

JOINT COMMITTEE WORKSHOP
BEFORE THE
CALIFORNIA ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION

In the Matter of:)

Preparation of the AB 1632 Nuclear)
Power Plant Assessment Report,)
2008 Integrated Energy Policy)
Report Update, and the 2009)
Integrated Energy Policy Report)
_____)

Docket No.
07-AB-1632
Docket No.
08-IEP-1F

CALIFORNIA ENERGY COMMISSION
HEARING ROOM A
1516 NINTH STREET
SACRAMENTO, CALIFORNIA

MONDAY, OCTOBER 20, 2008

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COMMISSIONERS PRESENT

James D. Boyd, Vice Chair
State Liaison Officer to the US Nuclear Regulatory
Commission
Associate Member, Electricity and Natural Gas
Committee

ADVISORS PRESENT

Susan Brown

Laurie Ten Hope

STAFF and CEC CONTRACTORS PRESENT

Barbara Byron

Steven McClary, MRW & Associates

Suzanne Korosec

Donna Parrow

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

ALSO PRESENT

Fred Turner, Seismic Safety Commission

Gary L. Schoonyan, Southern California Edison

Pat Mullen, Pacific Gas and Electric Company

Scott Galati, Galati|Blek, representing Pacific
Gas and Electric Company

Dr. Lloyd Cluff, Pacific Gas and Electric Company

Rochelle Becker, Alliance for Nuclear
Responsibility

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P R O C E E D I N G S

9:05 a.m.

COMMISSIONER BOYD: Good morning, everybody. Welcome. I would like to welcome all of you to this morning's workshop. I think all of you have seen the Notice. If you haven't you probably wouldn't be here. You pretty well know the purpose of the meeting. It is to receive public comment on the draft report that is entitled now, quote, An Assessment of California's Nuclear Power Plants: AB 1632 Committee Report, close quote.

I am Jim Boyd, Vice Chair of the Commission, the State's liaison to the Nuclear Regulatory Commission. Therefore I get to oversee nuclear power and nuclear waste issues at the Commission.

I am a member of the Electricity and Natural Gas Committee, which is overseeing the AB 1632 assessment and the Committee responsible for the production of today's report.

This workshop is a joint workshop by the 2008 Integrated Energy Policy Report Committee and the Electricity and Natural Gas Committee.

However, the other members of those two

1 committees, and there's only three out of four
2 Commissioners because Commissioner Byron is both a
3 member of the -- in fact he's Chair of the
4 Electricity and Natural Gas Committee and of the
5 2008 Integrated Energy Policy Report Committee.
6 He and Chairman Pfannenstiel, who is the other
7 member of the Integrated Energy Policy Report
8 Committee, are both out of state. Leaving me the
9 sole responsibility for today's workshop.

10 To my left is my advisor Susan Brown.
11 To my right is Laurie Ten Hope, advisor for
12 Commissioner Byron, who is sitting in for him
13 today. And as I indicated he is the Presiding
14 Member of the Electricity and Natural Gas
15 Committee.

16 This is the third and final therefore of
17 the three public workshops that are being held on
18 the AB 1632 assessment. AB 1632 was authored by
19 Assemblyman Blakeslee, as we have noted in earlier
20 workshops. This is an important bill which
21 directs this Commission to assess the
22 vulnerability of California's large baseload
23 plants to a major disruption from an earthquake or
24 plant aging.

25 And because of the definitions in the

1 bill as to what constitutes a large baseload
2 plant, of which there really are four in
3 California, however, two of them operate at less
4 than 60 percent of their rated capacity, leaving
5 only two, the two nuclear plants that meet the
6 criteria of this legislation. Therefore they are
7 the two that are being assessed as to their
8 vulnerability to major disruptions from both
9 earthquakes and from plant aging.

10 These two plants, Diablo Canyon and San
11 Onofre, provide 12 percent of California's
12 electricity generation. Therefore their
13 reliability as plants and their potential
14 vulnerability to a major disruption, as well as
15 the costs and impacts from the accumulating
16 nuclear waste at these plants, are of concern to
17 the state and therefore to this Commission.

18 So today is an opportunity for
19 stakeholders and members of the public to help
20 provide comment on our draft AB 1632 Committee
21 Report. As you recall the last workshop was on
22 the consultant's report to the Committee. And the
23 Committee has taken all public testimony, all
24 submittals in the report, into consideration in
25 drafting this report. Which will be submitted

1 when we are complete, when we are finished with
2 it, to the Integrated Energy Policy Report
3 Committee and thus to the Commission. Which
4 intends to act on both by the deadline date for
5 the 2008 Integrated Energy Policy Report. Which
6 is next month, November of this year.

7 So we definitely look forward to your
8 comments today. There is a public comment period
9 that I believe closes in a couple more days. I'm
10 probably getting into some of Barbara's
11 presentation here. And therefore we will, of
12 course, take into account what we hear today from
13 those in the room and anyone on the telephone.
14 This is available to people who phone in. And
15 finalize our report to the Commission.

16 So with that I would like to begin the
17 proceeding with a presentation first by Suzanne
18 Korosec, who is Project Manager of the Integrated
19 Energy Policy Report. And then from Barbara
20 Byron, who is the Energy Commission's Project
21 Manager for the 1632 Assessment and our one and
22 only Senior Nuclear Policy Advisor. With Barbara
23 sitting at the table there is Steve McClary, who
24 was the project leader for the consultant study
25 team that completed the AB 1632 Assessment for the

1 Commission. And I see members of his staff.

2 Barbara's overview will be followed by
3 comments from stakeholders and the public. And
4 with that I would like to introduce Suzanne. I
5 should ask if Commissioner Byron's representative
6 has any comments.

7 ADVISOR TEN HOPE: Just really quickly
8 that Commissioner Byron is very interested in this
9 proceeding and will be reviewing your comments.
10 And I will be sure to convey any comments here
11 today for his consideration. Thanks.

12 COMMISSIONER BOYD: Suzanne.

13 MS. KOROSK: All right. You very
14 generously characterized my comments as a
15 presentation although it is mainly just a
16 logistical discussion. I see a lot of familiar
17 faces so I probably don't need to go through this
18 as much but it is part of the drill.

19 Restrooms are out the double doors to
20 your left. There is a snack room on the second
21 floor of the atrium under the white awning if you
22 want coffee or anything like that. And if there
23 is an emergency please follow the staff as we
24 leave the building to the park across the street
25 and gather there and wait for the all-clear

1 signal.

2 Today's workshop is being webcast. And
3 for parties who are listening in on the webcast
4 who wish to speak during the public comment period
5 the call-in number is 888-566-5914 and the
6 passcode is IEPR.

7 Before I turn things over to Barbara I
8 just want to make a quick comment about how this
9 proceeding works with the IEPR. As Commissioner
10 Boyd said, AB 1632 requires us to adopt this
11 assessment as part of the 2008 Integrated Energy
12 Policy Report. This analysis has been proceeding
13 in a parallel track to the IEPR and the
14 preliminary findings from the Consultant Report
15 were published in the draft version of the IEPR
16 that was released on September 25, which reflected
17 the information that we had as of that date.

18 The next final draft version of the IEPR
19 that is scheduled to be released on November 3
20 will contain the recommendations that were from
21 the Committee draft as well reflect any comment
22 that is received here today. Both reports are
23 scheduled to be adopted by the full Energy
24 Commission at the November 19 Business Meeting.
25 And the final IEPR will include the final

1 recommendations based on, as I said, based on the
2 information that we get today from the Committee
3 Report. So with that I'll turn it over to
4 Barbara.

5 MS. BYRON: Good morning, Commissioner,
6 good morning to you all. Suzanne gave those
7 calling in the phone numbers but just in case you
8 missed it here is the number again and the
9 passcode if you want to provide comments during
10 the public comment period.

11 This morning before we get into the
12 public comment period, for those who may not be
13 familiar with, although most of the people here
14 look familiar, I am sure I am covering old ground.
15 But I wanted to just give a little bit of
16 background on AB 1632 requirements. the process
17 that we followed in developing the Committee
18 Report. And then just to summarize some of the
19 key report recommendations before we get to our
20 public comment period.

21 As most of you know, AB 1632 requires
22 assessments of the potential impacts of a major
23 disruption of large baseload plants. And the two
24 plants, Diablo Canyon and San Onofre, meet the
25 definition in AB 1632, which is baseload plants

1 over 1700 megawatts. So our report focused on
2 these two plants.

3 These assessments will be adopted, as
4 Suzanne mentioned, as part of the 2008 IEPR.

5 And then subsequent updates will be
6 provided in future IEPRs as new data on potential
7 seismic hazards emerge.

8 The main, primary areas of assessments
9 that were completed in this study were the plant
10 vulnerability to a major disruption from a major
11 seismic event or plant aging. The potential
12 impacts of a disruption on reliability, public
13 safety and the economy. And the costs and impacts
14 of nuclear waste accumulation. As well as other
15 major policy issues related to these plants.

16 The process that we followed in
17 developing the Committee Report: First we began
18 with a major study. The Committee Report draws
19 upon this consultant study that was conducted by a
20 multi-disciplinary team which was led by MRW &
21 Associates. And as Commissioner Boyd introduced
22 Steve McClary, he led this effort. It was an
23 extraordinary effort and it was a very fine
24 product and a very important study.

25 The public process that we followed

1 included three public workshops as well as written
2 comments from stakeholders and interested parties
3 on the draft reports.

4 In setting up this assessment we wanted
5 to make sure it was an independent assessment. We
6 provided detailed requests to the plant owners but
7 the study team did not meet with the plant owners
8 nor with interested parties in developing this
9 assessment.

10 We also used or relied upon the
11 assistance of a Seismic Vulnerability Advisory
12 Team. It consisted of senior technical experts
13 from the California Seismic Safety Commission, the
14 California Geologic Survey and the California
15 Coastal Commission. And they provided periodic
16 review during the seismic assessment. And we want
17 to thank each of them for all of the time and
18 effort they have put into this, in helping us with
19 this assessment.

20 Now just a brief summary of some of the
21 major recommendations that came out of the study.
22 For seismic vulnerability the assessment
23 determined that we know a lot more about the
24 Diablo Canyon seismic hazard study. And one of
25 the recommendations that came from the study was

1 that Southern California Edison should develop an
2 active seismic hazards research program for San
3 Onofre that is similar to PG&E's Long-Term Seismic
4 Program.

5 The report also recommends that the
6 Energy Commission should evaluate the degree to
7 which using three-dimensional seismic reflection
8 mapping at both plants should be pursued, if it is
9 found to be cost-effective.

10 Some additional recommendations related
11 to seismic vulnerability are that in future IEPRs
12 PG&E and Edison should provide: Updates on their
13 seismic research efforts, including tsunami hazard
14 assessment. Also an assessment of the degree to
15 which non-safety-related plant components comply
16 with current seismic standards.

17 An assessment of the seismic
18 vulnerability implications of the changing seismic
19 standards since Diablo Canyon and SONGS were
20 designed and built in the 1970s and early 1980s.
21 And finally, an evaluation of the implications of
22 the 2007 K-K earthquake in Japan for the
23 California plants.

24 With respect to plant aging. The report
25 recommends that California should consider

1 requiring an independent safety oversight
2 committee for San Onofre. This stemmed from the
3 observation that Diablo Canyon has an independent
4 safety committee and San Onofre has been
5 experiencing some problems with safety culture.
6 So the Committee Report thought it was important
7 to consider also requiring an independent safety
8 oversight committee for San Onofre.

9 The Energy Commission should continue to
10 closely monitor NRC actions and review Diablo
11 Canyon and San Onofre's performance. Commissioner
12 Boyd is the State Liaison Officer to the Nuclear
13 Regulatory Commission. And in that capacity the
14 Energy Commission does monitor NRC actions with
15 respect to California's plants and that effort
16 should continue.

17 The report also recommends that the
18 Energy Commission should monitor safety culture
19 lapses at San Onofre and require Southern
20 California Edison to report on the progress in
21 developing and maintaining a strong safety culture
22 at the plant.

23 With respect to impacts of a major
24 disruption. The California ISO studies on aging
25 power plants and once-through cooling should be

1 completed as soon as possible to determine whether
2 further studies on unplanned outages are needed.

3 The Energy Commission and the Public
4 Utilities Commission and CAISO should further
5 evaluate uncertainties of extended outages at
6 Diablo Canyon and San Onofre and identify needed
7 replacement resources.

8 With respect to economic, environmental
9 and policy issues the report recommends that as
10 part of the license renewable feasibility studies
11 for Diablo Canyon and San Onofre that the Public
12 Utilities Commission should require PG&E and
13 Southern California Edison to study the local
14 economic impacts of shutting the plants down
15 compared with alternate uses of the site.

16 With respect to nuclear waste
17 accumulation. As part of the Public Utilities
18 Commission's decommissioning cost proceedings
19 utilities should provide estimates of the waste
20 disposal costs for low-level wastes and spent
21 nuclear fuel. Also their plans for storage,
22 transport and disposal of these wastes. And
23 finally, provide estimates of the amounts of waste
24 to be generated through a 20-year plant license
25 extension and through plant decommissioning.

1 With respect to power generation
2 options. The Committee report found that a more
3 detailed study of alternative power generation
4 options is needed to quantify the reliability,
5 economic and environmental impacts of replacement
6 power options. This study is being done under the
7 replacement power assessments by the utilities
8 with the Public Utilities Commission's guidance.

9 And finally with respect to license
10 renewal the Committee Report recommends that the
11 Energy Commission, with the Public Utilities
12 Commission, should develop a plan for reviewing
13 the overall costs and benefits of nuclear plant
14 license extensions. The scope of the evaluation
15 and the criteria for the assessment.

16 In this review the Committee Report
17 recommends that it include the plant safety
18 culture and maintenance, waste management plans,
19 seismic hazards, comparison with generation and
20 transmission alternatives, and contingency plans
21 for long-term outages.

22 And finally the schedule. Here are some
23 important dates. The Consultant Report was
24 released September 12. Our Draft Committee Report
25 was released October 10. And the written comments

1 on the Committee Report, which we are reviewing
2 today, are due October 22.

3 The Final Consultant Report is planned
4 to be released the end of this week, October 24.
5 And the Final Committee Report will be released
6 October 30. And as Commissioner Boyd mentioned,
7 the final findings and recommendations of this
8 Committee Report will be included in the 2008 IEPR
9 Update, with the Commission adoption on November
10 19. And now, Commissioner Boyd, for public
11 comments.

12 COMMISSIONER BOYD: Thank you, Barbara.
13 Just one comment. I am reminded, was reminded in
14 reviewing this report and your slides, the impacts
15 of major disruptions slide which makes reference
16 to CAISO's studies on the aging power plants and
17 once-through cooling needing to be completed as
18 soon as possible.

19 I just wanted to mention for the
20 audience's benefit that the Energy Commission has
21 been working with the CAISO and the State Water
22 Resources Control Board for quite some time on the
23 subject of once-through cooling. So while it gets
24 at our concerns about impacts of major
25 disruptions, we get at that question for this

1 study through the work that the CAISO is doing on
2 the impacts of once-through cooling on the system.

3 We have worked with them and the Water
4 Board on the work that they are doing on the
5 subject of once-through cooling because they are
6 under literally a mandate from the federal
7 government through the Clean Water Act Section
8 316b to look at the subject of once-through
9 cooling and its impact upon marine life.

10 So this is all part of a very large
11 issue that we have all been involved in for quite
12 some time. And it does affect these plants just
13 like it affects any coastal plant that is
14 utilizing the concept of once-through cooling in
15 the power plant. So I just wanted to mention
16 that. That we are quite cognizant of how this
17 hooks into multiple activities that are going on
18 within the state and with the utilities and with
19 other state agencies.

20 With that, any comments, questions here?

21 I am going to first call for public
22 comment -- Or for comment really, it's not the
23 public, per se. The California Seismic Safety
24 Commission, which is a sister agency that has -- I
25 want to thank them for the role that they have

1 played. They have been very active members of the
2 advisory committee on this project and we very
3 much appreciate that participation and their
4 steadfast and continuous participation in this
5 role.

6 As a four-decade or better in California
7 state government I know it is more difficult than
8 people think to have state agencies consistently
9 work together on things. And I very much
10 appreciate how the Seismic Safety Commission has
11 been there with us through this whole process. So
12 welcome.

13 MR. TURNER: Well thank you,
14 Commissioner Boyd. And good morning, Ms. Ten Hope
15 and Ms. Brown. I am Fred Turner from the staff of
16 the Seismic Safety Commission.

17 And we have written you a letter as of
18 last Friday with a number of recommendations. Our
19 Commissioners are offering to meet with you to
20 discuss the potential of developing more
21 comprehensive post-earthquake reliability goals
22 for the energy system as your work progresses.

23 So if you have any questions or concerns
24 I'd be happy to accept them. I may not be able to
25 answer any at this point but I will certainly

1 relay them back to our full commission. Thank
2 you.

3 COMMISSIONER BOYD: Well thank you. And
4 I have seen and read your letter. I appreciate
5 your comments. And we will take them into account
6 and probably take you up on your invitation to
7 discuss further the issue.

8 As indicated in the legislation, not
9 only is this topic to be considered through this
10 report in the 2008 Integrated Energy Policy Report
11 Update but the legislation also in effect requires
12 that we continuously look at the subject through
13 the Integrated Energy Policy Report process.

14 That process calls for -- The
15 legislation that set up that process calls for
16 major reports every other year, it happened to be
17 odd-numbered years, and updates in the even-
18 numbered years. This is an even-numbered year
19 report and just topics of particular interest in
20 the previous report or as suggested by, in this
21 case the Legislature, will be covered.

22 I guess it is a long way of saying that
23 the Integrated Energy Policy Report process
24 provides a full-time, real-time venue for the
25 discussion of energy problems in California. And

1 since the legislation asked us to continue to look
2 at this process we therefore have an open agenda,
3 an open door to always look at this process and
4 these processes.

5 And since I have been pulled back on to
6 the Integrated Energy Policy Report Committee
7 along with Commissioner Byron for the foreseeable
8 future, it certainly affords an easy transition
9 for me to continue with these subjects in that
10 venue and also provides our two agencies an
11 opportunity just to have a continuous dialogue on
12 the subject as we continue to learn more and more
13 about these issues with every given day.

14 MR. TURNER: Well thank you.

15 COMMISSIONER BOYD: We appreciate your
16 participation and your availability. Look forward
17 to talking to you some more.

18 Now going to, up forward the two
19 utilities who are subjected -- the subjects of
20 this report as well as subjected to this report.

21 (Laughter)

22 COMMISSIONER BOYD: The opportunity to
23 say something if they would like. I do not have
24 blue cards for them but I would offer. I guess
25 last time I called on PG&E first so this time I'll

1 ask Edison. I don't have a blue card but I see
2 them in the audience. Would you like to say
3 anything on the subject? And we'll call on PG&E
4 second. How is that for putting you on the spot,
5 Gary?

6 MR. SCHOONYAN: Thank you, Commissioner
7 Boyd. My comments will be very brief. We thank
8 you for the opportunity to comment and we will be
9 filing formal comments on the 22nd.

10 Most of the issues that appeared in the
11 recommendations also appeared in the Consultant
12 Report and we basically provided comments on that
13 and I am not going to repeat those here.

14 The one new item, Item number 14. And
15 I'm sure maybe PG&E will probably get into that a
16 little more. But I was reading the Seismic Safety
17 letter as well and they seemed to indicate that
18 there is a jurisdictional issue associated with
19 that particular recommendation. We have definite
20 concerns with regards to that recommendation to
21 re-rack the pools.

22 In closing, we do understand that there
23 is a high likelihood that many of these
24 recommendations or some varying of them would be a
25 part of any sort of a license renewal. And we

1 will likely be seeking additional funding to the
2 extent that there are requirements to move forward
3 with some of these in the future, thank you.

4 COMMISSIONER BOYD: Thank you, Gary.
5 PG&E.

6 MR. MULLEN: Good morning, Commissioner
7 Boyd, staff and members of the public and other
8 participants. And thank you for the opportunity
9 to participate again today. My name is Pat Mullen
10 representing Pacific Gas and Electric Company. I
11 have been coordinating our team's effort on this
12 process for almost the past two years now, at
13 least a year and a half. I apologize we didn't
14 fill out blue cards since we were on the agenda
15 but we certainly can at the end of this just to
16 have them in for the record.

17 COMMISSIONER BOYD: No, that's fine.
18 I'm just trained to reference blue cards.

19 MR. MULLEN: With me today to my right
20 is Scott Galati with Galati & Blek, whom you have
21 met before and has helped support us on this
22 effort. And also with us in the room today from
23 Pacific Gas and Electric Company are Mark Krausse,
24 our Director of State Agency Relations, Lloyd
25 Cluff, Dr. Lloyd Cluff with our Geosciences

1 Department, and Jennifer Post and John Busterud
2 with PG&E's Legal Department Environmental Law
3 Group.

4 Our comments will be much shorter this
5 time than they were last time. We do have written
6 comments that we are working on and will be
7 providing on the 22nd which will be in much more
8 detail. But we wanted to give you at least a
9 general overview on some of the areas that PG&E
10 will be providing comments on and give you an
11 opportunity if you have questions on what those
12 are to discuss them more today.

13 First of all I would like to again say
14 we appreciate the opportunity and have, in
15 participating in this process. Clearly it is very
16 important to the state when you look at the policy
17 issues related to planning for reliability issues
18 and the state's power needs.

19 As we have gone through the
20 recommendations we found that some of those
21 recommendations very clearly are in line with that
22 and in line with that charge for this Commission.
23 But we also find some of them, for us at least,
24 seem to go into areas that are in other
25 jurisdictional lines.

1 And that is one of the things as an
2 operator we want to obviously be very clear on.
3 Understanding which agency has jurisdiction on
4 certain issues and make sure we are working
5 appropriately with those agencies and on those
6 areas. So we will be making comments on that.

7 We think there's obviously a very, I
8 guess, clear linkage across agencies with both the
9 CEC, the PUC as well as the NRC. But there's
10 areas in the recommendations that we can go into
11 in more detail where we think those lines for us
12 are not as clear as they should be and we will be
13 providing comments relative to that.

14 We also think that -- actually to make
15 it clear. Our comments will be in three main
16 areas, which will be three categories or grouped
17 in such. And one is, as I mentioned, those lines
18 of jurisdictional areas and issues. Also the
19 purpose and role of the feasibility study as it
20 relates to the NRC, the PUC and the CEC. And then
21 finally the difference or differences between
22 license renewal and that process and our ongoing
23 operational obligations as an operator of a
24 nuclear facility as well as our performance.

25 And by that I mean there are a number of

1 areas where the recommendations reference or make
2 specific recommendations for license renewal. And
3 in our view, there are obligations in some of
4 those, many of those areas that we are required to
5 meet on an ongoing basis, irrespective of license
6 renewal.

7 Whether the plant operates for another
8 two weeks or another two decades, things like
9 seismic safety, operational safety, safety
10 culture. Performance in those areas is paramount
11 and first and foremost, regardless of how long the
12 plant will continue to operate. Some of those
13 things we think might be unduly tied to a license
14 renewal effort when in fact those are ongoing
15 obligations that we carry with us every day.

16 And then some areas on seismic and
17 tsunami hazards. Dr. Cluff will provide a little
18 update on some of the work that he and his
19 department are doing on ongoing studies and give
20 you a little insight to what we see relative to
21 some of those and how they relate to some of the
22 direction of the seismic areas in the
23 recommendations.

24 One thing I did want to comment on that
25 was mentioned by Mrs. Byron in summarizing the

1 recommendations. On one of them that I believe
2 referred to, and I'm probably going to get the
3 term wrong, seismic mapping, if you will. It had
4 a clause in it that said, if found to be cost-
5 effective.

6 And the reason I raise that is because
7 this has been a very robust effort over the past
8 18 months. All of the parties have spent a
9 considerable good effort, time and thoughtful work
10 on this project. A number of the areas
11 recommended things that may or may not be cost-
12 effective, or at least funded. And we do think
13 that does need to be, for our ratepayers and our
14 customers, and all the customers in the state,
15 also a consideration.

16 And I throw that up. To be more
17 specific: There may be things where it would cost
18 more to study them than actually repair or replace
19 them. When you look at certainly some things like
20 non-safety-related systems, poles, switch gear.
21 That's the type of business that we do and repair
22 and address on an ongoing basis day in and day
23 out. And some of the recommendations seem to
24 imply additional study in areas where we think it
25 may be helpful but in other areas we think it may

1 not be warranted or may not be cost-effective. So
2 we will provide comments on that as well.

3 With that I would like to turn it over
4 to Scott Galati who will walk through some of the
5 specific recommendations and provide you some
6 comments relative to each of those.

7 MR. GALATI: Thank you. First I want to
8 say I am going to group them into sort of
9 categories. And we will be providing very
10 specific, even some redline strikeout for your
11 consideration, or some language changes, in our
12 written comments on Wednesday.

13 The first set of recommendations clearly
14 apply to seismic. And one of the things we said
15 in the Draft Consultant Report comments and in the
16 workshop here and we wanted to emphasize is we are
17 certainly committed to additional study. And we
18 do have a long-term seismic program that we will
19 be undertaking. And you heard Dr. Cluff talk very
20 much about our commitment to that.

21 But there seems to be, at least if not a
22 stated intent, there seems to be something
23 underlying many of these recommendations as if
24 there is something unique and strange that is
25 going to be found about the Diablo site that

1 increases the risk. We actually think it is
2 probably the other way around.

3 With that in mind I would just like to
4 -- We are not against expanding our knowledge
5 base. We have continually showed our effort in
6 expanding our knowledge base and will continue to
7 do so. But we didn't want to have either the
8 Committee Report or the Consultant Report leave
9 the impression that something large and unexpected
10 could be identified that would change the basis of
11 the plant's design.

12 I am going to give you a couple of
13 examples of where we think the recommendations
14 give that impression. Specifically Recommendation
15 2. Recommendation 2 talks about doing some
16 additional study. And it is to resolve
17 uncertainties surrounding the seismic hazard at
18 Diablo Canyon. We would like to see that phrase
19 removed. We are not sure why we are doing these
20 studies. I think what we are doing is updating
21 information with the latest techniques possible.

22 Similarly Recommendation 4 should be
23 modified. For a bit of a different reason that I
24 want to explain. As Mr. Mullen discussed, there
25 are certain things that we continue to do, and

1 will continue to do, as long as the plant is
2 operational. And they are not connected to
3 license renewal. And so, for example, in
4 Recommendation 4 we talk about doing additional
5 studies, but in order to support the license
6 renewal feasibility study. We think that is the
7 wrong emphasis.

8 We are going to continue to do these
9 studies but we don't think that we are doing them
10 for license renewal. And we don't think that the
11 recommendation should tie or be associated with
12 the license renewal feasibility study.

13 And Dr. Cluff could explain more
14 eloquently than me that these studies that we are
15 doing as part of our long-term seismic program, we
16 don't have a problem sharing as part of the IEPR,
17 the results of those studies. But to have them
18 linked to license renewal as if that is an issue
19 that is solely associated with license renewal, we
20 think that that's misplaced.

21 We also wanted to encourage you to, or
22 at least to convey to you that Recommendations 10
23 through 13, which talk about, again, some studies
24 to support license renewal. We just wanted to
25 make sure that you understood that we are doing

1 those studies as part of our plant betterment
2 study. And we believe that will be part of our
3 cost-effectiveness and ratepayer benefit
4 application which will be filed with the PUC.

5 We do concur in Recommendation 14 that
6 that should be deleted with the Seismic Safety
7 Commission. We do believe that that is an area in
8 which the Energy Commission may have crossed into,
9 clearly has crossed into NRC jurisdiction. In our
10 comments we will provide you some substantive
11 reasons beyond that as well in addition to the
12 jurisdictional argument. And there are some
13 constraints and there are some real reasons why
14 you would not do, why you would not re-rack as
15 recommended. So we will certainly provide those
16 in our recommendations. But our primary objection
17 at this point is it is a jurisdictional one.

18 Similar to the Recommendations above, 1
19 through 9, Recommendation 16 we believe as well
20 directs the study or this ongoing work to be
21 linked or part of renewal. We don't believe that
22 that is an appropriate link as well. For example,
23 the adequacy of access roads. That's something
24 that we are continuing to maintain. That's
25 something that we are continuing to study. And it

1 is something that we should be doing as part of
2 our ongoing operational efforts. So whether or
3 not PG&E makes the decision to seek renewal, this
4 is absolutely something that is important to the
5 ongoing operations of Diablo Canyon and that we
6 are doing.

7 We also believe that Recommendations 21
8 and 23, that they are not necessary. That the
9 alternative uses are going to be considered in the
10 renewal process. And as we understand it the
11 renewal process, which takes place at the NRC,
12 will look at that. And that the CPUC's process in
13 its general rate making will look at alternatives
14 generation strategies and how PG&E should round
15 out its portfolio. That applies to Recommendation
16 24 as well.

17 Recommendation 25 lists several things
18 that the Energy Commission is interested in, many
19 of which are already being taken care of in other
20 processes. For example, the seismic hazard
21 assessment. This is -- Number one, it's ongoing,
22 and number two, we believe it will be part of the
23 license renewal process.

24 The evaluation on alternative generation
25 resources. We believe that that is an ongoing

1 effort that is handled by the CPUC long-term
2 procurement process. The same thing with the
3 reliability and contingency plans in the event of
4 prolonged outages. We believe that the
5 appropriate forum for that is well and invite the
6 Energy Commission to participate in the long-term
7 procurement process.

8 Now I know that we just went through a
9 lot of the recommendations and had some comments
10 for you and in areas where we disagree. We wanted
11 to make sure that the Energy Commission
12 understands that PG&E is committed. And I think
13 it has been shown, I think the Draft Consultant
14 Report, and hopefully will reflect it as well, is
15 committed to safety at Diablo Canyon, is committed
16 to understanding and responding to new information
17 on the seismic as well as tsunami, and will
18 continue to do so, whether or not it seeks
19 renewal.

20 So I think at this time we will call
21 Dr. Cluff up to describe a little bit more on the
22 ongoing seismic plans.

23 COMMISSIONER BOYD: Okay, thank you. I
24 will have some comments but I will wait until you
25 are all finished.

1 DR. CLUFF: Thank you, Commissioner Boyd
2 and Commission staff. I am Lloyd Cluff, Director
3 of the Geosciences Department for PG&E and have
4 been involved in managing the long-term seismic
5 program from its initiation to continuing studies
6 today.

7 One point that I mentioned the last time
8 we had a workshop here was that PG&E is the only
9 nuclear power plant in the world that has done a
10 full seismic hazard PRA. Like a lot of other
11 plants have done a not-so-extensive one and we are
12 the benchmark that not only the Nuclear Regulatory
13 Commission but the IAEA and other regulatory
14 agencies around the world refer to our study.

15 One of the concerns that we have, and I
16 particularly, in the Consultant's Report and in
17 the Commission's recent draft report is kind of a
18 subliminal trend to indicate that the seismic
19 hazard will increase, that motions might be
20 amplified and everything else. And while
21 theoretically that is possible, I just want to
22 share with you an example from the Nuclear
23 Regulatory Commission's review that required the
24 long-term seismic program.

25 Where one of the main reasons they

1 required the long-term seismic study was Diablo
2 Canyon sits within a few kilometers of a big
3 fault. So what is called the near-source ground
4 motion is very critical. In other words,
5 earthquakes close to the fault where Diablo Canyon
6 and also SONGS is located, in the near-field, the
7 near-source area. At the time the NRC required us
8 to do the study there were only four records of
9 ground motion recordings within 20 miles of big
10 active faults. So there was a lack of data.

11 Well now there's hundreds if not
12 thousands of records that are much closer. And
13 within even a few kilometers there's hundreds of
14 records where we now know what the ground motion
15 is in the near-source area. I'll just give two
16 quick examples.

17 The Denali earthquake in Alaska, the
18 ground motion recording within three kilometers
19 from a magnitude 7.9 earthquake. We fully
20 expected that to be up around 1G and it was .34G.
21 A third of what all the models would have
22 predicted it would be. That was because back in
23 the days before we knew we were very conservative
24 in our assumptions and we added a lot of
25 conservatism, scaling from smaller earthquakes

1 where we had large ground motions to bigger
2 earthquakes. And it doesn't necessarily mean they
3 literally scale to much greater motions.

4 The same thing happened from the records
5 from Turkey. The near-source records were half as
6 high or a third as high as what one would have
7 assumed. So our predicted motions in the
8 professional practice predicted motions for large
9 earthquakes in the near-source area has been way
10 over-estimated.

11 Now we, PG&E, the Seismic Safety
12 Commission and the Energy Commission jointly got
13 together back in about -- this began in about 1998
14 when we established the Pacific Earthquake
15 Engineering Research Center. And then Caltrans
16 joined the program, it's called the Lifelines part
17 of that center. And we were able to get the
18 Energy Commission to co-fund projects to look at
19 some of these near-source motions.

20 Out of that came the results of what is
21 called the NGA, new ground motion attenuation
22 result. And in the frequency band that we worry
23 about for power block structures, for all the
24 safety structures, the hazard will probably --
25 once that is all finished and we have finished our

1 update -- will be reduced significantly.
2 Therefore our seismic safety margin will improve.

3 Now I can't give you any exact numbers
4 because we aren't finished yet. But I know for
5 certain that's where these are headed. And this
6 will be both good for the seismic margins at
7 Diablo Canyon and at SONGS. If you have any
8 questions I'd be pleased to answer them.

9 COMMISSIONER BOYD: Well thank you for
10 that information. You just kind of confirmed with
11 some factual information my long held concerns
12 about modeling in general. But it is nice to know
13 that sometimes we have modeled on the conservative
14 side.

15 DR. CLUFF: That is always a good place
16 to be.

17 COMMISSIONER BOYD: Right. Rather than
18 the opposite. Particularly as it relates to
19 something like this and particularly as it relates
20 to something in our state.

21 So I appreciate that information. We
22 will take that into account as we look at the
23 final drafting of our report. We are not trying
24 to raise anybody's fears. Maybe we err on the
25 side of knowing that the more you study the more

1 you learn you don't know about things. I guess we
2 just continue to have that kind of concern about
3 activities.

4 But I really appreciate what you have
5 done in this area. I do want to commend you for
6 the benchmarking that you have done. I know just
7 enough about earthquakes to be dangerous, having
8 spent eight years of my life a long time ago
9 involved with the construction of the State Water
10 Project. I learned more about seismology than I
11 ever thought I would. So I appreciate the work
12 that you have done and that your agency has done.

13 I don't think I have any more questions
14 about your work. I commend you to keep up the
15 good work and we will try to recognize that.

16 DR. CLUFF: I would like to acknowledge
17 the Seismic Safety Commission's report. They
18 handed me a copy this morning and I quickly looked
19 through it and I agree with all of their comments.

20 COMMISSIONER BOYD: Okay. In my final
21 question I was going to ask all of you. But now
22 that you have referenced their report, number one,
23 you have answered one of my questions. Have you
24 been afforded the opportunity to take a look at
25 this? Because as I read through it, while it was

1 cited that -- there was an area where PG&E agrees
2 with the recommendation that we lack jurisdiction.

3 As I read the document there is a lot of
4 concern on their part for the subject of
5 seismicity, tsunamis and what have you. I am glad
6 to hear you say you have seen their work and
7 basically agree with it. It will help us in our
8 confidence about the final words we put in our
9 report.

10 DR. CLUFF: We will be reading it as a
11 group, our team, and referring to this formally in
12 writing. But based on my quick reading I am very
13 pleased with their comments.

14 COMMISSIONER BOYD: Thank you.

15 DR. CLUFF: Thank you.

16 COMMISSIONER BOYD: Did you have any
17 other comments?

18 MR. MULLEN: No other comments to add
19 other than any of us that are here today from our
20 team and Scott or myself are more than happy to
21 answer any questions you may have.

22 COMMISSIONER BOYD: Okay. I have a
23 couple of comments and maybe in the form of a
24 question. I think first I want to thank you for
25 your extensive efforts to participate in our

1 process. Two workshops. You have been here in
2 force with a potpourri of expertise on the subject
3 and we much appreciate that. We have learned a
4 lot about what PG&E has done and is doing.

5 Many of your comments were relative to
6 what is ongoing and not really specifically tied
7 to relicensing. I think we were looking for
8 avenues where we had some ongoing access to issues
9 or an ability to influence the future conduct of
10 state agencies. Which is perhaps why we have
11 looked at the potential for relicensing as an
12 avenue to see that our concerns are addressed.

13 I am pleased to hear you talk about the
14 number of ongoing activities and what I take as a
15 commitment to continue to have these activities as
16 ongoing. I am pleased with your reference to the
17 Integrated Energy Policy Report or IEPR process as
18 a process, a venue, a forum for your reporting to
19 us on those kinds of activities, in lieu as you
20 say, of us having to tie them to the relicensing
21 process.

22 I know we will take this into
23 consideration. Commissioner Byron and I have
24 talked about this a lot as we discussed the
25 preparation of this report. And our role in

1 relicensing vis-...-vis the NRC and our interactions
2 with the CPUC and their responsibilities should
3 there be relicensing activities by either of the
4 utilities in this arena. So we will look to your
5 words and look at this as we finalize, and if need
6 be, make changes to this report.

7 Mr. Galati made reference to
8 Recommendations 10 through 13 in your general
9 sweeping, not tied to relicensing but tied to
10 ongoing. But 10 to 13 I note are all tied to the
11 IEPR process as a vehicle for us getting that kind
12 of information. So you have just corroborated and
13 underscored our desire to have that process and
14 that venue as one where we can continue to talk
15 about these issues as we learn more about these
16 issues based on events that occur throughout the
17 world, or don't occur.

18 And I think I almost prefer the don't
19 occur. Certainly not in California. But
20 nonetheless as science learns more we need to know
21 the implications and ramifications of that
22 knowledge on the operation of these two critical
23 but highly different kinds of power plants. So
24 with that I thank you for your testimony and I
25 look forward to seeing your written comments.

1 MR. MULLEN: Thank you, Commissioner.

2 And I would just like to respond quickly by saying
3 I appreciate your comments. I think this effort
4 has been very beneficial in allowing us additional
5 opportunities to share some of our information
6 with the Commission. And I think that really gets
7 to that point of working through the IEPR and some
8 of those existing processes where we can really
9 help. And we will continue to be available to
10 support and show up and work at those to help
11 share that information.

12 I think that can go a long way to
13 helping the Commission, and its staff in general,
14 understand the operations at the plant and what we
15 are doing down there. And overall I think that's
16 a benefit to the state as well as the public in
17 California. So we look forward to that.

18 COMMISSIONER BOYD: Thank you.

19 MR. MULLEN: Thank you.

20 COMMISSIONER BOYD: I look forward to
21 both utilities participating with us in that
22 framework.

23 MR. MULLEN: Thank you.

24 MR. GALATI: Thank you.

25 COMMISSIONER BOYD: Okay, turning to a

1 blue card. And then if there are any people on
2 the phone we will get to them as soon as we get
3 through -- I just have one blue card and that's
4 Rochelle, Rochelle Becker.

5 MS. BECKER: Good morning, thank you for
6 having me.

7 COMMISSIONER BOYD: Thank you for being
8 here, regularly.

9 MS. BECKER: Regularly, right.

10 COMMISSIONER BOYD: Down through time.

11 MS. BECKER: I am Rochelle Becker and I
12 am the Executive Director for the Alliance for
13 Nuclear Responsibility and the Vice Chair of the
14 Sierra Club's Radiation Committee. And I'm sorry,
15 I have to read my notes because I am too tired to
16 try to remember them.

17 The Alliance for Nuclear Responsibility
18 and the organizations who have joined us in our
19 comments would like to thank the California Energy
20 Commission and Assemblyman Blakeslee for this
21 groundbreaking effort to identify costs, benefits
22 and risks of reliance on aging nuclear reactors
23 that could impact the reliability of our state's
24 nuclear plants. As the Alliance works close with
25 reactor communities nationwide I can tell you that

1 we are the envy of many who would have loved to
2 have had this information in advance of their
3 applications for license renewal.

4 While time constraints have been
5 exceedingly difficult for non-government
6 organizations with limited resources to fully
7 respond to all the information the CEC has
8 gathered, and even SCE asked for additional time,
9 we find this report to be extremely valuable as a
10 roadmap for responsible energy planning, both in
11 California and nationwide.

12 The Alliance noted in our third reading
13 of the CEC's comments that there appears to be one
14 missing component related to safety culture that
15 has negatively impacted ratepayers and taxpayers.
16 That missing piece is the safety culture of the
17 Nuclear Regulatory Commission.

18 Examples exist in many states, but most
19 recently and notably are the NRC's failure to act
20 in Ohio and Vermont. The CEC report mentions the
21 problems at Davis-Besse and Vermont Yankee, but
22 fails to identify the NRC's culpability in both
23 events. The NRC was aware of severe degradation
24 in reactor vessel heads at Davis-Besse and the
25 deteriorating condition of cooling towers at

1 Vermont Yankee, yet failed to fully investigate
2 these problems in time to prevent a near-miss in
3 Ohio and a collapse in Vermont.

4 The NRC's hesitation to halt operations
5 and fully and independently investigate these
6 obvious problems proved costly to ratepayers and
7 taxpayers and further eroded public confidence in
8 the agency. Currently the NRC has ignored their
9 own Office of Investigation's recommendations in
10 the relicensing proceedings at the Oyster Point
11 plant in New Jersey. Excuse me, the relicensing
12 case.

13 The burden of the NRC's failure resulted
14 in additional costs to ratepayers and taxpayers
15 and even in fines to the utilities. In today's
16 atmosphere of financial uncertainty, California,
17 the Alliance for nuclear responsibility, and those
18 who have joined in our comments request that the
19 CEC closely monitor the NRC's safety culture
20 issue. In addition, we ask that California work
21 with oversight committees in Congress to ensure
22 our state will not be burdened with costs that
23 could have been prevented by the NRC fully
24 adhering to its policies, rules and regulations
25 and the recommendations of its Office of Inspector

1 General.

2 Again thank you for this unprecedented
3 roadmap to responsible energy planning. Our full
4 comments will be filed on October 22. Thank you.

5 COMMISSIONER BOYD: Thank you very much.
6 Do we have anyone else in the audience here who
7 would like to speak before I ask if there is
8 anyone on the phone?

9 I'll ask. Is there? There is no one on
10 the phone, other than, I believe, Assemblyman
11 Blakeslee.

12 Okay. Well, I'm informed there is no
13 one on the phone. And I am informed that Senator
14 Blakeslee has no comments that he chooses to make
15 at this time.

16 This is going to be a world record,
17 short workshop. The floor is open if anyone would
18 like to say anything. If not, I thank you all and
19 look forward to your final comments and look
20 forward to finalizing this report. Thank you all
21 for your participation.

22 (Whereupon, at 10:03 a.m., the Joint
23 Committee Workshop was adjourned.)

24 --o0o--

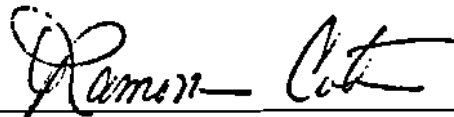
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CERTIFICATE OF REPORTER

I, RAMONA COTA, an Electronic Reporter, do hereby certify that I am a disinterested person herein; that I recorded the foregoing California Energy Commission Joint Committee Workshop; that it was thereafter transcribed into typewriting.

I further certify that I am not of counsel or attorney for any of the parties to said workshop, nor in any way interested in outcome of said workshop.

IN WITNESS WHEREOF, I have hereunto set my hand this 21st day of October, 2008.

A handwritten signature in cursive script, appearing to read "Ramona Cota", is written over a horizontal line.

RAMONA COTA