June 9, 1987

JOINT HEARING

SENATE ENERGY AND PUBLIC UTILITIES COMMITTEE
and

ASSEMBLY UTILITIES AND COMMERCE COMMITTEE

1:30 PM -- Room 112

SUBJECT: Diablo Canyon Nuclear Plant:
Public Utilities Commission Staff Report
recommending $4 billion disallowance.

PRESENTATION BY

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Executive Director
Public Utilities Commission

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Public Utilities Commission

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Presentation of the Public Utilities Commission
Public Staff Division's
Diablo Canyon Testimony

AGENDA
June 9, 1987

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   California Public Utilities Commission

2) William Ahern, Director
   Public Staff Division:
   Introduction

3) Bruce DeBerry, Project Manager
   Diablo Project Team:
   Overview and History
   Standards
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4) Edward O'Neill, Staff Counsel:
   Geologic and Seismic Design Issues

5) Steven Weissman, Staff Counsel:
   The Mirror Image Error and Other Design Errors
CHAIRMAN HERSHEY ROSENTHAL: Let me — we're expecting some members to join us. But because the Assembly is going into session shortly, I thought we would start so at least the assemblywoman would have an opportunity to make an opening statement. And if she has to leave, we'll try to excuse her and expect her to come back after the assembly session.

Good afternoon. Today we are holding a Joint Hearing of the Senate Energy and Public Utilities Committee and the Assembly Utilities and Commerce Committee to receive testimony from the PUC Public Staff regarding its report on how much PG&E ratepayers should be charged for the construction of the Diablo Canyon Nuclear Power Plant.

As you know, the Public Staff, which is responsible for representing the interests of ratepayers, issued a dramatic and controversial report to the Commission recommending that PG&E's request for $5.5 billion for the construction of the Diablo Plant be reduced by $4.4 billion. Essentially, the staff report concluded that PG&E ratepayers should not be charged for Diablo Construction costs caused by PG&E management — or mismanagement.

Our hearing today is neither intended to endorse the PUC staff recommendations nor to reject it. Rather, the committees have asked the Public Staff to describe the mistakes PG&E made during plant construction and to explain how this record of PG&E mismanagement should be used to determine rates. Ultimately, the PUC commissioners will have to choose between two dramatic scenarios: PG&E's request for full recovery of the $5.5 billion it cost to build the plant, or the Public Staff recommendation.

In 1982, I toured the Diablo Canyon Nuclear Plant to see firsthand what all the fuss was about. At the time, PG&E was awash in controversy over construction mismanagement, cost overruns, and safety questions. As PG&E tour guides explained which parts of the plant had to be reconstructed, due to mistakes in the blueprints, I asked a simple question: "Who got fired?" I was told no one had been.

Well, I recently discovered that PG&E's response was misleading. Someone, in fact, was let go. A member of the PG&E Quality Assurance Team who raised concerns about design safety was instructed to ignore the problems and was later told there was no more work for him at the plant even though other people were working overtime. He is now suing PG&E.

When one reads this report, it becomes apparent that this reckless attitude about safety was pervasive. In fact, the report notes that PG&E management intimidated the Quality Assurance Department to the point that it was reluctant to forward engineering audits critical of the safety of the plant.

What are we dealing with here? Not just cost overruns, but public safety. As the PUC report points out, a massive earthquake near the plant, which is not farfetched, could result in the release of deadly radioactive materials if the Diablo plant was not designed to withstand the shock.

While I understand that this report is being used as the basis for determining how much ratepayers should be charged for the Diablo Plant, an equally important issue is raised by the report's
findings: How safe will the plant be in the future?

The PUC report cites the following NRC — or that's the Nuclear Regulatory Commission's — observance about PG&E, quote: "The performance of a utility during the review for the construction of the plant is a precursor as to how they will probably act when they get the plant into operation. The same attitudes will prevail, and that is the concern."

I'm seriously concerned that ratepayers not be charged for the mistakes made by PG&E and that a fair process be used by the PUC to reach its final decision on Diablo rates. However, after reviewing this report, I am equally concerned that the callous management attitude attributed to PG&E during the construction of the plant not continue — not continue — now that we have the Diablo Nuclear Plant on line. While ratepayers can barely afford the additional costs of the Diablo Plant, we can only imagine the far worse consequences that would result from a nuclear disaster.

Assemblywoman, if you have an opening statement, you may proceed at this point.

ASSEMBLYWOMAN GWEN MOORE: I'd just like to add a few comments to the ones that you've made, Senator.

Diablo Canyon has come to represent many things in California: Conflict between values of coastal preservation and coastal development; conflict over the creation of severe environmental hazards in the generations of needed electricity; and finally, the conflict over the economic consequences of the mistakes and delay that have characterized the pursuit of mammoth and costly project.

In the public mind, it is the plant that was built on an earthquake fault, where they mixed up the blueprints. Nevertheless, it has produced electricity with impressive efficiency so far. My Committee has followed the Diablo Canyon process closely. In 1984, as the NRC's Design Verification Program concluded, and PG&E ran up to start up, we held hearings on the outstanding licensing issues and the positions of the parties and the post-licensing litigation. I am a party to the Diablo Canyon rate making proceeding and have followed interim rates, the commissioning, and now the reasonableness phase closely.

The single most striking thing about this entire process is the glacial pace of government agencies and the immense time periods it has taken to get things done at Diablo. Now, however, we have a study done by the staff of the PUC that surveys the entire scope of the Diablo Canyon project and puts this time in perspective. This study is not the last word on the case, but it does tell us in some detail what happens and speculates as to why it happened. The study helps us to gain a perspective on what it is or was in the PG&E corporate culture that caused some of the mistakes and miscalculations.

Accurate description and diagnosis is the beginning of the cure. We expect to hear about this in detail. In my mind, establishing what happened is separate and distinct from deciding how to spread the cost of the economic gains and losses, if indeed there are losses. This is ultimately an issue of public policy that transcends most of the issues that we deal with in our legislative careers simply because there is just so much money at stake.

I want to hear the legal reasons for the staff's recommendation that PG&E absorb the lion's
share of the cost resulting from the mistakes and delay. But I also wish to make it clear that the full policy implications cannot be determined solely by legalisms. This Legislature can and will make the policy framework and the legal framework within which this case will be decided.

The conclusion of this report is only a stage in the ultimate decision of how California's economy absorbs the immense investment of time and money made in Diablo Canyon. I expect to hear from the PUC what their intentions are as far as maintaining the continuity and the integrity of the Diablo project team in processing the case.

I'm very much interested, Senator, in hearing the comments of the Public Staff and from the executive director, the Public Utilities Commission, because I think the report is only the beginning.

CHAIRMAN ROSENTHAL: Thank you very much.

We will now start with Victor Weisser, the Executive Director of the California Public Utilities Commission.

MR. VICTOR R. WEISSER: Thank you. Chairman Rosenthal and Chairwoman Moore, Members, I'm Vic Weisser, the Executive Director of the California Public Utilities Commission. And on behalf of the Commission, I want to thank you for this opportunity to have our Public Staff division present their Diablo Canyon report to you.

I want to first make sure at this juncture that everyone recognizes that the Public Staff's recommendations were developed independent of the five commissioners and have not been endorsed by them. To put the report in perspective, it's the result of a two and a half year examination by our Public Staff and its consultants. The Public Staff is that part of the Commission's staff which has been assigned the responsibility to represent the interests of all ratepayers, the long-term interests. That means agricultural ratepayers, small and large business customers, residential consumers, everyone, for this year and for as long into the future as we can predict.

In a real sense, the report is the start of a process, not the end of it; because along with the submissions by the utility and other interested parties, it will be the subject of vigorous debate and hearings, lasting probably until the beginning of 1989, before the matter is finally submitted to the commissioners for their ultimate consideration. The Public Staff's recommendations will be an important part of that record, but only a part. Other parties, such as TURN and the Attorney General's Office, will have other recommendations which will demand and receive full consideration.

The Commission has made it clear its intent to treat Diablo Canyon not in the fashion as business as usual. Barely two weeks after the Public Staff released its report, the Commission held an en banc pre-hearing conference to explore with all the parties ideas for scheduling and managing the hearings necessary to thoroughly investigate the issues that this matter raises. All commissioners participated in this unprecedented pre-hearing conference and heard the parties present their suggestions as to the issues which need to be covered and the techniques that could be used to focus the hearings. The Commission made it abundantly clear its desire for the parties to avoid the use of dilatory tactics which could unnecessarily drift, drag, or delay the proceeding and directed the parties to meet and confer, to achieve as far as possible, agreement as to a logical grouping of the issues to be heard so that they could be covered in a logical sequence.
Early next week, the assigned administrative law judge will be issuing a notice to all parties regarding a second pre-hearing conference to be held at the very beginning of July. This notice will set forth a preliminary revised schedule for the hearings, for the parties to review and react to. The schedule will provide for hearing the issues in a sequential and overlapping manner so as to enable the tightest schedule for completion of the hearings. Each issue will be kicked off with an en banc hearing before the full Commission and will conclude with closing arguments again presented to the Commission en banc. Additionally, the commissioners indicated their desire to be present at key points of the testimony. The schedule proposes hearings to conclude in March 1989 with a decision to be issued by the Commission in April 1989.

We have recently assigned Administrative Law Judge Barnett to handle the case, assisted by Administrative Law Judge Porter who has handled the case up to now. And a variety of other technical and support staff will be provided to ensure the right type of support. Thus, we put into place two extremely competent and capable and experienced judges plus solid, technical support devoted to this proceeding. In sum, we recognize the importance and the unique nature of the Diablo Canyon case and are planning to manage the proceeding in a creative, intensive, and expeditious manner.

With that introduction, let me introduce to you now Bill Ahern who's the Director of our Public Staff Division who will, with the help of key Diablo team members, present the Public Staff's findings.

Thank you.

CHAIRMAN ROSENTHAL: Thank you, Mr. Weisser.

Mr. Ahern.


ASSEMBLYWOMAN MOORE: Could I ask —

CHAIRMAN ROSENTHAL: Yes.

ASSEMBLYWOMAN MOORE: — Mr. Weisser a question.

CHAIRMAN ROSENTHAL: Sure.

ASSEMBLYWOMAN MOORE: I was listening to your calendar in terms of when you feel the case will be decided. Did I hear you say two years from now, April '89?

MR. WEISSE R: I think it's about a 20-month schedule — 21-month schedule. That's correct. And that is what is going to be proposed to the parties; that's a tightening up of the schedule that was originally issued many months ago by the assigned administrative law judge. We're looking to the parties for suggestions; and we could further tighten the schedule, still preserving the rights of all parties, and ensure that the issues are dealt with in the proper fashion.

ASSEMBLYWOMAN MOORE: But your belief at this point, in terms of the recommendation to the Commission, would be — and to the parties involved — would be 21 months?

MR. WEISSE R: That's correct.

CHAIRMAN ROSENTHAL: Any further questions?

Mr. Ahern.
MR. AHERN: Senator Rosenthal, Assemblywoman Moore, it was really the Diablo Canyon project, along with the San Onofre Nuclear Power Plant and the Helms Creek Pump Storage project, the three projects that have had tremendous cost overruns that had motivated the Commission and the Public Utilities Commission Staff Management to create the Public Staff division as a separate part of the Commission’s staff that was explicitly to be critical of the Utility applications that came in asking for the money for these projects and to represent the best long-run interests of the Utility customers.

And by far, the Diablo Canyon project has been our largest project and we put a special staff team on this. And I would like the top members of the Staff team to present to you actually the results of our study. Bruce DeBerry is the manager of the technical staff, and he’ll give you the overview and discuss the rate making impacts on customers and the financial impacts on the company. Counsel Ed O’Neill will present to you the Hosgri Fault issue. And counsel Steve Weissman of the project team will present to you the Quality Assurance and Mirror Image problem areas.

CHAIRMAN ROSENTHAL: Mr. DeBerry.

MR. BRUCE DE BERRY: Senator Rosenthal, Chairwoman Moore, Diablo Canyon, a commercial operation, costs approximately $5.5 billion. Of this amount, the Public Staff Division recommends that about $1.15 billion be allowed in rates. This amounts to a recommended disallowance of approximately $4.4 billion. This cost comparison is shown in Figure 1. The average cost of comparable plants that began construction in the late 1960s and the early 1970s was about $720 million. Diablo Canyon is by far the most costly and the most lengthy of nuclear power plants that would be done during this time period.

Our recommendation is based on three major issues or findings: The first is PG&E should have found the Hosgri Fault before it began construction of the plant and should have incorporated the seismic requirements of this fault into its seismic design; secondly, even when the Hosgri Fault was known and had been discovered and was publicized, PG&E did not respond to the implications of the fault on its design until it was forced to by the Nuclear Regulatory Commission; thirdly, the design error, such as the Mirror Image Error, and the other errors that resulted in thousands of modifications to the plant, should not have occurred.

PG&E has requested that customers pay the entire $5.5 billion of total cost at completion. This amounts to about a 20 percent increase in rates without Diablo Canyon. Diablo Canyon began construction in 1968. At that time, PG&E — yes, sir.

CHAIRMAN ROSENTHAL: There’s a question from Assemblywoman.

ASSEMBLYWOMAN MOORE: I just have one question, and I’m sorry to interrupt your line of thought but I may have to leave and there’s some questions that are just — I’m just dying to ask.

MR. DE BERRY: Okay.

ASSEMBLYWOMAN MOORE: Got to know the answer to.

The first thing — what was the PUC’s role, the ones — how come you didn’t make PG&E deal with the Hosgri Fault? What was the role of the PUC? I mean since you — your report implies that everybody knew the fault was there; there was a lot of information that the fault was there.
What was your responsibility in the sense of allowing them to continue to go forth without
taking into consideration...

MR. DE BERRY: Okay. Perhaps the best person to answer this would be Mr. O'Neill who's
going to present some of the issues regarding the Hosgri Fault.

MR. EDWARD W. O'NEILL: Thank you. Basically, you have to consider the responsibility of
the Public Utilities Commission, back in the early years, to really understand the answer to your
question.

The Public Utilities Commission was responsible for issuing a certificate to PG&E entitling
them to begin construction of the Diablo Canyon Plant. But the Commission was not responsible for
doing geologic studies or designing the plant or constructing the plant. That was always PG&E's
responsibility and no one else's.

ASSEMBLYWOMAN MOORE: But would it not seem logical that as the agency that's
overseeing the development or the establishment of the plant that you would require an EIR which
would therefore require some geological studies and seismic information?

MR. O'NEILL: That's a good question. The Environmental Impact requirements actually
postdated the beginning of the Diablo Canyon project. So they did not have to do an EIR or an EIS.
They were required to do geologic studies in order to get a certificate from the Public Utilities
Commission. The thing is, we relied, just like the NRC, on the information that PG&E gave us. We
relied on PG&E's representations that the area was an area of low seismicity and that there were no
significant faults in the vicinity of the plant. And it turned out that that was incorrect.

ASSEMBLYWOMAN MOORE: So what you're telling me is that you had the responsibility but no
authority to carry out your responsibility in terms of safeguards and being sure that public's -- I mean
that doesn't leave me with a lot of confidence in what's going on if you ...

MR. O'NEILL: Well, we did have responsibility to review PG&E's application. And back in the
'60s, we had a small group of staff people who did review applications and there were public hearings
on that application. We, unfortunately, for better or worse, relied on PG&E's representations
concerning the geology of the vicinity. And that proved to be inaccurate and misleading in a number
of respects. We issued a certificate based on PG&E's representations that the site was geologically
suitable for that plant and that the plant was properly designed. And as we all know now, that was
incorrect information. I might add the NRC had the same problem with PG&E. They issued a permit
and they relied on PG&E. They relied on PG&E's geo-seismic studies. So neither the NRC nor the
PUC went out and did their own studies. They relied on PG&E and it was PG&E's responsibility to do
adequate, thorough geo-seismic studies.

ASSEMBLYWOMAN MOORE: I guess the real concern I have then is that if you had the
responsibility of overseeing the project, and I guess the protection of the People of the State, it
would appear to me that your responsibility would certainly lead you to verification of that which you
are endorsing. And particularly, I find it interesting when you shift the entire burden to PG&E — and
Lord knows that I am not taking up for PG&E. But I guess I just have a real concern; it's real difficult
for me to understand that the PUC's feeling very comfortable in the fact that they had no role and no
real responsibility in this.

MR. O'NEILL: Well, I don't think we feel comfortable about it, and I don't think the NRC feels comfortable about it. The fact of the matter is neither the NRC nor the PUC is ever going to have enough employees with the right expertise to review each and every management decision that PG&E makes, designing or building a plant like Diablo.

ASSEMBLYWOMAN MOORE: But we're not talking about little, minute management. We're talking about the very foundation upon which this plant, a nuclear power plant, was to be built and that — I mean you don't have to have a huge staff to do that. I just, you know, have a real concern that from the very beginning I'm equally as interested in the role of the PUC as the — as PG&E.

MR. O'NEILL: Well, these are good questions. And I think, as this case proceeds, we'll probably learn more about what the PUC could have done in the early days, perhaps to avoid the problem or identify the problems earlier. And we'll probably learn more about what the NRC and the USGS could have done earlier.

ASSEMBLYWOMAN MOORE: Is that what you're going to tell me?

MR. O'NEILL: Well, yeah. But I think it is important to remember here the primary responsibility was and still is PG&E's to design and build and operate that plant safely.

ASSEMBLYWOMAN MOORE: I'm not eliminating that. But again, one of the reasons that we have state agencies or regulatory agencies are because we don't necessarily believe that those people that they're regulating are going to do all the things they're supposed to do because they're obligated; and, of course, you know, for oversight and, you know, jurisdiction of those authorities, we look to those state agencies that have that, that power and that mission and that duty.

MR. O'NEILL: Well, that's correct. We're always going to have to rely though to some degree, to a greater or lesser degree, on information filed by applicants like PG&E. And if that information is not complete and is not accurate ...

ASSEMBLYWOMAN MOORE: I don't want to continue to go round and round because —

MR. O'NEILL: Yeah, thank you.

ASSEMBLYWOMAN MOORE: — we're not ...

CHAIRMAN ROSENTHAL: Assemblyman. Yes.

ASSEMBLYMAN DAN HAUSER: Thank you, Mr. Chairman. I want to follow up on that same question.

Given that PG&E started an earlier facility at Bodega Bay and invested quite a bit of money in a large hole in the ground only to abandon it when somebody figured out that San Andreas happened to be a few yards away, you would think that the Utility themselves would be very interested in seismic issues.

Was there any excuses, legitimate excuses, presented by the Utility to justify their not having spent the time and energy and effort to identify potential seismic hazards within the area?

MR. O'NEILL: We tried to review and evaluate the excuses for not doing thorough geo-seismic studies in preparing our analysis. And as you can tell from reviewing our report, as you obviously have, we didn't find their excuses convincing. You know, there were plenty of reasons why PG&E
should have done thorough geo-seismic studies at Diablo. I mean it was a coastal site and they had no geologic information about the area offshore of the plant. There was evidence of earthquake activity offshore of the plant. PG&E's own geologist suspected the existence of offshore faults in 1966. And a large earthquake had occurred offshore southwest of the plant in 1927, one of the largest earthquakes in California this century. So there were plenty of reasons for PG&E to do thorough geo-seismic studies, particularly offshore studies. The reasons which PG&E has given for not doing those studies, frankly, we didn't find credible or convincing.

CHAIRMAN ROSENTHAL: Assemblyman Farr.

ASSEMBLYMAN SAM FARR: Well, as long as we're on this point and we're having a briefing today from the Commission's staff and not the Utility, the frustration that I think we're all feeling here in the Legislature, particularly those of us in the State Legislature which deals so much with law making in this state -- I mean here we have a situation where you have a public utility -- and by definition, a unique situation in business in the state, and a commission, a regulatory commission -- and whenever, whatever, all this has been said and done, we've got this incredible gap of $4.4 billion between the costs and what you think ought to be returned. It's an incredible screw up, and the public's going to want some resolution. And what I -- I think we all find it's sort of like the mobile with the fingers all pointing to each other. It's now a big game of CYA. And I think that what Assemblywoman Moore's getting to in all of this is that how -- what can be done to make sure that this never happens again? And it's a tragedy that got this far -- $4.4 billion that, my God, if -- that's more money than Gann wants to give back to all the taxpayers in California, three times as much, four times as much. It's just an awesome amount of money. And I -- the frustration I feel -- I think you're going to hear it from members of this Committee and others -- is how the hell could this happen in modern times?

MR. DE BERRY: Perhaps I could respond at least to part of your comment. And that is the fact that in 1982, the Legislature and the Governor permitted us to be able to go out and to hire consultants and to be reimbursed through the Utility. And, in fact, to my knowledge, there are a number of projects which currently have assigned to them some outside consultants who are following some of those projects and applying some of their expertise to these projects. I believe that certainly that's one of the items that Mr. O'Neill was referring to and the fact that we are learning from the past.

ASSEMBLYMAN FARR: In making recommendations about how we don't ever get there again. I guess if there's not another nuclear plant developed in California, it's all history. But there must be something to learn from other kinds of projects that are underway and will be underway in the future. Does that -- let me just -- it's just a statement. Let me ask a question here.

There's no disagreement on the actual costs and operation at $5.1 billion?

MR. DE BERRY: $5.5 billion.

ASSEMBLYMAN FARR: $5.5?

MR. DE BERRY: Yes. That's the cost at the commercial operation ...

ASSEMBLYMAN FARR: Then you agree -- I mean that's not a disputed amount?
MR. DE BERRY: Well, when we say that that's — that's really just an accounting figure. It's the amount that's actually recorded on the books of the company as of the cost of the plant. Obviously, we have a tremendous dispute with the company with regard to the amount that should be charged to ratepayers, in rates.

ASSEMBLYMAN FARR: And your recommendation is the $1.15?

MR. DE BERRY: That's correct. I think we probably should add ...

CHAIRMAN ROSENTHAL: Assemblyman Sher, a question.

ASSEMBLYMAN BYRON D. SHER: Mr. Chairman, with your indulgence, I'd like — instead of asking a question — first of all, I want to apologize for coming in late. I was dealing with a bill up in Ways & Means. But I would like, with your indulgence, to make a brief statement about this general subject which is primarily a message for the PUC, which I think is appropriate in this context.

As many of you know, in 1985, I authorized — I authored Assembly Bill 1776 which is referred to in the background paper that the members have received. That bill was an attempt to bring some semblance of order to the law governing the conduct of reasonableness reviews of large utility construction projects. The bill passed the Legislature by a wide margin; it was signed by Governor Deukmejian and is now the law. This legislation was motivated specifically by the experience at Diablo Canyon. And although Pacific Gas & Electric initially opposed the bill, after we amended some of the language, they withdrew their opposition. So the bill passed without the opposition of the Utility.

Section 2 of the bill directs the PUC to specifically address two major issues: The Hosgri Fault and the lack of Quality Assurance, and explicitly to identify the costs associated with these two major problems. The Public Staff’s report responds to that directive, and it should be considered very carefully by the PUC under the standards contained in Assembly Bill 1776. AB 1776, as I say, is the law. And I and other concerned legislators who voted for that bill expect the PUC to follow the mandates of that law. AB 1776 mandates that the PUC not make utility customers pay for the costs that result from unreasonable mistakes of utility managers in planning, construction, or operation of large construction projects. The PUC must understand what that standard of conduct is. Some have said that the PUC ignored the standard of AB 1776 in the Songs (?) case and the Palo Verde case and in the interim rate portion of the Diablo Canyon case. I think it's important that the PUC not ignore the law in its consideration, its final consideration, in the Diablo Canyon case.

The issue is: What is an unreasonable mistake by the utility? And we and the ratepayers in California have a right to expect that at a minimum, utility managers meet legally required standards of conduct and that they exercise their discretion prudently so as to avoid reasonably foreseeable costs and harms.

And I think what the Nuclear Regulatory Commission said when it suspended the Diablo Canyon operating license in 1981 is pertinent here, and I'm going to quote exactly what they said, and I'm quoting: "Contrary to statements made in PG&E's operating license application, certain structures, systems, and components important to safety at the plant may not be properly designed to withstand the effects of earthquakes and further indicates that violation of NRC's regulations and 10 CSFR,
Part 50, Appendix B, have occurred."

That language -- "have occurred" -- I want to emphasize that statement.

The NRC continued: "Had this information been known to the Commission on or prior to September 22nd, 1981, the facility license would not have been issued until the questions raised had been resolved."

Accordingly, the Commission suspends PG&E's license to load fuel and so forth.

Going on: "It took PG&E over two and a half years to complete satisfactorily the actions that were specified." And the Public Staff Report gives us a detailed picture of the costs that this delay imposed on the project.

So it is clear from what the NRC said that it was not -- there was no anti-nuclear demonstrations which compelled PG&E to misrepresent the condition of the project in -- when it made its license application to the NRC. It was no anti-nuclear demonstrator who compelled PG&E to violate the NRC Quality Assurance regulations. These are mistakes of the Utility in the conduct of the licensing process. And in my view, any reasonable person would consider these mistakes unreasonable and leading to unreasonable costs.

Well, what about these costs? AB 1776 does not excuse the Utility's bearing the brunt of unreasonable stakes because they're expensive or they're too expensive. The language of the bill is clear and unambiguous.

It says -- and I'm quoting AB 1776: "For purposes of establishing rates, the Commission shall disallow expenses reflecting the direct or indirect costs resulting from any unreasonable error or omission, including any expenses resulting from delays caused by any unreasonable error or omission. If the consequences of the unreasonable mistakes are too great, the PUC ought to disallow those costs and PG&E then should apply to the Legislature for relief."

The PUC does not have the power under the law to factor that in and grant relief because making the utility bear the costs of its unreasonable mistakes is expensive. I think the consequences for the California economy of a multi-billion dollar bailout are immeasurably greater than most of the budget and tax issues that we will ever consider in this Legislature. So this, to me, is a very important issue.

And I thank you for your indulgence, Mr. Chairman.

CHAIRMAN ROSENTHAL: Thank you.

Senator Green.

SENATOR CECIL GREEN: My questions were answered by Assemblyman Sher, so I would pass at this time.

CHAIRMAN ROSENTHAL: Assemblyman Longshore.

ASSEMBLYMAN RICHARD E. LONGSHORE: Mr. Chairman, Members, you stated that the PG&E had the information as regards to the 1927 quake and as regards to the Shell Oil Company findings.

MR. O'NEILL: Well, PG&E should have had information about the 1927 earthquake when they did their initial siting studies in 1965 through 1967. They did have information that a very large
earthquake of magnitude 7.3 occurred southwest of the plant offshore. They weren't certain of the location of that earthquake, but they had enough information that a large fault existed, large enough to cause that earthquake, that they should have looked offshore. That was one of roughly five basic reasons why they should have looked offshore.

Now with regard to the Shell Oil Company data, Shell collected the offshore data from which the Hosgri Earthquake Fault was discovered in the early to mid-1960s. PG&E wasn't aware of Shell's activity at the time, as far as we can tell. The Shell oil geologist that identified the Hosgri Fault published their finding in January of 1971. As far as we can tell, PG&E wasn't aware of this published article until the Fall of 1972, nearly two years after it was published. We believe they could have had access to the Shell Oil Company information, had they asked Shell about it, virtually at any time during that time period. But we don't believe they actually did have access to the Shell data until sometime in early '73 which was the first time that they went and asked Shell to review the data.

ASSEMBLYMAN LONGSHORE: That being the case, wouldn't it also have been reasonable for the PUC to have had this same information?

MR. O'NEILL: The PUC had some information about the 1927 earthquake. It was disclosed on a seismicity map that was filed with the Public Utilities Commission in the 1960s. The fact of the matter is the PUC didn't appreciate the significance of the 1927 earthquake. The PUC also didn't investigate any oil company data. So to some degree, you know, we had an opportunity which we didn't take advantage of. But on the other hand, we didn't have geologists reviewing PG&E's application either. And we relied on their statement that the area was free of earthquake faults in the immediate vicinity and was in area of low seismicity. We basically relied on the representations made by PG&E.

ASSEMBLYMAN LONGSHORE: Without backup material?

MR. O'NEILL: In retrospect, that was a mistake.

ASSEMBLYMAN LONGSHORE: On PUC's part?

MR. O'NEILL: That's right.

CHAIRMAN ROSENTHAL: Well, let me just comment that the PG&E informed the NRC that its consultants considered offshore studies to be unnecessary.

ASSEMBLYMAN LONGSHORE: That's true, Mr. Chairman, but on the same token, what I'm really relying here is that I'm not questioning the $4.1 billion or the amount of the decision of the members as regards as to how this should be distributed. What I'm saying is that with that foreknowledge, it would have been prudent and reasonable for the PUC to have denied their license until they had received the proper backup information. That would also have been reasonable. And I would think that the reasonableness here was kind of lost on both sides of the part, to some extent. What the extent is, I'm not certain. And I'm not taking sides. I'm just merely --

CHAIRMAN ROSENTHAL: Yeah.

ASSEMBLYMAN LONGSHORE: -- showing that there was a lack of a diligence as far as PUC is concerned as well.

ASSEMBLYWOMAN MOORE: May I ask one question?
CHAIRMAN ROSENTHAL: Yes, Assemblywoman Moore.

ASSEMBLYWOMAN MOORE: Along that same line with PG&E claiming to have hired the best consultants that they could and relying on their advise, at what point — I mean obviously, you have some feelings about whether they did or they didn’t — is that all we can ask of a company, is that they hire the best and then follow the advice that they get from the people that you, as the PUC, have approved through allowing them, you know — you know, the expense? Does their response — does management’s responsibility stop with the hiring of good contractor and adherence to their advice?

MR. O’NEILL: Well, the answer is no. Management responsibility doesn’t stop there. But first, before I explain that, let me make one other thing clear: PG&E did not follow the advice of their geologists in at least several important respects. In the early 1960s, there were suggestions by a couple of PG&E geologists to do some underwater geology. PG&E didn’t do any underwater geology; they didn’t investigate any — the area offshore — for any faulting activity. Later, after the Hosgri Fault was discovered...

ASSEMBLYWOMAN MOORE: Let’s take that point.

MR. O’NEILL: Okay.

ASSEMBLYWOMAN MOORE: And I guess then you can see the dilemma that I see that exists. You had the same information because that was submitted to you when they submitted their report that there had been recommendations that there be underwater — why didn’t the PUC make them do that?

MR. O’NEILL: No, actually, we didn’t have the same recommendations. The report that was filed with the PUC had a different conclusion. The report that was prepared initially by PG&E’s geologist recommended that some underwater geology be done to investigate the various faulted areas that were noted in a limited onshore geologic study. The report that was filed with the PUC, I believe, contained different language. It indicated that some underwater geology should be prepared, should be done to prepare for offshore construction which is an entirely different type of analysis.

ASSEMBLYWOMAN MOORE: Was that done?

MR. O’NEILL: As far as I know, that wasn’t done.

ASSEMBLYWOMAN MOORE: Well, where was the PUC?

MR. O’NEILL: The PUC wasn’t out, you know, surveying or auditing or inspecting the work at Diablo Canyon. We reviewed the application that PG&E filed. The PUC issued a decision based on the representations made by PG&E. But at that point, our review basically stopped. We got periodic reports from PG&E, but we had no inspectors out there looking over PG&E’s shoulders whatsoever. That was the responsibility of the Nuclear Regulatory Commission.

ASSEMBLYWOMAN MOORE: I got that. Were there any requests made by the PUC of PG&E that were not complied with that would have lent itself to further information regarding the Hosgri Fault or whatever?

MR. O’NEILL: I’m not sure. We didn’t find anything in our review that was significant in that regard. I’m not certain if there were any requests made. There were requests made by the agencies
of the State of California that were general in nature. I believe the California Resources Agency got a commitment from PG&E to do thorough geologic work. It wasn't real specific; it was a general commitment. And as far as we are concerned, based on our review, that general commitment was not meant. But other than that, we haven't really found any requests that weren't complied with.

CHAIRMAN ROSENTHAL: Senator Green, do you have another question? Your light was on; I just didn't know.

SENATOR GREEN: Oh, sorry.

CHAIRMAN ROSENTHAL: All right. If there are no further questions, why don't you continue then.

MR. DE BERRY: Thank you, Senator. I'll continue with a very short history, both of the project itself and of the study that we conducted.

Diablo Canyon began construction in 1968. At that time, its estimated total cost was $320 million for the two units. And the first unit was estimated to be in operation in 1972. The actual costs, some 18 years later, of course, was the $5.5 billion. This delay and substantial cost overrun occurred because the plant was essentially completed three times.

If I can refer you to Figure 2, the first completion spans the period that is identified as original construction which ends approximately in 1976. In 1976, that cost at that time was approximately $1 billion. In 1976, the Nuclear Regulatory Commission then required PG&E to modify the plant in order to take into account the Hosgri Earthquake Fault and the effects on its seismic design as a result of that fault. During that second period of completion, called "Redesign for Hosgri Fault," the cost at the end was approximately $2 billion. The third completion occurred as a result of the discovery of the Mirror Image Error and the other design errors. That period we've identified is the correction of design errors, and that spanned the period until the operation of the two units in 1985 and 1986 in the cost of $5.5 billion. We should point out that PG&E has applied for an additional $300 million in plan additions beyond the $5.5 billion that we've identified at commercial operation.

The Public Staff division study began in May of 1984. The team over this time has varied somewhat, but it has consisted of around 14 professional individuals in fields of economics, engineering, accounting, and legal.

Because of state legislation that provided reimbursement from PG&E through PG&E's ratepayers, the Public Staff was able to hire expert consultants to assist in the study. We interviewed approximately 130 consultants in various fields. We have employed during the study about 30 expert consultants in fields such as engineering, construction, finance, nuclear licensing, geology, seismic design, and other fields that are related to the design and construction of a nuclear power plant. The study itself required about three years to complete. It comprises 62 volumes of exhibits and testimony and is about 17,000 pages long. As was pointed out by Assemblyman Sher, we have followed the legislation that was contained in Assembly Bill 1776 regarding the identification of the costs for the Hosgri Fault, as one issue; and the second issue of the Mirror Image Error and the related Quality Assurance Program.

We want to point out that our review is based strictly on management performance. In making
our recommendation, we've used what is referred to as a reasonable person's standard. This standard does not require perfection, nor is the standard based on hindsight. The standard considers what information was available to the decision makers at the time they made their decisions and what management tools were available to the decision makers at the time that they made their decisions. It also considers special circumstances such as the fact that Diablo Canyon is a nuclear power plant and is a very complex and costly project.

Given the magnitude of the Public Staff recommendation, we also made an investigation in the study with regard to the financial implications. We concluded that PG&E could continue to finance its construction program at a reasonable cost and that it would also be able to continue to provide electric service to its electric customers.

Now I'll turn it -- yes.

ASSEMBLYWOMAN MOORE: _______________ question.

CHAIRMAN ROSENTHAL: Yes, Assemblywoman.

ASSEMBLYWOMAN MOORE: I was going to ask you a question about all the talent that you had brought to -- as consultants who have done a great deal of work on this case, looking at the volumes that we had the opportunity to see.

Now what happens with the consultants as we go forward on the rest of the case in terms of actually determining what happens, the economics? Does that -- does the team stay together or what?

MR. DE BERRY: Yes, the answer to your question is yes, the team stays together; our consultants are under contract to us for a period of, I believe, one year with two years of renewal -- so that's a three-year period -- and we anticipate that they will be with us obviously through the hearing process. So I believe the question with regard to the -- whether or not the team remains intact, is yes, we will remain intact.

ASSEMBLYWOMAN MOORE: How much are we paying for the team, so to speak? How much is -- not only the team. Why don't I ask the question a little differently.

How much has the PUC spent on the case and how much more do they anticipate before the completion? Any idea?

MR. DE BERRY: Okay. I can answer part of that question. As of the date that we mailed out our testimony and exhibits, we had expended approximately $7.4 million in consultant costs. Now that's just for our consultants. In addition, there are the staff costs of the persons who are from the Public Staff division and our legal assistants. I haven't made an exact calculation. That's probably around an additional $500,000 per year. So it would be about another million and a half dollars.

ASSEMBLYWOMAN MOORE: So you would think that up and to date that PUC has probably expended about $9 million on the Diablo case?

MR. DE BERRY: Yes, including both staff and its consultants.

ASSEMBLYWOMAN MOORE: Right. Now what would you -- could you wager a guess on how much PG&E has spent on the same case?

MR. DE BERRY: At this time, we're aware of some expenditures by PG&E. We do not know if
they're the total expenditures by the company. But it's our understanding that they've expended at least, between $55 million and $60 million on the case.

ASSEMBLYWOMAN MOORE: How much is your entire budget, PUC budget?

MR. DE BERRY: I couldn't answer that.

MR. O'NEILL: It's approximately $50 million.

ASSEMBLYWOMAN MOORE: So they've spent, on the case to date, as much as the PUC budget, on an annual basis?

MR. DE BERRY: Yes.

ASSEMBLYWOMAN MOORE: As opposed to your spending by the PUC.

Can you match -- do you feel, that with the amount of money that you're spending to put on the case, that you can adequately represent the taxpayer, given the magnitude of the amount that they're spending?

MR. DE BERRY: It's my understanding that we do not have a maximum limit with regard to the reimbursement that we can get for our consultants. However, we should point out that nevertheless we feel that we have a fiscal responsibility to remain within some reasonable limits. As we identify the issues that need to be studied, and as we identify how much should be the cost that we will need to study those issues, we feel that we can, in fact, not only will make but that have made, a very good study. In fact, I have to say that I believe it's one of the most extensive studies of its kind that has been done to date.

ASSEMBLYWOMAN MOORE: Probably at least in volume.

MR. DE BERRY: That's probably true.

CHAIRMAN ROSENTHAL: Let me ask a couple of questions.

When I toured the plant in 1982 and asked how much it cost to reconstruct portions of the plant to satisfy the safety concerns, it was at that time that I raised the issue about the Mirror change of plans and the things that took place along with that. I was given labor and material costs which were much below the $5.5 billion that their PG&E is now requesting.

What other factors, such as delay and inflation, cause the costs to escalate dramatically?

MR. DE BERRY: Okay. I should point out, again referring you to our Figure 2 over here, which you have a copy, if you refer to the year 1982, you'll see that the recorded cost at that time was only slightly over the $2 billion. You can then see that there was a substantial expenditure of both direct costs and costs for financing represented by the top line.

CHAIRMAN ROSENTHAL: I see. Okay. PG&E has suggested that the Staff Report is biased because some of your consultants may have been critical of the Diablo Plant during the NRC licensing proceedings -- proceedings.

How do you respond to that charge?

MR. O'NEILL: Well, we hired the best consultants that we could find. And I think they've done an excellent study. PG&E's criticism was leveled, I might add, before they had read one word of our study. Also, I would like to point out that our study has nothing to do with questions concerning nuclear plant safety or whether nuclear plants should be built. It has to do with economics. The
question is what the cost of the plant should have been. I'm sure everyone that has any knowledge about nuclear power plants has an opinion about nuclear power one way or the other. PG&E happens to have accused 2 of our 30 consultants of an anti-nuclear bias. Frankly, I think that is a pretty good average. But also, I'd like to add that once again that the criticism was leveled before they'd read one word of the report. And in our opinion, the real test is in the report itself.

CHAIRMAN ROSENTHAL: It's been stated by some that the dramatic size of the Staff's recommendation, disallowance, lacks credibility because of the size of it.

MR. DE BERRY: Well, I'd like to point out that we were required, under the legislation that Assemblyman Sher has referred to, to identify the costs of two major events. And those two events obviously were the Hosgri Fault and the design errors and the Mirror Image Error that were discovered in 1981 and later on. We have identified those costs. Furthermore, it's our understanding that unreasonable costs should not be paid for by ratepayers. We believe that those are unreasonable costs, despite their magnitude.

ASSEMBLYWOMAN MOORE: Can I ask — okay.

CHAIRMAN ROSENTHAL: Assemblyman Longshore.

ASSEMBLYMAN LONGSHORE: I have one more question. How much at the mercy of the contracting corporation — actually did the building — was PG — how constrained were they in that regard? Were they completely relying upon the contractors?

MR. O'NEILL: Well, I think we should point out that the major cost overruns that occurred at the Diablo Canyon project had really nothing to do with the contractors per se. They were management mistakes. There were deficiencies in the geo-seismic studies that accounted for the second rebuilding of the plant, which is shown on that figure to my right; and also, they were due to correction of design errors. And those two events alone were really within the management control of PG&E. Certainly, contractors were involved in the construction. But what we found in our studies was that PG&E management had the primary responsibility for the decisions that led to those major cost overruns and schedule delays.

ASSEMBLYMAN LONGSHORE: Including this final part?

MR. O'NEILL: Precisely.

ASSEMBLYMAN LONGSHORE: Right to the design errors?

MR. O'NEILL: Precisely. Mr. Weissman could elaborate on that a bit.

MR. WEISSMAN: The bulk of the cost overruns during the latter phase, which was referred to as correction of design errors, was a result of PG&E's failure to implement the Quality Assurance Program that it had committed itself to implement with the NRC. A Quality Assurance Program is to a large extent a monitoring and policing function, if you will, that the Utility has to undertake during a project of this sort. The specific requirements set forth by the NRC to PG&E included that PG&E place in its contracts, with outside consultants and contractors, requirements that Quality Assurance Programs be established by the contractors. In addition, there are certain types of interface Quality Assurance requirements — gates that should be set up by PG&E — through which information should not be cleared, either going from PG&E to the consultant or back from the
consultant to PG&E, without going through a Quality Assurance check.

In fact, prior to 1978 or 1979, it turned out the major components of that Quality Assurance Program were not implemented by PG&E. One of the most graphic illustrations of the problem relates to the Mirror Image problem itself which is traced back to a mistake in drawings that were developed by a contractor named Blume. Specifically, one of the Quality Assurance requirements should have been that a design review take place at the contractor level. PG&E auditors were recorded as having said during that period of time that they specifically precluded Blume from any type of design review process because they were considered to be a highly professional organization which could pretty much handle these things on their own.

The Quality Assurance requirements don't discriminate between highly qualified organizations and unqualified organizations. The Quality Assurance requirements set up checkpoints, and those checkpoints weren't established by PG&E. And it was exactly that aspect of their relationship with their contractors that led specifically to the Mirror Image problem.

CHAIRMAN ROSENTHAL: Assemblywoman Moore.

ASSEMBLYWOMAN MOORE: I just want to kind of go back to the question that Assemblyman Longshore was asking. I did have an opportunity to see the Diablo Canyon. And in talking with the PG&E staff, they tell us that it was only involved, I think, about 34 pipes that had to be changed; that the Mirror Image is really an overblown kind of a claim; that essentially what the Mirror Image problem was, was that there were some support systems that were supposed to be built to hold a cooling system, I guess, fan-type operation, and to hold it in place; and that those support systems were actually placed in the wrong place and not under the system that it was supposed to be supporting. And it only was about 34 pipes, and the change of those pipes would have only amounted to a cost of, I think, about $64 million. Yet, in your Public Staff report, you claim that it was over 2 billion dollars' worth of changes and that PG&E should totally be responsible.

How do you reconcile their different account with yours?

MR. WEISSMAN: The Mirror Image problem itself was really just the tip of the iceberg. We have to put this in context of the time in which it took place. The Utility had been granted a low-power license for Unit 1. It was ready to begin loading fuel. And one of its engineers in a survey discovered information that led them to conclude that there was this Mirror Image flipping of blueprints concerning a portion of the containment structure. The Mirror Image problem itself was actually a series of mistakes, mistakes stemming from unlabeled drawings and informal communications with their contractors, and a failure to check the assumptions underlying a proposed design change. But it was a flair that went up. And after that mistake was discovered, a harder look was taken at the design process at the Diablo Canyon plant. And, in fact, the Mirror Image problem...

ASSEMBLYWOMAN MOORE: Was that done by PG&E, or was that done by the -- by the -- by PUC?

MR. WEISSMAN: It was largely done by contractors hired by PG&E with the strong encouragement of the NRC. And some elements of the harder look actually were performed by the
NRC, I believe.

ASSEMBLYWOMAN MOORE: So had not the company come forward, then we would have never known; is that what I'm hearing?

MR. WEISSMAN: Well, it's hard to say how these problems would have surfaced; but the problems turned out to be so pervasive, that they would have come up one way or another. Within several weeks of finding the Mirror Image Error, auditors discovered at least 14 major areas where there were design problems at the plant. Assemblyman Sher quoted from the NRC as to their concern about how they never would have issued the license had they known about these errors in advance. Well, actually, after discovering only two of the errors, the staff of the NRC said exactly the same thing: If we had known about these two errors, we would not have recommended that the license be issued yet.

But what happened is that after the succession of errors was discovered, it became clear that there were some underlying problems with engineering management and with the implementation of the Quality Assurance Program. A reasonable Quality Assurance Program would have avoided these errors, or at least would have led to their detection so they could have been corrected in a timely basis.

ASSEMBLYWOMAN MOORE: Let me ask this -- it's my understanding that part of the Quality Assurance and part of the earthquake fault problem was that the plant was initially built based on another fault that was some distance away and was built to withstand an earthquake had it occurred at the -- what is it -- San Andreas Fault as opposed to the Hosgri Fault.

Is that basically...

MR. O'NEILL: Let me respond to that. The plant was actually designed to withstand earthquakes on a number of faults. But the critical fault -- rather, the critical earthquake for the design purposes -- was an earthquake that PG&E assumed could occur beneath the plant site, roughly 12 miles deep beneath the plant site. The problem with that assumption was that it was based on inadequate geo-seismic studies. And as it turned out, the existence of the Hosgri Fault, some three miles away offshore, and the capability of a very large earthquake on that fault, proved to require a stronger design, a higher seismic design, than PG&E had originally used.

ASSEMBLYWOMAN MOORE: I think that's essentially what I -- what I -- what I thought I was saying. Maybe I didn't, but that -- I guess what I was trying to get to through all that was that in essence that the assumption upon which the plant was built was faulty. And...

MR. O'NEILL: Well, that's correct.

ASSEMBLYWOMAN MOORE: You know, I mean -- and according to that, they built according to this faulty assumption. And what you're saying to me is that had a Quality Assurance Program been in place, would that have had any impact on that?

MR. O'NEILL: A Quality Assurance Program probably would have had no effect on the geo-seismic studies.

ASSEMBLYWOMAN MOORE: Because it would have only been to look at the plant as it was being constructed and built?
MR. O'NEILL: The Quality Assurance programs required by the NRC had the most direct impact on actual construction activities at the site. But Quality Control and Quality Assurance was also applied to the design process. As far as I'm aware, Quality Assurance and Quality Control programs had been applied to geo-seismic studies but in a less formal fashion. At least it's our opinion that that wouldn't have made any difference in the geo-seismic area. It certainly would have made a great deal of difference with regard to the design problems that Mr. Weissman just covered.

ASSEMBLYWOMAN MOORE: I guess the thing that I keep hearing from you is that there were a number of management deficiencies. And I guess according to reading the report that you've ascribed, or each of these deficiencies has led to the cost overruns and therefore we come to the conclusion that you have.

Can you be very comfortable -- are you that comfortable in making that kind of a conclusion based on the findings that the deficiencies were solely theirs and ...

MR. O'NEILL: Well, there are always lots of factors that come into play in a complex construction project like the Diablo Canyon project. What we looked for were the primary, root causes of the cost overruns and schedule delays. And I think our study succeeded in identifying those very clearly. I mean we found pervasive problems of management, not just in the geo-seismic area or in the design control area. We found management deficiencies in the project management, workforce management, schedule control, cost control, budgeting. Almost everywhere we looked, we found management problems.

And if your question is are we comfortable that we have found the basic, root cause of the cost overruns, I think we would all agree that we have. Certainly, when you look at particular issues, there are going to be other, other contributing factors. But I think the basic causes have been identified, and they're management problems.

ASSEMBLYWOMAN MOORE: Okay.

CHAIRMAN ROSENTHAL: Okay. Would you like to continue with any further testimony or in terms of —

MR. O'NEILL: Well, we were prepared, if you are interested, in providing a little more detail on our findings concerning the geo-seismic issues and also our findings concerning the deficiencies in PG&E's design control -- although we have covered much of that material in response to your questions.

CHAIRMAN ROSENTHAL: Yes, you have.

Would you like to summarize?

MR. DE BERRY: Let me just summarize again what our position is with regard to our study and what we've recommended.

Again, our study has found that ratepayers should not pay for unreasonable costs. We have determined that the — of the $5.5 billion that PG&E expended as a commercial operation on the two units at Diablo Canyon, that ratepayers should only pay for $1.15 billion of cost. And as has been well discussed, I think, this afternoon, we have found that this cost is a result of three major issues or findings in our study.

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The first of these is that PG&E should have found the Hosgri Fault and should have incorporated its -- the effects of the Hosgri Fault and its seismic design, in original construction.

Secondly, when the fault was discovered and had been made known, PG&E did not respond to the fault. In fact, they actually argued with the Nuclear Regulatory Commission over the effects of the fault and insisted that their seismic design was adequate.

And thirdly, we believe that the Mirror Image Error and the other design errors that led to the tremendous costs, beginning in September of 1981 and thereafter, should not have occurred. And based on those three major issues, we believe that it is reasonable for ratepayers to pay approximately $1.15 billion of cost for that plant.

CHAIRMAN ROSENTHAL: I've heard that the PUC might welcome a settlement of this case in order to avoid protracted litigation. What safeguards will be used in the settlement to ensure that all effective interests could effectively participate?

Mr. Weisser.

MR. WEISSER: Any settlement discussions that are undertaken in the future, if they lead to a proposal, would have to be presented to the Commission and subject to a complete and thorough hearing process to ensure that all parties' interests are protected, period. There will be no settlement that will be arrived at that will not undergo any, you know, the type of intensive scrutiny to ensure that all interests are protected and that the ratepayers are protected and all intervening parties have an opportunity to participate.

CHAIRMAN ROSENTHAL: Assemblywoman.

ASSEMBLYWOMAN MOORE: I had a couple of questions. The first was that it appears that Vic, don't go away 'cause one of these is going to be for you -- the -- you -- in your report, you indicated that the -- in actuality, PG&E built three plants and you've only decided to fund one; and that was the first that should have been completed in 1973.

Is that essentially -- is that oversimplifying what your recommendation is?

MR. DE BERRY: Well, our recommendation is based on the fact that PG&E did, in fact, complete the plant three times, as I indicated earlier. The three completions include the original construction, the modification for the Hosgri Fault, and the correction of the design errors after 1981.

Now our finding, that is, our recommendation, is that the plant should, in fact, have been completed after, or approximately at the time of original construction, which would have been in 1976. And therefore, at that time, the cost of the plant would have been about $1.1 billion.

ASSEMBLYWOMAN MOORE: Now that conclusion would appear to me that you totally fault PG&E for everything. Their contentions that there was some government delays and a variety of other problems that were not -- that they had which are over -- which they had no control -- were major contributing factors to the length of time of the play.

Does that -- your conclusion indicate that you totally disregard it or felt that that had no merit?

MR. DE BERRY: Well, our conclusion, as Mr. O'Neill indicated earlier, is based on what we
believe to be the factors that PG&E did have control over and that, in fact, management could have controlled. And these were basic issues dealing with geo-seismic questions and also with Quality Control and Quality Assurance that led to the Mirror Image and other design errors.

ASSEMBLYWOMAN MOORE: I guess, of course, hearing that and then the questions that evolved from that are one — that some that I heard from some junior high school students who raised the question: Who was watching PG&E? And you come back to the PUC and yet you have shifted the total responsibility over there.

But my question is more directed to you, Vic. And it's one that -- given the size of this case -- it's like none that we've never had in the history, given the dollars that are involved -- given the time that has elapsed during this period and the involvement of the PUC over the years with the case -- do you think that it would be the interest of the public would be better served if there were -- the hearing process was somewhat altered from the norm and perhaps we brought in a masters-type judge that -- to try the case? Because there are many legal points that are going to be raised; and I just would like to hear some comment on that. And could that fit into the time frame that you set forth of 21 months?

MR. WEISSER: Chairwoman Moore, let me give you some off-the-cuff initial reactions. I'm confident that the Commission has placed the type of resources, in terms of people on the case, to ensure that we get a quality decision going to the Commission. We looked at the question of whether or not we might want to utilize a special master or special masters for portions of the case, particularly, particularly technical portions of the case, and the belief of the PUC's management -- and this is the chief administrative law judge, myself, and other judges that we conferred with, was that that would not be a particularly helpful issue.

Let me cite an example. Suppose you were to attempt to hire a special master or utilize a special master for the geologic and seismologic issues. You would tend to try to find perhaps a retired judge with that sort of background. What you would be ending up with would be, in my opinion, one other party coming in with perhaps certain preconceptions regarding the particular technical issue at question -- geology or seismology. We think we're best off bringing in an impartial administrative law judge experienced in managing complex cases that would be able to provide an...

ASSEMBLYWOMAN MOORE: I guess the question is: How do we find at the PUC an impartial ALJ?

MR. WEISSER: Well, I'm quite proud of the administrative law judges that we...

ASSEMBLYWOMAN MOORE: I mean this is not — I don't want you to run back and say Gwen Moore is knocking administrative law judges. But it's a real question. And I'm saying that there's not a person in the PUC that probably doesn't have some opinion about the Diablo, Diablo proceedings, the Diablo case, the Diablo issue. And I guess that's what I'm really, you know, trying, trying to get at. And this case, everybody has some interest in it; everybody has some stake in it because of the long-range implications for the entire state. And it's of such a magnitude that I think that we may have to look at doing things a little differently than we normally do, particularly because it has dragged on for so long.
MR. WEISSER: I think looking at new and innovative ways to deal with this case is particularly, you know, appropriate. I want to assure you though that we select who are going to be administrative law judges in general on the basis of the people's personal abilities to bring themselves above whatever sort of front-end loading they may experience and that the judges that we've assigned to this case, in particular, have shown through their experience that they're capable and competent and impartial in handling complex and litigious issues such as that which we face.

ASSEMBLYWOMAN MOORE: The first judge that handled a great deal of this is no longer with the PUC; is that true?

MR. WEISSER: He is retiring, but we will be contracting with him for assistance through the next year — through the case — on a part-time basis. He will act as an assistant to the judge in charge.

CHAIRMAN ROSENTHAL: Let me ask another question, another issue here. If the largest allowance were to impair PG&E's financial position, wouldn't it eventually only serve to hurt ratepayers?

MR. DE BERRY: Senator, with regard to the financial implications of our recommendation — certainly, as I pointed out earlier, that was, in fact, one of the reasons why we wanted to make this study. Our study has indicated that the two — the first issue is that we believe that PG&E could still be able to finance its construction program at a reasonable cost.

CHAIRMAN ROSENTHAL: Yeah, but how much more — when you go to borrow money, what is the difference in percentage that you might have to pay? And doesn't that become a cost of the ratepayer?

MR. DE BERRY: We, in our study, have found that approximately — this is again an estimate; it's based on various assumptions because we've had to assume that the market would do certain things. We don't know really right now exactly what the market will do in the future with regard both to the stock and to the cost of issuing bonds or debt. We have found that the additional cost will be approximately 1½ percent. However, we have also found that that additional cost would not necessarily flow through to ratepayers in the form of additional, higher costs due to a factor that deals with what's called "leveraging," which has to do with the relationship between the percentages of equity and the percentages of debt that the company would face at a future point in time.

CHAIRMAN ROSENTHAL: I don't know what that means.

MR. DE BERRY: Okay. I realize that's — it's a somewhat of a complicated issue.

Let me just answer your question by saying that we do not believe that the additional costs would flow through to ratepayers. And I can explain that to you if you'd like me to.

CHAIRMAN ROSENTHAL: Over a period of the life of that plant?

MR. DE BERRY: That's correct.

CHAIRMAN ROSENTHAL: Okay. And finally, in your view, how does the staff report affect the issue of the interim rates for Diablo? In other words, on the basis of what the staff is saying, should those interim rates be reduced?

MR. DE BERRY: On the basis of what the staff has presented to date, currently, I believe that
we're the commission to adopt what we have recommended -- there would be a slight reduction in current interim rates.

CHAIRMAN ROSENTHAL: Anything further that you would like to add in your presentation?
MR. ______________: Thank you very ...

CHAIRMAN ROSENTHAL: I want to thank you for this presentation. Didn't get a chance to thank all of those assembly persons who were here and had to go back -- they're in session on the floor. I'm sure we'll be talking about this issue for the next 21 months at least. And I thank you very much for that presentation. Thank you.

MR. O'NEILL: Thank you for the opportunity.
MR. DE BERRY: Thank you, Senator.

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