Michael
Sent: Thursday, August 28, 2014 11:01 AM
To: Walker, Wayne
Cc: Markley, Michael; Sebrosky, Joseph
Subject: RE: Chairman's Office Question: Diablo Canyon Shoreline Fault

Thanks Wayne! Quick follow-up question, though. The Chairman has 3 interviews tomorrow (N.Y Times, Washington Post, etc.) and wants to ensure that she is not going to get questions on this report.

Question: Can we please re-confirm that the media does not have this report... and that it is not going to be made public until Sept. 9th?

Thanks again!

Michael I. Dudek

Michael I. Dudek | OEDO Executive Technical Assistant | U.S. NRC

✉: Michael.Dudek@nrc.gov | ☎: (301) 415-6500 | BB: (b)(6)

From: Walker, Wayne
Sent: Thursday, August 28, 2014 10:22 AM
To: Dudek, Michael
Cc: Markley, Michael; Sebrosky, Joseph
Subject: RE: Chairman's Office Question: Diablo Canyon Shoreline Fault

Michael,

Your statements are correct. We are in discussions with PG&E today requesting access to the report thru a secure web portal.

Wayne

From: Dudek, Michael
Sent: Thursday, August 28, 2014 9:08 AM
To: Markley, Michael; Walker, Wayne
Cc: Bowers, Anthony
Subject: Chairman's Office Question: Diablo Canyon Shoreline Fault

Mike, Wayne: Any thoughts on the question below from the Chairman's Office below?

If I recall the conversations yesterday correctly, the new data come from a study commissioned by the State of CA. No, the staff has not seen it (yet), but we are trying to get a preview of the report via a secure web portal. Correct?

Any thoughts or insights that you might have would be greatly appreciated.

Michael I. Dudek
Michael I. Dudek | OEDO Executive Technical Assistant | U.S. NRC
✉: Michael.Dudek@nrc.gov | ☎: (301) 415-6500 | BB: (b)(6)

From: Gilles, Nanette
Sent: Thursday, August 28, 2014 9:52 AM
To: Dudek, Michael
Subject: Diablo Canyon Shoreline Fault

Mike,

Shana said that there was some discussion at the morning meeting with the EDO regarding a letter that PG&E is expected to send to the state of CA around Sept. 9th that will state that they have identified higher ground motions from the Shoreline Fault than originally reported, although those ground motions are still bounded by the Hosgri EQ. Can you find out where this new data came from and whether the staff has seen it?

Thanks,
Nan

Nanette V. Gilles
Policy Advisor for Reactors
Office of Chairman Macfarlane
U.S. Nuclear Regulatory Commission
301-415-1830

From: Dorman, Dan
Sent: Wednesday, September 03, 2014 12:58 PM
To: Evans, Michele; Uhle, Jennifer
Subject: FW: Info regarding Chairman Brief on Diablo Canyon seismic issues

fyi

-----Original Message-----

From: OKeefe, Neil
Sent: Wednesday, September 03, 2014 12:56 PM
To: Dapas, Marc; Markley, Michael; Sebrosky, Joseph
Cc: Dorman, Dan; Walker, Wayne
Subject: RE: Info regarding Chairman Brief on Diablo Canyon seismic issues

Marc,

I have been asked to lead the discussion on the DPO.

Neil

From: Dapas, Marc
Sent: Wednesday, September 03, 2014 11:54 AM
To: Markley, Michael; Sebrosky, Joseph
Cc: Dorman, Dan; Walker, Wayne; OKeefe, Neil
Subject: FW: Info regarding Chairman Brief on Diablo Canyon seismic issues

Mike/Joe, I just learned this morning of the subject briefing request by the Chairman. I presume NRR is taking the lead for the briefing given the subject matter being related to the DPO and AB 1632 report.

From: Dapas, Marc
Sent: Wednesday, September 03, 2014 11:52 AM
To: Walker, Wayne; OKeefe, Neil
Subject: FW: Info regarding Chairman Brief on Diablo Canyon seismic issues

Who is leading the briefing, NRR?

From: Bowers, Anthony
Sent: Wednesday, September 03, 2014 10:57 AM
To: Dapas, Marc
Subject: Info regarding Chairman Brief on Diablo Canyon seismic issues

Marc,

For your awareness...

I heard your line of questioning during the events brief today at 11:00. I did not speak up since I felt it was appropriate for your staff to brief you first. However, with that said I will give you a heads up on what I know and what to expect during the brief. The below language is a quote from the Chairman's staff (Nanette Gilles), which provides perspective on her specific interests to be addressed during the brief.

"The Chairman wants to understand exactly what Mr. Peck was taking issue with in his DPO. We've heard over and over that he did not have a safety concern, yet that isn't how it is being presented in (most of) the media. She also wants to understand, from a technical standpoint, what the State-commissioned study did differently that resulted in the conclusion that the Shoreline Fault is more capable than previously thought and why we can still say that it is bounded by Hosgri.

I suggest staff also be ready to address the current licensing basis and our basis for saying that the Shoreline Fault was bounded by the Hosgri fault, if asked. For example, the draft Comm Plan says:

The NRC's independent evaluation, documented in RIL 2012-01, concluded that there is very little evidence that the Shoreline fault has ever been active. While its size was used to create a worst reasonable case ground motion curve, the region shows only some symptoms of a fault. There is no evidence that there is slippage, which would indicate this was an active fault in the past. Therefore, it is reasonable to bound the Shoreline fault by the LTSP/Hosgri method.

This makes it sound like, because we don't think the Shoreline fault was really ever active, we can "therefore" bound it by the Hosgri method. I suspect there's more to it."

In addition, attendees for the brief are listed in the below e-mail from Joseph Sebrosky.

Please let me know if you need anything additional.

Tony

From: Dudek, Michael
Sent: Wednesday, September 03, 2014 11:39 AM
To: Bowers, Anthony
Subject: FYI: info: status of actions associated with with Diablo Canyon shoreline fault

FYI

Michael I. Dudek | OEDO Executive Technical Assistant | U.S. NRC
•: Michael.Dudek@nrc.gov<mailto:Michael.Dudek@nrc.gov> | •: (301) 415-6500 | BB: (b)(6)

From: Sebrosky, Joseph
Sent: Wednesday, September 03, 2014 11:35 AM
To: Hipschman, Thomas; Markley, Michael; Oesterle, Eric; Kanatas, Catherine; Reynoso, John; Manoly, Kamal; Ake, Jon; Munson, Clifford; OKeefe, Neil; Folk, Kevin; DiFrancesco, Nicholas; Balazik, Michael; Reynoso, John; Singal, Balwant; Hill, Brittain; Walker, Wayne; Uselding, Lara; Buchanan, Theresa; Keegan, Elaine; Jackson, Diane; Wittick, Brian; Stovall, Scott
Cc: Weil, Jenny; Li, Yong; Manoly, Kamal; Lund, Louise; Dudek, Michael; Case, Michael; Burnell, Scott; Hay, Michael; Franovich, Mike; Whaley, Sheena; Bowman, Gregory; Bowen, Jeremy; Moreno, Angel; Balazik, Michael; Williams, Megan; Farnholtz, Thomas; Kanatas, Catherine; Pedersen, Renee
Subject: info: status of actions associated with with Diablo Canyon shoreline fault

To all,

The purpose of this email is to provide you with a status of items associated with the Diablo Canyon seismic review related to status of the project plan to review new seismic information and the latest information regarding a Chairman briefing.

Project Plan for Reviewing New Seismic Information

Attached is the revised project plan for reviewing new seismic information. The document shows the changes made from the last revision (you can accept all changes if you are not interested in the changes). The major changes from the last version are:

- Changes made to include expectations that in addition to changes in Shoreline Fault information the State of California report will also include new information relative to the San Luis Bay and Los Osos faults.
- Recognition that today (9/3) PG&E has been provided with expected information needs for the staff to perform a preliminary assessment of the new seismic information and request to PG&E that they inform the staff on whether or not they will be able to provide the information by 9/22 (see attached email to PG&E)

During discussions I had with PG&E about the attached email they indicated that they could support a public meeting in the September time frame if the NRC believed such a meeting was necessary to discuss the State of California report. DORL senior management does not currently believe such a public meeting is necessary, therefore, a public meeting is not currently reflected in the attached project plan.

In addition, PG&E has confirmed that they will be providing electronic reading room access to the State of California and key NRC reviewers on 9/8/14, ahead of the tentative public release of the report on 9/10. The NRC individuals for which will be requesting access are: Cliff Munson, Scott Stovall, Yong Li, and Megan Williams. The purpose of the electronic reading room review is to identify changes to the communication plan and project plan ahead of the public release of the State of California report on 9/10/14.

Chairman Briefing

At her request a briefing of the Chairman has been scheduled from 9:15 (eastern time) to 10:00 am tomorrow (9/4) to answer her questions relative to the DPO and how the NRC will review the new seismic information.

- The participants in the briefing are: – Neil O'Keefe (RIV), Cathy Kanatas (OGC), Cliff Munson (NRO), Kamal Manoly (NRR/DE), Mike Markley (DORL), Scott Stovall (RES), and Renee Pedersen (OE).

- A draft copy of the slides will be provided to all on distribution for this email around 1:00 pm eastern today. Key staff will be requested to provide their comments on the draft slides by COB today so that the slides can be revised early tomorrow morning in time for the 9:15 briefing and a quick review by the EDO's office prior to the 9:15 eastern time briefing.

Please let me know if you have any questions about the above.

Thanks,

Joe Sebrosky
Senior Project Manager
Japan Lessons-Learned Division
Office of Nuclear Reactor Regulation
joseph.sebrosky@nrc.gov<mailto:joseph.sebrosky@nrc.gov>
301-415-1132

From: Dudek, Michael
Sent: Wednesday, September 03, 2014 8:42 AM
To: Sebrosky, Joseph; Markley, Michael; OKeefe, Neil; Kanatas, Catherine; Munson, Clifford; Manoly, Kamal; Stovall, Scott
Cc: Case, Michael
Subject: RE: info: update on status of 9/4/14 chairman briefing on Diablo seismic issues

Good morning! I discussed this briefing today at the 7:45am OEDO morning meeting and received no dissention from Mike Johnson, Roy Zimmerman, or Mike Weber regarding the staff's path forward (approach or proposed presenters discussed below). Scott Stovall should attend in lieu of Mike Case per Mark Satorius' direction.

I have also coordinated with Joe Sebrosky and will distribute the final version of the presentation to the OEDO when it is available.

Thank you all for your excellent coordination on this! Very much appreciated!

Michael I. Dudek

Michael I. Dudek | OEDO Executive Technical Assistant | U.S. NRC

✉: Michael.Dudek@nrc.gov | ☎: (301) 415-6500 | BB: (b)(6)

From: Sebrosky, Joseph
Sent: Wednesday, September 03, 2014 5:14 AM
To: Markley, Michael; OKeefe, Neil; Kanatas, Catherine; Munson, Clifford; Manoly, Kamal; Stovall, Scott
Cc: Case, Michael; Dudek, Michael
Subject: RE: info: update on status of 9/4/14 chairman briefing on Diablo seismic issues

Mike Markely,

EDO and DEDO level are the level of management that expressed concern. Mike Dudek is supposed to check with Mike Johnson this morning on the approach and let us know if there are any issues with the proposal below.

Mike Dudek - let me know if I am missing something.

Thanks,

Joe

From: Markley, Michael
Sent: Tuesday, September 02, 2014 3:34 PM
To: Sebrosky, Joseph; OKeefe, Neil; Kanatas, Catherine; Munson, Clifford; Manoly, Kamal; Stovall, Scott
Cc: Case, Michael; Dudek, Michael
Subject: RE: info: update on status of 9/4/14 chairman briefing on Diablo seismic issues

Mike Case called. He is fine with giving the DPO portion. At what level of management objection was expressed? Mike will support if needed but sees no major problem of supporting this as the spokesperson on the DPO.

From: Sebrosky, Joseph
Sent: Tuesday, September 02, 2014 2:37 PM

To: OKeefe, Neil; Kanatas, Catherine; Munson, Clifford; Manoly, Kamal; Markley, Michael; Stovall, Scott
Cc: Case, Michael; Dudek, Michael
Subject: info: update on status of 9/4/14 chairman briefing on Diablo seismic issues

To all,

The purpose of this email is to provide you with an update on the status of the 9/4/14 Chairman briefing on diablo seismic issues.

- Senior management has expressed a concern that it may not be appropriate for a member of the DPO panel to brief the Chairman because the decision is not yet finalized.
- The thought is that Neil O'Keefe, who was involved in dispositioning a DPV with similar issues, will brief the Chairman on the DPV and available information in ADAMS on the DPO.
 - If this decision is approved by the senior management, Neil will provide the bullets by 1:00 pm eastern tomorrow for the DPV/DPO portion of the briefing (this has been discussed with Neil)
 - I will work with DORL to develop the bullets for the State of California report that is embedded in the attached request from Mike Dudek.
 - You will be provided a consolidated list of bullets by 1:00 pm tomorrow, with the thought that all comments are provided by COB tomorrow.
 - Comments will be addressed and a revised version provided to you early Thursday morning.
- Cathy Kanatas of OGC will be attending the briefing.
- Renee Pederson has also requested to attend the briefing
- RES will have a rep at the briefing in lieu of Mike Case, this will most likely be Scott Stovall.
- Bottom line is that the proposed participants for the tentatively scheduled briefing at 9:15 on Thursday will be: Neil O'Keefe (RIV), Cathy Kanatas (OGC), Cliff Munson (NRO), Kamal Manoly (NRR/DE), Mike Markley (DORL), Scott Stovall (RES), and possibly Renee Pedersen (OE).

Once the plan has been discussed and approved by senior management I will send out an email to a broader audience letting them know this is the plan. For now, I thought it appropriate that the people being considered for the briefing are aware of the revised plan.

Let me know if I am missing something or if you have any questions.

Thanks,

Joe Sebrosky
Senior Project Manager
Japan Lessons-Learned Division
Office of Nuclear Reactor Regulation
joseph.sebrosky@nrc.gov
301-415-1132

From: Sebrosky, Joseph
To: Oesterle, Eric; Singal, Balwant
Subject: FW: Chairman Briefing Request
Date: Friday, August 29, 2014 1:13:11 PM

FYI - joe

From: Kock, Andrea
Sent: Friday, August 29, 2014 12:21 PM
To: Dudek, Michael; Markley, Michael; Walker, Wayne
Cc: Jackson, Diane; Rosales-Cooper, Cindy; Munson, Clifford; Ake, Jon; Franovich, Mike; Whaley, Sheena; Sebrosky, Joseph; Campbell, Andy; Flanders, Scott
Subject: RE: Chairman Briefing Request

Hi Mike- Could you get a sense from the Chairman's office on whether she is familiar with the history has specific questions or just wants background and an overview of our technical reviews to date?

Thanks!

Andrea Kock, Acting Deputy Director
Division of Site Safety and Environmental Analysis
Office of New Reactors
United States Nuclear Regulatory Commission
Ph. 301-415-2368

From: Dudek, Michael
Sent: Friday, August 29, 2014 11:01 AM
To: Markley, Michael; Walker, Wayne
Cc: Jackson, Diane; Rosales-Cooper, Cindy; Munson, Clifford; Ake, Jon; Franovich, Mike; Whaley, Sheena; Sebrosky, Joseph; Campbell, Andy; Kock, Andrea; Flanders, Scott
Subject: Chairman Briefing Request

Morning Mike, Wayne! With all of the focus this week on the Diablo Canyon DPO and the new data from the State-commissioned study, I have gotten a request that the Chairman would like a briefing by the staff's seismology experts – Cliff Munson, Jon Ake, etc. The Chairman would like this as soon as next week.

Request 1 – Can you please coordinate with the applicable folks and provide me with a plan of action?

Request 2 – Can you please review the provided date/ times and recommend one that works for the staff. The Chairman is available next week for this briefing:

- Thursday, September 4th, 9:30am – 10:00am, or
- Thursday, September 4th, 3:30pm – 4:00pm.

Apologies for the short turnaround!

Respectfully,
Michael I. Dudek
Michael I. Dudek | OEDO Executive Technical Assistant | U.S. NRC

✉: Michael.Dudek@nrc.gov | ☎: (301) 415-6500 | **BR:** (b)(6)

From: [Markley, Michael](#)
To: [Dudek, Michael](#)
Cc: [Oesterle, Eric](#); [Singal, Balwant](#)
Subject: RE: DPO story has run
Date: Monday, August 25, 2014 2:00:51 PM

This is not the same issue we discussed this morning. This morning I asked about the new seismic report being prepared by the California Public Utility Commission (CPUC). PG&E expects to issue that report to CPUC between 8/28 and 9/8 and then hold a public workshop on 10/4. My question was whether or not a CA note or CA briefing would be appropriate.

The e-mail subject to your reply is about the DPO submitted by the former senior resident that is currently under appeal to the EDO.

Mike Markley

From: Dudek, Michael
Sent: Monday, August 25, 2014 1:20 PM
To: Markley, Michael; Uhle, Jennifer; Lund, Louise
Cc: Sebrosky, Joseph; Case, Michael; Davis, Jack; Uselding, Lara; Burnell, Scott
Subject: RE: DPO story has run

Thanks Michael. I am available to support your communication needs. As we discussed this morning, this may warrant a Commission walk-around. If so, please let me know and I will coordinate.

Michael I. Dudek | OEDO Executive Technical Assistant | U.S. NRC
E: Michael.Dudek@nrc.gov | T: (301) 415-6500 | BB: (b)(6)

-----Original Message-----

From: Markley, Michael
Sent: Monday, August 25, 2014 12:12 PM
To: Uhle, Jennifer; Lund, Louise; Dudek, Michael
Cc: Sebrosky, Joseph; Case, Michael; Davis, Jack; Uselding, Lara; Burnell, Scott
Subject: FW: DPO story has run
Importance: High

All,

FYI, it appears that the DPO regarding Diablo Canyon is now running in the AP. As you know, the process is still pending within the NRC. A final decision has not been made and the DPO process is a non-public process, in part, because the submitter has privacy rights. Only the submitter of the DPO can release the information to the public.

Mike

-----Original Message-----

From: Uselding, Lara
Sent: Monday, August 25, 2014 11:52 AM

The complete email string may be found as document F/25 in interim response #3 in FOIA/PA-2014-0488 (ML15033A279).

From: Dapas, Marc
Sent: Wednesday, September 03, 2014 3:20 PM
To: Uhle, Jennifer; Johnson, Michael
Cc: Walker, Wayne; OKeefe, Neil
Subject: FW: Info regarding Chairman Brief on Diablo Canyon seismic issues
Attachments: RE: info: update on status of 9/4/14 chairman briefing on Diablo seismic issues

Mike/Jennifer, I just spoke to Neil O'Keefe and he will participate in tomorrow morning's subject briefing from a continuity perspective and to answer questions as appropriate based on his knowledge of licensee/NRC activities pertaining to "all things seismic" at Diablo Canyon. Wayne Walker, the current branch chief for Diablo, will participate via phone as well and be prepared to discuss the "Sewell Report", i.e., tsunami vulnerability study that the NRC contracted with the CNWRA to conduct back in 2003. Our review of that report was documented in 2005.

-----Original Message-----

From: Sebrosky, Joseph
Sent: Wednesday, September 03, 2014 12:07 PM
To: Dapas, Marc; OKeefe, Neil; Markley, Michael
Cc: Dorman, Dan; Walker, Wayne
Subject: RE: Info regarding Chairman Brief on Diablo Canyon seismic issues

Marc,

Neil is in the process of finalizing his slides. He will be giving you a call shortly to provide background on how he got involved. In short it was based on direction from the EDO and DEDOs that the DPO panel chair (i.e., Mike Case) not be involved in the briefing to preserve DPO independence. The reason Neil got involved is to try to be responsive to the chairman's request on the technical content of the DPV (that Neil helped to disposition) that has similar information in the DPO.

Bottom line - Neil will call you with additional background.

Joe

-----Original Message-----

From: Dapas, Marc
Sent: Wednesday, September 03, 2014 12:57 PM
To: OKeefe, Neil; Markley, Michael; Sebrosky, Joseph
Cc: Dorman, Dan; Walker, Wayne
Subject: RE: Info regarding Chairman Brief on Diablo Canyon seismic issues

Not sure I understand why?

-----Original Message-----

From: OKeefe, Neil
Sent: Wednesday, September 03, 2014 11:56 AM
To: Dapas, Marc; Markley, Michael; Sebrosky, Joseph
Cc: Dorman, Dan; Walker, Wayne
Subject: RE: Info regarding Chairman Brief on Diablo Canyon seismic issues

Marc,

I have been asked to lead the discussion on the DPO.

Neil

From: Dapas, Marc
Sent: Wednesday, September 03, 2014 11:54 AM
To: Markley, Michael; Sebrosky, Joseph
Cc: Dorman, Dan; Walker, Wayne; OKeefe, Neil
Subject: FW: Info regarding Chairman Brief on Diablo Canyon seismic issues

Mike/Joe, I just learned this morning of the subject briefing request by the Chairman. I presume NRR is taking the lead for the briefing given the subject matter being related to the DPO and AB 1632 report.

From: Dapas, Marc
Sent: Wednesday, September 03, 2014 11:52 AM
To: Walker, Wayne; OKeefe, Neil
Subject: FW: Info regarding Chairman Brief on Diablo Canyon seismic issues

Who is leading the briefing, NRR?

From: Bowers, Anthony
Sent: Wednesday, September 03, 2014 10:57 AM
To: Dapas, Marc
Subject: Info regarding Chairman Brief on Diablo Canyon seismic issues

Marc,

For your awareness...

I heard your line of questioning during the events brief today at 11:00. I did not speak up since I felt it was appropriate for your staff to brief you first. However, with that said I will give you a heads up on what I know and what to expect during the brief. The below language is a quote from the Chairman's staff (Nanette Gilles), which provides perspective on her specific interests to be addressed during the brief.

"The Chairman wants to understand exactly what Mr. Peck was taking issue with in his DPO. We've heard over and over that he did not have a safety concern, yet that isn't how it is being presented in (most of) the media. She also wants to understand, from a technical standpoint, what the State-commissioned study did differently that resulted in the conclusion that the Shoreline Fault is more capable than previously thought and why we can still say that it is bounded by Hosgri.

I suggest staff also be ready to address the current licensing basis and our basis for saying that the Shoreline Fault was bounded by the Hosgri fault, if asked. For example, the draft Comm Plan says:

The NRC's independent evaluation, documented in RIL 2012-01, concluded that there is very little evidence that the Shoreline fault has ever been active. While its size was used to create a worst reasonable case ground motion curve, the region shows only some symptoms of a fault. There is no evidence that there is slippage, which would indicate this was an active fault in the past. Therefore, it is reasonable to bound the Shoreline fault by the LTSP/Hosgri method.

This makes it sound like, because we don't think the Shoreline fault was really ever active, we can "therefore" bound it by the Hosgri method. I suspect there's more to it."

In addition, attendees for the brief are listed in the below e-mail from Joseph Sebrosky.

Please let me know if you need anything additional.

I will get the word out to a broader audience tomorrow. For now I thought you needed to know immediately that this is the plan. We still need a bridge with the new plan.

Thanks,

Joe

From: Dapas, Marc

Sent: Wednesday, September 03, 2014 3:22 PM

To: Uhle, Jennifer; Gilles, Nanette

Cc: Johnson, Michael; Sebrosky, Joseph; Lund, Louise; Jackson, Diane; Munson, Clifford; Walker, Wayne; OKeefe, Neil

Subject: RE: Chairman briefing tomorrow on Diablo Canyon

Wayne Walker will also participate as he has the history on the "Sewell Report".

From: Uhle, Jennifer

Sent: Wednesday, September 03, 2014 2:20 PM

To: Gilles, Nanette

Cc: Johnson, Michael; Sebrosky, Joseph; Lund, Louise; Dapas, Marc; Jackson, Diane; Munson, Clifford

Subject: Chairman briefing tomorrow on Diablo Canyon

Nan,

Mike Johnson and Roy Zimmerman informed me that the Chairman meeting tomorrow at 9:15 on Diablo Canyon seismic issues will be focused on technical issues associated with the recent findings on the Shoreline fault and how it impacts safety and the licensing basis. As such, we have cut down the attendance to Neil O'Keefe, Joe Sebrosky and Cliff Munson. Jon Ake is on vacation and is not able to call in. We think this is more of a question and answer session. We have some slides if needed.

Thanks,

Jennifer