

FOIA/PA NO: 2014-0065 (Group B)

RECORDS BEING RELEASED IN THEIR ENTIRETY

From: Sebrosky, Joseph
To: Sebrosky, Joseph
Subject: RE: quick discussion related to withdrawal of Diablo Canyon seismic license amendment request
Date: Tuesday, December 03, 2013 7:27:06 AM

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

From: Sebrosky, Joseph
Sent: Wednesday, June 13, 2012 10:48 AM
To: Sebrosky, Joseph; Lund, Louise; Markley, Michael
Subject: quick discussion related to withdrawal of Diablo Canyon seismic license amendment request
When: Friday, June 15, 2012 9:00 AM-9:30 AM (UTC-05:00) Eastern Time (US & Canada).
Where: Louise's office

Purpose: To gain approval for a proposal that PG&E withdraw their 10/20/2011 license amendment request related to evaluation process for new seismic information based solely on the 3/12/12 50.54(f) letter

Outcome: Decision made on whether or not to proceed with the proposal. If the proposal is approved, next steps are identified

Agenda:

I. Background

- a. 10/20/2011 LAR expected to be withdrawn based on 3/12/12 request for information and issuance of the RIL
- b. RIL delayed

II. Proposal

- a. 10/20/2011 LAR withdrawn based solely on 3/12/12 50.54(f) letter

III. Considerations if proposal is accepted

- a. Need to schedule the Ed Halpin DORL management call
 - i. Expectations on what will be discussed during the call, including the withdrawal letter providing milestones
 - ii. Other items
- b. Need to inform internal stakeholders prior to the call
 - i. Update comm. Plan?

IV. Next steps

V. Wrapup

From: Sebrosky, Joseph
To: Sebrosky, Joseph
Subject: RE: internal meeting to discuss next steps regarding diablo canyon seismic license amendment review
Date: Tuesday, December 03, 2013 7:22:16 AM

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

From: Sebrosky, Joseph
Sent: Thursday, March 01, 2012 6:37 AM
To: Sebrosky, Joseph; Wang, Alan; Markley, Michael; Harrison, Donnie; Hiland, Patrick; Evans, Michele; Lund, Louise; Giitter, Joseph; Manoly, Kamal; Li, Yong; Cheok, Michael; Cox, Linda; Richards, Karen; Harper, Kevin; HQ-OWFN-13G04-20p; Kammerer, Annie; Gratton, Christopher; Cook, Christopher; Munson, Clifford; Miller, Ed; Subin, Lloyd; Murphy, Martin; OKeefe, Neil; Sebrosky, Joseph
Cc: DORLCAL Resource
Subject: internal meeting to discuss next steps regarding diablo canyon seismic license amendment review
When: Tuesday, March 06, 2012 1:00 PM-2:00 PM (UTC-05:00) Eastern Time (US & Canada).
Where: HQ-OWFN-13G04-20p

Purpose: To discuss path forward regarding Diablo Canyon's seismic license amendment request

Outcome: Delineate a path forward that provides a definitive regulatory footprint and considers Region IV concerns

Process:

I. Background

- a. License amendment received 10/20/2011
 - i. Proposes to establish Hosgri Fault as Safe Shutdown Earthquake (SSE) in licensing basis (current licensing basis consists of a design earthquake (DE) and Double Design Earthquake (DDE) and Hosgri.
 - a. The DE and DDE are roughly equivalent to the operating basis earthquake and safe shutdown earthquake
 - b. The Hosgri seismic zone was discovered in 1971, while the plant was under construction. A deterministic evaluation was used to perform an updated seismic hazard assessment, which concluded that 0.75g was the peak ground motion on site. As a result, PG&E made changes to safety-related systems in the plant to be able to withstand a 0.75g peak ground motion at the site that could be generated by the Hosgri seismic zone.
 - ii. Proposes to establish methodology in licensing basis for treating new seismic information
 - b. Three new faults have been discovered and studied as part of PG&E's Long Term Seismic Program:
 - i. The Shoreline fault, which is 600 meters from the plant (300 meters from the

intake structure) and can generate a 0.6g peak ground motion at the plant.

ii. The Los Osos fault, which is about 10 miles to the north of the plant, can generate 0.6g peak ground motion at the plant.

iii. The San Luis Bay fault, which is located about 7 miles to the south of the plant, can generate 0.7g peak ground motion at the plant.

iv. PG&E combined these three faults using the highest values from each. After studying the new faults, PG&E performed an evaluation to determine the greatest possible ground motion at the Diablo Canyon site. By comparing the new ground motion to the existing Hosgri Earthquake, PG&E concluded that the plant impact would be less than the more limiting Hosgri Earthquake.

v. Research issued RIL 09-01 for preliminary assessment of shoreline fault in 2009.

a. Licensee submitted shoreline report in 2011

b. Staff in the process of updating RIL which should be issued in March 2011

II. Issues with license amendment and basis for non acceptance

a. Basis for rejecting Hosgri as SSE portion of the review

i. Clarifying the Hosgri earthquake as the SSE (10 CFR 100, Appendix A) – licensee has treated this as an administrative change only, and hasn't addressed the evaluation of SSC's that the SRP would specify that needs to be performed. Methodologies and acceptance limits for SSCs using Hosgri fault differ from that specified in SRP.

ii. Has not completed its reevaluation of the Reactor Coolant System for the seismic and LOCA loads.

b. Basis for rejecting methodology

i. Did not provide a Seismic PRA (peer reviewed)

ii. Concerns about using seismic margins assessment for operability assessment

III. Proposed headquarters path forward (at the branch chief reviewer level)

a. Have licensee withdraw the license amendment request and rely on process outlined in SECY 12-0025 as articulated in enclosure 7 of SECY 12-0025 regarding recommendation 2.1

*"A hazard evaluation consistent with
Recommendation 2.1 will be implemented in two
phases as follows:*

- *Phase 1: Issue 50.54(f) letters to all licensees to request they reevaluate the seismic and flooding hazards at their sites using updated seismic and flooding hazard information and present-day regulatory guidance and methodologies and, if necessary, to request they perform a risk evaluation. The evaluations associated with the requested information in this letter do not revise the design basis of the plant. This letter implements Phase 1.*

- *Phase 2: Based upon the results of Phase 1, the NRC staff will determine whether additional regulatory actions are necessary (e.g., update the design basis and SSCs important to safety) to provide additional protection against the updated hazards."*

- b. Proposed 50.54(f) language establishes methodology and process for reevaluating design basis
 - i. Renders the original need for the license amendment moot
 - ii. Reviewing the license amendment and the responses to the 50.54(f) letter would stress NRC resources and offer little gain
- c. Updated RIL 09-01 to be issued in March 2011 will provide staff's assessment of the shoreline fault in the near term

IV. Region IV concerns with headquarters approach

- a. If the license amendment is withdrawn, then the chance to update the licensing basis in the near term to address new seismic information will be missed.
- b. Believes that PG&E still wants to pursue a license amendment to clarify their licensing basis regardless of the 50.54(f) letter.
- c. Concerned about the timeliness of the 50.54(f) process and believes that there is a near term need to update the licensing basis to address the shoreline fault and potentially other faults (e.g., Los Osos, and San Luis Bay).

V. Options and decision

- a. Use the 50.54(f) process with an addition to attempt to address Region IV concerns

i. Add a discussion to the cover letter transmitting the updated RIL that will articulate that staff's position that the approach the licensee took comparing the shoreline fault to the Hosgri is reasonable in the interim until the 50.54(f) process potentially updates the design basis in the long term. May also add a discussion of the comparisons that were done for Los Osos and San Luis Bay.

ii. Licensee could possibly use the NRC letter to update the FSAR to include a discussion of the shoreline fault, Los Osos, and San Luis Bay using the 50.59 process

b. Other options

i. Have some portion of the license amendment resubmitted by the licensee

ii. ?

VI. Decision on how to proceed

VII. Next steps

Hill, Leslie

From: Sebrosky, Joseph
Sent: Monday, February 27, 2012 6:26 AM
To: Markley, Michael
Cc: Manoly, Kamal; Li, Yong; Kammerer, Annie
Subject: FW: direction from Eric on DC
Attachments: Diablo Canyon seismic amendment acceptance review.docx

Mike,

I have fundamental issue with the attached POP, because as explained below, I don't understand our regulatory basis for requiring the actions outlined in the POP.

- 1) I am fundamentally missing the regulatory basis that would require a **license amendment** to incorporate the shoreline fault into the FSAR. I understand 50.71(e) requires them to update the FSAR, but what 50.59 criteria turns this into something that requires a license amendment? I reread the 50.59 criteria, and I am not sure which one gets tripped requiring that the licensee submit a license amendment. My read of the requirements is that they can add the shoreline fault evaluation to the FSAR (thus meeting the requirements of 50.71(e)) without the NRC's prior approval. Please let me know if I am missing something here.
- 2) What is the regulatory basis for requiring the FSAR to be updated to evaluate the Hosgri fault as the SSE for Diablo? The Hosgri is already in their licensing basis as well as the DE and the DDE. Requiring the licensee to update their licensing basis to the Hosgri meeting current SRP criteria is something of a stretch to me. Short of issuing an order citing adequate protection, I don't understand the requirement for a license amendment.
- 3) I understand requesting that the licensee submit a license amendment identifying the process that they will use to evaluate new seismic information. I can see extracting such a commitment from the licensee but **requiring** them to provide such a process seems to me to be a stretch.

Bottom line is that I have a problem with the options in the attached POP because I do not understand the fundamental requirement for a license amendment and thus the basis for a confirmatory action letter. Please let me know if I am missing something.

Thanks,

Joe

From: Lund, Louise
Sent: Friday, February 24, 2012 3:24 PM
To: Sebrosky, Joseph; Markley, Michael
Cc: Evans, Michele
Subject: direction from Eric on DC

Joe,

I had a quick chat with Eric Leeds this morning concerning how to treat the non-acceptance of DC's license amendment request. I've summarized the path forward in the attached POP – which provides a stronger regulatory footprint than what we currently have by using the contents of their withdrawal letter, which we would expect that they would want to submit, to reflect in a CAL to tie down their commitments.

Please provide me with feedback on the POP, as we will have to meet with Eric again on this with the affected HQ parties, to ensure that this path is sound. Eric will then want to communicate this approach to Elmo as a recommended strategy to address the RIV concerns.

Thanks,

Louise

**POP on Proposed Non-Acceptance of
Diablo Canyon Seismic License Amendment Request
February 24, 2012**

PURPOSE: Discuss path forward regarding Diablo Canyon's seismic license amendment request

EXPECTED OUTCOMES: Delineate a path forward that provides a definitive regulatory footprint and considers RIV concerns

PROCESS:

Background:

License amendment request submitted 10/20/11:

- 1) Proposes to establish Hosgri Fault as Safe Shutdown Earthquake (SSE) in licensing basis (current licensing basis somewhat murky on this topic)
- 2) Proposes to establish methodology in licensing basis for treating new seismic information

Discussion:

Basis of DE non-acceptance of LAR

Clarifying the Hosgri earthquake as the SSE (10 CFR 100, Appendix A) – licensee has treated this as an administrative change only, and hasn't addressed the evaluation of SSC's that the SRP would specify that needs to be performed. Methodologies and acceptance limits for SSCs using Hosgri fault differ from that specified in SRP.

Has not completed its reevaluation of the Reactor Coolant System for the seismic and LOCA loads.

Basis for DRA non-acceptance of LAR

Did not provide a Seismic PRA (peer reviewed)

Concerns about using seismic margins assessment for operability assessment

Proposed Path Forward:

Communicate basis for non-acceptance to licensee, including what information needs to be provided for FSAR update and resolving LAR deficiencies, and have dialogue with licensee regarding projected time frames for new submittal and re-

submittal. Licensee to commit to necessary submittals in withdrawal letter, which NRC would confirm through Confirmatory Action Letter.

Staff expectations of Diablo Canyon specific to their seismic licensing basis:

Absent a methodology for considering and incorporating new seismic information into their licensing basis (as requested by 10/20/11 LAR), consistent with 50.71(e) the licensee would be expected to submit:

- 1) New amendment to incorporate Shoreline fault into licensing basis, citing their Shoreline report (submitted to the NRC in January 2011) and our soon-to-be released RIL on the report (target date for RIL issuance is 2/2012, and will serve as basis for public meeting in Spring time frame) – should be able to develop amendment fulfilling 50.71(e)

Regarding the current LAR, advise Diablo Canyon that we cannot accept current submittal for review, and our view of path for resolving issues that prevented staff from accepting LAR:

- 2) Re-submit in a timely way a more rigorous evaluation of Hosgri fault as SSE, addressing DE and DRA concerns:
 - a. Reevaluation of the Reactor Coolant System for the seismic and LOCA loads – required date?
 - b. Provide revised methodologies of evaluation and acceptance criteria that conforms with SRP for SSCs – required date?
 - c. Provide a fully functional seismic PRA, resolving outstanding gaps identified in 10/21/11 LRA submittal and fully peer reviewed – required date?
- 3) Split off the part of the LRA request concerning the methodology for considering new seismic information, and consider request in light of additional information submitted in #2 as part of 50.54(f) response for Tier 1 Activity 2.1 – required date?

From: [Sebrosky, Joseph](#)
To: [Sebrosky, Joseph](#)
Subject: RE: internal meeting to discuss status and path forward for acceptance review of Diablo Seismic license amendment
Date: Tuesday, December 03, 2013 7:18:17 AM
Attachments: [diablo seismic issues dirl-de-dra briefing.docx](#)

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

From: Sebrosky, Joseph
Sent: Thursday, February 09, 2012 11:45 AM
To: Sebrosky, Joseph; Wang, Alan; Markley, Michael; Harrison, Donnie; Patel, Jigar; Hiland, Patrick; Evans, Michele; Lund, Louise; Giitter, Joseph; Manoly, Kamal; Li, Yong; Cheok, Michael; Cox, Linda; Richards, Karen; Harper, Kevin
Cc: Kammerer, Annie; DORLCAL Resource
Subject: internal meeting to discuss status and path forward for acceptance review of Diablo Seismic license amendment
When: Monday, February 13, 2012 1:30 PM-2:30 PM (UTC-05:00) Eastern Time (US & Canada).
Where: HQ-OWFN-13G04-20p

To all,

I am the new PM for Diablo Canyon. I have been requested to arrange a meeting between DORL, DE and DRA division management to discuss the options associated with rejecting in whole or in part a recent Diablo Canyon seismic license amendment. Attached is a **draft** of the agenda for the meeting.

It is expected that the draft agenda will change based on feedback from DRA and DE. The hoped for outcome of the meeting is a clear understanding of the current status of the license amendment acceptance review and alignment on the path forward at the NRR level.

There will be a separate scheduler for another meeting with RIV to discuss the issue and to reach alignment with RIV on the issue. It is expected that this issue will eventually be discussed at the Eric Leeds - Elmo Collins level.

Please let me know if you have any questions.

Thanks,

Joe

B/4

Agenda for Briefing of DORL/DE/DRA Management
On Diablo Canyon Seismic Issues
2/13/12

Purpose:

1. To brief DORL, DRA and DE management on the status of Diablo Canyon Seismic License Amendment Review
2. To discuss options associated with completely or partially rejecting the submittal
3. To discuss concerns that RIV has if the submittal is completely rejected
4. Gain alignment on the next steps including NRR director and regional administrator

Outcome: Clear understanding of the current status and alignment on path forward in key areas

- I. Agenda
 - a. Status of review of license amendment request dated 10/20/11 to revise seismic licensing basis
 - b. RIV concerns if license amendment request is rejected in whole
 - c. ongoing licensee efforts
 - d. options going forward
- II. Status of license amendment to revise seismic licensing basis
 - a. Received 10/20/11
 - i. LAR would provide process for addressing new seismic information
 - ii. Clarify the DCPP safe shutdown earthquake as the 1977 Hosgri earthquake (HE) fault line as the equivalent DCPP safe shutdown earthquake
 - b. Supplemented on December 6, 2011, to provide SRP comparison tables
 - i. Identifies areas where the LAR does not meet current SRP guidance
 - c. Staff plans to reject in whole or in part the LAR on the following bases (see enclosure 1 for more detail):
 - i. LAR does not meet the provisions in the new SRP
 - ii. Reevaluation of the RCS for the seismic and LOCA loads not yet completed
 1. Inappropriate to complete the LAR review without knowing the results of this reanalysis
 - iii. Licensee has not provided a seismic PRA
 - d. Decision needs to be made on whether to fully reject or partially reject submittal

III. RIV concerns

- a. Rejecting submittal in whole or in part will complicate operability review
 - i. Near term issuance of results shoreline report will not address operability piece
 - ii. Fukushima proposed 50.54 letter will not address operability issues in the short term
- b. Stakeholder interactions
 - i. Perceive that NRC is continuing to delay action
- c. Extremely problematic from Regional perspective
 - i. Believe discussions and the Eric Leeds Elmo Collins level need to happen before this option is pursued

IV. Other licensing issues

- a. 50.54(f) letter
- b. RIV non concurrence on inspection report regarding operability
 - i. LAR review was assumed to address underlying non concurrence issues
- c. Shoreline report review
 - i. Mentioned above
 - ii. Research information letter expected sometime this month
 - iii. Letter to licensee including NRR's assessment of the RIL expected to be issued sometime this spring
 - iv. RIV arranged Public meeting at Diablo Canyon based on NRR letter expected sometime this spring
- d. Licensee continues to work with California Coastal Commission and USGS to update seismic information

V. Options

- a. Reject LAR in whole
 - i. Licensee most likely withdraw LAR
 - ii. 50.54(f) letter would be issued around same time as withdrawal
 - iii. Extremely problematic from RIV perspective
- b. Partially reject with opportunity to supplement
- c. Other options
- d. Regardless of option chosen a communication plan will be developed

VI. Decision on options and path forward

VII. Wrapup

Basis for DE Denial of Diablo Canyon 1&2 LAR 11-05

The staff finds PG&E license amendment request (PG&E Letter DCL-097) unacceptable based on two counts. In the referenced letter, PG&E states that the purpose of the LAR is to, "... clarify that the 1977 Hosgri earthquake (HE) is the equivalent of DCPP's safe shutdown earthquake (SSE), as defined in 10 CFR 100, Appendix A." However, in the discussion of its evaluation criteria (PG&E Letter DCL-11-124), PG&E indicated that the evaluation of SSCs does not meet the provision specified in the NRC Standard Review Plan since DCPP was not licensed pursuant to 10 CFR 100. PG&E further stated that it is not committing by the submission of the LAR to any part of 10 CFR 100. In the referenced letter, in response to the NRC staff's request, PG&E provided an enclosure containing a tabulation of all deviations where the methodologies and acceptance limits used in the evaluation of structures and components for the HE are deviating from the provisions in the SRP. The enclosure identified a vast tally of such deviations relating to SRP Sections 2.5, 3.7, 3.8, 3.9, 3.10, 3.12 and 5.4. The staff acknowledges that DCPP was not licensed to 10 CFR 100 and, thus, its original design was not expected to be in conformance with the SRP. However, considering that the current request is seeking to amend the DCPP license, the staff expects that the evaluation of the HE as the equivalent of DCPP's SSE should meet the provisions of the SRP in that regard. To evaluate the proposed HE as an SSE utilizing acceptance limits exceeding those specified in the SRP for the SSE is unacceptable from technical and regulatory perspectives. There are implicit design margins for structures and components that are associated with the design for SSE. The proposed amendment explicitly reduces the accepted inherent margins in the design for SSE.

The second reason for not accepting the requested LAR is that, despite staff's disagreement on the evaluation criteria proposed for the SSE as discussed above, PG&E stated that it has not completed its reevaluation of the Reactor Coolant System (RCS) for the seismic and LOCA loads. PG&E anticipates that such evaluation will be completed after NRC review of the LAR (requested date September 2012). The RCS is a major part of ASME class 1 systems. Even if the staff had found the evaluation criteria acceptable, a safety determination cannot be made in absence of reviewing a summary of the evaluation and results from the reanalysis of major safety components.

Basis for DRA Denial

Email below provides basis for denial. This information is to be updated to include a discussion of the possibility of supplementing the LRA to provide the results of the gap analysis.

From: Patel, Jigar
Sent: Thursday, January 19, 2012 4:49 PM
To: Wang, Alan
Cc: Harrison, Donnie
Subject: Diablo LAR 11-05 Talking Points

Alan,

The primary reason for rejecting this application is the licensee did not provide a Seismic PRA (SPRA) and therefore lacks PRA quality information as well. The submittal states that a gap assessment is underway and any outstanding gaps will be addressed in future seismic PRA updates. The staff requires a fully functional SPRA to approve this request. In addition, the staff has concerns for using seismic margins assessment (SMA) for operability determinations as this is a policy question and will most likely require Commission guidance and input from other Divisions as well as the Regions.

The methodology described in the submittal could be sent to the NRC as a generic topical report (TR). Once the TR is approved, the licensee can submit plant-specific information including SPRA for approval.

Please let me know if you have any questions.

Thanks,

Jigar J. Patel
NRR Division of Risk Assessment
U.S. Nuclear Regulatory Commission

From: Sebrosky, Joseph
To: Sebrosky, Joseph
Subject: RE: internal meeting to discuss diablo seismic review
Date: Tuesday, December 03, 2013 7:17:21 AM

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

From: Sebrosky, Joseph
Sent: Thursday, February 09, 2012 3:35 PM
To: Sebrosky, Joseph; Lund, Louise; Markley, Michael; Evans, Michele; Cox, Linda
Cc: DORLCAL Resource
Subject: internal meeting to discuss diablo seismic review
When: Friday, February 10, 2012 8:30 AM-9:00 AM (UTC-05:00) Eastern Time (US & Canada).
Where: Michele's office

Louise,

Per your request, I am in tomorrow, and it looks like Mike is available tomorrow based on his calendar.

Purpose: To continue discussion regarding status of Diablo seismic reviews

Outcome: clear understanding of the status and process forward

Agenda: Agenda for Briefing of Michelle Evans and Louise Lund

On Diablo Canyon Seismic Issues

2/xx/12

Purpose: To brief DORL management on the status of Diablo Canyon Seismic Issues

Outcome: Clear understanding of the current status and path forward in key areas

I. Background

a. 4 major licensing activities

i. Review of Diablo Canyon shoreline report dated January 2011

ii. Review of license amendment request dated 10/20/11 to revise seismic licensing basis

iii. Allegation information

iv. Non-concurrence on Region II inspection report associated with seismic operability evaluation

b. ongoing licensee efforts

II. Shoreline report

- a. Received January 2011
 - b. Center for Nuclear Waste Regulatory Analyses report received 2/3/2012
 - i. Concludes that the PGE report provides a comprehensive summary and assessment of the available geologic, geophysical, and seismological data used to evaluate the seismic hazard the shoreline fault poses to DCPP
 - ii. Report is sufficient to allow PG&E reasonable and defensible technical conclusions
 - iii. Center report will be folded into Research information letter (RIL)
 - c. Target date for RIL issuance is 2/2012
 - i. RIL will serve as basis for public meeting in the Spring time frame
- III. Status of license amendment to revise seismic licensing basis
- a. Received 10/20/11
 - i. LAR would provide process for addressing new seismic information
 - ii. Clarify the DCPP safe shutdown earthquake as the 1977 Hosgri earthquake (HE) fault line as the equivalent DCPP safe shutdown earthquake
 - b. Supplemented on December 6, 2011, to provide SRP comparison tables
 - i. Identifies areas where the LAR does not meet current SRP guidance
 - c. Staff plans to reject in whole or in part the LAR on the following bases:
 - i. LAR does not meet the provisions in the new SRP
 - ii. Reevaluation of the RCS for the seismic and LOCA loads not yet completed
 - 1. Inappropriate to complete the LAR review without knowing the results of this reanalysis
 - iii. Licensee has not provided a seismic PRA
 - d. Decision needs to be made on whether to fully reject or partially reject submittal
 - i. Rejecting submittal in whole or in part will complicate operability review
 - ii. Fukushima proposed 50.54 letter will address seismic issues
 - 1. Licensee believes the 50.54 requirements will be less restrictive than what they are proposing
- IV. Allegation – background and status

- a. Basis for closing out allegation with be RIL and center reports
- V. Region IV nonconcurrence on Diablo Canyon Seismic operability evaluation
- a. Non concurrence on inspection report followup associated with a nonconformance documented in IR 2011-005
 - i. Previous nonconcurrence associated with issue resolved on 11/9/11
- 1. Resolution referenced LAR
 - ii. New nonconcurrence based on proposed RIV inspection report
- b. Non-concurrence bases is that the licensee's prompt operability determination (POD) of the shoreline fault inadequate
 - i. POD failed to demonstrate that the RCS pressure boundary would be maintained following an DDE (Diablo licensing basis equivalent of a Safe shutdown earthquake)
 - ii. POD failed to demonstrate equipment necessary to prevent or mitigate an accident would remain functional following an SSE
 - iii. States an inoperable conclusion does not necessarily equate to an unsafe condition
- c. Region IV and headquarters view
 - i. No information to suggest that there is an immediate threat to public health and safety that would necessitate declaring any seismically non-conforming SSC inoperable
 - ii. Licensee's current actions meet the Part 9900 guidance for having reasonable assurance of operability, pending further evaluation
 - iii. Act of gaining NRC approval through above LAR facilitates the ability to assess operability
- d. If LAR is rejected in whole or in part – path forward to resolve non concurrence is complicated
- VI. Ongoing licensee efforts
- a. Licensee continues to work with California Coastal Commission and USGS to update seismic information
 - b. Status of efforts and interested stakeholders interactions
- VII. Next steps
- VIII. Wrapup

From: [Sebrosky, Joseph](#)
To: [Sebrosky, Joseph](#)
Subject: RE: internal meeting to discuss next steps regarding diablo canyon seismic license amendment review
Date: Tuesday, December 03, 2013 7:15:41 AM

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

From: Sebrosky, Joseph
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To: Sebrosky, Joseph; Wang, Alan; Markley, Michael; Harrison, Donnie; Hiland, Patrick; Evans, Michele; Lund, Louise; Gitter, Joseph; Manoly, Kamal; Li, Yong; Cheok, Michael; Cox, Linda; Richards, Karen; Harper, Kevin; HQ-OWFN-13G04-20p; Kammerer, Annie; Gratton, Christopher; Cook, Christopher; Munson, Clifford; Miller, Ed; Subin, Lloyd; Murphy, Martin; OKeefe, Neil; Sebrosky, Joseph
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 - i. The Shoreline fault, which is 600 meters from the plant (300 meters from the

B/6

- intake structure) and can generate a 0.6g peak ground motion at the plant.
- ii. The Los Osos fault, which is about 10 miles to the north of the plant, can generate 0.6g peak ground motion at the plant.
 - iii. The San Luis Bay fault, which is located about 7 miles to the south of the plant, can generate 0.7g peak ground motion at the plant.
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 - v. Research issued RIL 09-01 for preliminary assessment of shoreline fault in 2009.
 - a. Licensee submitted shoreline report in 2011
 - b. Staff in the process of updating RIL which should be issued in March 2011
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Recommendation 2.1 will be implemented in two
phases as follows:*

- *Phase 1: Issue 50.54(f) letters to all licensees to request they reevaluate the seismic and flooding hazards at their sites using updated seismic and flooding hazard information and present-day regulatory guidance and methodologies and, if necessary, to request they perform a risk evaluation. The evaluations associated with the requested information in this letter do not revise the design basis of the plant. This letter implements Phase 1.*

- *Phase 2: Based upon the results of Phase 1, the NRC staff will determine whether additional regulatory actions are necessary (e.g., update the design basis and SSCs important to safety) to provide additional protection against the updated hazards.”*

- b. Proposed 50.54(f) language establishes methodology and process for reevaluating design basis
 - i. Renders the original need for the license amendment moot
 - ii. Reviewing the license amendment and the responses to the 50.54(f) letter would stress NRC resources and offer little gain
 - c. Updated RIL 09-01 to be issued in March 2011 will provide staff's assessment of the shoreline fault in the near term

IV. Region IV concerns with headquarters approach

- a. If the license amendment is withdrawn, then the chance to update the licensing basis in the near term to address new seismic information will be missed.
- b. Believes that PG&E still wants to pursue a license amendment to clarify their licensing basis regardless of the 50.54(f) letter.
- c. Concerned about the timeliness of the 50.54(f) process and believes that there is a near term need to update the licensing basis to address the shoreline fault and potentially other faults (e.g., Los Osos, and San Luis Bay).

V. Options and decision

- a. Use the 50.54(f) process with an addition to attempt to address Region IV concerns

i. Add a discussion to the cover letter transmitting the updated RIL that will articulate that staff's position that the approach the licensee took comparing the shoreline fault to the Hosgri is reasonable in the interim until the 50.54(f) process potentially updates the design basis in the long term. May also add a discussion of the comparisons that were done for Los Osos and San Luis Bay.

ii. Licensee could possibly use the NRC letter to update the FSAR to include a discussion of the shoreline fault, Los Osos, and San Luis Bay using the 50.59 process

b. Other options

i. Have some portion of the license amendment resubmitted by the licensee

ii. ?

VI. Decision on how to proceed

VII. Next steps

From: Sebrosky, Joseph
To: Markley, Michael
Subject: FW: action: review of internal diablo canyon summary to be passed up the chain
Date: Wednesday, February 29, 2012 1:10:00 PM

Mike,

Marty wanted another internal meeting before the summary was issue. This did not happen. Thought you should know.

Joe

From: Murphy, Martin
Sent: Wednesday, February 29, 2012 12:40 PM
To: Sebrosky, Joseph
Subject: RE: action: review of internal diablo canyon summary to be passed up the chain

Yong forwarded this to me. I hope you have not sent it out yet.

I asked for another internal discussion. Do you know if anyone from OGC has been involved or contacted about the reading of the licensing basis for Diablo?

I think I understand RIVs position.

From: Li, Yong
Sent: Wednesday, February 29, 2012 11:48 AM
To: Murphy, Martin; Manoly, Kamal
Subject: FW: action: review of internal diablo canyon summary to be passed up the chain

FYI

From: Sebrosky, Joseph
Sent: Wednesday, February 29, 2012 11:46 AM
To: Markley, Michael
Cc: Li, Yong; OKeefe, Neil
Subject: action: review of internal diablo canyon summary to be passed up the chain

Mike,

Below is a draft of today's phone call. Please make any changes that you want or let me know the changes that you want made. I am fundamentally assuming that you will provide it to Louise and other SES managers as you deem appropriate. If you envision a different process please let me know.

Thanks,

Joe

>>>>>>>>>draft email>>>>>>>>>>>>>>>

To: Pat Hiland, Michele Evans, Louise Lund, Joe Giitter, Michael Cheok, Samson Lee

B/7

cc: Kamal Manoly, Annie Kammerer, Joe Sebrosky, Alan Wang, Yong Li

Subject: info: summary of internal call with Region IV to discuss Diablo Canyon Seismic license amendment review

The purpose of this email is to 1) provide you a summary of an internal phone call with Region IV to discuss the next steps regarding the Diablo Canyon seismic license amendment review, 2) to alert you that there is a difference of opinion regarding the next steps in the process, and 3) to inform you of plans for a meeting to discuss the next steps.

A phone call was held on 2/29/12 with Region IV to discuss the next steps for the Diablo Canyon seismic license amendment review. The attendees were: Kamal Manoly, Mike Markley, Marty Murphy, Neil O'Keefe, Yong Li, and Joe Sebrosky. The POP for the meeting is found below.

Highlights

Headquarters staff believes that the pending 50.54(f) letters obviates the need for a license amendment from Diablo Canyon. The basis is that the 50.54(f) contains a process for evaluating new seismic information rendering the need for the staff to approve PG&E's methodology moot. The headquarters staff also believes that there are fundamental issues with making the Hosgri earthquake the safe shutdown earthquake for the plant as articulated in the POP below.

Region IV is concerned that if the license amendment is withdrawn, then the chance to update the licensing basis in the near term to address new seismic information will be missed. The Region believes that PG&E still wants to pursue a license amendment to clarify their licensing basis regardless of the 50.54(f) letter. Region IV is also concerned about the timeliness of the 50.54(f) process and believes that there is a near term need to update the licensing basis to address the shoreline fault and potentially other faults (e.g., Los Osos, and San Luis Bay).

Alignment was not reached between the headquarters and Region IV positions. Headquarters staff indicated that it would brief its management chain on the results of the call and have an internal meeting to discuss the next steps and keep Region IV informed of the status of these discussions.

I have directed Joe Sebrosky to arrange a meeting next week with DE, DORL, and DRA management to discuss the issue and the next steps. You should be seeing a scheduler shortly.

Please let me know if you have any questions.

Thanks,

Mike

>>>>>>POP>>>>>>>>>>>>>>>>>

Purpose: To develop a recommendation for senior management regarding the next steps for the Diablo seismic license amendment review

Outcome: Alignment on recommendation

Process:

I. Background

- a. Email below provides projects recommendation going forward including a draft POP
- b. As discussed in email DORL/LPL4 has some issues with some of the proposals

II. Options

- a. Stay with options outlined in attached POP
- b. Modify options in attached POP as follows:
 - i. Delete expectation that shoreline fault be added to FSAR through license amendment
 - 1. Not sure what would require this to be done
 - 2. Inconsistent with current approach which is to treat new shoreline information through development of RIL that is transmitted to the licensee by a cover letter with NRR's safety evaluation attached.
 - ii. Delete Hosgri being identified as SSE through license amendment
 - 1. Although the Hosgri is in the Diablo licensing basis there is general consensus among the staff that the Hosgri was treated as a "beyond the design basis" event
 - 2. Requiring the Hosgri to become the safe shutdown earthquake would seem to require a backfit and more information that the 50.54(f) fukushima letters are trying to develop (see below)
 - a. Possibility as a result of the 50.54(f) process that Hosgri becoming the SSE may be an outcome
 - iii. Resubmit license amendment when seismic PRA has been peer reviewed so that methodology is reviewed
 - 1. Would provide a license amendment process for stakeholder interactions that the 50.54(f) process would not.
 - iv. Rely on 50.54(f) letter in part to address longer term concerns (need to understand if the 50.54(f) letter would be redundant to the methodology license amendment above)
 - 1. Enclosure 7 of SECY 12-0025 (Fukushima paper) states the following regarding recommendation 2.1, regarding seismic reevaluations:

"A hazard evaluation consistent with Recommendation 2.1 will be implemented in two phases as follows:

- *Phase 1: Issue 50.54(f) letters to all licensees to request they reevaluate the seismic and flooding hazards at their sites using updated seismic and flooding hazard information and present-day regulatory guidance and methodologies and, if necessary, to request they perform a risk evaluation. The evaluations associated with the requested information in this letter do not revise the design basis of the plant. This letter implements Phase 1.*
- *Phase 2: Based upon the results of Phase 1, the NRC staff will determine whether additional regulatory actions are necessary (e.g., update the design basis and SSCs important to safety) to provide additional protection against the updated hazards."*

c. Other options

- i. Retain some element of the Hosgri as the SSE as part of a resubmitted license amendment (e.g., as part of the methodology review, stipulate that new seismic information would only be reviewed against the Hosgri and not the DE and DDE. If new seismic information is bounded by the Hosgri then the plant is within its licensing basis.)

III. Decision on which option to recommend going forward

IV. Next steps

V. Adjourn

From: Sebrosky, Joseph
To: Lund, Louise; Markley, Michael
Cc: Wang, Alan
Subject: info: interest in timing for SES division phone call regarding diablo seismic LAR review during end of cycle discussions
Date: Tuesday, February 14, 2012 5:05:00 PM

Louise, and Mike,

It was mentioned during the end of cycle discussions for Diablo Canyon that Elmo Collins will be coming to headquarters next week. RIV expects the status of the Diablo seismic LAR acceptance review will be a topic that Elmo will want to discuss with Eric. RIV is not sure if Elmo will be talking with Eric on 2/22 or 2/23. Regardless, RIV would like to have the division SES call before Elmo has his discussion with Eric. I indicated during the discussion that a phone call with the NRR and RIV divisional management looked unlikely for this week based on feedback from Louise.

Thought you should know. Please let me know if you want me to take any action based on the above.

Sincerely,

Joe

From: Sebrosky, Joseph
To: Markley, Michael
Subject: diablo seismic issues dorl-de-dra briefing.docx
Date: Thursday, February 09, 2012 11:41:00 AM
Attachments: diablo seismic issues dorl-de-dra briefing.docx

Agenda for Briefing of DORL/DE/DRA Management
On Diablo Canyon Seismic Issues
2/13/12

Purpose:

1. To brief DORL/DRA and DE management on the status of Diablo Canyon Seismic License Amendment Review
2. To discuss options associated with completely or partially rejecting the submittal
3. To discuss concerns that RIV has if the submittal is completely rejected
4. Gain alignment on the next steps

Outcome: Clear understanding of the current status and alignment on path forward in key areas

I. Agenda

- a. Status of review of license amendment request dated 10/20/11 to revise seismic licensing basis
- b. RIV concerns if license amendment request is rejected in whole
- c. ongoing licensee efforts
- d. options going forward

II. Status of license amendment to revise seismic licensing basis

- a. Received 10/20/11
 - i. LAR would provide process for addressing new seismic information
 - ii. Clarify the DCPP safe shutdown earthquake as the 1977 Hosgri earthquake (HE) fault line as the equivalent DCPP safe shutdown earthquake
- b. Supplemented on December 6, 2011, to provide SRP comparison tables
 - i. Identifies areas where the LAR does not meet current SRP guidance
- c. Staff plans to reject in whole or in part the LAR on the following bases (see enclosure 1 for more detail):
 - i. LAR does not meet the provisions in the new SRP
 - ii. Reevaluation of the RCS for the seismic and LOCA loads not yet completed
 1. Inappropriate to complete the LAR review without knowing the results of this reanalysis
 - iii. Licensee has not provided a seismic PRA
- d. Decision needs to be made on whether to fully reject or partially reject submittal

III. RIV concerns

- a. Rejecting submittal in whole or in part will complicate operability review
 - i. Near term issuance of results shoreline report will not address operability piece
 - ii. Fukushima proposed 50.54 letter will not address operability issues in the short term
- b. Stakeholder interactions
 - i. Perceive that NRC is continuing to delay action
- c. Extremely problematic from Regional perspective
 - i. Believe discussions and the Eric Leeds Elmo Collins level need to happen before this option is pursued

IV. Other licensing issues

- a. 50.54(f) letter
- b. RIV non concurrence on inspection report regarding operability
 - i. LAR review was assumed to address underlying non concurrence issues
- c. Shoreline report review
 - i. Mentioned above
 - ii. Research information letter expected sometime this month
 - iii. Letter to licensee including NRR's assessment of the RIL expected to be issued sometime this spring
 - iv. RIV arranged Public meeting at Diablo Canyon based on NRR letter expected sometime this spring
- d. Licensee continues to work with California Coastal Commission and USGS to update seismic information

V. Options

- a. Reject LAR in whole
 - i. Licensee most likely withdraw LAR
 - ii. 50.54(f) letter would be issued around same time as withdrawal
 - iii. Extremely problematic from RIV perspective
- b. Partially reject with opportunity to supplement
- c. Other options
- d. Regardless of option chosen a communication plan will be developed

VI. Decision on options and path forward

VII. Wrapup

Basis for DE Denial of Diablo Canyon 1&2 LAR 11-05

The staff finds PG&E license amendment request (PG&E Letter DCL-097) unacceptable based on two counts. In the referenced letter, PG&E states that the purpose of the LAR is to, "... clarify that the 1977 Hosgri earthquake (HE) is the equivalent of DCPP's safe shutdown earthquake (SSE), as defined in 10 CFR 100, Appendix A." However, in the discussion of its evaluation criteria (PG&E Letter DCL-11-124), PG&E indicated that the evaluation of SSCs does not meet the provision specified in the NRC Standard Review Plan since DCPP was not licensed pursuant to 10 CFR 100. PG&E further stated that it is not committing by the submission of the LAR to any part of 10 CFR 100. In the referenced letter, in response to the NRC staff's request, PG&E provided an enclosure containing a tabulation of all deviations where the methodologies and acceptance limits used in the evaluation of structures and components for the HE are deviating from the provisions in the SRP. The enclosure identified a vast tally of such deviations relating to SRP Sections 2.5, 3.7, 3.8, 3.9, 3.10, 3.12 and 5.4. The staff acknowledges that DCPP was not licensed to 10 CFR 100 and, thus, its original design was not expected to be in conformance with the SRP. However, considering that the current request is seeking to amend the DCPP license, the staff expects that the evaluation of the HE as the equivalent of DCPP's SSE should meet the provisions of the SRP in that regard. To evaluate the proposed HE as an SSE utilizing acceptance limits exceeding those specified in the SRP for the SSE is unacceptable from technical and regulatory perspectives. There are implicit design margins for structures and components that are associated with the design for SSE. The proposed amendment explicitly reduces the accepted inherent margins in the design for SSE.

The second reason for not accepting the requested LAR is that, despite staff's disagreement on the evaluation criteria proposed for the SSE as discussed above, PG&E stated that it has not completed its reevaluation of the Reactor Coolant System (RCS) for the seismic and LOCA loads. PG&E anticipates that such evaluation will be completed after NRC review of the LAR (requested date September 2012). The RCS is a major part of ASME class 1 systems. Even if the staff had found the evaluation criteria acceptable, a safety determination cannot be made in absence of reviewing a summary of the evaluation and results from the reanalysis of major safety components.

Basis for DRA Denial

Email below provides basis for denial. This information is to be updated to include a discussion of the possibility of supplementing the LRA to provide the results of the gap analysis.

From: Patel, Jigar
Sent: Thursday, January 19, 2012 4:49 PM
To: Wang, Alan
Cc: Harrison, Donnie
Subject: Diablo LAR 11-05 Talking Points

Alan,

The primary reason for rejecting this application is the licensee did not provide a Seismic PRA (SPRA) and therefore lacks PRA quality information as well. The submittal states that a gap assessment is underway and any outstanding gaps will be addressed in future seismic PRA updates. The staff requires a fully functional SPRA to approve this request. In addition, the staff has concerns for using seismic margins assessment (SMA) for operability determinations as this is a policy question and will most likely require Commission guidance and input from other Divisions as well as the Regions.

The methodology described in the submittal could be sent to the NRC as a generic topical report (TR). Once the TR is approved, the licensee can submit plant-specific information including SPRA for approval.

Please let me know if you have any questions.

Thanks,

Jigar J. Patel
NRR Division of Risk Assessment
U.S. Nuclear Regulatory Commission