

**RESPONSE TO FREEDOM OF
INFORMATION ACT (FOIA) / PRIVACY
ACT (PA) REQUEST**

2014-0488

3

RESPONSE
TYPE☐ FINAL☒ PARTIAL

REQUESTER

Damon Moglen

DATE

JAN 27, 2015

PART I. -- INFORMATION RELEASED

- ☐ No additional agency records subject to the request have been located.
- ☐ Requested records are available through another public distribution program. See Comments section.
- ☒ **GROUP E** Agency records subject to the request that are identified in the specified group are already available for public inspection and copying at the NRC Public Document Room.
- ☒ **GROUP F & G** Agency records subject to the request that are contained in the specified group are being made available for public inspection and copying at the NRC Public Document Room.
- ☒ **GROUP F & G** Agency records subject to the request are enclosed.
- ☐ Records subject to the request that contain information originated by or of interest to another Federal agency have been referred to that agency (see comments section) for a disclosure determination and direct response to you.
- ☒ We are continuing to process your request.
- ☒ See Comments.

PART I.A -- FEES

AMOUNT*

\$ * See comments
for details☐ You will be billed by NRC for the amount listed.☐ None. Minimum fee threshold not met.☐ You will receive a refund for the amount listed.☐ Fees waived.**PART I.B -- INFORMATION NOT LOCATED OR WITHHELD FROM DISCLOSURE**

- ☐ No agency records subject to the request have been located. For your information, Congress excluded three discrete categories of law enforcement and national security records from the requirements of the FOIA. See 5 U.S.C. § 552(c) (2006 & Supp. IV (2010)). This response is limited to those records that are subject to the requirements of the FOIA. This is a standard notification that is given to all our requesters and should not be taken as an indication that excluded records do, or do not, exist.
- ☒ Certain information in the requested records is being withheld from disclosure pursuant to the exemptions described in and for the reasons stated in Part II.
- ☐ This determination may be appealed within 30 days by writing to the FOIA/PA Officer, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001. Clearly state on the envelope and in the letter that it is a "FOIA/PA Appeal."

PART I.C COMMENTS (Use attached Comments continuation page if required)

The incoming request FOIA/PA 2014-0488 is available in ADAMS as ML14261A399.

Portions of documents have been marked out of scope as the information does not concern Diablo Canyon and the DPO. If there are attachments referenced in e-mail messages that are not included, they are duplicates, were addressed in prior interim responses, or already publicly available.

Records with an ML accession number are available in the NRC Library at www.nrc.gov/reading-rm/adams.html. For assistance in obtaining any public records, please contact the NRC's Public Document Room (PDR) at 1-800-397-4209 or by e-mail at PDR.Resource@nrc.gov.

SIGNATURE - FREEDOM OF INFORMATION ACT AND PRIVACY ACT OFFICER

Roger D. Andoh

**RESPONSE TO FREEDOM OF INFORMATION
ACT (FOIA) / PRIVACY ACT (PA) REQUEST**DATE **JAN 27, 2015****PART II.A -- APPLICABLE EXEMPTIONS**

GROUP

G

Records subject to the request that are contained in the specified group are being withheld in their entirety or in part under the Exemption No.(s) of the PA and/or the FOIA as indicated below (5 U.S.C. 552a and/or 5 U.S.C. 552(b)).

- ☐ Exemption 1: The withheld information is properly classified pursuant to Executive Order 12958.
- ☐ Exemption 2: The withheld information relates solely to the internal personnel rules and practices of NRC.
- ☐ Exemption 3: The withheld information is specifically exempted from public disclosure by statute indicated.
- ☐ Sections 141-145 of the Atomic Energy Act, which prohibits the disclosure of Restricted Data or Formerly Restricted Data (42 U.S.C. 2161-2165).
- ☐ Section 147 of the Atomic Energy Act, which prohibits the disclosure of Unclassified Safeguards Information (42 U.S.C. 2167).
- ☐ 41 U.S.C., Section 4702(b), prohibits the disclosure of contractor proposals in the possession and control of an executive agency to any person under section 552 of Title 5, U.S.C. (the FOIA), except when incorporated into the contract between the agency and the submitter of the proposal.
- ☐ Exemption 4: The withheld information is a trade secret or commercial or financial information that is being withheld for the reason(s) indicated.
- ☐ The information is considered to be confidential business (proprietary) information.
- ☐ The information is considered to be proprietary because it concerns a licensee's or applicant's physical protection or material control and accounting program for special nuclear material pursuant to 10 CFR 2.390(d)(1).
- ☐ The information was submitted by a foreign source and received in confidence pursuant to 10 CFR 2.390(d)(2).
- ☐ Disclosure will harm an identifiable private or governmental interest.
- ☒ Exemption 5: The withheld information consists of interagency or intraagency records that are not available through discovery during litigation. Applicable privileges:
- ☒ Deliberative process: Disclosure of predecisional information would tend to inhibit the open and frank exchange of ideas essential to the deliberative process. Where records are withheld in their entirety, the facts are inextricably intertwined with the predecisional information. There also are no reasonably segregable factual portions because the release of the facts would permit an indirect inquiry into the predecisional process of the agency.
- ☐ Attorney work-product privilege. (Documents prepared by an attorney in contemplation of litigation)
- ☐ Attorney-client privilege. (Confidential communications between an attorney and his/her client)
- ☒ Exemption 6: The withheld information is exempted from public disclosure because its disclosure would result in a clearly unwarranted invasion of personal privacy.
- ☐ Exemption 7: The withheld information consists of records compiled for law enforcement purposes and is being withheld for the reason(s) indicated.
- ☐ (A) Disclosure could reasonably be expected to interfere with an enforcement proceeding (e.g., it would reveal the scope, direction, and focus of enforcement efforts, and thus could possibly allow recipients to take action to shield potential wrong doing or a violation of NRC requirements from investigators).
- ☐ (C) Disclosure could constitute an unwarranted invasion of personal privacy.
- ☐ (D) The information consists of names of individuals and other information the disclosure of which could reasonably be expected to reveal identities of confidential sources.
- ☐ (E) Disclosure would reveal techniques and procedures for law enforcement investigations or prosecutions, or guidelines that could reasonably be expected to risk circumvention of the law.
- ☐ (F) Disclosure could reasonably be expected to endanger the life or physical safety of an individual.
- ☐ OTHER (Specify)

PART II.B -- DENYING OFFICIALS

Pursuant to 10 CFR 9.25(g), 9.25(h), and/or 9.65(b) of the U.S. Nuclear Regulatory Commission regulations, it has been determined that the information withheld is exempt from production or disclosure, and that its production or disclosure is contrary to the public interest. The person responsible for the denial are those officials identified below as denying officials and the FOIA/PA Officer for any denials that may be appealed to the Executive Director for Operations (EDO).

DENYING OFFICIAL	TITLE/OFFICE	RECORDS DENIED	APPELLATE OFFICIAL		
			EDO	SECY	IG
Eliot Brenner	Director, Office of Public Affairs	G5-G6, G8	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Rachel Bavol	Director, Office of the Secretary of the Comm.	G1-G2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
William M. Dean	Director, Office of Nuclear Reactor Regulation	G3-G4, G8, G9-G36	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Appeal must be made in writing within 30 days of receipt of this response. Appeals should be mailed to the FOIA/Privacy Act Officer, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, for action by the appropriate appellate official(s). You should clearly state on the envelope and letter that it is a "FOIA/PA Appeal."

**RESPONSE TO FREEDOM OF INFORMATION
ACT (FOIA) / PRIVACY ACT (PA) REQUEST**

DATE

JAN 27, 2015

PART II.A -- APPLICABLE EXEMPTIONSGROUP
G

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- ☐ Exemption 4: The withheld information is a trade secret or commercial or financial information that is being withheld for the reason(s) indicated.
- ☐ The information is considered to be confidential business (proprietary) information.
- ☐ The information is considered to be proprietary because it concerns a licensee's or applicant's physical protection or material control and accounting program for special nuclear material pursuant to 10 CFR 2.390(d)(1).
- ☐ The information was submitted by a foreign source and received in confidence pursuant to 10 CFR 2.390(d)(2).
- ☐ Disclosure will harm an identifiable private or governmental interest.
- ☐ Exemption 5: The withheld information consists of interagency or intraagency records that are not available through discovery during litigation. Applicable privileges:
- ☐ Deliberative process: Disclosure of predecisional information would tend to inhibit the open and frank exchange of ideas essential to the deliberative process. Where records are withheld in their entirety, the facts are inextricably intertwined with the predecisional information. There also are no reasonably segregable factual portions because the release of the facts would permit an indirect inquiry into the predecisional process of the agency.
- ☐ Attorney work-product privilege. (Documents prepared by an attorney in contemplation of litigation)
- ☐ Attorney-client privilege. (Confidential communications between an attorney and his/her client)
- ☒ Exemption 6: The withheld information is exempted from public disclosure because its disclosure would result in a clearly unwarranted invasion of personal privacy.
- ☐ Exemption 7: The withheld information consists of records compiled for law enforcement purposes and is being withheld for the reason(s) indicated.
- ☐ (A) Disclosure could reasonably be expected to interfere with an enforcement proceeding (e.g., it would reveal the scope, direction, and focus of enforcement efforts, and thus could possibly allow recipients to take action to shield potential wrong doing or a violation of NRC requirements from investigators).
- ☐ (C) Disclosure could constitute an unwarranted invasion of personal privacy.
- ☐ (D) The information consists of names of individuals and other information the disclosure of which could reasonably be expected to reveal identities of confidential sources.
- ☐ (E) Disclosure would reveal techniques and procedures for law enforcement investigations or prosecutions, or guidelines that could reasonably be expected to risk circumvention of the law.
- ☐ (F) Disclosure could reasonably be expected to endanger the life or physical safety of an individual.
- ☐ OTHER (Specify)

PART II.B -- DENYING OFFICIALS

Pursuant to 10 CFR 9.25(g), 9.25(h), and/or 9.65(b) of the U.S. Nuclear Regulatory Commission regulations, it has been determined that the information withheld is exempt from production or disclosure, and that its production or disclosure is contrary to the public interest. The person responsible for the denial are those officials identified below as denying officials and the FOIA/PA Officer for any denials that may be appealed to the Executive Director for Operations (EDO).

DENYING OFFICIAL	TITLE/OFFICE	RECORDS DENIED	APPELLATE OFFICIAL		
			EDO	SECY	IG
Marc L. Dapas	Regional Administrator, Region IV	G7	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Appeal must be made in writing within 30 days of receipt of this response. Appeals should be mailed to the FOIA/Privacy Act Officer, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, for action by the appropriate appellate official(s). You should clearly state on the envelope and letter that it is a "FOIA/PA Appeal."

From: Bloomer, Tamara
Sent: Tuesday, August 26, 2014 9:35 AM
To: Ostendorff, William
Cc: Cubbage, Amy; Benner, Eric
Subject: web post of Diablo Canyon DPO

Friends of the Earth has posted the document on our website at: www.foe.org/diablo.

Tamara E. Bloomer
Policy Advisor for Materials
Office of Commissioner Ostendorff
301-415-2896

Status of Diablo Canyon DPO – this is all we can say publicly at this time

- The DPO panel is comprised of three independent staff members who have not previously worked on the seismic issues at Diablo Canyon (and one of which had been recommended by the DPO submitter).
- The DPO panel forwarded its results to Eric Leeds on April 3, 2014.
- Eric Leeds has reviewed the panel's recommendation and supporting basis and has made a decision on the DPO.
 - The DPO decision is currently considered pre-decisional.
 - The DPO submitter has a right to appeal the decision to the EDO.

Next steps:

- If the decision is not appealed, the DPO process is complete.
 - If the DPO submitter requests that the DPO be made public, it would become public.
- If the decision is appealed, once the EDO has rendered a decision on the appeal, the DPO process would be complete.
 - If the DPO submitter requests that the DPO be made public, it would become public.

From: Ostendorff, William
Sent: Tuesday, October 07, 2014 2:20 PM
To: Marsh, Molly
Subject: FW: info: cover letter transmitting diablo canyon state of california report
Attachments: cover letter transimitting diablo canyon state of california report.pdf

Note: The attachment is publicly available in ADAMS as ML14260A387.

From: Cabbage, Amy
Sent: Wednesday, September 10, 2014 3:56 PM
To: Ostendorff, William
Cc: Benner, Eric; Bloomer, Tamara
Subject: FW: Info: cover letter transmitting diablo canyon state of california report

Sir - Another update this afternoon – PGE submitted the "Central Coastal California Seismic Imaging Project" report today.

As we discussed earlier in the week, the Shoreline fault is longer and more capable than previously determined.

PG&E concluded that "the ground motions from updated shoreline fault and other regional faults remain less than-the Hosgri Design Ground Motions for which the plant was evaluated and demonstrated reasonable assurance of safety."

From: Bloomer, Tamara
Sent: Wednesday, September 10, 2014 4:15 PM
To: Ostendorff, William
Cc: Benner, Eric
Subject: ~~SENSITIVE INTERNAL INFORMATION~~: COS notes and other items
Attachments: Budget Formulation MD.pdf; 9 10 14 COS meeting notes.pdf

Sir,

Non-Responsive Record

Non-Responsive Record

Diablo Canyon DPO and Finding will be public tomorrow.

Non-Responsive Record

Non-Responsive Record

Non-Responsive Record

Have a safe trip.

Tamara E. Bloomer
Policy Advisor for Materials
Office of Commissioner Ostendorff
301-415-2896

CHAIRMAN MORNING MEETING INPUT
Tuesday, September 9, 2014

Non-Responsive Record

Diablo Canyon DFO decision
will be signed today

Non-Responsive Record

Non-Responsive Record

Non-Responsive Record

Non-Responsive Record

Non-Responsive Record

Non-Responsive Record

Latest seismic hazard results will be released
today. Staff doing a review of Diablo

(b)(5)

Non-Responsive Record

Non-Responsive Record

~~OFFICIAL USE ONLY - SENSITIVE INTERNAL INFORMATION~~
LIMITED TO NRC UNLESS THE COMMISSION DETERMINES OTHERWISE

CHAIRMAN MORNING MEETING INPUT
Wednesday, September 10, 2014

Non-Responsive Record

Non-Responsive Record

Mike agreed to make his DPO public - whole package will be public

Non-Responsive Record

Non-Responsive Record

Non-Responsive Record

Non-Responsive Record

Non-Responsive Record

Non-Responsive Record

From: Gilles, Nanette
Sent: Monday, June 02, 2014 1:57 PM
To: Apostolakis, George
Cc: Sosa, Belkys; Davis, Roger; Baggett, Steven
Subject: FW: FYI: Diablo Canyon DPO info
Attachments: ML14140A225.pdf; DPO Panel Report.pdf

Note: Both attachments are publicly available in ADAMS as part of the DPO-2013-002 package (ML14252A743).

FYI, Eric signed out the final DPO Panel report on the DPO from the former Diablo Canyon Senior Resident Inspector related to the treatment of the Shoreline fault by the staff. I have saved the report and transmittal memo to the EPW hearing folder (as well as to the Seismic folder for Diablo) on G. Here are the panel's summary conclusions:

The Panel concluded that there was not a significant or immediate concern with the current understanding of seismic safety of the DCNPP. The Panel also concluded that the seismic licensing history at DCNPP is extremely complex and that the licensee, the U.S. Nuclear Regulatory Commission (NRC) staff, and you were unable to make an appropriate range of comparisons between the plant's licensing basis and new seismic information. The Panel acknowledged that you were a positive contributor to the staff and the licensee on seismic safety at DCNPP. As a result of your DPO additional information was developed by the licensee to clearly demonstrate that potential ground motions from nearby faults would not exceed the levels of ground motion already considered during the design and licensing of the plant.

In addition, the Panel concluded that the licensee and the staff followed its 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.

Finally, the Panel concluded that the lack of formal regulatory guidance for evaluating new information on natural hazards appears to be a contributing cause in creating many of the differing interpretations for the potential significance of this information, along with confusion with regard to the regulatory process for evaluating the impact of new seismic information on system operability.

After considering all the information, I have concluded that this is not a safety significant issue as independent groups (as documented in Research Information Letter 12-01 and the DPO Panel report) have verified that the new seismic information is bounded within the existing analysis for DCNPP. Further, during our discussion you indicated that you defer judgment of the safety significance of this issue to the NRC technical staff who are trained and qualified to make those judgments. Finally, I agree with the Panel report with respect to its assessment of your technical concerns.

From: Sanfilippo, Nathan
Sent: Friday, May 30, 2014 8:15 AM
To: Krsek, Robert; Gilles, Nanette; Jolicoeur, John; Castleman, Patrick; Kozak, Laura; Cubbage, Amy
Subject: RE: FYI: Diablo Canyon DPO info

All,

Here is the response.

Thanks,

Nathan

From: Krsek, Robert
Sent: Thursday, May 29, 2014 1:19 PM
To: Sanfilippo, Nathan; Gilles, Nanette; Jolicoeur, John; Castleman, Patrick; Kozak, Laura; Cubbage, Amy
Subject: RE: FYI: Diablo Canyon DPO info

Thank you Nathan.

Commissioner Magwood asked me to see if we could get a copy of the final DPO response after is signed by Eric today, in preparation for the hearing.

We had previously seen the original DPO itself in preparation for the last EPW hearing.

If it is not possible, or if management is unwilling, please let me know.

Thank you,

Robert G. Krsek
U.S. Nuclear Regulatory Commission
Technical Assistant for Reactors
Office of Commissioner William D. Magwood, IV
Office: 301.415.1769

From: Sanfilippo, Nathan
Sent: Thursday, May 29, 2014 1:10 PM
To: Gilles, Nanette; Jolicoeur, John; Krsek, Robert; Castleman, Patrick; Kozak, Laura; Cubbage, Amy
Subject: RE: FYI: Diablo Canyon DPO info

No problem. We expect the DPO submitter will likely appeal, which would delay any public release.

Nathan

From: Gilles, Nanette
Sent: Thursday, May 29, 2014 1:09 PM
To: Sanfilippo, Nathan; Jolicoeur, John; Krsek, Robert; Castleman, Patrick; Kozak, Laura; Cubbage, Amy
Subject: RE: FYI: Diablo Canyon DPO info

Thanks, Nathan. Very helpful. With the EPW hearing next week, it's important that we all stay "in the loop" on this issue. Please keep us informed as the process proceeds.

Nan

From: Sanfilippo, Nathan
Sent: Thursday, May 29, 2014 1:03 PM
To: Jolicoeur, John; Krsek, Robert; Castleman, Patrick; Kozak, Laura; Cubbage, Amy; Gilles, Nanette
Subject: FYI: Diablo Canyon DPO info

DPO on Diablo Canyon (Non-Public/Predecisional)

What is it?

- In 2011, Pacific Gas and Electric (PG&E) submitted a report to the NRC that included a reevaluation of the local geology surrounding the Diablo Canyon Power Plant. This report included deterministic evaluations concluding that three local earthquake faults are capable of generating significantly greater

vibratory ground motion than was used to establish the facility safe shutdown earthquake (SSE) design basis. The DPO submitter believes that the resulting NRC actions have been inconsistent with existing regulatory requirements and the facility design bases and Operating License.

Eric is signing the response to the DPO today.

What is the response?

- The DPO Panel, a group of three independent staff members who have NOT worked on the seismic issues at Diablo Canyon previously (and one of which had been recommended by the DPO submitter), concluded that there is not a significant or immediate safety concern regarding the seismic design of the Diablo Canyon Nuclear Power Plant (DCNPP). The Director of the Office of Nuclear Reactor Regulation has concluded that this is not a safety significant issue as independent groups have verified that the most recent seismic information is bounded by the existing analysis for DCNPP.
- The NRC is currently re-evaluating the seismic hazards at all the nuclear power plants in the US, as part of its response to the accident at the Fukushima Dai-ichi nuclear power plant. The Diablo Canyon plant is required to provide its response to the re-evaluation in March 2015.
- In order to clarify the regulatory process in this area, the NRC is committed to revise its formal regulatory guidance for evaluating new information on natural hazards, including new seismic information, as part of its response to the Fukushima accident.

What is the process for making it public?

- Once issued, the DPO author can request that the DPO and response be made publicly available (with or without his/her identity). The documents would undergo a FOIA review for releasability and the appropriate documents would be made public by the agency.
- Also, the DPO author can also appeal the decision to the EDO. The DPO decision is considered pre-decisional if the DPO submitter decides to appeal the decision to the EDO since in that circumstance, the EDO has to review the case and make a final agency determination regarding the appeal. If this occurs, any public release would occur after an EDO decision.
- If the DPO author does not request the documents be made publicly available, they remain non-public.
- The process is described in MD 10.159.

Until/unless the decision is made public, the decision should not be discussed outside the agency.

Attached is a communication Marc Dapas sent to the Mothers for Peace regarding the DPO and the process for making it public.

If you'd like any additional info, please let me know.

Nathan

From: Gilles, Nanette
Sent: Monday, June 02, 2014 5:28 PM
To: Apostolakis, George
Cc: Sosa, Belkys; Davis, Roger; Baggett, Steven
Subject: FW: FYI: Diablo Canyon DPO info

This is a reminder from staff that the Diablo Canyon DPO Panel report is not public.

From: Sanfilippo, Nathan
Sent: Friday, May 30, 2014 8:22 AM
To: Cubbage, Amy; Krsek, Robert; Gilles, Nanette; Jolicoeur, John; Castleman, Patrick; Kozak, Laura
Subject: RE: FYI: Diablo Canyon DPO info

Yes, non-public.

If the DPO submitter wants to appeal the decision to the EDO, it will remain non-public until after that process (he has a few weeks to submit the appeal and EDO has 30 days to conduct the review).

If the DPO submitter doesn't want to appeal, he can request public release, at which time we would conduct a SUNSI review and subsequently make a public version available.

If the DPO submitter doesn't want it to be made public, it will not be made public.

From: Cubbage, Amy
Sent: Friday, May 30, 2014 8:17 AM
To: Sanfilippo, Nathan; Krsek, Robert; Gilles, Nanette; Jolicoeur, John; Castleman, Patrick; Kozak, Laura
Subject: RE: FYI: Diablo Canyon DPO info

Again, this is non-public until further notice, correct?

From: Sanfilippo, Nathan
Sent: Friday, May 30, 2014 8:15 AM
To: Krsek, Robert; Gilles, Nanette; Jolicoeur, John; Castleman, Patrick; Kozak, Laura; Cubbage, Amy
Subject: RE: FYI: Diablo Canyon DPO info

All,

Here is the response.

Thanks,
Nathan

From: Krsek, Robert
Sent: Thursday, May 29, 2014 1:19 PM
To: Sanfilippo, Nathan; Gilles, Nanette; Jolicoeur, John; Castleman, Patrick; Kozak, Laura; Cubbage, Amy
Subject: RE: FYI: Diablo Canyon DPO info

Thank you Nathan.

Commissioner Magwood asked me to see if we could get a copy of the final DPO response after is signed by Eric today, in preparation for the hearing.

WCO
EJB
AEC
TEB
MPSH
SSB
LSH

CHAIRMAN MORNING MEETING INPUT
Tuesday, August 26, 2014

(b)(5)

An array of outlets, primarily California media, covered the leaked Differing Professional Opinion (minus the ongoing staff review and response) regarding Diablo Canyon's seismic design.

Non-Responsive Record

Nothing from OIP today.

OCA input

Foco paper to be made public 9/8 → expect requests for briefings.
Sen. Markey's (D-MA) asked for details, including statutory language, to support the Commission's recent response to his "job shadow" inquiries.

Staff to Sen. Feinstein (D-CA) asked for copy of DPO filing re: Diablo Canyon seismic studies following media coverage of the same; they have also requested a briefing on seismic issues at Diablo Canyon.

Senator Boxer calling for a hearing on Diablo.

Non-Responsive
Record

Diablo DPO → Mark S. in final stages of appeal review. (hopefully next wk)

Non-Responsive Record

WCO
ESB
AEC
TEB
MBM
SSB
LSH

4

CHAIRMAN MORNING MEETING INPUT
Wednesday, August 27, 2014

Non-Responsive Record

Simple screen & recovery.

Diablo DPO → Internal staff mtg on Comm Plan for appeal closed.

(b)(5)

OPA input

Today's coverage is dominated by [Non-Responsive Record] as well as follow-up on the leaked Differing Professional Opinion (minus the ongoing staff review and response) regarding Diablo Canyon's seismic design.

Non-Responsive Record

Ann speech on Georgia Agreement state status at OAS
Info Digest up next wk.

OIP input

Nothing from OIP today.

OCA input

LOOKING FOR FINAL VOTE ON QFR → will not be transmitted this Friday.
Tuesday afternoon, OCA, NRR, and RES briefed staff to Sen. Feinstein (D-CA) re: seismic issues at Diablo Canyon, focusing on the NRC's work to date. Working with the Commission for clearance, OCA also delivered the DPO filing - with appropriate handling instructions - to the Senator's staff.

(b)(5)

From: Cabbage, Amy
Sent: Thursday, September 11, 2014 9:18 AM
To: Ostendorff, William
Cc: Benner, Eric; Bloomer, Tamara
Subject: FW: Comm Plan for DPO & Appeal
Attachments: Draft mini-Comm Plan on DCPD DPO_final.docx

Importance: High

The EDO has made his decision on the DPO Appeal and the DPO Case File has now been made public.

Additional info:

- The DPO 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 NRCs 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 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
- The DPO submitter and the DPO submitter has agreed to allow the DPO case file to be made publicly available.

Regarding the operational status of Diablo Canyon Power Plant, Units 1 and 2

- The plant remains within its approved design and licensing basis
- There are no current operability concerns resulting from the DPO

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. NRC strives to establish and maintain an environment that encourages all NRC employees and contractors to raise concerns and differing views promptly without fear of reprisal through various mechanisms. The free and open exchange of views or ideas conducted in a non-threatening environment provides the ideal forum where concerns and alternative views can be considered and addressed in an efficient and timely manner that improves decision making and supports the agency's safety and security mission.
2. The NRC appreciates members of the staff bring issues like this to its attention
3. The NRC encourages the use of non-concurrences and the Differing Professional Opinion (DPO) process
4. The NRC reviews all non-concurrences and DPOs thoroughly and in accordance with agency guidance (MD 10.158, MD 10.159) and believes that this is a healthy and necessary part the regulatory process
5. The NRC believes that, in the end, all of our regulatory decisions are better because of this process

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6. The NRC does not tolerate retaliation against employees who engage in our processes for raising differing views (i.e., Open Door Policy, NCP, and DPO Program).
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
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 can request that the DPO Case File be made public. Management performs a review consistent with agency policies to support discretionary release. 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
11. 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
12. 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
13. 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

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Thomas Hipschman	Sr. Resident Inspector - DCPP	R-IV/DRP/RPB-A	805-595-2354
John Reynoso	Resident Inspector - DCPP	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
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 DCPP 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 DCPP SRI.

11/7/11. The DCPP 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. (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?

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

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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 probabilistic seismic hazards 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 DCP. In addition, the NRC 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 DCP seismic and licensing bases. The licensee's information indicates reasonable assurance of public health and safety after a seismic event.

The NRC staff will 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 DCP cause NRC to question PG&E's conclusions.

From: Ostendorff, William
Sent: Tuesday, October 07, 2014 2:20 PM
To: Marsh, Molly
Subject: FW: diablo canyon state of california report
Attachments: DC_Calif_seismic_rpt comm plan 9-10-14_ final rev 1.docx

From: Cubbage, Amy
Sent: Thursday, September 11, 2014 9:24 AM
To: Ostendorff, William
Cc: Benner, Eric; Bloomer, Tamara
Subject: diablo canyon state of california report

Since you are headed to CA, here is the latest Comm plan for the PG&E/Diablo Canyon Power Plant seismic report submitted to the state of California this week.

Key Messages from the Comm plan on the Diablo Canyon State of California report.

1. 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. PG&E's evaluation of the new seismic information, as documented in the report, 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.
2. The NRC staff will 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.
3. PG&E will incorporate the findings from Bill 1632 report into their upcoming March 2015 probabilistic seismic hazard analysis as part of the NRC's post-Fukushima activities. The NRC believes this more rigorous analysis will provide the most accurate assessment of faults affecting the DCPD.

UPDATED: 9/10/14 10:30 eastern

Communications Plan –
Diablo Canyon Power Plant Topics of Interest
State of California Seismic Report (ABN-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 a different and more extensive data set than what was used for the 2011 Shoreline Fault evaluation.

The purpose of this communication plan is to provide key messages associated with the public release of this report.

Key Messages

1. 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.

PG&E's evaluation of the new seismic information, as documented in the report, 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.

2. The NRC staff will 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.
3. PG&E will incorporate the findings from Bill 1632 report into their upcoming March 2015 probabilistic seismic hazard analysis as part of the NRC's post-Fukushima activities. The NRC believes this more rigorous analysis will provide the most accurate assessment of faults affecting the DCPD.

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
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
Jon Ake	Senior Seismologist	RES/DE/SGSEB	301-251-7695
Eric Oesterle	Acting Branch Chief	NRR/DORL/LPLIV	301-415-1014
Balwant Singal	DCP Project Manager	NRR/DORL/LPLIV	301-415-3016
Scott Burnell	Public Affairs Officer	OPA	301-415-8204
Angel Moreno	Congressional Affairs	OCA	301-415-1697
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

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. The table below is based on a target public release date of the report on September 10, 2014.

Timeframe	Action	Responsible Party(ies)
Sept 8	PG&E provides a draft of the report in the electronic reading room for initial staff assessment	PG&E
Sept 9	PG&E notifies NRC of seismic report submittal to the state of California	PG&E

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Timeframe	Action	Responsible Party(ies)
Sept 10	PG&E/Diablo Canyon Power Plant submit seismic report to the state of California and issue a press release	PG&E
Promptly (within Sept 10+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/DLR; NRR/JLD OPA; OCA; OGC
	OPA available to use Communications Plan to answer media inquiries. Blog possible	R-IV; OPA
Oct 3	JLD/NRO/RES completes preliminary assessment of published report and management decision is made if any additional actions should be taken prior to the submittal of the seismic reevaluation in March 2015. Updates to communication plan as appropriate	JLD/NRO/RES/RIV
As requested	Complete a Commissioners Assistants Brief	R-IV; NRR

1. Questions and Answers

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?

In accordance with the guidance in the October 12, 2012, letter transmitting 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.

NRC Resident Inspectors, and Region IV staff looked at the licensee's documentation in their corrective action process assessing new preliminary information concerning DCP seismic and licensing bases. The licensee's information did not indicate there is an immediate threat to public health and safety nor did it call into question the ability of SSCs to

perform their specified safety functions or necessary and related support functions.

In addition, the NRC staff's review of the new seismic information in the report notes that PG&E's evaluation concludes that 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.

The NRC will review the new information provided in the report to the State of California including the Shoreline Fault characteristics, and the updated characteristics associated with the soil properties near the site. The NRC staff will take additional regulatory action as appropriate if the NRC staff concludes that the new information associated with the Shoreline Fault causes the NRC to revisit the conclusions in the RIL.

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

Yes, in accordance with the guidance in the October 12, 2012, letter transmitting RIL 2012-001, PG&E has provided the information to the NRC. In addition, the report was also provided to address license renewal issues (see question 8).

3. What does the new report state?

The new report includes information obtained from 2-dimensional and 3-dimensional high energy and low-energy seismic surveys both onshore and offshore of the DCPD site. The report provides more details on the regional faults, including more precise readings and additional data points where previously there were gaps. While a lot of the information from the previous Shoreline Fault report of 2011 was confirmed, some of the new data suggests the following:

- Reduced slip rate on the Hosgri Fault Zone and the Shoreline Fault Zone
- Postulated connection of the Hosgri and the San Simeon faults which could result in a longer, larger, but more infrequent earthquake
- The unique geometry involved with intersecting the Hosgri Fault and the Shoreline Fault Zone results in an extension of a few kilometers, but with a lower frequency of occurrence
- Extension of the Shoreline Fault zone southern segment
- The new data does not alter the assessment of the closest approach of the Shoreline fault to DCPD which is 600 meters from the power block and 300 meters from the intake structure. Because the Shoreline fault is considered to be somewhat longer, potential earthquakes could also occur farther from the plant.
- Updated analysis for the San Luis Bay, and Los Osos faults

The report concludes that the ground motions for the Hosgri and LTSP evaluations continue to bound potential ground motions from the regional faults, including the Shoreline Fault, San Luis Bay, Los Osos, San Simeon and Hosgri. The DCPD continues to operate safely within the seismic margin they were designed to withstand.

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

PG&E plans to incorporate the findings from Bill 1632 report into their ongoing analysis required by the NRC Post-Fukushima task force recommendations due in March 2015. The NRC believes this more rigorous analysis will provide the most accurate assessment of faults affecting the DCPD.

(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 things the plant has done since Fukushima: It is important to note that DCPD 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).

5. Why is the report "final" for the state but "preliminary" for the NRC?

For the State, the report is final. For the NRC, this information is expected to be incorporated into the more comprehensive 50.54f analysis due to the NRC in March 2015. However, because the licensee must notify the NRC of any new seismic info, they have shared this report and an initial operability evaluation showing why the plant is safe to continue to operate. PG&E's evaluation of the new seismic information, as documented in the report, 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.

6. Why didn't the NRC discover the length of the faults when it did its seismic review of the Shoreline fault in 2011 prior to issuing the RIL?

California Assembly Bill 1632 (Blakeslee, Chapter 722, Statutes of 2006) directs the California Energy Commission to assess the potential vulnerability of California's largest base-load 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 2D and 3D geophysical mapping techniques, which are commonly used in offshore petroleum resource exploration. These techniques provide higher-resolution data than what was available to characterize the Shoreline Fault in the 2011 report.

The NRC has requested licensees of operating nuclear power reactors to submit a seismic hazard reevaluation using up-to-date methodologies and analyses which is due for DCPD in March 2015.

7. What is the impact of this new information on seismic design and licensing of DCPD?

Based on the preliminary results of the studies that are under review, PG&E determined that

the Shoreline Fault Zone may be capable of producing somewhat larger earthquakes than considered in the January 2011 Shoreline report. The NRC staff is independently assessing PG&E's determination. The process outlined in the 50.54(f) letter includes a detailed analysis of new seismic information (including shoreline faults and other faults around the plant). PG&E is scheduled to provide this assessment in the March 2015 time frame. The staff will continue to review the information in the new CA 1632 report and the final results of the new data from the more rigorous analysis to be completed by March 2015. The NRC staff will take appropriate regulatory action up to and including issuing Orders to ensure safe operation of the plant.

8. Will the Report be considered in the License Renewal Process

Yes. In addition to the report being developed to address California Assembly Bill 1632, PG&E is providing the report to the State of California as part of the State of California coastal zone consistency certification associated with the license renewal for DCCP. The State of California coastal zone consistency certification is considered by the NRC during the license renewal environmental review process. In addition, the Staff will be reviewing the report to see how, if at all, it is relevant to the Staff's license renewal review. There is a contention related to the Shoreline fault and its consideration in the facility's severe accident mitigation alternatives analysis that is admitted in the license renewal proceeding (see ML14224A320; See CLI-11-11).

From: Uselding, Lara
Sent: Friday, September 05, 2014 10:01 AM
To: Sebrosky, Joseph
Cc: Burnell, Scott; Harrington, Holly; Brenner, Eliot; Dricks, Victor
Subject: RE: question: who has the lead on the DPO communication plan and changes needed when DPO is released

Hello Joe- I'm looping in HQ OPA so they know about the two efforts. I haven't heard anything on a separate DPO comm plan as we do have talkers in our current comm plan. I'm sure Mike or Eric can find out what the EDO's office message will be. We had discussed on one call that the EDO cover letter will include language that can be used as key messages.
Lara

From: Sebrosky, Joseph
Sent: Friday, September 05, 2014 7:18 AM
To: Oesterle, Eric; Singal, Balwant; Markley, Michael; Walker, Wayne; Uselding, Lara
Subject: question: who has the lead on the DPO communication plan and changes needed when DPO is released

Mike, Eric, Balwant, Wayne, and Lara,

The purpose of this email is to inquire as to who has the headquarters lead on the DPO comm plan and adjustments to this comm plan that will be made to reflect when the DPO's panel's recommendations and the DPO appeal are made publicly available?

It is my current understanding that the DPO panel's response and the DPO appeal decision maybe made publicly available next week. Although independent of the public release of the State of California report, the two issues are sure to be tied together in questions to the NRC.

I understand that I have the headquarters lead to work with the Region on the draft communication plan for the State of California report (which will be adjusted on 9/9 based on our quick look at the report).

Who has the lead for making changes to the DPO communication plan to reflect questions that we may get after the DPO panel's recommendation and DPO appeal decision are made publicly available? A second related question is whether or not the DPO comm plan or the State of California comm plan will address the following question:

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?

Any insights would be appreciated.

Thanks,

Joe

From: Uselding, Lara
Sent: Friday, September 05, 2014 2:25 PM
To: McIntyre, David; Harrington, Holly
Subject: RE: cAN YOU PLEASE SEND DAVE THE LATEST COMM PLAN?

Yes, this is our life

From: McIntyre, David
Sent: Friday, September 05, 2014 1:25 PM
To: Uselding, Lara; Harrington, Holly
Subject: FW: cAN YOU PLEASE SEND DAVE THE LATEST COMM PLAN?

Yeesh.

From: Markley, Michael
Sent: Friday, September 05, 2014 2:22 PM
To: McIntyre, David
Subject: RE: cAN YOU PLEASE SEND DAVE THE LATEST COMM PLAN?

Okay, thanks!

From: McIntyre, David
Sent: Friday, September 05, 2014 2:18 PM
To: Markley, Michael; Oesterle, Eric
Cc: Walker, Wayne; Wertz, Trent; Singal, Balwant; Lyon, Fred; Sebrosky, Joseph; Walker, Wayne; Burnell, Scott; Alexander, Ryan; Uselding, Lara; Burnell, Scott; Pedersen, Renee; Lund, Louise
Subject: RE: cAN YOU PLEASE SEND DAVE THE LATEST COMM PLAN?

Mike, Joe, et al – the Comm Plan was NOT given to the Commission. This was one of those "hair on fire" things that went like this:

1. I was asked by the Chairman's COS to prepare talking points on the Foreign Ownership SECY in time for him to present to other COSs at 1030.
2. At 1015, Chairman's COS asks me to attend the 1030 "and bring the Diablo DPO Comm Plan"
3. I call Lara, who sends the urgent request to you guys.
4. I get several documents and print out a pile at 1028 and rush upstairs.
5. The other COS don't want to see the Comm Plans. I mentioned that it was in draft and would be updated after staff is briefed on the CA seismic study and sees EDO's letter on the DPO decision. Everyone was satisfied, and I brought the stack of papers back downstairs with me.

So please pretend that all this never happened and do what you intended to do all along.

And thanks for your help! ☺

From: Markley, Michael
Sent: Friday, September 05, 2014 2:05 PM
To: Oesterle, Eric
Cc: Walker, Wayne; Wertz, Trent; Singal, Balwant; Lyon, Fred; Sebrosky, Joseph; Walker, Wayne; Burnell, Scott; Alexander, Ryan; Uselding, Lara; Burnell, Scott; Pedersen, Renee; McIntyre, David; Lund,

Louise

Subject: FW: cAN YOU PLEASE SEND DAVE THE LATEST COMM PLAN?

Eric,

Joe raises a worthy point. Since the RIV Communications Plan is now with the Commission, it makes no sense for us to finalize the communications plan we had in process. Our task on Monday will be to update the DPO portion of what is already out there with insights from the DPO case file. We will need to get that incorporated and routed quickly so that it is ready to use when the appeal is issued.

Likewise, once we have access to the AB1632 report, we will need to update that section as well.

Mike

From: Sebrosky, Joseph

Sent: Friday, September 05, 2014 1:10 PM

To: Markley, Michael; Oesterle, Eric

Cc: Singal, Balwant

Subject: RE: cAN YOU PLEASE SEND DAVE THE LATEST COMM PLAN?

Mike and Eric,

If you look at the email chain below you will see that the attached pdf version of RIV's Diablo Canyon communication plan has been provided to the Chairman's staff (Phillip Niedzielski-Eichner) with the caution that the DPO portion and the State of California report section is to be updated.

I will call you at 1:30 in Mike's office to discuss this and other things.

Thanks,

Joe

From: McIntyre, David

Sent: Friday, September 05, 2014 10:41 AM

To: Alexander, Ryan

Cc: Uselding, Lara; McIntyre, David; Sebrosky, Joseph; Walker, Wayne; Buchanan, Theresa

Subject: RE: cAN YOU PLEASE SEND DAVE THE LATEST COMM PLAN?

Understood. Thanks!

Sent via My Workspace for iOS

On Friday, September 5, 2014 at 10:34:55 AM, "Alexander, Ryan" <Ryan.Alexander@nrc.gov> wrote:

David:

Per your request of Lara, attached is the current "best version" of the DCPD Comm Plan.

HOWEVER, please note:

(1) The section on AB-1632 California Report is only a limited strawman pending input from Joe Sebrosky (NRR) on Tuesday, 9/9 following the staff's initial review of the AB-1632 report (limited availability on 9/8).

(2) The Non-Concurrences/DPO section is only updated to the point knowing that the DPO is still in process without any additional information regarding what the DPO Panel's/NRR Director's conclusions were.

RIV (with NRR's input) plans to put the Comm Plan into concurrence on or about 9/9 so that this document can finally be formalized and available on the OEDO Comm Plan website.

Please contact Wayne Walker (RIV DRP BC for DCPD – Office: 817-200-1148) with any questions.

Thank you,

Ryan D. Alexander

Senior Project Engineer

NRC Region IV, Div. of Reactor Projects, Branch A

Office: (817) 200-1195

Cell: (b)(6)



Please consider the environment before printing this e-mail.

From: Uselding, Lara

Sent: Friday, September 05, 2014 9:15 AM

To: Sebrosky, Joseph; McIntyre, David; Walker, Wayne; Alexander, Ryan

Subject: Joe: CAN YOU PLEASE SEND DAVE THE LATEST COMM PLAN?

Importance: High

From: McIntyre, David

Sent: Friday, September 05, 2014 9:11 AM

To: Uselding, Lara

Subject: Diablo DPO

Lara – can you help with this?

From: Niedzielski-Eichner, Phillip

Sent: Friday, September 05, 2014 10:10 AM

To: McIntyre, David

Subject: RE: REVISED FOCD Talking Points

One additional question...is there a Com Plan for Diablo Canyon?

From: Niedzielski-Eichner, Phillip

Sent: Friday, September 05, 2014 10:09 AM

To: McIntyre, David

Subject: RE: REVISED FOCD Talking Points

Dave...will we have talking points for the Diablo Canyon DPO? Are you planning to join us at 10:30 am? Thanks. Phil

From: McIntyre, David

Sent: Friday, September 05, 2014 10:04 AM

To: Niedzielski-Eichner, Phillip

Cc: Dorman, Dan; Howe, Allen; Layton, Michael; Mizuno, Beth; Dusaniwskyj, Michael; Simmons, Anneliese; Morris, Scott; Galloway, Melanie; Uhle, Jennifer; Burnell, Scott; Harrington, Holly; Brenner, Eliot; Vietti-Cook, Annette; Schwartzman, Jennifer

Subject: REVISED FOCD Talking Points

Importance: High

Phil – Attached are revised talking points on the FOCD SECY paper, for your use in this morning's COS meeting. These incorporate edits and comments from NRR (Scott Morris) and OGC (Ed Williamson).

Dave

From: Brenner, Eliot
Sent: Wednesday, September 03, 2014 12:16 AM
To: Niedzielski-Eichner, Phillip; Harrington, Holly
Subject: Re: FOCD and Diablo Canyon Communication Planning

With me gone, I think dave mcintyre would be our likely suspect.

-----Original Message-----

From: phillip niedzielski-eichner
To: Helton, Shana
To: Gilles, Nanette
To: Jennifer Schwartzman
To: Vrahoretis, Susan
To: Eliot Brenner
To: Eugene Dacus
To: amy powell
To: holly harrington
To: Margaret Doane
To: Vietti-Cook, Annette
To: Brock, Kathryn
To: Galloway, Melanie
To: AMMGroupCalendar Resource
Subject: FOCD and Diablo Canyon Communication Planning
Sent: Sep 2, 2014 11:15 PM

All – please see request from Phil, below. Please determine the appropriate person from your office to attend, given the topic and forward the meeting invitation as needed. If you have a conflict, please let me know directly. Thanks, Patti Pace X1750

“The Commission has, or will soon have, before it two high visibility issues: (1) the Foreign Ownership, Control, and Domination and (2) Diablo Canyon Seismic Risks. Will you please invite OCA, OPA, OGC, SECY, and OEDO to a 45 minute staff-level discussion this week on how we will be prepared to respond, in particular, to anticipated strong interest from the Hill for background information? The outcome would be a path forward for discussion with the Commission offices early next week. Thanks. Phil”

From: Uselding, Lara
Sent: Tuesday, August 26, 2014 3:17 PM
To: Brenner, Eliot; Harrington, Holly; Burnell, Scott
Subject: Update

Per the below status on state report I want to wait and write a blog to correspond with its release. So for now, no blog coming from me on Diablo

-----Original Message-----

From: Hipschman, Thomas
Sent: Tuesday, August 26, 2014 2:12 PM
To: Sebrosky, Joseph; Markley, Michael; Oesterle, Eric; Kanatas, Catherine; Reynoso, John; Manoly, Kamal; Ake, Jon; Munson, Clifford; OKeefe, Neil; Folk, Kevin; Wrona, David; DiFrancesco, Nicholas; Balazik, Michael; Reynoso, John; Singal, Balwant; Hill, Brittain; Walker, Wayne; Uselding, Lara; Lyon, Fred
Cc: Weil, Jenny; Li, Yong; Manoly, Kamal; Lund, Louise; Dudek, Michael; Case, Michael; Burnell, Scott
Subject: RE: action: request for feedback on Diablo Canyon communication plan associate with State of California seismic report

The licensee stated they are now looking at September 9 or 10 for the release of the report, and stakeholder outreach the day before.

Tom

-----Original Message-----

From: Sebrosky, Joseph
Sent: Tuesday, August 26, 2014 10:25 AM
To: Markley, Michael; Oesterle, Eric; Kanatas, Catherine; Hipschman, Thomas; Reynoso, John; Manoly, Kamal; Ake, Jon; Munson, Clifford; OKeefe, Neil; Folk, Kevin; Wrona, David; DiFrancesco, Nicholas; Balazik, Michael; Hipschman, Thomas; Reynoso, John; Singal, Balwant; Hill, Brittain; Walker, Wayne; Uselding, Lara; Lyon, Fred
Cc: Weil, Jenny; Li, Yong; Manoly, Kamal; Lund, Louise; Dudek, Michael; Case, Michael; Burnell, Scott
Subject: action: request for feedback on Diablo Canyon communication plan associate with State of California seismic report

To all,

The purpose of this email is to request your comments on the attached draft communication plan associated with PG&E's pending release of a report to the State of California related to seismic issues. PG&E has indicated to the staff that the report will include an updated evaluation of the Shoreline Fault and concludes that the Shoreline Fault is more capable than assumed in PG&E 2011 report that was provided to the NRC.

Comments from Jon Ake, Britt Hill would be appreciated by noon tomorrow. I will incorporate their comments and provided the product to the Region IV by COB tomorrow. (Britt I tried to capture some of your comments that you have provided and also some verbal comments that Jon provided me)

I understand that Tom Hipschman will talk to PG&E to confirm when they intend to issue the report to the State of California. PG&E previously indicated that it would be between 8/28 and 9/8. Tom believes that PG&E is now leaning towards issuing the report on 9/8 or 9/9. Once Tom confirms the target date for issuance of the report, the folks on distribution for this email will be informed.

Please let me know if you have any questions. I will be working with DORL and the JLD to coordinate headquarters review of the communication plan.

Thanks,

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

UPDATED: 09/25/2014 3:51 PM

Communications Plan –
Diablo Canyon Power Plant Topics of Interest
State of California Seismic Report (ABN-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.

The purpose of this communication plan is to provide key messages associated with the public release of this report.

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
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
Jon Ake	Senior Seismologist	RES/DE/SGSEB	301-251-7695
Eric Oesterle	Acting Branch Chief	NRR/DORL/LPLIV	301-415-1014

~~DRAFT – OFFICIAL USE ONLY~~
~~SENSITIVE INTERNAL INFORMATION – NOT FOR PUBLIC RELEASE~~

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
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
Dave Wrona	License Renewal	NRR/DLR	
		OGC	
Nick DiFrancesco		JLD	

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/DLR; NRR/JLD 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

1. Questions and Answers

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 DCPD.

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. NRC's preliminary review is that the Diablo Canyon Units are safe to continue to operate based on:

- Based on assertions made by PG&E that the Shoreline Fault response spectra are still bounded by those for the Hosgri and LTSP earthquakes for which the plant was previously analyzed
- The preliminary assessment by PG&E that the Shoreline Fault is capable of generating a magnitude 6.7 earthquake. As documented in the RIL the NRC staff has analyzed a scenario involving a Shoreline Fault of magnitude 6.7 and concluded that the response spectra developed by such an earthquake is bounded by the Hosgri and LTSP spectra

The NRC will review the new information provided in the report to the State of California including the Shoreline Fault characteristics, and the updated characteristics associated with the soil properties near the site. The NRC staff will take additional regulatory action as appropriate if the NRC staff concludes that the new information associated with the Shoreline Fault causes the NRC staff to revisit the conclusions in the RIL.

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

The new information, required by the state of CA AB 1632, has been provided to the NRC and shows that some previously separated segments of the Shoreline fault system are connected. These connections indicate that if the Shoreline Fault slips in the future, the earthquake from that slip might be slightly higher than previously considered possible for the Shoreline Fault. But because the Shoreline Fault is somewhat longer, potential earthquakes could also occur farther from the plant. For these reasons, PG&E continues to believe that the ground motions for the Hosgri and LTSP evaluations continues to bound potential ground motions from the Shoreline Fault.

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. The staff will continue to review the new information associated with the Shoreline Fault causes the NRC staff to revisit the conclusions in the RIL.

The 1000-page document has also been given to the Japan Lessons Learned Directorate to be considered in 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) that 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 DCPD 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. For the NRC, this information will is expected to be incorporated considered into the more comprehensive 50.54f analysis due to the NRC in March 2015. However, because the licensee must notify the NRC of any new seismic info, they have shared this report and an initial operability evaluation showing why the plant is safe to operate. The NRC has looked at this evaluation and its preliminary assessment is that based on the information presented by PG&E the Shoreline Fault does not exceed previously considered seismic hazards.

5. Why didn't the NRC discover the length of the faults when it did its seismic review of the Shoreline fault in 2011 prior to issuing the RIL?

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 2D and 3D geophysical mapping techniques, which are commonly used in offshore petroleum resource exploration. These techniques provide

higher-resolution data than what was available to characterize the Shoreline Fault in the 2011 report.

The NRC has requested licensees to submit a seismic hazard reevaluation using up-to-date methodologies and analysis which is due for DCPD in March 2015. (Lauren, JLLD: anything to add here?)

6. What is the impact of this new information on seismic design and licensing of DCPD?

Based on the preliminary results of the studies that are under review, PG&E determined that the Shoreline Fault Zone may be capable of producing slightly larger earthquakes than considered in the January 2011 report. However, the ground motions from these larger earthquakes are still bounded by the Hosgri and LTSP ground motions. Since the seismic design of DCPD considered a range of ground motions from both a double design earthquake and a Hosgri earthquake, and the new ground motions do not exceed the Hosgri earthquake, the new information is not expected to adversely impact the seismic design of DCPD. As a result, the assessment associated with the January 2011 Shoreline Fault Report remains valid.

**RESPONSE TO FREEDOM OF
INFORMATION ACT (FOIA) / PRIVACY
ACT (PA) REQUEST**

2014-0488

3

RESPONSE
TYPE☐

FINAL

☒

PARTIAL

REQUESTER

Damon Moglen

DATE

JAN 27, 2015

PART I. -- INFORMATION RELEASED

- ☐ No additional agency records subject to the request have been located.
- ☐ Requested records are available through another public distribution program. See Comments section.
- ☒ **GROUP E** Agency records subject to the request that are identified in the specified group are already available for public inspection and copying at the NRC Public Document Room.
- ☒ **GROUP F & G** Agency records subject to the request that are contained in the specified group are being made available for public inspection and copying at the NRC Public Document Room.
- ☒ **GROUP F & G** Agency records subject to the request are enclosed.
- ☐ Records subject to the request that contain information originated by or of interest to another Federal agency have been referred to that agency (see comments section) for a disclosure determination and direct response to you.
- ☒ We are continuing to process your request.
- ☒ See Comments.

PART I.A -- FEES

AMOUNT*

\$

* See comments
for details☐

You will be billed by NRC for the amount listed.

☐

None. Minimum fee threshold not met.

☐

You will receive a refund for the amount listed.

☐

Fees waived.

PART I.B -- INFORMATION NOT LOCATED OR WITHHELD FROM DISCLOSURE

- ☐ No agency records subject to the request have been located. For your information, Congress excluded three discrete categories of law enforcement and national security records from the requirements of the FOIA. See 5 U.S.C. § 552(c) (2006 & Supp. IV (2010)). This response is limited to those records that are subject to the requirements of the FOIA. This is a standard notification that is given to all our requesters and should not be taken as an indication that excluded records do, or do not, exist.
- ☒ Certain information in the requested records is being withheld from disclosure pursuant to the exemptions described in and for the reasons stated in Part II.
- ☐ This determination may be appealed within 30 days by writing to the FOIA/PA Officer, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001. Clearly state on the envelope and in the letter that it is a "FOIA/PA Appeal."

PART I.C COMMENTS (Use attached Comments continuation page if required)

The incoming request FOIA/PA 2014-0488 is available in ADAMS as ML14261A399.

Portions of documents have been marked out of scope as the information does not concern Diablo Canyon and the DPO. If there are attachments referenced in e-mail messages that are not included, they are duplicates, were addressed in prior interim responses, or already publicly available.

Records with an ML accession number are available in the NRC Library at www.nrc.gov/reading-rm/adams.html. For assistance in obtaining any public records, please contact the NRC's Public Document Room (PDR) at 1-800-397-4209 or by e-mail at PDR.Resource@nrc.gov.

SIGNATURE - FREEDOM OF INFORMATION ACT AND PRIVACY ACT OFFICER

Roger D. Andoh

**RESPONSE TO FREEDOM OF INFORMATION
ACT (FOIA) / PRIVACY ACT (PA) REQUEST**DATE **JAN 27, 2015****PART II.A -- APPLICABLE EXEMPTIONS**

GROUP

G

Records subject to the request that are contained in the specified group are being withheld in their entirety or in part under the Exemption No.(s) of the PA and/or the FOIA as indicated below (5 U.S.C. 552a and/or 5 U.S.C. 552(b)).

- ☐ Exemption 1: The withheld information is properly classified pursuant to Executive Order 12958.
- ☐ Exemption 2: The withheld information relates solely to the internal personnel rules and practices of NRC.
- ☐ Exemption 3: The withheld information is specifically exempted from public disclosure by statute indicated.
- ☐ Sections 141-145 of the Atomic Energy Act, which prohibits the disclosure of Restricted Data or Formerly Restricted Data (42 U.S.C. 2161-2165).
- ☐ Section 147 of the Atomic Energy Act, which prohibits the disclosure of Unclassified Safeguards Information (42 U.S.C. 2167).
- ☐ 41 U.S.C., Section 4702(b), prohibits the disclosure of contractor proposals in the possession and control of an executive agency to any person under section 552 of Title 5, U.S.C. (the FOIA), except when incorporated into the contract between the agency and the submitter of the proposal.
- ☐ Exemption 4: The withheld information is a trade secret or commercial or financial information that is being withheld for the reason(s) indicated.
- ☐ The information is considered to be confidential business (proprietary) information.
- ☐ The information is considered to be proprietary because it concerns a licensee's or applicant's physical protection or material control and accounting program for special nuclear material pursuant to 10 CFR 2.390(d)(1).
- ☐ The information was submitted by a foreign source and received in confidence pursuant to 10 CFR 2.390(d)(2).
- ☐ Disclosure will harm an identifiable private or governmental interest.
- ☒ Exemption 5: The withheld information consists of interagency or intraagency records that are not available through discovery during litigation. Applicable privileges:
- ☒ Deliberative process: Disclosure of predecisional information would tend to inhibit the open and frank exchange of ideas essential to the deliberative process. Where records are withheld in their entirety, the facts are inextricably intertwined with the predecisional information. There also are no reasonably segregable factual portions because the release of the facts would permit an indirect inquiry into the predecisional process of the agency.
- ☐ Attorney work-product privilege. (Documents prepared by an attorney in contemplation of litigation)
- ☐ Attorney-client privilege. (Confidential communications between an attorney and his/her client)
- ☒ Exemption 6: The withheld information is exempted from public disclosure because its disclosure would result in a clearly unwarranted invasion of personal privacy.
- ☐ Exemption 7: The withheld information consists of records compiled for law enforcement purposes and is being withheld for the reason(s) indicated.
- ☐ (A) Disclosure could reasonably be expected to interfere with an enforcement proceeding (e.g., it would reveal the scope, direction, and focus of enforcement efforts, and thus could possibly allow recipients to take action to shield potential wrong doing or a violation of NRC requirements from investigators).
- ☐ (C) Disclosure could constitute an unwarranted invasion of personal privacy.
- ☐ (D) The information consists of names of individuals and other information the disclosure of which could reasonably be expected to reveal identities of confidential sources.
- ☐ (E) Disclosure would reveal techniques and procedures for law enforcement investigations or prosecutions, or guidelines that could reasonably be expected to risk circumvention of the law.
- ☐ (F) Disclosure could reasonably be expected to endanger the life or physical safety of an individual.
- ☐ OTHER (Specify)

PART II.B -- DENYING OFFICIALS

Pursuant to 10 CFR 9.25(g), 9.25(h), and/or 9.65(b) of the U.S. Nuclear Regulatory Commission regulations, it has been determined that the information withheld is exempt from production or disclosure, and that its production or disclosure is contrary to the public interest. The person responsible for the denial are those officials identified below as denying officials and the FOIA/PA Officer for any denials that may be appealed to the Executive Director for Operations (EDO).

DENYING OFFICIAL	TITLE/OFFICE	RECORDS DENIED	APPELLATE OFFICIAL		
			EDO	SECY	IG
Eliot Brenner	Director, Office of Public Affairs	G5-G6, G8	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Rachel Baval	Director, Office of the Secretary of the Comm.	G1-G2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
William M. Dean	Director, Office of Nuclear Reactor Regulation	G3-G4, G8, G9-G36	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Appeal must be made in writing within 30 days of receipt of this response. Appeals should be mailed to the FOIA/Privacy Act Officer, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, for action by the appropriate appellate official(s). You should clearly state on the envelope and letter that it is a "FOIA/PA Appeal."

**RESPONSE TO FREEDOM OF INFORMATION
ACT (FOIA) / PRIVACY ACT (PA) REQUEST**

DATE

JAN 27, 2015

PART II.A -- APPLICABLE EXEMPTIONS

GROUP

G

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- ☐ Section 147 of the Atomic Energy Act, which prohibits the disclosure of Unclassified Safeguards Information (42 U.S.C. 2167).
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- ☐ The information is considered to be confidential business (proprietary) information.
- ☐ The information is considered to be proprietary because it concerns a licensee's or applicant's physical protection or material control and accounting program for special nuclear material pursuant to 10 CFR 2.390(d)(1).
- ☐ The information was submitted by a foreign source and received in confidence pursuant to 10 CFR 2.390(d)(2).
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- ☐ Exemption 5: The withheld information consists of interagency or intraagency records that are not available through discovery during litigation. Applicable privileges:
- ☐ Deliberative process: Disclosure of predecisional information would tend to inhibit the open and frank exchange of ideas essential to the deliberative process. Where records are withheld in their entirety, the facts are inextricably intertwined with the predecisional information. There also are no reasonably segregable factual portions because the release of the facts would permit an indirect inquiry into the predecisional process of the agency.
- ☐ Attorney work-product privilege. (Documents prepared by an attorney in contemplation of litigation)
- ☐ Attorney-client privilege. (Confidential communications between an attorney and his/her client)
- ☒ Exemption 6: The withheld information is exempted from public disclosure because its disclosure would result in a clearly unwarranted invasion of personal privacy.
- ☐ Exemption 7: The withheld information consists of records compiled for law enforcement purposes and is being withheld for the reason(s) indicated.
- ☐ (A) Disclosure could reasonably be expected to interfere with an enforcement proceeding (e.g., it would reveal the scope, direction, and focus of enforcement efforts, and thus could possibly allow recipients to take action to shield potential wrong doing or a violation of NRC requirements from investigators).
- ☐ (C) Disclosure could constitute an unwarranted invasion of personal privacy.
- ☐ (D) The information consists of names of individuals and other information the disclosure of which could reasonably be expected to reveal identities of confidential sources.
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- ☐ (F) Disclosure could reasonably be expected to endanger the life or physical safety of an individual.
- ☐ OTHER (Specify)

PART II.B -- DENYING OFFICIALS

Pursuant to 10 CFR 9.25(g), 9.25(h), and/or 9.65(b) of the U.S. Nuclear Regulatory Commission regulations, it has been determined that the information withheld is exempt from production or disclosure, and that its production or disclosure is contrary to the public interest. The person responsible for the denial are those officials identified below as denying officials and the FOIA/PA Officer for any denials that may be appealed to the Executive Director for Operations (EDO).

DENYING OFFICIAL	TITLE/OFFICE	RECORDS DENIED	APPELLATE OFFICIAL		
			EDO	SECY	IG
Marc L. Dapas	Regional Administrator, Region IV	G7	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Appeal must be made in writing within 30 days of receipt of this response. Appeals should be mailed to the FOIA/Privacy Act Officer, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, for action by the appropriate appellate official(s). You should clearly state on the envelope and letter that it is a "FOIA/PA Appeal."

From: Sebrosky, Joseph
Sent: Tuesday, September 16, 2014 11:23 AM
To: Buchanan, Theresa
Cc: Alexander, Ryan; Walker, Wayne; Hipschman, Thomas; Uselding, Lara; Maier, Bill; Williams, Megan; Oesterle, Eric; Singal, Balwant; Moreno, Angel; Markley, Michael
Subject: FW: Diablo Canyon Topics of Interest Communication Plan review and concurrence
Attachments: Updated Memo Req Concurrence on Rev 0.docx; Diablo Communication Plan - Rev 0 (9-11-14).docx

Theresa,

I concur on the communication plan with the understanding that the following major comments will be resolved:

Major Comments

- Current licensing basis questions - question 4 page 50
 - I believe this answer needs to be rewritten such that it is consistent with the statement PG&E makes in its withdrawal letter. See withdrawal letter found at following link <http://pbadupws.nrc.gov/docs/ML1335/ML13354B966.html>. That is, PG&E withdrew the LAR due to the issuance of the process outlined in the 50.54(f) letter and the NRC's letter dated October 12, 2012. Based on these letters PG&E no longer believed it needed to define an evaluation process for newly identified seismic information and the license amendment was withdrawn. The second paragraph in the response is not accurate. The NRC did not require that the Hosgri fault be assessed against the DDE. Rather the NRC requested the licensee to provide a comparison of the Hosgri evaluation against the guidance in the current SRP. PG&E subsequently provided a 130 page response detailing a comparison of the Hosgri evaluation against SRP guidance
- Current license basis questions – question 5, 6, 7, and 8
 - The response indicates that the FSAR will be required to be updated as a result of the 50.54(f) letter. This is not true. Phase 2 of the 50.54(f) process will make that determination. It is not been predetermined that this will be required. It is also not true to suggest that 50.71(e) requires licensees to update their FSARs for new seismic or flooding information. This position is inconsistent with the position OGC took on North Anna seismic issues, and if it were true would render the Fukushima action to periodically assess new seismic and flooding information unnecessary

Minor comments

- DPO stuff on page 6 and 7 needs to be updated based on the DPO now being publicly available
- DPO stuff on pages 43, and 44 should also be updated at some point
- Current licensing basis question 1 on page 49 suggests that 10 CFR Part 50 Appendix A applies to Diablo. Diablo is a pre-GDC plant. The response should include a discussion that the pre GDC 2 and GDC 2 are similar in nature. I don't think we should leave the impression that Diablo is a Part 50 Appendix A GDC plant

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

Thanks,

Joe

From: Buchanan, Theresa

Sent: Thursday, September 11, 2014 2:53 PM

To: Sebrosky, Joseph

Subject: FW: Diablo Canyon Topics of Interest Communication Plan review and concurrence

From: Buchanan, Theresa

Sent: Thursday, September 11, 2014 1:20 PM

To: Alexander, Ryan; Walker, Wayne; Pruett, Troy; Hay, Michael; Hipschman, Thomas; Uselding, Lara; Maier, Bill; Williams, Megan; Oesterle, Eric; Singal, Balwant; Moreno, Angel

Subject: Diablo Canyon Topics of Interest Communication Plan review and concurrence

Hello,

You are all listed on the attached memo for concurrence on the also attached Diablo Canyon "overall" communication plan. Because this communication plan was extensively reviewed and commented upon back in March, I am asking that you do a review of only the significant changes, specifically associated with the AB 1632 report, DPO, and Sewell report sections. Each section can be reached from the table of contents on page 8. Since both the AB-1632 and DPO sections are excerpted from their own reviewed and approved communication plans, I am asking for you to review and comment within the next few days so that I can get this communication plan issued the beginning of next week. I realize that is short turnaround, but as I said, the majority of this document has already been reviewed, commented upon, and comments incorporated.

Thank you for your timely response to this short turnaround item.

Theresa Buchanan

Senior Project Engineer

RIV DRP Branch A

817-200-1503



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION IV
1600 E. LAMAR BLVD.
ARLINGTON, TX 76011-4511

September 11, 2014

MEMORANDUM TO: Wayne Walker, Chief
Division of Reactor Projects, Branch A

FROM: Multiple Addressees, as listed below

SUBJECT: COMMUNICATIONS PLAN – DIABLO CANYON POWER PLANT
TOPICS OF INTEREST

The purpose of this memo is to transmit and request comments/concurrence on the enclosed Communications Plan for Diablo Canyon Power Plant (DCPP). The enclosed document is based on several iterations of informal communication plans, Q&A documents, and responses to congressional questions developed primarily by Region IV, NRR, OPA, and OCA over the last several years.

This communication plan describes the methods and resources that NRC staff will use to communicate with internal and external stakeholders regarding the DCPP seismic history and ongoing seismic evaluations being conducted in response to the Japan Lessons Learned Near-Term Task Force recommendations. Additionally, as applicable to current issues of interest to DCPP stakeholders, this communications plan integrates key messages related to spent fuel/dry cask storage and waste confidence issues (primarily by referencing other active communication plans).

This revision also incorporates Q&As for the most recent issues of concern including the licensee's AB-1632 Report to the State of California and the "Sewell Report."

Once finalized, the Communications Plan will be posted on the OEDO Communications website for use by the communications team and more broadly across the agency as necessary.

Most of those on concurrence have each provided significant input to iterations of this document (or documents from which this Plan was developed). As such, we are **requesting your review/comments/concurrence in the next few days (due by COB, Monday, September 15)**. Please forward your comments/concurrence on the document to Theresa Buchanan (Theresa.Buchanan@nrc.gov) and/or ph: (817) 200-1503) of my staff.

The concurrence block noted on the next page will be used to document your concurrence on the enclosed Communications Plan.

Enclosure:
As stated

The individuals whose concurrence is requested for this Communications Plan are:

T. Pruett, Acting Division Director, RIV/DRP
 M. Hay, Acting Deputy Division Director, RIV/DRP
 W. Walker, Chief, RIV/DRP/RPB-A
 T. Hipschman, Sr. Resident Inspector, RIV/DRP/RPB-A
 L. Uselding, RIV/OPA
 W. Maier, RIV/RSLO
 M. Williams, RIV/DRS/EB1
 E. Oesterle, Acting Chief, NRR/DORL/LPL-IV-1
 B. Singal, Senior Project Manager, NRR/DORL/LPL-IV-1
 A. Moreno, OCA

RIV/DRP/A	RIV/DRP/A	RIV/DRP/A	RIV/DRP/A	RIV/OPA
RAlexander	TBuchanan	THipschman	WWalker	LUselding
09/ /2014	09/ /2014	/ /2014	/ /2014	/ /2014
RIV/RSLO	RIV/DRS/EB1	NRR/DORL/LPL-IV-1	NRR/DORL/LPL-IV-1	NRR/JLD
WMaier	MWilliams	BSingal	EOesterle	JSebrosky
/ /2014	/ /2014	/ /2014	/ /2014	/ /2014
OCA	RIV/DRP	RIV/DRP		
AMoreno	MHay	TPruett		
/ /2014	/ /2014	/ /2014		

OFFICIAL RECORD COPY

UPDATED: 10/03/2014 1:13 PM

Communications Plan –
Diablo Canyon Power Plant Topics of Interest

Purpose

This communication plan describes the methods and resources that NRC staff will use to communicate with internal and external stakeholders regarding the Diablo Canyon Power Plant (DCPP) seismic history and ongoing seismic evaluations being conducted in response to the Japan Lessons Learned Near-Term Task Force recommendations. This plan also provides key messages concerning NRC current and historical actions and decisions concerning seismic issues involving DCPP to be used by staff.

Additionally, as applicable to current questions raised by DCPP stakeholders, this communications plan integrates key messages related to spent fuel/dry cask storage and waste confidence (primarily by referencing other active communication plans).

This communications plan will be continuously evaluated for the need to update key messages, and a full review/update will be evaluated approximately once per calendar quarter.

NOTE: Although this communication plan is marked as OUO-SII, all sections marked as “Key Messages” and “Questions and Answers” are releasable to the public.

Summary of Background Seismic Information and Assessments

Pacific Gas & Electric (PG&E) proposed 0.2g ground acceleration for an Operating Basis Earthquake (OBE) and 0.4g ground acceleration for a Safe Shutdown Earthquake (SSE) in its construction permit applications in 1967 and 1968. (Note: PG&E uses the terms Design Earthquake and Double Design Earthquake when referring to the OBE and SSE, respectively.) After construction permits were issued, during the Atomic Energy Commission's and NRC's review of information submitted to support operating licenses, new information became available as a result of offshore seismic surveys. These surveys identified the Hosgri fault, approximately 3.5 miles offshore of the DCPP site. After assessing information provided by PG&E and the U.S. Geological Survey (USGS) during the operating license review, NRC issued operating licenses for the two units in 1984 and 1985. The OBE and SSE remained 0.2g and 0.4g, respectively.

However, DCPP was required to have additional seismic protection that would automatically initiate reactor shutdown if ground acceleration during a seismic event exceeded the OBE and SSE, and PG&E was required to re-evaluate the seismic design basis for DCPP. PG&E was also required to evaluate the plant's response to ground motion of 0.75g, a value believed to bound the expected ground motion resulting from an earthquake occurring along the Hosgri fault. PG&E established its Long Term Seismic Program (LTSP) to guide additional seismic evaluations and updated the Final Safety Analysis Report to incorporate the results of its LTSP study. PG&E concluded that DCPP Units 1 and 2 could withstand ground motion up to 0.75 g.

In 2008, PG&E notified the NRC about the newly discovered Shoreline fault zone. PG&E completed characterization of the Shoreline and other local earthquake faults in January 2011.

On October 20, 2011, PG&E submitted a license amendment request for approval to revise the current licensing basis, as described in the Updated Final Safety Analysis Report and Technical Specifications, to provide requirements for the actions, evaluations, and reports necessary when PG&E identifies new seismic information relevant to the design and operation of DCP.

The NRC completed its independent review of the new seismic information and documented the results in a Research Information Letter (RIL) issued on October 10, 2012, which was subsequently communicated to PG&E two days later. NRC concluded that maximum ground motion at the site from a seismic event along the Shoreline fault is bounded by previous analyses of potential seismic events, including analyses of the Hosgri fault and the LTSP ground motion response spectra.

Specifically the October 12, 2012, letter indicated that PG&E was to evaluate new seismic information in accordance with the process outlined in the March 12, 2012, 50.54(f) request for information issued to all operating reactors, and provided further guidance that the ground motion response spectrum that is developed should be reviewed against the Double Design Earthquake (OBE) spectrum at DCP.

Therefore, the October 12, 2012, letter in conjunction with the March 12, 2012, 50.54(f) request for information provides a process for assessing new seismic information at Diablo Canyon and rendered the portion of the October 20, 2011, PG&E license amendment in this area unnecessary. In a letter dated October 25, 2012, PG&E provided the basis for withdrawing its October 20, 2011, license amendment request. The staff accepted the withdrawal of the license amendment in a letter dated October 31, 2012.

PG&E is currently performing a seismic hazard update through a SSHAC Level 3 process. The resulting site-specific probabilistic seismic hazard analysis will be used to respond to the NRC's March 2012 50.54(f) request for information letter.

Key Messages

- 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 DCP 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.
- The NRC performed an independent deterministic analysis of new seismic information provided by PG&E in 2011 relating to the Shoreline fault. NRC's conclusions are

documented in Research Information Letter (RIL) 12-01, dated October 10, 2012 (publically available in ADAMS ML121230035). NRC determined that the maximum ground motion expected at DCPD from a seismic event occurring along the Shoreline fault would be bounded by previous analyses of expected ground motion for seismic events associated with the Hosgri fault and PG&E's Long Term Seismic Program (LTSP) ground motion response spectra.

- In addition to analysis of information relating to the Shoreline fault, NRC analyzed new information relating to increases in expected ground motion for seismic events occurring along the Los Osos and San Luis Bay faults. Ground motion at DCPD from seismic events along these faults is also bounded by prior analyses of expected ground motion for seismic events associated with the Hosgri fault and PG&E's LTSP ground motion response spectra.
- In March 2012, NRC requested all U.S. nuclear power plants to re-evaluate plant specific seismic hazards in response to the Japan Lessons Learned Near-Term Task Force recommendations.¹ The results of PG&E's re-evaluation of seismic hazards for DCPD will include identification of any changes in seismic risks (due to new information identified during more recent seismic surveys) and a comparison to the current plant seismic design basis. This evaluation is to be submitted to NRC by March 2015. If the updated seismic hazards exceed the current SSE (the value that NRC directed PG&E to use for comparison), PG&E has indicated they will complete an expedited seismic evaluation process by January 2016 and a full seismic risk analysis by June 2017. Plant modifications, if required, would likely be completed in the 2018 timeframe.
- The expectation that the seismic issues will take some years to resolve at DCPD is not a safety concern. The NRC has followed the progress of PG&E's seismic re-evaluation process since the beginning. 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.
- The NRC continues to conclude Diablo Canyon is built to safely withstand the effects of a Hosgri earthquake and that the plant would protect the public and the environment. The reasons for this are laid out in the RIL.
- If new information suggests that the plant has the potential to not withstand new seismic hazards, the NRC would take action. This could include a plant shutdown until the issues could be resolved.
- The resident inspectors and regional staff reviewed the licensee's documentation in their corrective action process of new preliminary information concerning DCPD seismic and licensing bases that the Shoreline fault may be more capable than previously determined (ref: AB-1632 report). The information did not indicate there is an immediate threat to public health and safety nor did it call into question the ability of SSCs to perform their specified safety functions or necessary and related support functions. The licensee's current actions

¹ See NRC letter, dated March 12, 2012, issued to all power reactor licensees "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." (<http://pbadupws.nrc.gov/docs/ML1205/ML12053A340.pdf>)

meet the Manual Chapter 0326 guidance for having reasonable assurance of operability, pending further evaluation.

- The NRC will continue to review the new information in the AB-1632 report and will take additional regulatory action as appropriate if the NRC staff concludes that the new information associated with the Shoreline Fault causes the NRC to revisit its preliminary evaluation.
- Diablo Canyon will incorporate the AB-1632 report's information into its March 2015 seismic hazard re-analysis submittal to the NRC.

Background Documents

The following documents are not attached, but are available electronically:

Research Information Letter (RIL) 09-01, "Preliminary Deterministic Analysis of Seismic Hazard at Diablo Canyon NPP from Newly Identified Shoreline Fault," April 8, 2009

Licensee letter to NRC: "Report on the Analysis of the Shoreline Fault Zone, Central Coast California to the USNRC," ADAMS ML110140400, January 7, 2011

Task Interface Agreement (TIA) 2011-010, "Concurrence on Diablo Canyon Seismic Qualification Current Licensing and Design Basis," August 1, 2011

TIA 2012-012, "Revised Response to Task Interface Agreement -Diablo Canyon Seismic Qualification Current Licensing and Design Basis, IA 2011-010 (TIA 2012-012) (TAC NOS. ME9840 and ME9841)," November 19, 2012

RIL 2012-01, "Confirmatory Analysis of Seismic Hazard at the Diablo Canyon Power Plant from the Shoreline Fault Zone," September 19, 2012 (ML121230035)

Non-Concurrences & Differing Professional Opinions

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. NRC strives to establish and maintain an environment that encourages all NRC employees and contractors to raise concerns and differing views promptly without fear of reprisal through various mechanisms. The free and open exchange of views or ideas conducted in a non-threatening environment provides the ideal forum where concerns and alternative views can be considered and addressed in an efficient and timely manner that improves decision making and supports the agency's safety and security mission.
2. The NRC appreciates members of the staff bring issues like this to its attention
3. The NRC encourages the use of non-concurrences and the Differing Professional Opinion (DPO) process
4. The NRC reviews all non-concurrences and DPOs thoroughly and in accordance with agency guidance (MD 10.158, MD 10.159) and believes that this is a healthy and necessary part the regulatory process
5. The NRC believes that, in the end, all of our regulatory decisions are better because of this process
6. The NRC does not tolerate retaliation against employees who engage in our processes for raising differing views (i.e., Open Door Policy, NCP, and DPO Program).
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

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 can request that the DPO Case File be made public. Management performs a review consistent with agency policies to support discretionary release. 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
11. 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
12. 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
13. 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

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 DCP:

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
Theresa Buchanan	Acting Sr. Project Engineer	R-IV/DRP/RPB-A	817-200-1503
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
Joseph Sebrosky	Senior Project Manager	NRR/JLD	301-415-1132
Scott Burnell	Public Affairs Officer	OPA	301-415-8204
Jenny Weil	Congressional Affairs	OCA	301-415-1691
Angel Moreno	Congressional Affairs	OCA	301-415-1697
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	September 10, 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 DCP	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 DCP (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	DCPP 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	DCPP 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:

- Sept. 2014 PG&E expected to submit the AB-1632-mandated 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.

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.

State of California Seismic Report (AB-1632)

Note: This section is excerpted from the "Communications Plan – Diablo Canyon Power Plant Topics of Interest State of California Seismic Report" dated 9/10/14. Please refer to that communications plan for the most current information.

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 the 2011 Shoreline Fault evaluation.

The purpose of this communication plan is to provide key messages associated with the public release of this report.

Key Messages

- 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.

PG&E's evaluation of the new seismic information, as documented in the report, 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.

- The NRC staff will 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.
- PG&E will incorporate the findings from Bill 1632 report into their upcoming March 2015 probabilistic seismic hazard analysis as part of the NRC's post-Fukushima activities. The NRC believes this more rigorous analysis will provide the most accurate assessment of faults affecting the DCPD.

Questions and Answers

1. What is the impact of this new information on seismic design and licensing of DCPD? Has the licensee entered this new information into the corrective action program and

performed an operability evaluation?

In accordance with the guidance in the October 12, 2012, letter transmitting 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.

NRC Resident Inspectors, and Region IV staff looked at the licensee's documentation in their corrective action process assessing new preliminary information concerning DCP seismic and licensing bases. The licensee's information did not indicate there is an immediate threat to public health and safety nor did it call into question the ability of SSCs to perform their specified safety functions or necessary and related support functions.

In addition, the NRC staff's review of the new seismic information in the report notes that PG&E's evaluation concludes that 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.

The NRC will review the new information provided in the report to the State of California including the Shoreline Fault characteristics, and the updated characteristics associated with the soil properties near the site. The NRC staff will take additional regulatory action as appropriate if the NRC staff concludes that the new information associated with the Shoreline Fault causes the NRC to revisit the conclusions in the RIL.

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

Yes, in accordance with the guidance in the October 12, 2012, letter transmitting RIL 2012-001, PG&E has provided the information to the NRC. In addition, the report was also provided to address license renewal issues (see question 8).

3. What does the new report state?

The new report includes information obtained from 2-dimensional and 3-dimensional high energy and low-energy seismic surveys both onshore and offshore of the DCP site. The report provides more details on the regional faults, including more precise readings and additional data points where previously there were gaps. While a lot of the information from the previous Shoreline Fault report of 2011 was confirmed, some of the new data suggests

the following:

- Reduced slip rate on the Hosgri Fault Zone and the Shoreline Fault Zone
- Postulated connection of the Hosgri and the San Simeon faults which could result in a longer, larger, but more infrequent earthquake
- The unique geometry involved with intersecting the Hosgri Fault and the Shoreline Fault Zone results in an extension of a few kilometers, but with a lower frequency of occurrence
- Extension of the Shoreline Fault zone southern segment
- The new data does not alter the assessment of the closest approach of the Shoreline fault to DCPD which is 600 meters from the power block and 300 meters from the intake structure. Because the Shoreline fault is considered to be somewhat longer, potential earthquakes could also occur farther from the plant.
- Updated analysis for the San Luis Bay, and Los Osos faults

The report concludes that the ground motions for the Hosgri and LTSP evaluations continue to bound potential ground motions from the regional faults, including the Shoreline Fault, San Luis Bay, Los Osos, San Simeon and Hosgri. The DCPD continues to operate safely within the seismic margin they were designed to withstand.

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

PG&E plans to incorporate the findings from Bill 1632 report into their ongoing analysis required by the NRC Post-Fukushima task force recommendations due in March 2015. The NRC believes this more rigorous analysis will provide the most accurate assessment of faults affecting the DCPD.

(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 things the plant has done since Fukushima: It is important to note that DCPD 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).

5. Why is the report "final" for the state but "preliminary" for the NRC?

For the State, the report is final. For the NRC, this information is expected to be incorporated into the more comprehensive 50.54f analysis due to the NRC in March 2015. However, because the licensee must notify the NRC of any new seismic info, they have shared this report and an initial operability evaluation showing why the plant is safe to continue to operate. PG&E's evaluation of the new seismic information, as documented in the report, 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.

6. Why didn't the NRC discover the length of the faults when it did its seismic review of the Shoreline fault in 2011 prior to issuing the RIL?

California Assembly Bill 1632 (Blakeslee, Chapter 722, Statutes of 2006) directs the California Energy Commission to assess the potential vulnerability of California's largest base-load 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 2D and 3D geophysical mapping techniques, which are commonly used in offshore petroleum resource exploration. These techniques provide higher-resolution data than what was available to characterize the Shoreline Fault in the 2011 report.

The NRC has requested licensees of operating nuclear power reactors to submit a seismic hazard reevaluation using up-to-date methodologies and analyses which is due for DCPD in March 2015.

7. What is the impact of this new information on seismic design and licensing of DCPD?

Based on the preliminary results of the studies that are under review, PG&E determined that the Shoreline Fault Zone may be capable of producing somewhat larger earthquakes than considered in the January 2011 Shoreline report. The NRC staff is independently assessing PG&E's determination. The process outlined in the 50.54(f) letter includes a detailed analysis of new seismic information (including shoreline faults and other faults around the plant). PG&E is scheduled to provide this assessment in the March 2015 time frame. The staff will continue to review the information in the new CA 1632 report and the final results of the new data from the more rigorous analysis to be completed by March 2015. The NRC staff will take appropriate regulatory action up to and including issuing Orders to ensure safe operation of the plant.

8. Will the Report be considered in the License Renewal Process

Yes. In addition to the report being developed to address California Assembly Bill 1632, PG&E is providing the report to the State of California as part of the State of California coastal zone consistency certification associated with the license renewal for DCPD. The State of California coastal zone consistency certification is considered by the NRC during the license renewal environmental review process. In addition, the Staff will be reviewing the report to see how, if at all, it is relevant to the Staff's license renewal review. There is a contention related to the Shoreline fault and its consideration in the facility's severe accident mitigation alternatives analysis that is admitted in the license renewal proceeding (see ML14224A320; See CLI-11-11).

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.

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 DCCP: 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.

“Sewell” Report / Tsunami Concerns

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. DCPD's response to this letter is due March 12, 2015. DCPD 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 DCP and public safety?

The NRC's assessment of potential tsunami hazard is ongoing and the DCP 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 DCP?

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.

Non-concurrence and DPO Questions

Refer to "Communications Plan – Diablo Canyon Power Plant Topics of Interest Differing Professional Opinion and Appeal" for most current information.

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. The former DCPD SRI 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?

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?

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 probabilistic seismic hazards 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 DCP. In addition, the NRC 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 DCP seismic and licensing bases. The licensee's information indicates reasonable assurance of public health and safety after a seismic event.

The NRC staff will 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 DCP cause NRC to question PG&E's conclusions.

10. 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 DCP 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 DCPD 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. (ADAMS Accession Number ML12151A173).
- Feb 2012 DCPD SRI applies for instructor position vacancy at the Technical Training Center (TTC).
- Feb 13, 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. (ADAMS Accession Number ML12151A173).
- 02/12-07/13 RIV management frequently encourages the DCPD SRI to submit a Differing Professional Opinion (DPO) during several discussions involving seismic issues.
- May 2012 DCPD SRI is selected for instructor position at the Technical Training Center (TTC).
- Sept 2012 The (now former) DCPD SRI reports to the TTC as a training instructor.
- 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.

6/23/14 Employee submits DPO appeal.

6/27/14 Director, NRR provided Statement of Views on contested issues in appeal.

7/7/14 DPO appeal package provided to EDO for disposition and decision.

8/25/14 Associated Press article released discussing the DPO.

9/10/14 EDO renders final decision regarding DPO. DPO submitter agrees to public release of 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.

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.

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).

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, DCP 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). DCP 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 DCP will be completing the SPRA, this statement in the order applies, and thus DCP'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.

Non-Responsive Record

Non-Responsive Record

Non-Responsive Record

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.

Non-Responsive Record

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?

Emergency Preparedness Concerns

*** NOTE – The following is predecisional, non-public information, with the exception of the Unresolved Item that was included in the 4Q/2013 Resident Inspector Report which initially described this potential issue.

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.

Key Messages – Predecisional/nonpublic

- 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: Sebrosky, Joseph
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: cover letter transmitting diablo canyon state of california report - link to report
Date: Wednesday, September 10, 2014 3:19:00 PM

To all,

The State of California report can be found on PG&E's website at:
<http://www.pge.com/en/safety/systemworks/dcpp/seismicsafety/report.page>

From: Sebrosky, Joseph
Sent: Wednesday, September 10, 2014 1:48 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
Subject: info: cover letter transmitting diablo canyon state of california report

To all,

The purpose of this email is to provide you with the cover letter transmitting the diablo canyon state of California report to the NRC. The report is with the document control desk. It will take several days for it to be processed. I will send a separate email with a link to PG&E's website when the report is available there.

Let me know 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: "Soenen, Philippe R"
Subject: RE: NRC Submittal DCL-14-081, "Central Coastal California Seismic Imaging Project, Shoreline Fault Commitment"
Date: Wednesday, September 10, 2014 3:05:00 PM

Thanks - joe

-----Original Message-----

From: Soenen, Philippe R [mailto:PNS3@pge.com]
Sent: Wednesday, September 10, 2014 2:51 PM
To: Sebrosky, Joseph
Subject: FW: NRC Submittal DCL-14-081, "Central Coastal California Seismic Imaging Project, Shoreline Fault Commitment"

Joe,

Per your request.

Philippe Soenen

Supervisor, Licensing
Regulatory Services - DCP
Office - 805.545.6984
Cell - (b)(6)

From: Mackey, Chuck
Sent: Wednesday, September 10, 2014 9:56 AM
To: DCP BASES DD; 'fred.madden@luminant.com'; kefredr@wcnoc.com; Scott Bauer; Keith Mills; Jim Becker; Larry Parker (Larry.parker@starsalliance.com); Steve Meyer; Tom Weber; 'timothy.hope@luminant.com'; david.heckman@aps.com; 'dcupdate@certrec.com'
Cc: 'janeslo@kcbx.net' (janeslo@kcbx.net); 'dsneed@thetribunenews.com' (dsneed@thetribunenews.com)
Subject: NRC Submittal DCL-14-081, "Central Coastal California Seismic Imaging Project, Shoreline Fault Commitment"

The electronic file of the following cover letter that was recently sent to the Nuclear Regulatory Commission is attached to this e-mail and is being routed for your information.

NRC Submittal DCL-14-081, "Central Coastal California Seismic Imaging Project, Shoreline Fault Commitment"

Signed by: Edward D. Halpin - Senior Vice President and Chief Nuclear Officer
Chuck Mackey Diablo Canyon Power Plant Regulatory Services Senior Administrator - Nuclear 104/5/536A P.O. Box 56 Avila Beach, CA 93424 Internal - 8-691-4444 External - (805) 545-4444

Note: This letter is publicly available in ADAMS as ML14253A491.

PG&E is committed to protecting our customers' privacy.

To learn more, please visit <http://www.pge.com/about/company/privacy/customer/>

From: Sebrosky, Joseph
To: Williams, Megan; Munson, Clifford; Oesterle, Eric; Markley, Michael
Cc: Uselding, Lara; Walker, Wayne; Hipschman, Thomas
Subject: FW: Scott/Joe ; review of blog prior to sending to Eliot
Date: Wednesday, September 10, 2014 11:59:00 AM
Attachments: SEP2014blogAB1632_srb.docx

Megan, Cliff, Eric, and Mike,

Attached is the latest version of the blog that includes Scott's comments that removes some language that had me concerned. I still have one issue:

- The blog indicated that the staff will "independently verify the calculations." I don't believe this is correct. Can we say the staff will "independently assess the information in the report." I do not believe we are going to do a complete independent verification of all the calculations which, in my opinion the sentence implies.

Lara,

Is someone from OGC looking at the language given the FOE petition?

Joe

From: Burnell, Scott
Sent: Wednesday, September 10, 2014 11:47 AM
To: Uselding, Lara; Sebrosky, Joseph
Subject: RE: Scott/Joe ; review of blog prior to sending to Eliot

provides confidence the plant can keep the public safe after a seismic event" instead?

From: Uselding, Lara
Sent: Wednesday, September 10, 2014 11:45 AM
To: Burnell, Scott; Sebrosky, Joseph
Subject: RE: Scott/Joe ; review of blog prior to sending to Eliot

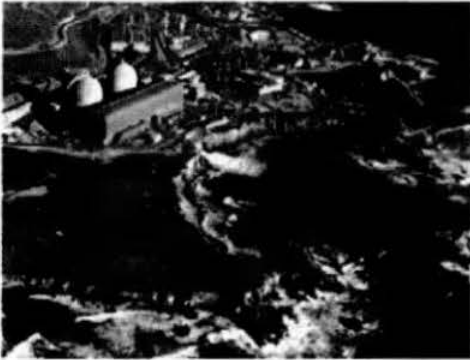
All fine with the exception of reasonable assurance. The public in CA hates this term and we have been lambasted for using it so we need an alternative

From: Burnell, Scott
Sent: Wednesday, September 10, 2014 10:39 AM
To: Uselding, Lara; Sebrosky, Joseph
Subject: RE: Scott/Joe ; review of blog prior to sending to Eliot

Here are my edits.

From: Uselding, Lara
Sent: Wednesday, September 10, 2014 11:03 AM
To: Burnell, Scott; Sebrosky, Joseph
Subject: Scott/Joe ; review of blog prior to sending to Eliot
Importance: High

Diablo Canyon In the News



Today PG&E issued a report to the state as required by California Assembly Bill 1632 and has also shared a copy with the NRC. In 2006, the bill required the California Energy Commission to assess the vulnerability of the state's nuclear power plants to seismic hazards and plant aging among other things. As part of the assessment, PG&E performed state-of-the-art seismic studies on and offshore the area near the plant.

The methodology used for the state report is different than was used to assess the Shoreline fault after it was discovered in 2008. New seismic information in the state-required report indicates that the Shoreline fault is both longer than previously thought and able to produce a stronger earthquake. Along with the report, PG&E provided Region IV with an operability evaluation after entering the new information in their corrective action program to assess its impact on plant operations.

NRC Resident Inspectors and Region IV staff have looked at the licensee's PG&E's assessment and so far the information indicates reasonable assurance of public health and safety after a seismic event~~there is no new information that would lead the NRC to conclude that continued safe operation of Diablo Canyon is challenged. This is because~~ While the new seismic information gathered by PG&E adds detail about the Shoreline fault's length and strength, and the company's ~~evaluation~~ reaffirms that the Shoreline fault is a lesser included fault still bounded by not as powerful as the Hosgri earthquake Diablo Canyon must withstand.

However, ~~just as was done~~ the NRC ~~with the reviewed~~ of the Shoreline fault information in 2009 and 2012~~2011~~, the agency NRC will ~~do a more thoroughly~~ review of the new information through our inspection process. The 1,000-page seismic report is ~~1,000 pages and contains new technical information that will be reviewed by staff to independently verify the calculations.~~

Previously, NRC provided its assessment of the Shoreline fault seismic hazard in the Research Information Letter (RIL) 12-01 "Confirmatory Analysis of Seismic Hazard at the Diablo Canyon Power Plant from the Shoreline Fault Zone." In the RIL, NRC staff determined that the

~~maximum ground motion expected at Diablo from a seismic event along the Shoreline fault would be bounded by expected ground motion for seismic events along the Hosgri fault. Even though the shoreline fault is capable of producing a bigger earthquake than previously calculated, it is still bounded by the Hosgri for which the plant is able to safely shutdown and protect the public and the environment.~~

~~This PG&E will also use this new seismic information will also be used to respond to in providing an overall seismic hazard re-analysis to the NRC's request for every U.S. nuclear power plant to re-analyze their earthquake hazards following Japan's as part of the agency's response to the 2011 Fukushima nuclear accident. PG&E's response re-analysis is due to the NRC in March 2015.~~

From: Sebrosky, Joseph
To: Uselding, Lara
Cc: Williams, Megan; Munson, Clifford; Oesterle, Eric; Markley, Michael
Subject: RE: Scott/Joe ; review of blog prior to sending to Eliot
Date: Wednesday, September 10, 2014 11:38:00 AM
Attachments: SEP2014blogDPOAB1632.docx

Lara,

You note that the document is 1000 pages. Can you ask Megan to give you an accurate page count. I would also feel more comfortable if Megan, Cliff, Eric, and Mike were given an opportunity to comment before the blog went live.

Joe

From: Uselding, Lara
Sent: Wednesday, September 10, 2014 11:03 AM
To: Burnell, Scott; Sebrosky, Joseph
Subject: Scott/Joe ; review of blog prior to sending to Eliot
Importance: High

From: Oesterle, Eric
To: [Pruett, Troy](#)
Subject: FW: Comm Plan for DPO & Appeal
Date: Wednesday, September 10, 2014 12:33:00 PM
Attachments: [Draft mini-Comm Plan on DCPD DPO final.docx](#)
[image003.png](#)
Importance: High

FYI...wanted to make sure we kept you in the loop.
Eric

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



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;

The rest of this email string may be found as document G/12 in interim response #3 in FOIA/PA-2014-0488 (ML15033A280)

From: Sebrosky, Joseph
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
Date: Wednesday, September 10, 2014 11:18:00 AM
Attachments: DC Calif seismic rpt comm plan 9-10-14 final rev 1.docx

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.

Let me or Eric know if there are any questions.

Thanks,

Joe Sebrosky
301-415-1132

UPDATED: 9/10/14 10:30 eastern

Communications Plan –
Diablo Canyon Power Plant Topics of Interest
State of California Seismic Report (ABN-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 a different and more extensive data set than what was used for the 2011 Shoreline Fault evaluation.

The purpose of this communication plan is to provide key messages associated with the public release of this report.

Key Messages

1. 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.

PG&E's evaluation of the new seismic information, as documented in the report, 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.

2. The NRC staff will 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.
3. PG&E will incorporate the findings from Bill 1632 report into their upcoming March 2015 probabilistic seismic hazard analysis as part of the NRC's post-Fukushima activities. The NRC believes this more rigorous analysis will provide the most accurate assessment of faults affecting the DCPD.

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
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
Jon Ake	Senior Seismologist	RES/DE/SGSEB	301-251-7695
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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

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. The table below is based on a target public release date of the report on September 10, 2014.

Timeframe	Action	Responsible Party(ies)
Sept 8	PG&E provides a draft of the report in the electronic reading room for initial staff assessment	PG&E
Sept 9	PG&E notifies NRC of seismic report submittal to the state of California	PG&E

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Timeframe	Action	Responsible Party(ies)
Sept 10	PG&E/Diablo Canyon Power Plant submit seismic report to the state of California and issue a press release	PG&E
Promptly (within Sept 10+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/DLR; NRR/JLD OPA; OCA; OGC
	OPA available to use Communications Plan to answer media inquiries. Blog possible	R-IV; OPA
Oct 3	JLD/NRO/RES completes preliminary assessment of published report and management decision is made if any additional actions should be taken prior to the submittal of the seismic reevaluation in March 2015. Updates to communication plan as appropriate	JLD/NRO/RES/RIV
As requested	Complete a Commissioners Assistants Brief	R-IV; NRR

1. Questions and Answers

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?

In accordance with the guidance in the October 12, 2012, letter transmitting 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.

NRC Resident Inspectors, and Region IV staff looked at the licensee's documentation in their corrective action process assessing new preliminary information concerning DCP seismic and licensing bases. The licensee's information did not indicate there is an immediate threat to public health and safety nor did it call into question the ability of SSCs to

perform their specified safety functions or necessary and related support functions.

In addition, the NRC staff's review of the new seismic information in the report notes that PG&E's evaluation concludes that 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.

The NRC will review the new information provided in the report to the State of California including the Shoreline Fault characteristics, and the updated characteristics associated with the soil properties near the site. The NRC staff will take additional regulatory action as appropriate if the NRC staff concludes that the new information associated with the Shoreline Fault causes the NRC to revisit the conclusions in the RIL.

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

Yes, in accordance with the guidance in the October 12, 2012, letter transmitting RIL 2012-001, PG&E has provided the information to the NRC. In addition, the report was also provided to address license renewal issues (see question 8).

3. What does the new report state?

The new report includes information obtained from 2-dimensional and 3-dimensional high energy and low-energy seismic surveys both onshore and offshore of the DCPD site. The report provides more details on the regional faults, including more precise readings and additional data points where previously there were gaps. While a lot of the information from the previous Shoreline Fault report of 2011 was confirmed, some of the new data suggests the following:

- Reduced slip rate on the Hosgri Fault Zone and the Shoreline Fault Zone
- Postulated connection of the Hosgri and the San Simeon faults which could result in a longer, larger, but more infrequent earthquake
- The unique geometry involved with intersecting the Hosgri Fault and the Shoreline Fault Zone results in an extension of a few kilometers, but with a lower frequency of occurrence
- Extension of the Shoreline Fault zone southern segment
- The new data does not alter the assessment of the closest approach of the Shoreline fault to DCPD which is 600 meters from the power block and 300 meters from the intake structure. Because the Shoreline fault is considered to be somewhat longer, potential earthquakes could also occur farther from the plant.
- Updated analysis for the San Luis Bay, and Los Osos faults

The report concludes that the ground motions for the Hosgri and LTSP evaluations continue to bound potential ground motions from the regional faults, including the Shoreline Fault, San Luis Bay, Los Osos, San Simeon and Hosgri. The DCPD continues to operate safely within the seismic margin they were designed to withstand.

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

PG&E plans to incorporate the findings from Bill 1632 report into their ongoing analysis required by the NRC Post-Fukushima task force recommendations due in March 2015. The NRC believes this more rigorous analysis will provide the most accurate assessment of faults affecting the DCPD.

(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 things the plant has done since Fukushima: It is important to note that DCPD 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).

5. Why is the report "final" for the state but "preliminary" for the NRC?

For the State, the report is final. For the NRC, this information is expected to be incorporated into the more comprehensive 50.54f analysis due to the NRC in March 2015. However, because the licensee must notify the NRC of any new seismic info, they have shared this report and an initial operability evaluation showing why the plant is safe to continue to operate. PG&E's evaluation of the new seismic information, as documented in the report, 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.

6. Why didn't the NRC discover the length of the faults when it did its seismic review of the Shoreline fault in 2011 prior to issuing the RIL?

California Assembly Bill 1632 (Blakeslee, Chapter 722, Statutes of 2006) directs the California Energy Commission to assess the potential vulnerability of California's largest base-load 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 2D and 3D geophysical mapping techniques, which are commonly used in offshore petroleum resource exploration. These techniques provide higher-resolution data than what was available to characterize the Shoreline Fault in the 2011 report.

The NRC has requested licensees of operating nuclear power reactors to submit a seismic hazard reevaluation using up-to-date methodologies and analyses which is due for DCPD in March 2015.

7. What is the impact of this new information on seismic design and licensing of DCPD?

Based on the preliminary results of the studies that are under review, PG&E determined that

the Shoreline Fault Zone may be capable of producing somewhat larger earthquakes than considered in the January 2011 Shoreline report. The NRC staff is independently assessing PG&E's determination. The process outlined in the 50.54(f) letter includes a detailed analysis of new seismic information (including shoreline faults and other faults around the plant). PG&E is scheduled to provide this assessment in the March 2015 time frame. The staff will continue to review the information in the new CA 1632 report and the final results of the new data from the more rigorous analysis to be completed by March 2015. The NRC staff will take appropriate regulatory action up to and including issuing Orders to ensure safe operation of the plant.

8. Will the Report be considered in the License Renewal Process

Yes. In addition to the report being developed to address California Assembly Bill 1632, PG&E is providing the report to the State of California as part of the State of California coastal zone consistency certification associated with the license renewal for DCCP. The State of California coastal zone consistency certification is considered by the NRC during the license renewal environmental review process. In addition, the Staff will be reviewing the report to see how, if at all, it is relevant to the Staff's license renewal review. There is a contention related to the Shoreline fault and its consideration in the facility's severe accident mitigation alternatives analysis that is admitted in the license renewal proceeding (see ML14224A320; See CLI-11-11).

UPDATED: 09/25/2014 3:13 PM

Communications Plan –
Diablo Canyon Power Plant Topics of Interest
State of California Seismic Report (ABN-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 a different and more extensive data set than what was used for the 2011 Shoreline Fault evaluation.

The purpose of this communication plan is to provide key messages associated with the public release of this report.

Key Messages

1. NRC Resident Inspectors, and Region IV staff looked at the licensee's documentation in their corrective action process assessing new preliminary information concerning DCPD seismic and licensing bases. The licensee's information did not indicate there is an immediate threat to public health and safety nor did it call into question the ability of SSCs to perform their specified safety functions or necessary and related support functions.

In addition, the NRC staff's review of the new seismic information in the report notes that PG&E's evaluation concludes that 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.

2. 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.
3. PG&E plans to incorporate the findings from Bill 1632 report into their ongoing analysis required by the NRC Post-Fukushima task force recommendations due in March 2015. The NRC believes this more rigorous analysis will provide the most accurate assessment of faults affecting the DCPD.

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.

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NRC Resident Inspectors, and Region IV staff looked at the licensee's documentation in their corrective action process assessing new preliminary information concerning DCP seismic and licensing bases. The licensee's information did not indicate there is an

immediate threat to public health and safety nor did it call into question the ability of SSCs to perform their specified safety functions or necessary and related support functions.

In addition, the NRC staff's review of the new seismic information in the report notes that PG&E's evaluation concludes that 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.

The NRC will review the new information provided in the report to the State of California including the Shoreline Fault characteristics, and the updated characteristics associated with the soil properties near the site. The NRC staff will take additional regulatory action as appropriate if the NRC staff concludes that the new information associated with the Shoreline Fault causes the NRC to revisit the conclusions in the RIL.

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

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The report concludes that the ground motions for the Hosgri and LTSP evaluations continue to bound potential ground motions from the regional faults, including the Shoreline Fault, San Luis Bay, Los Osos, San Simeon and Hosgri. The DCPD continues to operate safely within the seismic margin they were designed to withstand.

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

PG&E plans to incorporate the findings from Bill 1632 report into their ongoing analysis required by the NRC Post-Fukushima task force recommendations due in March 2015. The NRC believes this more rigorous analysis will provide the most accurate assessment of faults affecting the DCPD.

(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 things the plant has done since Fukushima: It is important to note that DCPD 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).

5. Why is the report "final" for the state but "preliminary" for the NRC?

For the State, the report is final. For the NRC, this information is expected to be incorporated into the more comprehensive 50.54f analysis due to the NRC in March 2015. However, because the licensee must notify the NRC of any new seismic info, they have shared this report and an initial operability evaluation showing why the plant is safe to continue to operate. The NRC has looked at the information in the report and its preliminary assessment is that based on the information presented by PG&E the new information associated with Faults near DCPD does not result in ground motions above those from the previously considered seismic hazard.

6. Why didn't the NRC discover the length of the faults when it did its seismic review of the Shoreline fault in 2011 prior to issuing the RIL?

California Assembly Bill 1632 (Blakeslee, Chapter 722, Statutes of 2006) directs the California Energy Commission to assess the potential vulnerability of California's largest base-load 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 2D and 3D geophysical mapping techniques, which are commonly used in offshore petroleum resource exploration. These techniques provide higher-resolution data than what was available to characterize the Shoreline Fault in the 2011 report.

The NRC has requested licensees of operating nuclear power reactors to submit a seismic hazard reevaluation using up-to-date methodologies and analyses which is due for DCPD in March 2015.

7. What is the impact of this new information on seismic design and licensing of DCPD?

Based on the preliminary results of the studies that are under review, PG&E determined that

the Shoreline Fault Zone may be capable of producing somewhat larger earthquakes than considered in the January 2011 Shoreline report. The NRC staff is independently assessing PG&E's determination. The process outlined in the 50.54(f) letter includes a detailed analysis of new seismic information (including shoreline faults and other faults around the plant). PG&E is scheduled to provide this assessment in the March 2015 time frame. The staff will continue to review the information in the new CA 1632 report and the final results of the new data from the more rigorous analysis to be completed by March 2015. The NRC staff will take appropriate regulatory action up to and including issuing Orders to ensure safe operation of the plant.

8. Will the Report be considered in the License Renewal Process

Yes. In addition to the report being developed to address California Assembly Bill 1632, PG&E is providing the report to the State of California as part of the State of California coastal zone consistency certification associated with the license renewal for DCP. The State of California coastal zone consistency certification is considered by the NRC during the license renewal environmental review process. In addition, the Atomic Safety and Licensing Board (ASLB) has expressed interest in the report because it is associated with a contention that is under consideration by the ASLB in the license renewal process (see ML14224A320).

From: Sebrosky, Joseph
To: Munson, Clifford
Cc: Williams, Megan; Oesterle, Eric; Uselding, Lara; Walker, Wayne; Hipschman, Thomas
Subject: FW: DC_Calif_seismic_rpt comm plan 9-10-14_final(2).docx
Date: Wednesday, September 10, 2014 10:08:00 AM
Attachments: DC_Calif_seismic_rpt comm plan 9-10-14_final(2).docx

Cliff,

Thanks for the quick feedback, I have no issues with your suggested changes.

Lara, Wayne, Megan, Eric, and Tom,

Please verify you have no issues with Cliff's changes. I will then accept all changes and send it out to the broader audience.

Thanks,

Joe

From: Munson, Clifford
Sent: Wednesday, September 10, 2014 10:04 AM
To: Sebrosky, Joseph
Subject: DC_Calif_seismic_rpt comm plan 9-10-14_final(2).docx

I have a couple of suggested changes.

Thanks,
Cliff

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Cc: Uselding, Lara; Walker, Wayne; Williams, Megan; Hipschman, Thomas; Oesterle, Eric
Subject: DC_Calif_seismic_rpt comm plan 9-10-14_final.docx
Date: Wednesday, September 10, 2014 9:50:00 AM
Attachments: DC_Calif_seismic_rpt comm plan 9-10-14_final.docx

Cliff,

Per our discussion could you please review the attached final version of the communication plan and let me and Megan Williams know if you have any concerns. Also per our discussion Lara will work with Megan on any followon technical questions that she might have. If Megan needs help she will contact you, otherwise, we are leaving it up to Megan to advise Lara.

Lara, Wayne and Megan,

I made changes consistent with what was discussed in the meeting. The yellow highlighted stuff was changed based on a comment from Eric after the meeting. Once Cliff gives his comments/approval I will send the document to a broader audience.

Thanks,

Joe

UPDATED: 9/10/14 9:30 eastern

Communications Plan –
Diablo Canyon Power Plant Topics of Interest
State of California Seismic Report (ABN-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 a different and more extensive data set than what was used for the 2011 Shoreline Fault evaluation.

The purpose of this communication plan is to provide key messages associated with the public release of this report.

Key Messages

1. 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.

PG&E's evaluation of the new seismic information, as documented in the report, 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.

2. 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.
3. PG&E plans to incorporate the findings from Bill 1632 report into their upcoming March 2015 seismic hazard re-analysis as part of the NRC's post-Fukushima activities. The NRC believes this more rigorous analysis will provide the most accurate assessment of faults affecting the DCPD.

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1. Questions and Answers

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?

In accordance with the guidance in the October 12, 2012, letter transmitting 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.

NRC Resident Inspectors, and Region IV staff looked at the licensee's documentation in their corrective action process assessing new preliminary information concerning DCP seismic and licensing bases. The licensee's information did not indicate there is an

immediate threat to public health and safety nor did it call into question the ability of SSCs to perform their specified safety functions or necessary and related support functions.

In addition, the NRC staff's review of the new seismic information in the report notes that PG&E's evaluation concludes that 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.

The NRC will review the new information provided in the report to the State of California including the Shoreline Fault characteristics, and the updated characteristics associated with the soil properties near the site. The NRC staff will take additional regulatory action as appropriate if the NRC staff concludes that the new information associated with the Shoreline Fault causes the NRC to revisit the conclusions in the RIL.

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

Yes, in accordance with the guidance in the October 12, 2012, letter transmitting RIL 2012-001, PG&E has provided the information to the NRC. In addition, the report was also provided to address license renewal issues (see question 8).

3. What does the new report state?

The new report includes information obtained from 2-dimensional and 3-dimensional high energy and low-energy seismic surveys both onshore and offshore of the DCPD site. The report provides more details on the regional faults, including more precise readings and additional data points where previously there were gaps. While a lot of the information from the previous Shoreline Fault report of 2011 was confirmed, some of the new data suggests the following:

- Reduced slip rate on the Hosgri Fault Zone and the Shoreline Fault Zone
- Postulated connection of the Hosgri and the San Simeon faults which could result in a longer, larger, but more infrequent earthquake
- The unique geometry involved with intersecting the Hosgri Fault and the Shoreline Fault Zone results in an extension of a few kilometers, but with a lower frequency of occurrence
- Extension of the Shoreline Fault zone southern segment
- The new data does not alter the assessment of the closest approach of the Shoreline fault to DCPD which is 600 meters from the power block and 300 meters from the intake structure. Because the Shoreline fault is considered to be somewhat longer, potential earthquakes could also occur farther from the plant.
- Updated analysis for the San Luis Bay, and Los Osos faults

The report concludes that the ground motions for the Hosgri and LTSP evaluations continue to bound potential ground motions from the regional faults, including the Shoreline Fault, San Luis Bay, Los Osos, San Simeon and Hosgri. The DCPD continues to operate safely within the seismic margin they were designed to withstand.

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

PG&E plans to incorporate the findings from Bill 1632 report into their ongoing analysis required by the NRC Post-Fukushima task force recommendations due in March 2015. The NRC believes this more rigorous analysis will provide the most accurate assessment of faults affecting the DCP.

(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 things the plant has done since Fukushima: It is important to note that DCP 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).

5. Why is the report "final" for the state but "preliminary" for the NRC?

For the State, the report is final. For the NRC, this information is expected to be incorporated into the more comprehensive 50.54f analysis due to the NRC in March 2015. However, because the licensee must notify the NRC of any new seismic info, they have shared this report and an initial operability evaluation showing why the plant is safe to continue to operate. PG&E's evaluation of the new seismic information, as documented in the report, 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.

6. Why didn't the NRC discover the length of the faults when it did its seismic review of the Shoreline fault in 2011 prior to issuing the RIL?

California Assembly Bill 1632 (Blakeslee, Chapter 722, Statutes of 2006) directs the California Energy Commission to assess the potential vulnerability of California's largest base-load 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 2D and 3D geophysical mapping techniques, which are commonly used in offshore petroleum resource exploration. These techniques provide higher-resolution data than what was available to characterize the Shoreline Fault in the 2011 report.

The NRC has requested licensees of operating nuclear power reactors to submit a seismic hazard reevaluation using up-to-date methodologies and analyses which is due for DCP in March 2015.

7. What is the impact of this new information on seismic design and licensing of DCP?

Based on the preliminary results of the studies that are under review, PG&E determined that

the Shoreline Fault Zone may be capable of producing somewhat larger earthquakes than considered in the January 2011 Shoreline report. The NRC staff is independently assessing PG&E's determination. The process outlined in the 50.54(f) letter includes a detailed analysis of new seismic information (including shoreline faults and other faults around the plant). PG&E is scheduled to provide this assessment in the March 2015 time frame. The staff will continue to review the information in the new CA 1632 report and the final results of the new data from the more rigorous analysis to be completed by March 2015. The NRC staff will take appropriate regulatory action up to and including issuing Orders to ensure safe operation of the plant.

8. Will the Report be considered in the License Renewal Process

Yes. In addition to the report being developed to address California Assembly Bill 1632, PG&E is providing the report to the State of California as part of the State of California coastal zone consistency certification associated with the license renewal for DCCP. The State of California coastal zone consistency certification is considered by the NRC during the license renewal environmental review process. In addition, the Staff will be reviewing the report to see how, if at all, it is relevant to the Staff's license renewal review. There is a contention related to the Shoreline fault and its consideration in the facility's severe accident mitigation alternatives analysis that is admitted in the license renewal proceeding (see ML14224A320; See CLI-11-11).

From: Sebrosky, Joseph
To: Stovall, Scott; Munson, Clifford; Williams, Megan; Li, Yong; Hipschman, Thomas; Walker, Wayne; Oesterle, Eric; Singal, Balwant; Markley, Michael; Jackson, Diane; DiFrancesco, Nicholas; Whaley, Sheena; Uselding, Lara; Burnell, Scott; O'Keefe, Neil; Farnholtz, Thomas; Kanatas, Catherine; Roth(OGC), David; Manoly, Kamal; Reynoso, John; Hill, Brittain; Dudek, Michael; Buchanan, Theresa; Kock, Andrea; Weaver, Thomas; (b)(6); Majer, Bill; Keegan, Elaine
Cc: DE Calendar Resource; Lubinski, John; Weerakkody, Sunil
Subject: internal meeting to finalize diablo communication plan
Start: Wednesday, September 10, 2014 8:30:00 AM
End: Wednesday, September 10, 2014 9:30:00 AM
Location: HQ-TWFF-10C01-15p
Attachments: DC Calif seismic rpt comm plan 9-10-14 srb.docx

Note: communication plan updated to include Scott Burnell's comments in redline/strikeout

Bridge #: 888-677-0690

Passcode: (b)(6)

Purpose: To finalize the draft communication plan

Outcome: Communication plan associated with Diablo Canyon State of California seismic report finalized

Agenda:

Discussion of changes

Incorporated inputs from Tom Hipschman, Lara Uselding, and Megan Williams (thanks for the insights)

First key message bullet changed based on Tom and Lara's input

Other changes made based on direction during the 9/9 meeting and additional input from Megan

II. Comments and resolution

III. Next steps

IV. 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

9/12/14 Version

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

Document Point of Contacts:

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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 assessment will be used to support the Region's inspection of the operability determination associated with the information in the report.

A second expected outcome of the assessment is a recommendation to NRR, and NRO management as to whether or not the NRC's processes associated with new seismic information as it relates to Diablo Canyon and which are described in NRC letters dated March 12, 2012¹, October 12, 2012², and February 20, 2014³ 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 2D and 3D mapping to compile this report. This is a different and more extensive data set than what was used for PG&E's 2011 Shoreline Fault evaluation (ADAMS Accession No. [ML110140431](#)).

Based on information that PG&E verbally provided to the NRC in late August 2014, PG&E 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. The report was subsequently provided to the staff and in addition to providing changes to the Shoreline fault characteristics 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.

¹ The March 12, 2012, request for information is available under ADAMS Accession No. [ML12053A340](#)

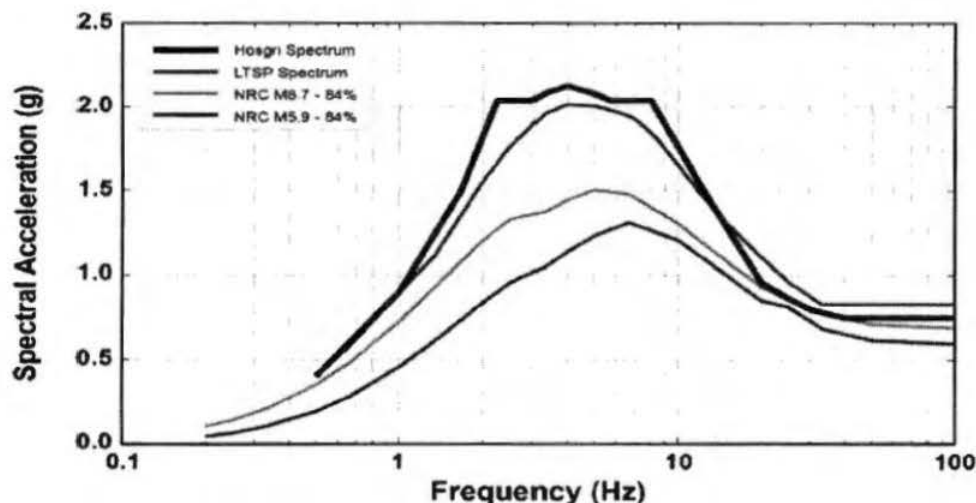
² The October 12, 2012, letter is available under ADAMS Accession No. [ML120730106](#)

³ The February 20, 2014, letter is available under ADAMS Accession No. [ML14030A046](#)

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 the information in the report to the State of California 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. As stated in the report to the State of California as well as the cover letter transmitting the report to the NRC, PG&E believes that based on new information relative to the Shoreline Fault and soil properties in the area the Shoreline Fault deterministic ground motion response spectrum is still bounded by the Hosgri and LTSP spectrum.

The purpose of the headquarters staff's review is to do the following:

- provide technical assistance to the Region to support their inspection associated with the licensee's operability determination, and
- provide an assessment to NRR and NRO management on whether or not the process outlined in the March 2012 50.54(f) letter 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).



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 was informed prior to submitting the report that based on what PG&E verbally indicated would be in the report, the NRC staff expected PG&E to provide an interim evaluation that describes actions taken or planned to address the higher seismic evaluation. In the September 10, 2014, letter transmitting the report to the NRC PG&E provided the interim evaluation concluding that the Shoreline fault remains bounded by the Hosgri analysis.

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 (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."

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. PG&E's report to the State of California also includes 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 (until the document is available in ADAMS please see the following PG&E link: <http://www.pge.com/en/safety/systemworks/dcpp/seismicsafety/report.page>)
- PG&E's interim evaluation that describes actions taken or planned to address the higher seismic hazard relative to the design basis

REVIEW PROCESS

Review time for this process should be charged to the following tac numbers:

- MF4750, DIABLO CANYON 1 - Review Diablo Canyon Seismic Report Submitted to the State and Other Associated Activities
- MF4751, DIABLO CANYON 2 - Review Diablo Canyon Seismic Report Submitted to the State and Other Associated Activities

As of September 10, 2014, the staff has access to the report. Prior to being provided access to the report, the staff took the following steps:

- Based on PG&E's preliminary description of the information in the State of California report, the staff originally considered assessing 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 NRC staff provided a list of information needs to PG&E on September 3, 2014, in

order to calculate a seismic core damage frequency consistent with the approach in the EPRI report. The NRC staff requested feedback from PG&E on whether or not the information could be provided to the staff in the September 2014 time frame. PG&E informed the staff in a September 8, 2014, phone call that PG&E would not be able to provide all of the necessary information to calculate a new seismic core damage frequency until March of 2015.

- The staff also considered performing a qualitative assessment of changes to the seismic core damage frequency based on a sensitivity analysis found in the State of California report that compares the new information to the PG&E's 2011 Shoreline Fault evaluation (ADAMS Accession No. [ML110140431](#)). Although a seismic core damage frequency cannot be calculated, a qualitative assessment of changes to the seismic core damage frequency discussed in PG&E's shoreline fault report was thought to be possible and useful. However, based on a preliminary review of the report as of September 11, 2014, such a qualitative analysis may not be possible. The information comparing the new information in the report to that found in the 2011 PG&E Shoreline fault report is not sufficiently detailed to make such a qualitative analysis possible.

The staff is therefore considering the following approach to review the new seismic information:

- Perform a focused deterministic calculation using PG&E's new seismic information (including seismic 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.
- Determine whether or not an update to an assessment discussed in a May 29, 2014, NRC memorandum, "Differing Professional Opinion Involving Seismic Issues at Diablo Canyon (DPO-2013-002)," (ADAMS Accession Nos. [ML14153A658](#), and [ML14163A673](#)) is appropriate. Section 4.2.1, "Technical Assessment of the Potential for Seismic Loads on SSCs to Exceed Previously Analyzed Conditions," includes a discussion that PG&E calculated in-structure acceleration response spectra as the basis for comparison between the ground motions in the 2011 PG&E Shoreline report to the ground motions used in the updated final safety analysis report. The staff will inquire as to whether PG&E has updated this calculation based on the new seismic information in the State of California report.

The proposed milestones and timeframes for reviewing PG&E's report are as follows:

Timeframe	Action	Responsible Party(ies)	Status
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	complete
Sept 8	PG&E provides feedback to the staff on whether or not it can provide information to the staff by Sept 22 to calculate a seismic core damage frequency. On September 8 PG&E informed the staff that this information would not be available until March 2015.	PG&E	complete

Timeframe	Action	Responsible Party(ies)	Status
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	complete
Sept 10	PG&E provides report and interim evaluation to the NRC	PG&E	complete
Sept 15	NRC review team initial meeting to discuss preliminary observations and assessment of information in the report. Determines that information it may need to support RIV's inspection and the independent analysis that may be needed to support a recommendation to NRR and NRO management relative to the 50.54(f) process	NRC review team	
Sept 22	RIV coordinates with PG&E documents to be provided in electronic reading room to support inspection efforts based on outcome of September 15, 2014, meeting	RIV	
Sept 29	NRC review team completes its preliminary assessment of new Shoreline fault information. Information provided to Region IV to support inspection and recommendation to management on how to proceed provided	NRC review team	
October 3	NRC management makes decision on how to proceed	NRC management	
October 10	As appropriate, based on outcome of October 3 decision, NRC provides letter documenting interim assessment to NRR management. Consideration made for public release of the assessment through the inspection report process and/or a letter back to the licensee	NRC	

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 Stamatakis (contractor)

RES: Jon Ake, Scott Stovall, Thomas Weaver

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.

UPDATED: 09/25/2014 3:26 PM ~~09/10/2014 8:07 AM~~ ~~09/10/2014 7:06 AM~~

Communications Plan –
Diablo Canyon Power Plant Topics of Interest
State of California Seismic Report (ABN-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 a different and more extensive data set than what was used for the 2011 Shoreline Fault evaluation.

The purpose of this communication plan is to provide key messages associated with the public release of this report.

Key Messages

1. NRC Resident Inspectors and Region IV staff looked at the licensee's documentation in their corrective action process assessing of new preliminary information concerning DCPD seismic and licensing bases. The licensee's information ~~did not indicate there is an immediate threat to~~ indicates reasonable assurance of public health and safety ~~nor did it call into question through~~ the ability of SSCs to perform their specified safety functions or necessary and related support functions after a seismic event.

In addition, the NRC staff's review of the PG&E report's new seismic information in the report ~~notes that PG&E's evaluation concludes that 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.

2. 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.
3. PG&E plans to incorporate the findings from Bill 1632 report into their upcoming March 2015 seismic hazard re-ongoing analysis required by ~~as part of the NRC's post-Fukushima task force recommendations~~ activities due in March 2015. The NRC believes

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~~SENSITIVE INTERNAL INFORMATION – NOT FOR PUBLIC RELEASE~~

this more rigorous analysis will provide the most accurate assessment of faults affecting the DCPP.

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
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 - DCPP	R-IV/DRP/RPB-A	805-595-2354
John Reynoso	Resident Inspector - DCPP	R-IV/DRP/RPB-A	805-595-2354
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
Angel Moreno	Congressional Affairs	OCA	301-415-1697
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

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. The table below is based on a target public release date of the report on September 10, 2014.

Timeframe	Action	Responsible Party(ies)
Sept 8	PG&E provides a draft of the report in the electronic reading room for initial staff assessment	PG&E

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Timeframe	Action	Responsible Party(ies)
Sept 9	PG&E notifies NRC of seismic report submittal to the state of California	PG&E
Sept 10	PG&E/Diablo Canyon Power Plant submit seismic report to the state of California and issue a press release	PG&E
Promptly (within Sept 10+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/DLR; NRR/JLD OPA; OCA; OGC
	OPA available to use Communications Plan to answer media inquiries. NO blog OR press release planned.	R-IV; OPA
Oct 3	JLD/NRO/RES completes preliminary assessment of published report and management decision is made if any additional actions should be taken prior to the submittal of the seismic reevaluation in March 2015. Updates to communication plan as appropriate	JLD/NRO/RES/RIV
As requested	Complete a Commissioners Assistants Brief	R-IV; NRR

1. Questions and Answers

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?

In accordance with the guidance in the October 12, 2012, letter transmitting 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.

NRC Resident Inspectors, and Region IV staff looked at the licensee's documentation in

their corrective action process assessing new preliminary information concerning DCPD seismic and licensing bases. The licensee's information did not indicate there is an immediate threat to public health and safety nor did it call into question the ability of SSCs to perform their specified safety functions or necessary and related support functions.

In addition, the NRC staff's review of the new seismic information in the report notes that PG&E's evaluation concludes that 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.

The NRC will review the new information provided in the report to the State of California including the Shoreline Fault characteristics, and the updated characteristics associated with the soil properties near the site. The NRC staff will take additional regulatory action as appropriate if the NRC staff concludes that the new information associated with the Shoreline Fault causes the NRC to revisit the conclusions in the RIL.

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

Yes, in accordance with the guidance in the October 12, 2012, letter transmitting RIL 2012-001, PG&E has provided the information to the NRC. In addition, the report was also provided to address license renewal issues (see question 8).

3. What does the new report state?

The new report includes information obtained from 2-dimensional and 3-dimensional high energy and low-energy seismic surveys both onshore and offshore of the DCPD site. The report provides more details on the regional faults, including more precise readings and additional data points where previously there were gaps. While a lot of the information from the previous Shoreline Fault report of 2011 was confirmed, some of the new data suggests the following:

- Reduced slip rate on the Hosgri Fault Zone and the Shoreline Fault Zone
- Postulated connecting the Hosgri and the San Simeon faults which could result in a longer, larger, but more infrequent earthquake
- The unique geometry involved with intersecting the Hosgri Fault and the Shoreline Fault Zone results in an extension of a few kilometers, but with a lower frequency of occurrence
- Extension of the Shoreline Fault zone southern segment
- The new data does not alter the assessment of the closest approach of the Shoreline fault to DCPD which is 600 meters from the power block and 300 meters from the intake structure. Because the Shoreline fault is considered to be somewhat longer, potential earthquakes could also occur farther from the plant.
- Updated analysis for the San Luis Bay, and Los Osos faults

The report concludes that the ground motions for the Hosgri and LTSP evaluations continue to bound potential ground motions from the regional faults, including the Shoreline Fault, San Luis Bay, Los Osos, San Simeon and Hosgri. The DCPD continues to operate safely within the seismic margin they were designed to withstand.

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

PG&E plans to incorporate the findings from Bill 1632 report into their ongoing analysis required by the NRC Post-Fukushima task force recommendations due in March 2015. The NRC believes this more rigorous analysis will provide the most accurate assessment of faults affecting the DCP.

(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 things the plant has done since Fukushima: It is important to note that DCP 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).

5. Why is the report "final" for the state but "preliminary" for the NRC?

For the State, the report is final. For the NRC, this information is expected to be incorporated into the more comprehensive 50.54f analysis due to the NRC in March 2015. However, because the licensee must notify the NRC of any new seismic info, they have shared this report and an initial operability evaluation showing why the plant is safe to continue to operate. The NRC has looked at the information in the report and its preliminary assessment is that based on the information presented by PG&E the new information associated with Faults near DCP does not result in ground motions above those from the previously considered seismic hazard.

6. Why didn't the NRC discover the length of the faults when it did its seismic review of the Shoreline fault in 2011 prior to issuing the RIL?

California Assembly Bill 1632 (Blakeslee, Chapter 722, Statutes of 2006) directs the California Energy Commission to assess the potential vulnerability of California's largest base-load 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 2D and 3D geophysical mapping techniques, which are commonly used in offshore petroleum resource exploration. These techniques provide higher-resolution data than what was available to characterize the Shoreline Fault in the 2011 report.

The NRC has requested licensees of operating nuclear power reactors to submit a seismic hazard reevaluation using up-to-date methodologies and analyses which is due for DCP in March 2015.

7. What is the impact of this new information on seismic design and licensing of DCP?

Based on the preliminary results of the studies that are under review, PG&E determined that

the Shoreline Fault Zone may be capable of producing somewhat larger earthquakes than considered in the January 2011 Shoreline report. The NRC staff is independently assessing PG&E's determination. The process outlined in the 50.54(f) letter includes a detailed analysis of new seismic information (including shoreline faults and other faults around the plant). PG&E is scheduled to provide this assessment in the March 2015 time frame. The staff will continue to review the information in the new CA 1632 report and the final results of the new data from the more rigorous analysis to be completed by March 2015. The NRC staff will take appropriate regulatory action up to and including issuing Orders to ensure safe operation of the plant.

8. Will the Report be considered in the License Renewal Process

Yes. In addition to the report being developed to address California Assembly Bill 1632, PG&E is providing the report to the State of California as part of the State of California coastal zone consistency certification associated with the license renewal for DCCP. The State of California coastal zone consistency certification is considered by the NRC during the license renewal environmental review process. In addition, the Atomic Safety and Licensing Board (ASLB) has expressed interest in the report because it is associated with a contention that is under consideration by the ASLB in the license renewal process (see ML14224A320).

From: Sebrosky, Joseph
To: Williams, Megan; Farnholtz, Thomas; Walker, Wayne
Subject: FW: suggested language
Date: Wednesday, September 10, 2014 6:48:00 AM
Attachments: DC_Calif_seismic_rpt_comm_plan_9-9-14_rev_miw.docx
DC_Calif_seismic_rpt_comm_plan_9-10-14_am_revision_1.docx

Megan,

I found your comments extremely helpful. I did not incorporate all of them. Based on discussions with Tom Hipschman last night the first bullet for key messages was changed back to something closer to the original. I am including Tom and Wayne on the email so they are aware of the basis for some of the changes in the communication plan which are a direct result of your comments.

Thanks for the help. If I screwed something up and you have time to call me before the 8:30 am call please do so, so I can attempt to address it right off the bat.

Thanks,

Joe

-----Original Message-----

From: Williams, Megan
Sent: Tuesday, September 09, 2014 3:46 PM
To: Sebrosky, Joseph
Subject: RE: suggested language

Joe,

I have suggested to some edits to the Q&As. I don't think the answer to #6 is very good (as written), but not a great answer in of itself, so not sure about improvements to that one.

Sure I am your favorite person right now, but thanks for lettering me offer my comments.

Thanks for your hard work.

r/,

megan

From: Williams, Megan
Sent: Tuesday, September 09, 2014 2:52 PM
To: Sebrosky, Joseph
Subject: suggested language

Proposed language for key points of comm plan:

- NRC staff is intimately familiar with the seismic hazards at Diablo Canyon and our seismic experts have been looking at this in detail for many years.
- Based on a preliminary review of PG&Es seismic report by NRC staff, there is no new information to suggest that there is an immediate safety concern. This preliminary review included assessment of the licensee's current actions in accordance with inspection guidance for having reasonable assurance of operability, pending further evaluation. The information does not indicate there is an immediate threat to public health and safety nor call into question the ability of SSCs to perform their specified safety functions or necessary and related support functions.
- The NRC staff will continue to review the technical details of the report to independently evaluate

the new information regarding seismic hazard for DCP and take additional regulatory action as appropriate if the new information associated with the Shoreline Fault changes the results of the preliminary evaluation.

- PG&E will incorporate the findings from Bill 1632 report into their ongoing analysis required by the NRC Post-Fukushima task force recommendations due in March 2015. The NRC believes this more rigorous analysis will provide the most accurate assessment of faults affecting the DCP.

thanks, joe.

r/,

megan

From: Sebrosky, Joseph

Sent: Tuesday, September 09, 2014 12:18 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

UPDATED: 09/25/2014 3:27 PM

Communications Plan –
Diablo Canyon Power Plant Topics of Interest
State of California Seismic Report (ABN-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 a different and more extensive data set than what was used for the 2011 Shoreline Fault evaluation.

The purpose of this communication plan is to provide key messages associated with the public release of this report.

Key Messages

1. NRC Resident Inspectors, and Region IV staff looked at the licensee's documentation in their corrective action process assessing new preliminary information concerning DCPD seismic and licensing bases. The licensee's information did not indicate there is an immediate threat to public health and safety nor did it call into question the ability of SSCs to perform their specified safety functions or necessary and related support functions.

In addition, the NRC staff's review of the new seismic information in the report notes that PG&E's evaluation concludes that 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.

2. 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.
3. PG&E plans to incorporate the findings from Bill 1632 report into their ongoing analysis required by the NRC Post-Fukushima task force recommendations due in March 2015. The NRC believes this more rigorous analysis will provide the most accurate assessment of faults affecting the DCPD.

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
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
Jon Ake	Senior Seismologist	RES/DE/SGSEB	301-251-7695
Eric Oesterle	Acting Branch Chief	NRR/DORL/LPLIV	301-415-1014
Balwant Singal	DCP Project Manager	NRR/DORL/LPLIV	301-415-3016
Scott Burnell	Public Affairs Officer	OPA	301-415-8204
Angel Moreno	Congressional Affairs	OCA	301-415-1697
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

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. The table below is based on a target public release date of the report on September 10, 2014.

Timeframe	Action	Responsible Party(ies)
Sept 8	PG&E provides a draft of the report in the electronic reading room for initial staff assessment	PG&E
Sept 9	PG&E notifies NRC of seismic report submittal to the state of California	PG&E

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~~SENSITIVE INTERNAL INFORMATION – NOT FOR PUBLIC RELEASE~~

Timeframe	Action	Responsible Party(ies)
Sept 10	PG&E/Diablo Canyon Power Plant submit seismic report to the state of California and issue a press release	PG&E
Promptly (within Sept 10+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/DLR; NRR/JLD OPA; OCA; OGC
	OPA available to use Communications Plan to answer media inquiries. NO blog OR press release planned.	R-IV; OPA
Oct 3	JLD/NRO/RES completes preliminary assessment of published report and management decision is made if any additional actions should be taken prior to the submittal of the seismic reevaluation in March 2015. Updates to communication plan as appropriate	JLD/NRO/RES/RIV
As requested	Complete a Commissioners Assistants Brief	R-IV; NRR

1. **Questions and Answers**

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?

In accordance with the guidance in the October 12, 2012, letter transmitting 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.

NRC Resident Inspectors, and Region IV staff looked at the licensee's documentation in their corrective action process assessing new preliminary information concerning DCP seismic and licensing bases. The licensee's information did not indicate there is an

immediate threat to public health and safety nor did it call into question the ability of SSCs to perform their specified safety functions or necessary and related support functions.

In addition, the NRC staff's review of the new seismic information in the report notes that PG&E's evaluation concludes that 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.

The NRC will review the new information provided in the report to the State of California including the Shoreline Fault characteristics, and the updated characteristics associated with the soil properties near the site. The NRC staff will take additional regulatory action as appropriate if the NRC staff concludes that the new information associated with the Shoreline Fault causes the NRC to revisit the conclusions in the RIL.

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

Yes, in accordance with the guidance in the October 12, 2012, letter transmitting RIL 2012-001, PG&E has provided the information to the NRC. In addition, the report was also provided to address license renewal issues (see question 8).

3. What does the new report state?

The new report includes information obtained from 2-dimensional and 3-dimensional high energy and low-energy seismic surveys both onshore and offshore of the DCCP site. The report provides more details on the regional faults, including more precise readings and additional data points where previously there were gaps. While a lot of the information from the previous Shoreline Fault report of 2011 was confirmed, some of the new data suggests the following:

- Reduced slip rate on the Hosgri Fault Zone and the Shoreline Fault Zone
- Postulated connecting the Hosgri and the San Simeon faults which could result in a longer, larger, but more infrequent earthquake
- The unique geometry involved with intersecting the Hosgri Fault and the Shoreline Fault Zone results in an extension of a few kilometers, but with a lower frequency of occurrence
- Extension of the Shoreline Fault zone southern segment
- The new data does not alter the assessment of the closest approach of the Shoreline fault to DCCP which is 600 meters from the power block and 300 meters from the intake structure. Because the Shoreline fault is considered to be somewhat longer, potential earthquakes could also occur farther from the plant.
- Updated analysis for the San Luis Bay, and Los Osos faults

The report concludes that the ground motions for the Hosgri and LTSP evaluations continue to bound potential ground motions from the regional faults, including the Shoreline Fault, San Luis Bay, Los Osos, San Simeon and Hosgri. The DCCP continues to operate safely within the seismic margin they were designed to withstand.

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

PG&E plans to incorporate the findings from Bill 1632 report into their ongoing analysis required by the NRC Post-Fukushima task force recommendations due in March 2015. The NRC believes this more rigorous analysis will provide the most accurate assessment of faults affecting the DCPD.

(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 things the plant has done since Fukushima: It is important to note that DCPD 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).

5. Why is the report "final" for the state but "preliminary" for the NRC?

For the State, the report is final. For the NRC, this information is expected to be incorporated into the more comprehensive 50.54f analysis due to the NRC in March 2015. However, because the licensee must notify the NRC of any new seismic info, they have shared this report and an initial operability evaluation showing why the plant is safe to continue to operate. The NRC has looked at the information in the report and its preliminary assessment is that based on the information presented by PG&E the new information associated with Faults near DCPD does not result in ground motions above those from the previously considered seismic hazard.

6. Why didn't the NRC discover the length of the faults when it did its seismic review of the Shoreline fault in 2011 prior to issuing the RIL?

California Assembly Bill 1632 (Blakeslee, Chapter 722, Statutes of 2006) directs the California Energy Commission to assess the potential vulnerability of California's largest base-load 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 2D and 3D geophysical mapping techniques, which are commonly used in offshore petroleum resource exploration. These techniques provide higher-resolution data than what was available to characterize the Shoreline Fault in the 2011 report.

The NRC has requested licensees of operating nuclear power reactors to submit a seismic hazard reevaluation using up-to-date methodologies and analyses which is due for DCPD in March 2015.

7. What is the impact of this new information on seismic design and licensing of DCPD?

Based on the preliminary results of the studies that are under review, PG&E determined that

the Shoreline Fault Zone may be capable of producing somewhat larger earthquakes than considered in the January 2011 Shoreline report. The NRC staff is independently assessing PG&E's determination. The process outlined in the 50.54(f) letter includes a detailed analysis of new seismic information (including shoreline faults and other faults around the plant). PG&E is scheduled to provide this assessment in the March 2015 time frame. The staff will continue to review the information in the new CA 1632 report and the final results of the new data from the more rigorous analysis to be completed by March 2015. The NRC staff will take appropriate regulatory action up to and including issuing Orders to ensure safe operation of the plant.

8. Will the Report be considered in the License Renewal Process

Yes. In addition to the report being developed to address California Assembly Bill 1632, PG&E is providing the report to the State of California as part of the State of California coastal zone consistency certification associated with the license renewal for DCP. The State of California coastal zone consistency certification is considered by the NRC during the license renewal environmental review process. In addition, the Atomic Safety and Licensing Board (ASLB) has expressed interest in the report because it is associated with a contention that is under consideration by the ASLB in the license renewal process (see ML14224A320).

From: Sebrosky, Joseph
To: Kanatas, Catherine
Cc: Roth(OGC), David; Keegan, Elaine; Wittick, Brian; Uselding, Lara
Subject: action: quick look at question in Diablo comm plan associated with license renewal
Date: Wednesday, September 10, 2014 6:40:00 AM
Attachments: DC_Calif_seismic_rpt_comm_plan_9-10-14_am_revision_1.docx

Cathy,

Can you please look at question 8 in the attached communication plan associated with the Diablo Canyon State of California report and its impact on license renewal and let me know if you have any comments on the proposed answer. I am hoping to finalize comments this morning in support of an expected release of the State of California report at 2:00 pm eastern time today.

Any insights would be appreciated.

Thanks,

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

UPDATED: 09/25/2014 3:28 PM

Communications Plan –
Diablo Canyon Power Plant Topics of Interest
State of California Seismic Report (ABN-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 a different and more extensive data set than what was used for the 2011 Shoreline Fault evaluation.

The purpose of this communication plan is to provide key messages associated with the public release of this report.

Key Messages

1. NRC Resident Inspectors, and Region IV staff looked at the licensee's documentation in their corrective action process assessing new preliminary information concerning DCPD seismic and licensing bases. The licensee's information did not indicate there is an immediate threat to public health and safety nor did it call into question the ability of SSCs to perform their specified safety functions or necessary and related support functions.

In addition, the NRC staff's review of the new seismic information in the report notes that PG&E's evaluation concludes that 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.

2. 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.
3. PG&E plans to incorporate the findings from Bill 1632 report into their ongoing analysis required by the NRC Post-Fukushima task force recommendations due in March 2015. The NRC believes this more rigorous analysis will provide the most accurate assessment of faults affecting the DCPD.

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
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
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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

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. The table below is based on a target public release date of the report on September 10, 2014.

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	OPA available to use Communications Plan to answer media inquiries. NO blog OR press release planned.	R-IV; OPA
Oct 3	JLD/NRO/RES completes preliminary assessment of published report and management decision is made if any additional actions should be taken prior to the submittal of the seismic reevaluation in March 2015. Updates to communication plan as appropriate	JLD/NRO/RES/RIV
As requested	Complete a Commissioners Assistants Brief	R-IV; NRR

1. **Questions and Answers**

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?

In accordance with the guidance in the October 12, 2012, letter transmitting 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.

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The NRC will review the new information provided in the report to the State of California including the Shoreline Fault characteristics, and the updated characteristics associated with the soil properties near the site. The NRC staff will take additional regulatory action as appropriate if the NRC staff concludes that the new information associated with the Shoreline Fault causes the NRC to revisit the conclusions in the RIL.

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

Yes, in accordance with the guidance in the October 12, 2012, letter transmitting RIL 2012-001, PG&E has provided the information to the NRC. In addition, the report was also provided to address license renewal issues (see question 8).

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The new report includes information obtained from 2-dimensional and 3-dimensional high energy and low-energy seismic surveys both onshore and offshore of the DCPD site. The report provides more details on the regional faults, including more precise readings and additional data points where previously there were gaps. While a lot of the information from the previous Shoreline Fault report of 2011 was confirmed, some of the new data suggests the following:

- Reduced slip rate on the Hosgri Fault Zone and the Shoreline Fault Zone
- Postulated connecting the Hosgri and the San Simeon faults which could result in a longer, larger, but more infrequent earthquake
- The unique geometry involved with intersecting the Hosgri Fault and the Shoreline Fault Zone results in an extension of a few kilometers, but with a lower frequency of occurrence
- Extension of the Shoreline Fault zone southern segment
- The new data does not alter the assessment of the closest approach of the Shoreline fault to DCPD which is 600 meters from the power block and 300 meters from the intake structure. Because the Shoreline fault is considered to be somewhat longer, potential earthquakes could also occur farther from the plant.
- Updated analysis for the San Luis Bay, and Los Osos faults

The report concludes that the ground motions for the Hosgri and LTSP evaluations continue to bound potential ground motions from the regional faults, including the Shoreline Fault, San Luis Bay, Los Osos, San Simeon and Hosgri. The DCPD continues to operate safely within the seismic margin they were designed to withstand.

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

PG&E plans to incorporate the findings from Bill 1632 report into their ongoing analysis required by the NRC Post-Fukushima task force recommendations due in March 2015. The NRC believes this more rigorous analysis will provide the most accurate assessment of faults affecting the DCPD.

(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 things the plant has done since Fukushima: It is important to note that DCPD 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).

5. Why is the report "final" for the state but "preliminary" for the NRC?

For the State, the report is final. For the NRC, this information is expected to be incorporated into the more comprehensive 50.54f analysis due to the NRC in March 2015. However, because the licensee must notify the NRC of any new seismic info, they have shared this report and an initial operability evaluation showing why the plant is safe to continue to operate. The NRC has looked at the information in the report and its preliminary assessment is that based on the information presented by PG&E the new information associated with Faults near DCPD does not result in ground motions above those from the previously considered seismic hazard.

6. Why didn't the NRC discover the length of the faults when it did its seismic review of the Shoreline fault in 2011 prior to issuing the RIL?

California Assembly Bill 1632 (Blakeslee, Chapter 722, Statutes of 2006) directs the California Energy Commission to assess the potential vulnerability of California's largest base-load 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 2D and 3D geophysical mapping techniques, which are commonly used in offshore petroleum resource exploration. These techniques provide higher-resolution data than what was available to characterize the Shoreline Fault in the 2011 report.

The NRC has requested licensees of operating nuclear power reactors to submit a seismic hazard reevaluation using up-to-date methodologies and analyses which is due for DCPD in March 2015.

7. What is the impact of this new information on seismic design and licensing of DCPD?

Based on the preliminary results of the studies that are under review, PG&E determined that

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the Shoreline Fault Zone may be capable of producing somewhat larger earthquakes than considered in the January 2011 Shoreline report. The NRC staff is independently assessing PG&E's determination. The process outlined in the 50.54(f) letter includes a detailed analysis of new seismic information (including shoreline faults and other faults around the plant). PG&E is scheduled to provide this assessment in the March 2015 time frame. The staff will continue to review the information in the new CA 1632 report and the final results of the new data from the more rigorous analysis to be completed by March 2015. The NRC staff will take appropriate regulatory action up to and including issuing Orders to ensure safe operation of the plant.

8. Will the Report be considered in the License Renewal Process

Yes. In addition to the report being developed to address California Assembly Bill 1632, PG&E is providing the report to the State of California as part of the State of California coastal zone consistency certification associated with the license renewal for DCP. The State of California coastal zone consistency certification is considered by the NRC during the license renewal environmental review process. In addition, the Atomic Safety and Licensing Board (ASLB) has expressed interest in the report because it is associated with a contention that is under consideration by the ASLB in the license renewal process (see ML14224A320).

From: Sebrosky, Joseph
To: "Soenen, Philippe R"
Subject: Info: basis for June 2017 SPRA date
Date: Tuesday, September 09, 2014 1:45:00 PM

Philippe,

The basis for the June 2017 SPRA date can be found in the letter at the following link:

<http://pbadupws.nrc.gov/docs/ML1310/ML13101A345.html>

Specifically if you look at attachment 3 of the above link it gives you various time frames based on the results of the seismic reevaluation. Based on prioritization the SPRA submittal schedule could be as early as June 2017. As noted in the table there is a range of possible submittal dates.

Sorry for asking the question without first checking with the folks here. Let me know if you have any questions or if I am missing something.

Sincerely,

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: [Uhle, Jennifer](#)
Cc: [Markley, Michael](#); [Oesterle, Eric](#); [Lund, Louise](#)
Subject: info: electronic version of draft project plan
Date: Tuesday, September 09, 2014 12:21:00 PM
Attachments: [Diablo State of California seismic report review plan revision 4.docx](#)

Jennifer,

Attached is the draft project plan that we discussed with you. It has links to ADAMS documents that are referenced. It is a work in progress and is continuously being revised.

Please let me know if you have any questions.

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

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

9/9/14 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 expected outcome of the assessment is a recommendation to management as to whether or not the NRC's processes associated with new seismic information as it relates to Diablo Canyon and which are described in NRC letters dated March 12, 2012¹, October 12, 2012², and February 20, 2014³ 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 2D and 3D mapping to compile this report. This is a different and more extensive data set than what was used for 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

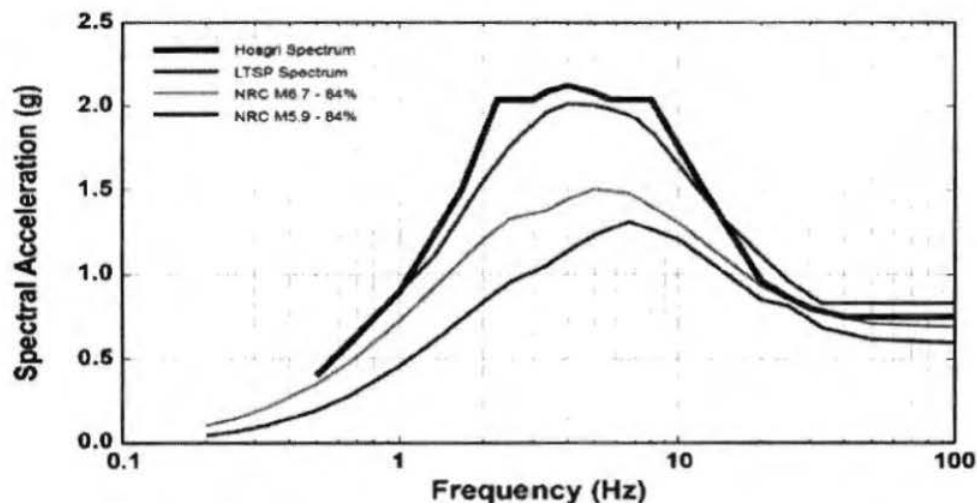
¹ The March 12, 2012, request for information is available under ADAMS Accession No. [ML12053A340](#)

² The October 12, 2012, letter is available under ADAMS Accession No. [ML120730106](#)

³ The February 20, 2014, letter is available under ADAMS Accession No. [ML14030A046](#)

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 DCPD, 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 DCPD. 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.

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 (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."

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

Review time for this process should be charged to the following tac numbers:

- MF4750, DIABLO CANYON 1 - Review Diablo Canyon Seismic Report Submitted to the State and Other Associated Activities
- MF4751, DIABLO CANYON 2 - Review Diablo Canyon Seismic Report Submitted to the State and Other Associated Activities

The staff will review the new seismic information when it is provided the opportunity. Based on PG&E's preliminary description of the information in the State of California report, the staff originally considered assessing 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 NRC staff provided a list of information needs to PG&E on September 3, 2014, in order to calculate a seismic core damage frequency consistent with the approach in the EPRI report. The NRC staff requested feedback from PG&E on whether or not the information could be provided to the staff in the September 2014 time frame. PG&E informed the staff in a September 8, 2014, phone call that PG&E would not be able to provide all of the necessary information to calculate a new seismic core damage frequency until March of 2015. The staff is therefore considering the following approach to review the new seismic information:

- Perform a qualitative assessment of changes to the seismic core damage frequency based on a sensitivity analysis found in the State of California report that compares the new information to the PG&E's 2011 Shoreline Fault evaluation (ADAMS Accession No. [ML110140431](#)). Although a seismic core damage frequency cannot be calculated, a qualitative assessment of changes to the seismic core damage frequency discussed in PG&E's shoreline fault report maybe useful.

- Perform a focused deterministic calculation using PG&E's new seismic information (including seismic 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.
- Determine whether or not an update to an assessment discussed in a May 29, 2014, NRC memorandum, "Differing Professional Opinion Involving Seismic Issues at Diablo Canyon (DPO-2013-002)," (ADAMS Accession Nos. [ML14153A658](#), and [ML14163A673](#)) is appropriate. Section 4.2.1, "Technical Assessment of the Potential for Seismic Loads on SSCs to Exceed Previously Analyzed Conditions," includes a discussion that PG&E calculated in-structure acceleration response spectra as the basis for comparison between the ground motions in the 2011 PG&E Shoreline report to the ground motions used in the updated final safety analysis report. The staff will inquire as to whether PG&E has updated this calculation based on the new seismic information in the State of California report.

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)	Status
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	complete
Sept 8	PG&E provides feedback to the staff on whether or not it can provide information to the staff by Sept 22 to calculate a seismic core damage frequency. On September 8 PG&E informed the staff that this information would not be available until March 2015.	PG&E	complete
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 23	Publicly noticed phone call to discuss seismic issues	NRC/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	

Timeframe	Action	Responsible Party(ies)	Status
October 3	NRC management makes decision on how to proceed	NRC management	
October 10	As appropriate, based on outcome of October 3 decision, NRC provides letter documenting interim assessment of new seismic information in State of California report	NRC	

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, Scott Stovall, Thomas Weaver

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: [Seibrosky, Joseph](#)
To: [Stovall, Scott](#); [Munson, Clifford](#); [Williams, Megan](#); [Li, Yong](#); [Hipschman, Thomas](#); [Walker, Wayne](#); [Cesterle, Eric](#); [Singal, Balwant](#); [Markley, Michael](#); [Jackson, Diane](#); [DiFrancesco, Nicholas](#); [Whaley, Sheena](#); [Uselding, Lara](#); [Burnell, Scott](#); [OKeefe, Neil](#); [Farnholtz, Thomas](#); [Manoly, Kamal](#); [Reynoso, John](#); [Hill, Brittain](#); [Dudek, Michael](#); [Buchanan, Theresa](#); [Kock, Andrea](#); [Weaver, Thomas](#)
Cc: [Kanas, Catherine](#); [Roth\(OGC\), David](#)
Subject: internal meeting to determine if changes to the communication plan for the Diablo Canyon State of California report need to be made based on a preliminary assessment of the report (Tac MF4750, MF4751)
Start: Tuesday, September 09, 2014 2:00:00 PM
End: Tuesday, September 09, 2014 3:00:00 PM
Location: HQ-TWFFN-07C02-20p
Attachments: [DC Calif seismic rpt comm plan 9-9-14 revision.docx](#)
[Diablo State of California seismic report review plan revision 4.docx](#)

Note: Scheduler updated to include latest revised version of the communication plan and project plan

Previous update to scheduler made to correct tac numbers in subject title (i.e., please use MF4750, and MF4751 for review) and to change the agenda to add a discussion about whether or not a publicly noticed phone call will be needed and changes to the project plan due to information to calculate a seismic core damage frequency not being available in the short term.

Bridge #: 888-677-0690

Passcode: (b)(6)

Purpose: For Cliff Munson, Megan Williams, Scott Stovall, and Yong Li, to provide a collective assessment on whether or not changes to the draft communication plan and draft project plan associated with the Diablo Canyon State of California report need to be made based on their quick look at the report

Outcome: Decision made on whether or not changes to communication plan and project plan need to be made

Agenda:

Cliff, Megan, Scott, and Yong, brief the team on their assessment of the information in the State of California report
Decision made on whether or not changes to the communication plan need to be made
Discussion of whether or not a publicly noticed phone call with PG&E will be needed in the September time frame

III. Discussion of changes to project plan based on information needed to calculate a seismic core damage frequency not being available in the short term
Changes to project plan made to: 1) condense purpose, 2) change review process section recognizing the that seismic core damage frequency cannot be calculated in the short term, 3) add the possibility of a publicly noticed phone call around mid-September, and 4) other miscellaneous changes

Next steps
Wrapup

UPDATED: 09/25/2014 3:29 PM09/09/2014 9:54 AM09/09/2014 9:45 AM09/09/2014 9:41 AM

Communications Plan –
Diablo Canyon Power Plant Topics of Interest
State of California Seismic Report (ABN-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 a different and more extensive data set than what was used for the 2011 Shoreline Fault evaluation.

The purpose of this communication plan is to provide key messages associated with the public release of this report.

Key Messages

- NRC staff is intimately familiar with the seismic hazards at Diablo Canyon and our seismic experts have been looking at this in detail for many years.
- The resident inspectors and regional staff reviewed the licensee's documentation in their corrective action process of new preliminary information concerning DCPD seismic and licensing bases that the Shoreline fault may be more capable than previously determined. The information did not indicate there is an immediate threat to public health and safety nor did it call into question the ability of SSCs to perform their specified safety functions or necessary and related support functions. The licensee's current actions meet the Manual Chapter 0326 guidance for having reasonable assurance of operability, pending further evaluation.
- Based on a preliminary review of PG&Es seismic report by NRC staff, there is no new information to suggest that there is an immediate safety concern.
- The seismic report does contain a lot of new information that the NRC needs to look at in more detail and put through our analytical models to more quantitatively refine our understanding of the seismic hazards.

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- The NRC will continue to review the new information in the report and will take additional regulatory action as appropriate if the NRC staff concludes that the new information associated with the Shoreline Fault causes the NRC to revisit its preliminary evaluation.
- Diablo Canyon will incorporate the Bill 1632 report's information into its March 2015 seismic hazard re-analysis submittal to the NRC.
-

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
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
Jon Ake	Senior Seismologist	RES/DE/SGSEB	301-251-7695
Eric Oesterle	Acting Branch Chief	NRR/DOR/LPLIV	301-415-1014
Balwant Singal	DCP Project Manager	NRR/DOR/LPLIV	301-415-3016
Scott Burnell	Public Affairs Officer	OPA	301-415-8204
Angel Moreno	Congressional Affairs	OCA	301-415-1697
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

Planned Communication Activities

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The contents on this communication plan, supplemented by information provided by PG&E/Diablo Canyon, should be used to accomplish these actions. The table below is based on a target public release date of the report on September 10, 2014.

Timeframe	Action	Responsible Party(ies)
Sept 8	PG&E provides a draft of the report in the electronic reading room for initial staff assessment	PG&E
Sept 9	PG&E notifies NRC of seismic report submittal to the state of California	PG&E
Sept 10	PG&E/Diablo Canyon Power Plant submit seismic report to the state of California and issue a press release	PG&E
Promptly (within Sept 10+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/DLR; NRR/JLD OPA; OCA; OGC
	OPA available to use Communications Plan to answer media inquiries. NO blog OR press release planned.	R-IV; OPA
Oct 3	JLD/NRO/RES completes preliminary assessment of published report and management decision is made if any additional actions should be taken prior to the submittal of the seismic reevaluation in March 2015. Updates to communication plan as appropriate	JLD/NRO/RES/RIV
As requested	Complete a Commissioners Assistants Brief	R-IV; NRR

1. Questions and Answers

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 documented 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

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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.

The resident inspectors and regional staff reviewed the licensee's documentation in their corrective action process of new preliminary information concerning DCPD seismic and licensing bases that the Shoreline fault may be more capable than previously determined. The information did not indicate there is an immediate threat to public health and safety nor did it call into question the ability of SSCs to perform their specified safety functions or necessary and related support functions. The licensee's current actions meet the Manual Chapter 0326 guidance for having reasonable assurance of operability, pending further evaluation.

The NRC will review the new information provided in the report to the State of California including the Shoreline Fault characteristics, and the updated characteristics associated with the soil properties near the site. The NRC staff will take additional regulatory action as appropriate if the NRC staff concludes that the new information associated with the Shoreline Fault causes the NRC to revisit the conclusions in the RIL.

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

The new information, required by the state of CA AB 1632, has been provided to the NRC and shows that some previously separated segments of the Shoreline fault system may be connected. These connections indicate that if the Shoreline Fault slips in the future, the earthquake magnitude from that slip might be somewhat higher than previously considered possible for the Shoreline Fault. However, the new data does not alter the assessment of the closest approach of the Shoreline fault to the DCPD. Because the Shoreline Fault is somewhat longer, potential earthquakes could also occur farther from the plant. For these reasons, PG&E continues to believe that the ground motions for the Hosgri and LTSP evaluations continues to bound potential ground motions from the Shoreline Fault.

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

The 1000-page document has also been given to the NRC (Japan Lessons Learned Directorate) to be considered in the 50.54(f) review. The new preliminary information regarding regional seismic 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. This requires an NRC-endorsed formal structured process to evaluate alternative interpretations when developing the final seismic hazard and Ground Motion Response Spectra (GMRS) that will be submitted to the NRC by March 2015. The updated seismic hazards will be used as an input to any Seismic Probabilistic Risk Assessment (SPRA) Diablo Canyon might have to submit 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 things the plant has done since Fukushima: It is important to note that

Comment [jms1]: 50.54(f) letter gives 3 years to do this which would be March 2018. What is the basis for the June 2017 date?

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DCPP 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. For the NRC, this information is expected to be incorporated into the more comprehensive 50.54f analysis due to the NRC in March 2015. However, because the licensee must notify the NRC of any new seismic info, they have shared this report and an initial operability evaluation showing why the plant is safe to operate. The NRC has looked at this evaluation and its preliminary assessment is that based on the information presented by PG&E the Shoreline Fault does not exceed previously considered seismic hazards.

5. Why didn't the NRC discover the length of the faults when it did its seismic review of the Shoreline fault in 2011 prior to issuing the RIL?

California Assembly Bill 1632 (Blakeslee, Chapter 722, Statutes of 2006) directs the California Energy Commission to assess the potential vulnerability of California's largest base-load 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 2D and 3D geophysical mapping techniques, which are commonly used in offshore petroleum resource exploration. These techniques provide higher-resolution data than what was available to characterize the Shoreline Fault in the 2011 report.

The NRC has requested licensees of operating nuclear power reactors to submit a seismic hazard reevaluation using up-to-date methodologies and analysis which is due for DCPP in March 2015.

6. What is the impact of this new information on seismic design and licensing of DCPP?

Based on the preliminary results of the studies that are under review, PG&E determined that the Shoreline Fault Zone may be capable of producing somewhat larger earthquakes than considered in the January 2011 PG&E report. The staff is independently assessing PG&E's determination. The process outlined in the 50.54(f) letter includes a detailed analysis of new seismic information (including shoreline faults and other faults around the plant). PG&E is scheduled to provide this assessment in the March 2015 time frame. The staff is currently reviewing the information in the Shoreline fault report and will assess the more complete assessment of new seismic information scheduled to be provided in the March 2015 time frame. The NRC staff will take appropriate regulatory action up to and including issuing Orders to ensure safe operation of the plant.

7. Will the Report be considered in the License Renewal Process

Yes. In addition to the report being developed to address California Assembly Bill 1632, PG&E is providing the report to the State of California as part of the State of California coastal zone consistency certification associated with the license renewal for DCPP. The

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State of California coastal zone consistency certification is considered by the NRC during the license renewal environmental review process. In addition, the Atomic Safety and Licensing Board (ASLB) has expressed interest in the report because it is associated with a contention that is under consideration by the ASLB in the license renewal process (see ML14224A320).

8. **The AP wire service recently reported that there is a Differing Professional Opinion (DPO) associated with NRC's evaluation of the Shoreline Fault. Why has the existence of this DPO only now been made public?**

The DPO process is a strictly controlled and formalized process within the agency that allows differing professional opinions to be thoroughly considered by the agency while at the same time protecting the privacy of the DPO submitter. A DPO was submitted and is still undergoing internal NRC review in accordance with this process. Until the NRC completes its internal review process for this DPO, the agency is unable to comment on any potential DPO resolution or documentation. Once the review is completed the agency will have a final decision on the DPO and associated documentation.

From: Soenen, Philippe R
To: Sebrosky, Joseph
Subject: PG&E attendees on phone call
Date: Monday, September 08, 2014 4:08:30 PM

Joe,

Below is a list of individuals from PG&E who participated on the phone call:

Rich Klimczak
Nozar Jahangir
Norm Abrahamson
Philippe Soenen

Philippe Soenen

Supervisor, Licensing
Regulatory Services - DCP
Office - 805.545.6984
Cell - (b)(6)

From: Sebrosky, Joseph
To: Munson, Clifford
Subject: FW: Access requests
Date: Monday, September 08, 2014 2:47:00 PM

-----Original Message-----

From: Soenen, Philippe R [<mailto:PNS3@pge.com>]
Sent: Monday, September 08, 2014 2:15 PM
To: Sebrosky, Joseph
Subject: Fwd: Access requests

Joe,

Cliff should have received the new login information.

Philippe Soenen

Sent from my iPhone

Begin forwarded message:

From: Dale Lawson <dale.lawson@certrec.com<<mailto:dale.lawson@certrec.com>>>
Date: September 8, 2014 at 11:04:32 AM PDT
To: Philippe R Soenen <pns3@pge.com<<mailto:pns3@pge.com>>>
Subject: Access requests

I have sent Munson a new verification code email as well as an email to Stoval regarding his access. Stoval already had a Certrec account and he should be able to access your site with his credentials. I have asked him to contact me if he's having any difficulties doing that.

As soon as Munson receives his verification email and logs in he will have access as well. Please let me know if there is anything else I can help you with. Thank you and thanks for using Certrec for your regulatory needs.

Dale Lawson

Customer Support Specialist II

Certrec Corporation

4150 International Plaza, Suite 820

Fort Worth, TX 76109

P: 817-738-7661

F: 866-635-1869

support@certrec.com<<mailto:support@certrec.com>>

PG&E is committed to protecting our customers' privacy.

To learn more, please visit <http://www.pge.com/about/company/privacy/customer/>

From: Sebrosky, Joseph
To: [Williams, Megan](#)
Cc: [Walker, Wayne](#)
Subject: FW: DCPD Electronic Reading Room
Date: Monday, September 08, 2014 1:04:00 PM

Megan,

Cliff and Scott are having troubles accessing the site. I will keep you informed of the resolution for them. In the interim, please let me know if you are experiencing problems accessing the site through certrec.

Thanks,

Joe

From: Soenen, Philippe R [<mailto:PNS3@pge.com>]
Sent: Monday, September 08, 2014 12:59 PM
To: Sebrosky, Joseph; Munson, Clifford
Subject: FW: DCPD Electronic Reading Room

Philippe Soenen

Supervisor, Licensing
Regulatory Services - DCPD
Office - 805.545.6984
Cell - (b)(6)

From: Dale Lawson [<mailto:dale.lawson@certrec.com>]
Sent: Friday, September 05, 2014 7:22 AM
To: Soenen, Philippe R
Subject: Re: DCPD Electronic Reading Room

Good morning Philippe,

Sorry for the delay in responding to your request. The 4 NRC individuals below now have access to the PG&E ERR site and all but Scott Stovall have been notified via our system of their new access or account that was set up.

Scott Stovall – Already had access to Certrec and the PG&E site has been added.

Cliff Munson – Already had an account but never used his verification code to activate it. He's been sent another verification email.

Megan Williams – Did not have access but has now been sent the verification email.

Yong Li – Did not have access either but the email has been sent.

I will be sending Scott an email shortly to let him know. We are also working on ensuring they only have access to the Diablo Canyon library. At the moment they will have restricted