

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ADVISORY COMMITTEE ON REACTOR SAFEGUARDS

Subcommittee on Diablo Canyon

Holiday Inn
1020 S. Figueroa
Los Angeles, California

Thursday, 19 January 1984

The Subcommittee on Diablo Canyon convened pursuant to notice, at 8:33 a.m., Chester Siess, Chairman of the Subcommittee, presiding.

PRESENT FOR THE ACRS:

C. SIESS, Chairman
C. MICHELSON, Member
D. OKRENT, Member
J. EBERSOLE, Member
D. WARD, Member
F. REMICK, Member
H. ETHERINGTON, Member

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1 MR. SCHIERLING: The issues of concern to the
2 Intervenors and also to the Governor.

3 MR. OKRENT: The Governor, I gather, is an
4 intervenor?

5 MR. SCHIERLING: Joint Intervenors and the
6 Governor. There were discussed and testimony was taken on
7 all of these issues that are of concern to these parties
8 at the recent hearings in Laguna Beach. Currently all
9 parties have filed their findings and we are awaiting a
10 decision by the Board, but these are in essence the issues
11 where Joint Intervenors and the Governor have expressed
12 concern that something is outstanding.

13 Do you want to add to that, Jim?

14 MR. KNIGHT: Yes. I think to the best of my
15 knowledge, there are very few specific contentions that this
16 feature or that feature of the plant is -- has been demonstrated
17 to be inadequate. The thrust of much of the Intervenors'
18 concern went to the depth of the IDVP, whether or not the
19 process, which was largely based on a sample taken on judg-
20 ment and followed through, then, and the results in many cases
21 reviewed, the extrapolation of those results based on the
22 judgment, whether or not that process as opposed to a process
23 based on some sound or well-recognized statistical base, x
24 number of pipe supports and therefore a sample of such and
25 such number, a confidence level established and some method

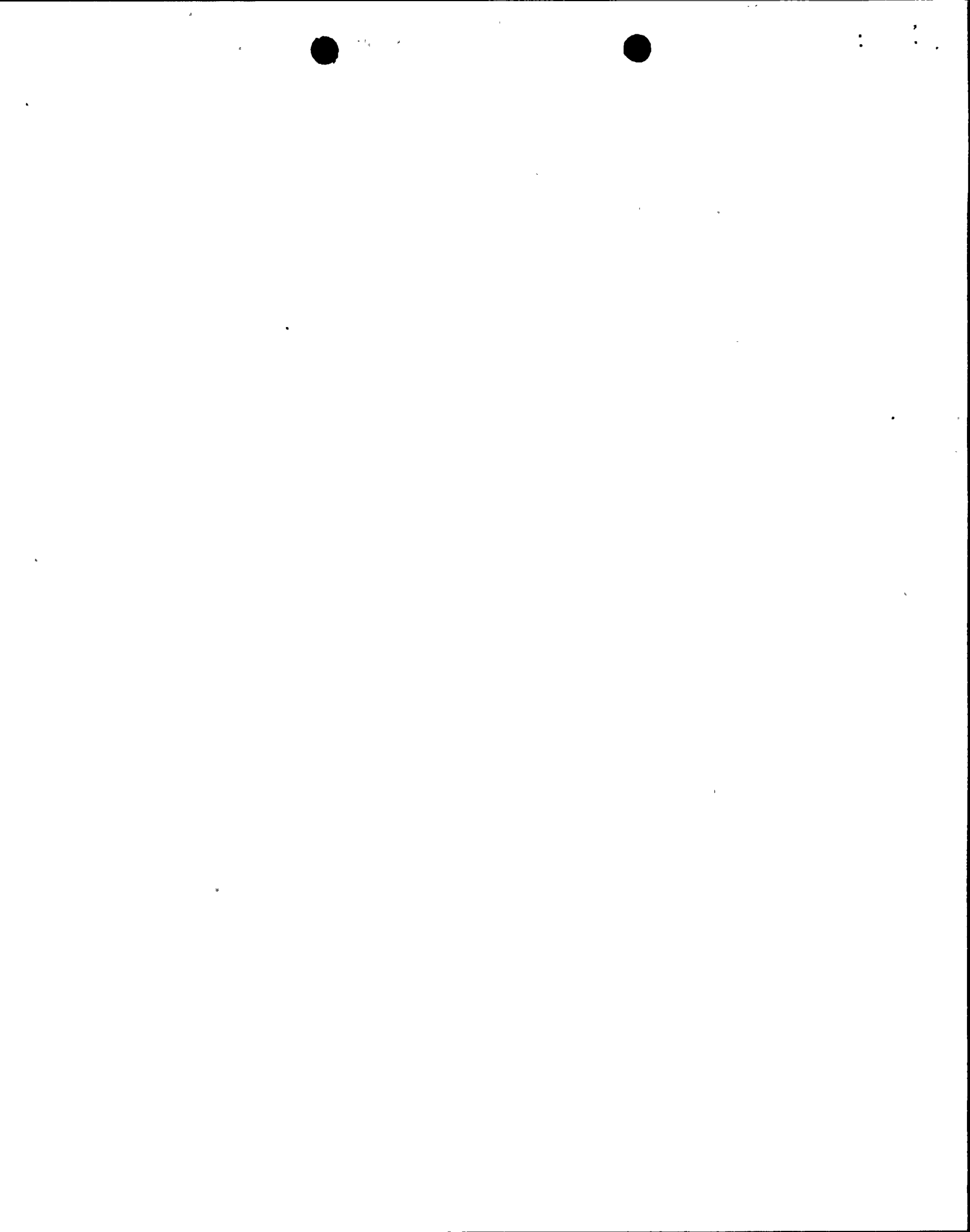


1 of relating the problems found to that confidence level
2 would be a better process, in fact the process should be
3 used.

4 That, to me, was the crux of much of the concern.
5 There were then other questions raised, and many times those
6 questions were the result of Staff review. That is, the Staff
7 identified the problem, the Intervenor would then care to
8 perhaps carry that review of that particular aspect of the
9 plant to their own expert and get his opinion. But again, I
10 cannot sit here and identify any particular area or item of
11 the plant that is now a standing contention as to its inade-
12 quacy.

13 MR. OKRENT: Let's take your answer, which was in
14 two parts. Is it your opinion that there are no identified --
15 I will call them deficiencies or potential deficiencies, where
16 the Intervenor, including the Governor, disagrees with the
17 Staff?

18 MR. KNIGHT: There is none that is outstanding in
19 my mind. There were several things brought up, and the
20 testimony on them got fairly complex, to the point where a
21 number of these issues, even while testimony was ongoing, were
22 fairly well-resolved, I believe. There were questions of
23 containment toppling, questions on the soil-structure inter-
24 action analyses that were performed. In a number of cases
25 the contentions arose out of a lack of information, and when



1 the information was made available, they were no longer of
2 concern.

3 MR. OKRENT: Jim, you are sort of answering the
4 other part of the question.

5 MR. KNIGHT: I am sorry.

6 MR. OKRENT: I am trying to find out if there
7 remain some technical issues that are not resolved by provision
8 of information, in your opinion, where in fact you have one
9 opinion but they have another opinion.

10 MR. SIESS: Let me try to understand this. As I
11 understand it, all parties to the hearing have submitted their
12 proposed finding of facts.

13 MR. KNIGHT: Yes.

14 MR. SIESS: And there must be one by the Joint
15 Intervenors, one by the Governor, one by the Staff and one by
16 PG&E.

17 MR. SCHIERLING: That is correct.

18 MR. SIESS: I think, and Dave will correct me, but
19 I think he is asking if there are any areas where the NRC's
20 proposed findings of fact, which I assume, although it is
21 written by a lawyer, was proposed by engineers, any
22 instances where the NRC's proposed findings of fact differ
23 from those of the Joint Intervenors or the Governor.

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MR. KNIGHT: I am sure there are, but I think the central thrust will go to the depth --

MR. OKRENT: Let's leave aside the depth of the review momentarily. I am talking about individual components or systems or buildings or something, you know.

MR. KNIGHT: I have not had the opportunity to sit down and do a one-for-one comparison on the findings. I cannot give you that direct answer. I will try during the day today to get back to our attorneys in Washington who are involved in that process and see if I can get a list out of them.

MR. OKRENT: I think it would be of interest --

MR. SIESS: Since this was not on the agenda, we cannot expect the Staff to be prepared. I think we will have to take it on that basis. If by later this afternoon you have something, you will let us know.

MR. OKRENT: I guess I would have thought the Staff would have in mind technical areas, if there are any of significance, where there remain differences of opinion. I certainly think it is relevant to have the Staff's assessment of whether there are any.

MR. SIESS: I agree, Dave, but it was not the subject of this meeting and it was not stated as part of the agenda, so they were not prepared to address that.

MR. OKRENT: All right. Let me ask you one



1 question, Chet. With regard to the other aspect concerning
2 differences, the residual difference in opinion between the
3 Intervenors and the Staff concerning what I guess you might
4 call the methodology chosen used for the sampling and so
5 forth, did you have in mind having that discussed by the
6 Staff or the Applicant or at all?

7 MR. SIESS: I had no hearing issues in mind when
8 we set up the agenda. The proposal was to look at the things
9 that were found, the corrections that were made and the
10 significance of them. The hearing items were not even a part
11 of this. I had not even heard of it until yesterday.

12 MR. OKRENT: Since there is an issue, which I am not
13 taking any sides on by asking the question, but since I know
14 there is a technical issue concerning the -- I suppose you
15 might call it the validity of the chosen sampling --

16 MR. SIESS: It has been suggested that we might ask
17 the Staff to come in to the next full committee meeting and
18 present that, and if the Committee thinks they want to reopen
19 the review, that would be a basis for doing it.

20 MR. OKRENT: Or it may be that -- this was testified
21 to at length, I have to assume, at the hearings.

22 MR. KNIGHT: Yes, indeed.

23 MR. OKRENT: And there may be a reasonably
24 lengthy written Staff position which says why what they have
25 done -- that is, what PG&E has done.



1 MR. SIESS: I am sure we could find some hearing
2 transcripts.

3 MR. OKRENT: That is not the easiest way.

4 MR. SIESS: If Staff could reference those, that
5 would be one way to get some background on it, and we could
6 have another subcommittee meeting sometime to look into that,
7 either specifically or generically. I think it has generic
8 implications.

9 MR. KNIGHT: Given the format of the hearing, the
10 fact that the contentions were drawn down as narrowly as they
11 could be so that they would be tractable, and then the use of
12 question and answer format for testimony, it does not lend
13 itself to the type of discussion I think you have in mind.

14 MR. OKRENT: But in your concluding statement did
15 you provide some summary as to why you felt -- in detail the
16 approach taken was adequate? Did you just say engineering
17 judgment or something?

18 MR. KNIGHT: There was a good deal more than that.
19 A good deal of that argument is brought out in cross-examination
20 in the transcript. I do not think there is -- there does not
21 exist at this moment a succinct, cogent statement.

22 MR. SIESS: But the proposed findings of fact must
23 address this issue in summary form.

24 MR. KNIGHT: Summary form, yes.

25 MR. SIESS: It is an interesting issue. I have



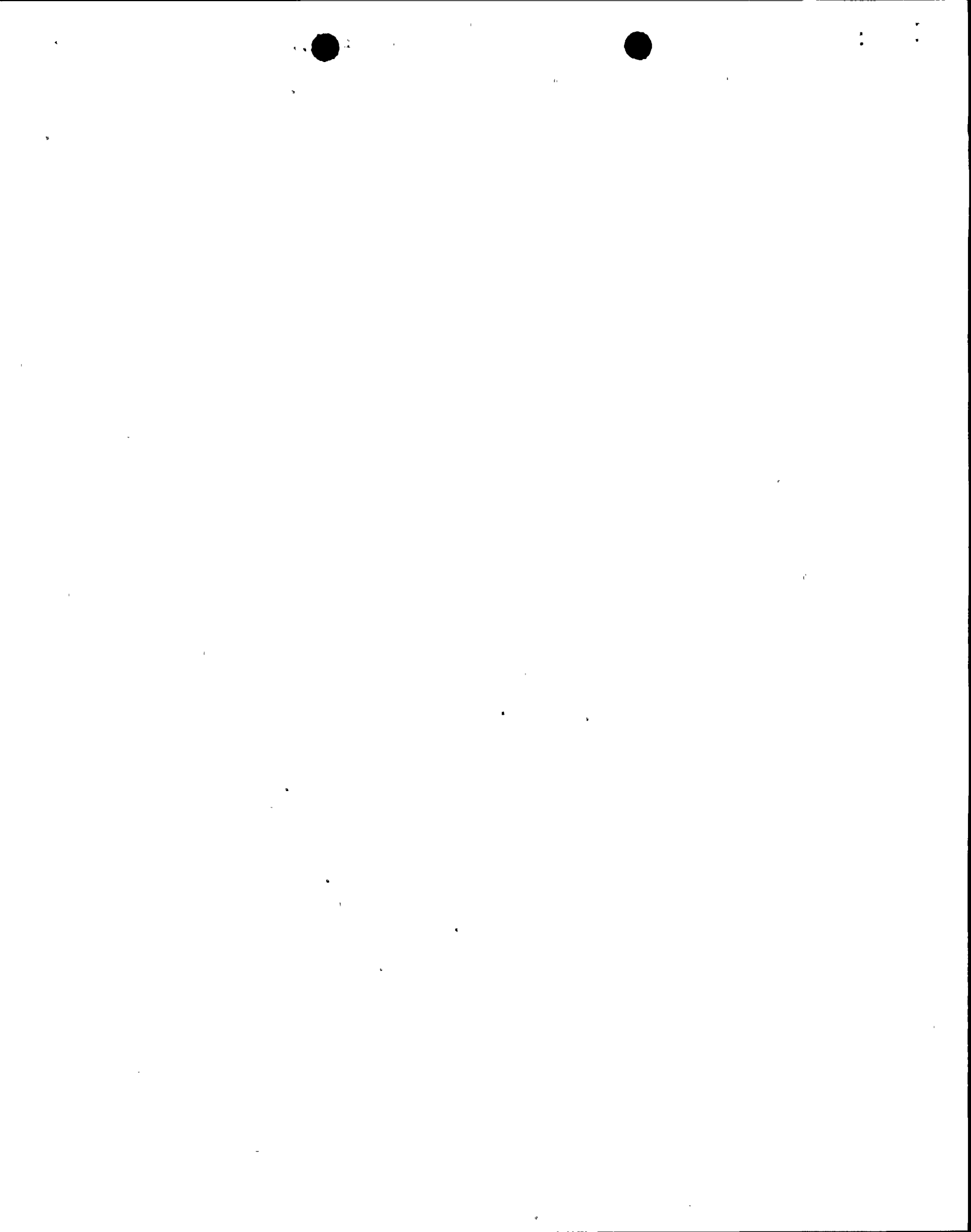
1 some concerns about statistical sampling out of a universe
2 that I do not think is anywhere near homogeneous, pipe supports.
3 There are probably 20 categories in there of how you sample
4 out of that kind of a thing. I think it is an issue that
5 might be worth exploring. I think it has some generic
6 implications. There are other design verification programs
7 going on in other plants that we will be hearing about.

8 MR. OKRENT: Since it was a major point raised at
9 the hearing, it seems to me at some point we at least ought
10 to hear, in what I would call an extended summary fashion
11 without having to read the transcript, at least what the Staff
12 thought was the appropriate dispensation of it. That's all.

13 MR. KNIGHT: I have just been handed a list by a
14 party that has had the opportunity to review the findings of
15 fact. They certainly can talk at greater length, but just to
16 put the list out for perhaps your thoughts: containment
17 uplift, soil structure interaction analysis on the auxiliary
18 building, analyses for the buried tank and CCW pipe from intake,
19 which is essentially a soil structure again, and the
20 criteria applied for the determination of the location of
21 pipe breaks, that is, whether it is the 200 degrees, 275 psi,
22 that must be --

23 MR. SIESS: Inside containment or outside?

24 MR. KNIGHT: Inside containment. It must be
25 considered -- both taken, or whether, as was the case here --



1 whether both are required before break or whether one of those
2 two conditions is sufficient. Those seem to be --

3 MR. SIESS: You did not have the sampling on that
4 list?

5 MR. KNIGHT: No.

6 MR. SIESS: It was an issue, right?

7 MR. KNIGHT: It certainly was an issue. I have to
8 go by this list of technical facts.

9 MR. EBERSOLE: Jim, this seismic investigation also
10 precipitated a reinvestigation in a good many other areas.

11 I think we called this the Category II reinvestigation.

12 MR. KNIGHT: The so-called Phase II.

13 MR. EBERSOLE: I would like to find a summary of
14 how that was approached in the findings, of not how easy they
15 were to fix but how significant they were if they had not
16 been fixed.

17 MR. SIESS: That is part of the discussion today;
18 Jesse.

19 MR. EBERSOLE: I think we will not have time to get
20 into many of these today.

21 MR. SIESS: We will get into the major ones. We
22 will get into those covered by the project and the Stone &
23 Webster aspects.

24 MR. KNIGHT: Yes.

25 MR. SIESS: Any other questions, then? Before we



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1 go on to the next item, I would like to make a brief
2 announcement. We do have an attendance list. There may be
3 some people who have come in since it was passed out. If
4 they have and they would like to sign it, if they will just
5 raise their hand, we will pass it out to you. It is not
6 mandatory but we would like to have a list of those present
7 if they wish to sign. Thank you.

8 Okay, we will proceed now with the presentation
9 from Pacific Gas and Electric Company, and we will start off
10 with Mr. John Hoch, Diablo Canyon Project Manager..

11 MR. HOCH: Thank you, Dr. Sies's.

12 My introductory remarks are very brief. I am John
13 Hoch, Project Manager for the Diablo Canyon Project for
14 Pacific Gas and Electric Company. With me today are other
15 members of the project and representatives from the indepen-
16 dent design verification program.

17 Additionally I will note that Howard Friend of
18 Bechtel, the Diablo Canyon Project Completion Manager, and
19 George Maheatis, the Executive Vice President of Utilities
20 Resources Development for PG&E, are also here due to their
21 interest in this matter.

22 We are pleased to be here today to hear the Staff
23 briefing on the NRC actions regarding the IDVP and to
24 discuss the safety significance of plant modifications at
25 Diablo Canyon resulting from the extensive design verification



1 MR. SIESS: The meeting will reconvene.

2 I think we will take up first a report from
3 PG&E and some of the things they found in their seismic
4 systems interaction study.

5 As I recall, that was done at our suggestion,
6 was it not?

7 MR. HOCH: That is correct; Dr. Siess.

8 MR. SIESS: Is "suggestion" the right word?

9 MR. HOCH: In response to the committee's
10 concern.

11 MR. SIESS: Okay.

12 MR. HOCH: The seismically-induced systems
13 interaction program at Diablo Canyon was implemented in
14 late 1979 to respond to a concern by the committee. The
15 program was formulated to consider seismically-induced
16 events only. It was formulated with the advice of an
17 independent review board, which we employed, used, to help
18 formulate the program, give us suggestions.

19 That board was composed of a number of people.
20 Let me just mention two. Dr. Spencer Bush, who was
21 formerly with the committee, was on that board; as well as
22 Dr. Victor Weingarten from USC.

23 We had, I think, five total people on the board.
24 The program was formulated, was discussed, I believe, on
25 two occasions with the committee. The NRC Staff formed at



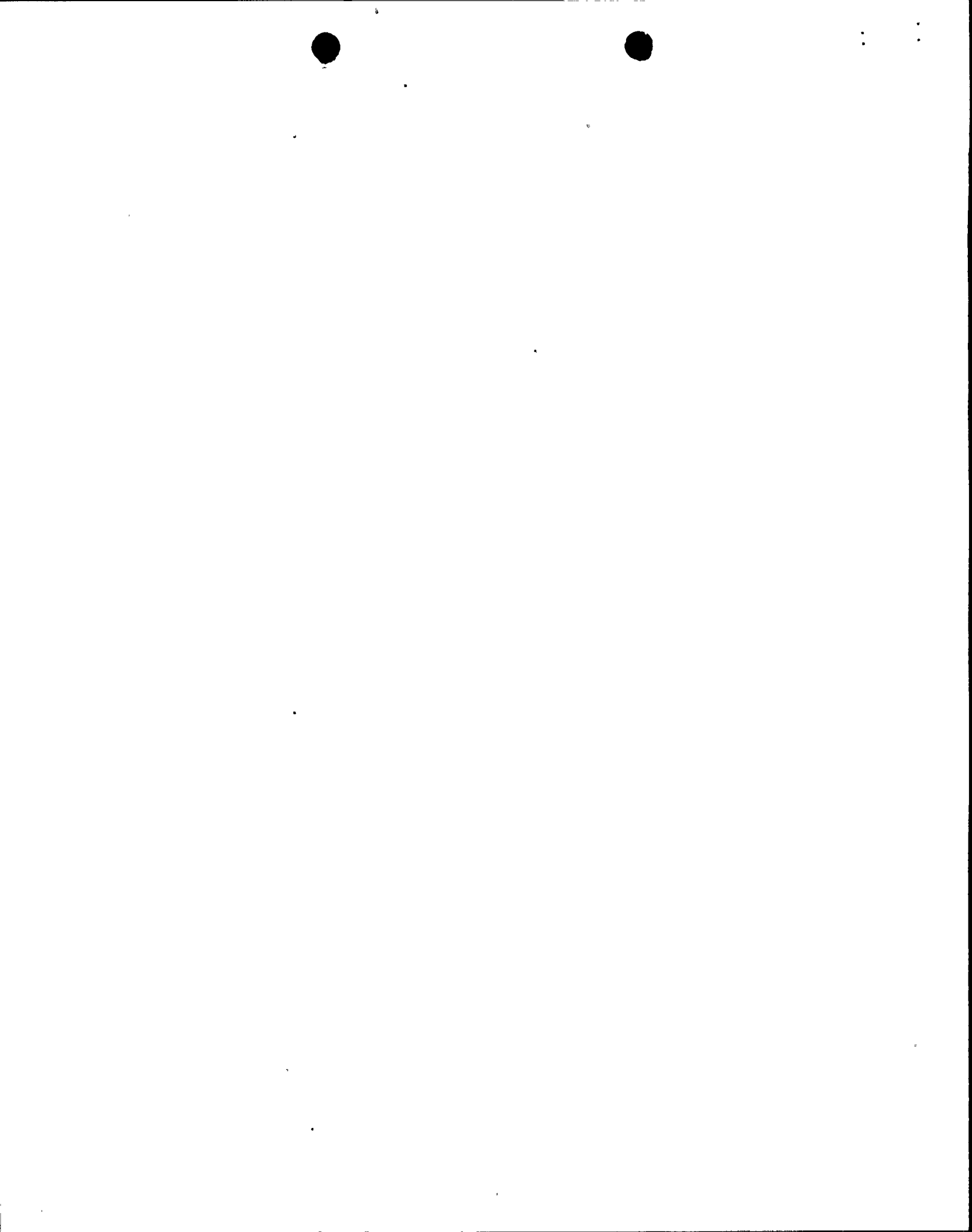
1 that time a brand new branch, if you will, which they
 2 called the Systems Interaction Branch, to review the
 3 program, give us comments and suggestions and work with us
 4 during its formulation, and that indeed was done.

5 The Staff reported on the program, in I believe
 6 Supplement 9 to its Safety Evaluation Report for Diablo
 7 Canyon. I think I have the number correct.

8 I will try to keep this very general. Diablo
 9 Canyon seismically-induced systems interaction program
 10 identified potential seismically-induced interactions
 11 between non-design Class 1 or Category 1 items which we
 12 called sources, and targets, and targets in the program
 13 were structures, systems and components that had an
 14 important role or a role in achieving cold shutdown, or
 15 were involved in accident mitigation.

16 There were some accident mitigating systems
 17 and components that were considered in the program. In
 18 some instances, design Class 1 or Category 1 items were
 19 also potential sources. That kind of thing happens when
 20 even though the design Class 1, Category 1 item will not
 21 fail, because if it has an event, it might displace or move
 22 or swim or screech interact with another Category 1 item.

23 The program made use of walkdown teams.
 24 Walkdown teams were interdisciplinary teams composed of
 25 people from Instrumentation, Electrical, Piping, and



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1 interdisciplinary groups who identify potential system
2 interactions to write up, if you will, those interactions
3 and present them to Engineering prior to the establishment
4 of the Diablo Canyon project.

5 It was PG&E's engineering department during
6 the course of the project. It has been the Diablo Canyon
7 project that has responded to those system interaction
8 or potential system interactions.

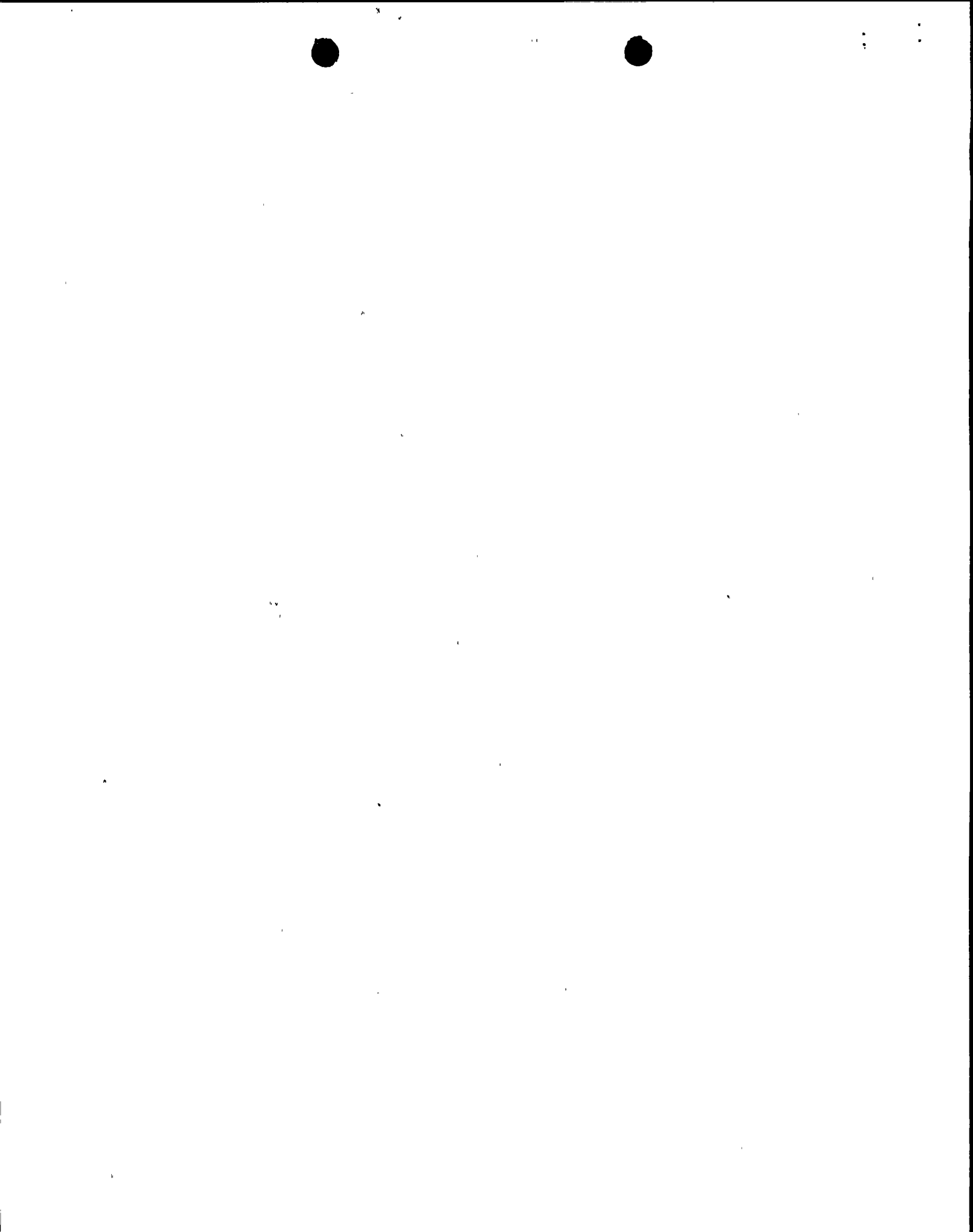
9 The walkdown team, in the conduct of the
10 program, has been accomplished by, if you will, a group
11 somewhat independent from project engineering, a group out
12 of a little special project department at PG&E.

13 Those potential interactions as given to
14 Engineering are responded to and resolved in a number of
15 possible ways:

16 In some instances, an analysis is performed
17 to establish whether the item identified can really affect
18 a safety -- an item important to safety.

19 In other instances, the modification has been
20 identified, design-issued and performed to prevent a
21 potential adverse interaction.

22 To give you a few examples, some observable at
23 the site, some simple examples: fluorescent lighting
24 fixtures that are hung from chains were identified as
25 potential sources of interaction when they were above



1 fragile or potentially fragile safety-related items.

2 For example, fluorescent lights over safety-
3 related batteries. Engineering's resolution for that
4 particular item was to issue a design which installed a
5 redundant heavier chain on the light to assure that it
6 indeed would not fall on the batteries.

7 Other examples are monorail hoists installed
8 over safety-related pumps and motors. We have installed
9 stops so that the hoist section, the hoist on the monorail,
10 is not normally stowed over the pump or the motor.

11 Other examples -- lots of examples involve
12 the fire system. The reason for that, of course, is
13 originally fire system components at Diablo Canyon were
14 not Category 1, were not seismically designed, and so the
15 two over one, if you will, criteria was not applicable.

16 A lot of our modifications have been to modify
17 non-Category 1 items which were over portions of the
18 fire system which now are seismically qualified.

19 Another example might be displacement swinging
20 items joining lines that were suspended on rod hangers that
21 -- where it was determined that they could, in a seismic
22 event, possibly swing and impact some safety-related item.

23 The seismic-induced system interaction program
24 has been considerably more extensive than originally
25 anticipated. The walkdown teams have been at work for a



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1 number of years, since '79.

2 I think probably the main reason the program has
3 been more extensive is we have continued to make modifications
4 to the plant. As modifications are made, the program is a
5 continuing one, and the walkdown team goes back and looks
6 at the modifications again, and repeats the process.

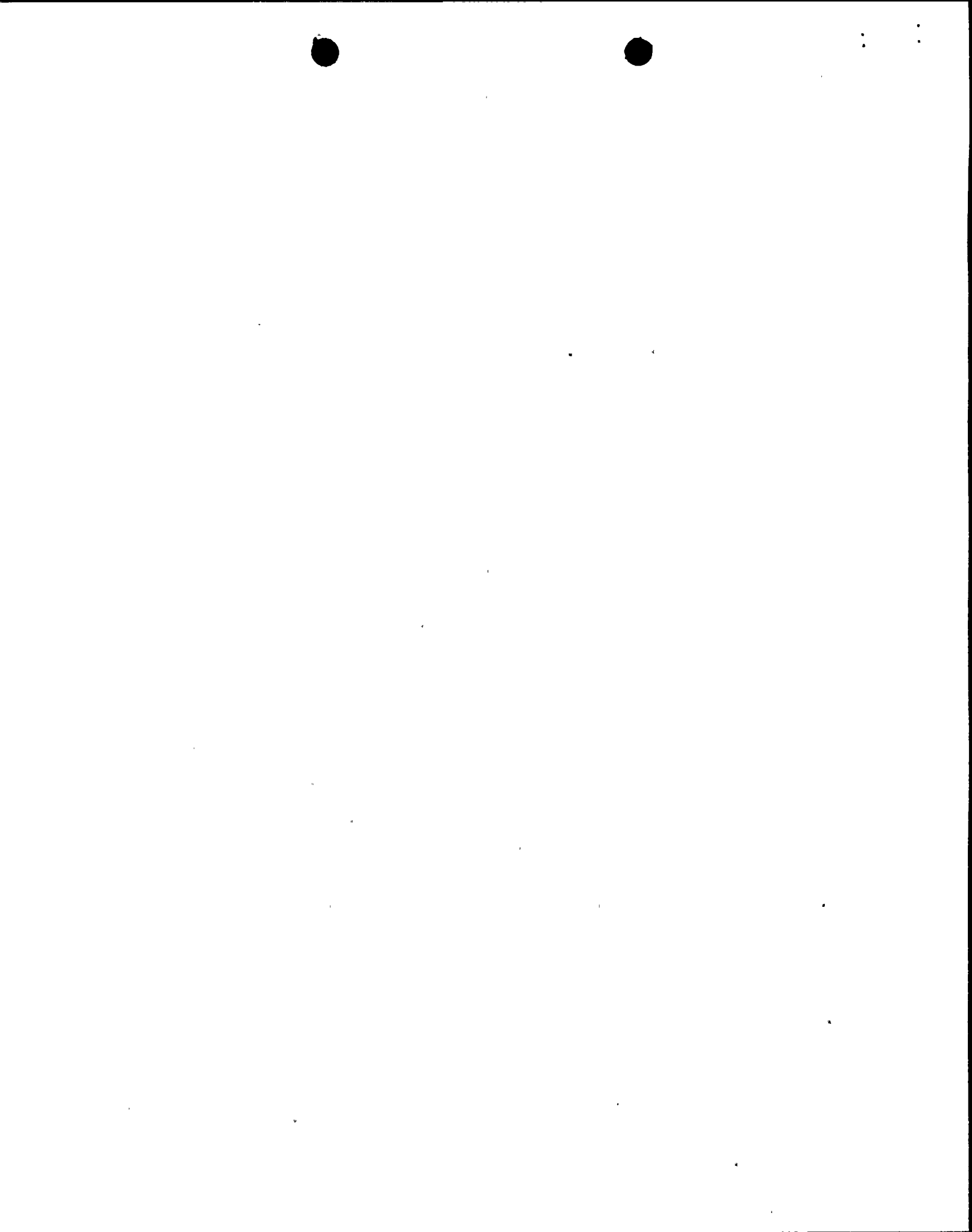
7 The system interaction program was complete,
8 including modifications in the containment, prior to fuel
9 loading, which was our commitment. It will be complete
10 in the remainder of the plant, in the remainder of Unit 1,
11 prior to full power operation, prior to exceeding 5 percent
12 power. We are somewhat ahead of that schedule right now
13 in terms of completing the program and implementing all of
14 the modifications.

15 We have submitted preliminary reports to the
16 Staff, I believe in November, late November or early
17 December, describing the system interaction program and
18 its results in a summary form.

19 A more detailed complete report will be provided
20 to the Staff. That is presently scheduled for submittal
21 some time in February.

22 Dr. Siess, I think that is really all I have
23 to summarize what we have done with that system.

24 MR. SIESS: The kinds of interactions you
25 describe are mostly sort of mechanical. Did you find any



1 interactions, say, electrical interactions, between
2 systems, nonseismic and safety systems, or hydraulic?

3 MR. HOCH: The answer is yes, although the
4 potential interactions that were looked at began in all
5 cases with some kind of a postulation of a mechanical
6 interaction; something hitting something; something falling
7 on something; something spilling on something, if you will.

8 The reason the interaction was postulated in
9 many instances was because that mechanical interaction
10 might have conceivably resulted in some kind of an
11 adverse effect on an electrical component or --

12 MR. SIESS: What I was thinking of, sometimes
13 we simply assume that if a system or piece of equipment is
14 not seismic Category 1, it simply disappears from view
15 when we have the earthquake and this obviously is not true,
16 but there is some probability that it will fail due to the
17 earthquake, and then the loss of that system could ---
18 conceivably have some effect on a seismically qualified
19 system needed for safe shutdown.

20 Were those things looked at? That would not
21 necessarily be a walkdown type thing. That can be a paper
22 type thing.

23 MR. HOCH: We did not assume in general that
24 non-Category 1 things disappeared or arbitrarily failed.
25 When a potential interaction was identified between a



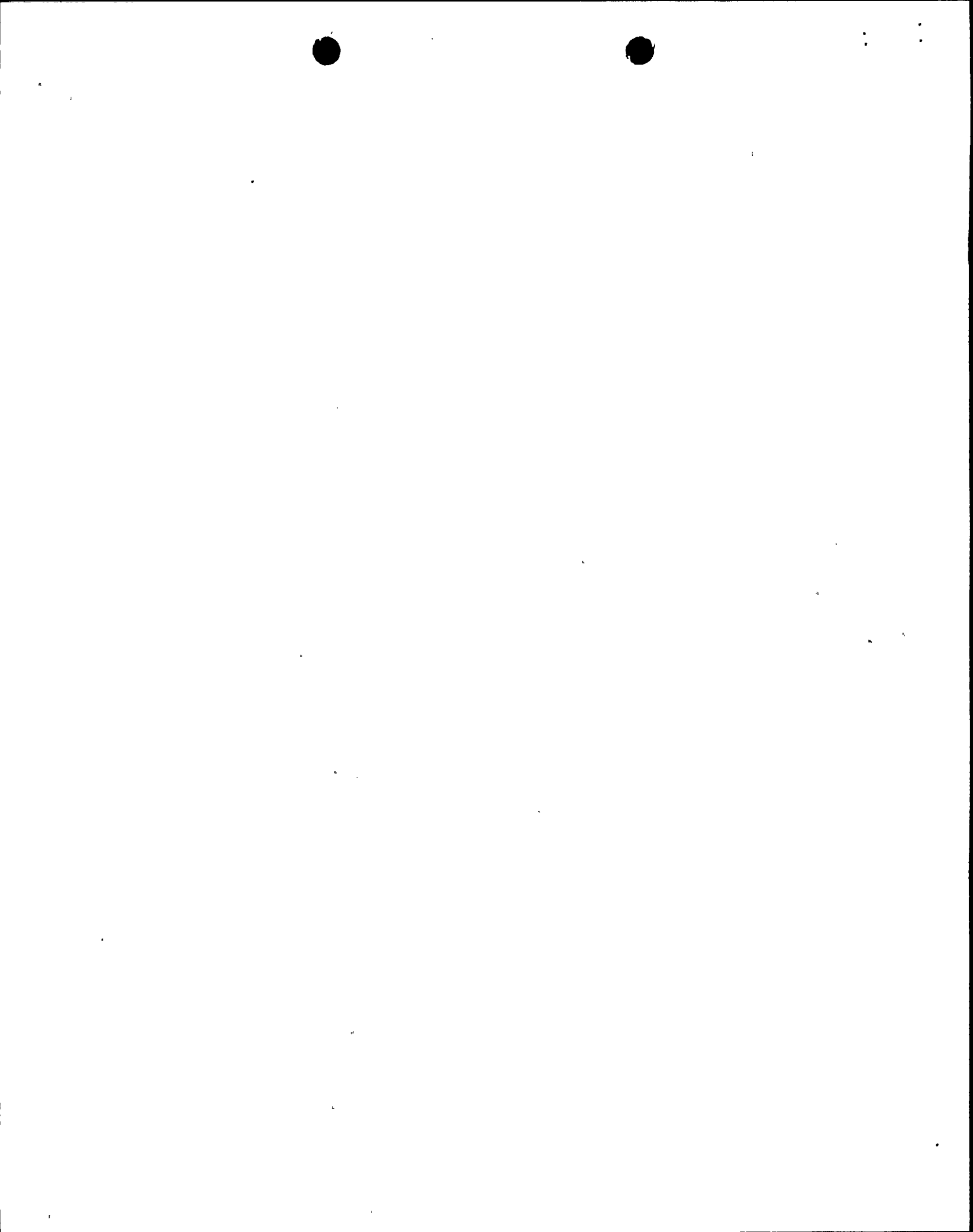
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1 non-Category thing and a safety-related target, if you
2 relate, an evaluation was made which could include an
3 analysis of that nonqualified source to show that it
4 indeed would not fail. It could have considered an
5 evaluation that showed if it would fail, it would not
6 affect the target, and finally could simply fix the source,
7 either to completely do something, from completely bringing
8 it up to Class 1 or Category 1 standards, to simply
9 restraining it from an unacceptable range of motion.

10 So, in general, we did not do something as
11 simple as simply assuming that the thing disappeared or
12 arbitrarily failed because it was not explicitly seismically
13 qualified.

14 MR. WARD: What do you think about the program
15 now that it is essentially finished? Has it turned up
16 things that are useful? Has it been anything like cost-
17 effective? Have you burned up a lot of engineering time,
18 identifying a lot of Mickey Mouse stuff? What is your
19 bottom line opinion?

20 MR. HOCH: I think all of us think the
21 program has been rather expensive, partially because it
22 has lasted so long. It has had to last through all of
23 this modification period. If you look at the results of
24 the program, you will find examples ranging from, yes,
25 that is something that should have been identified, I'm glad

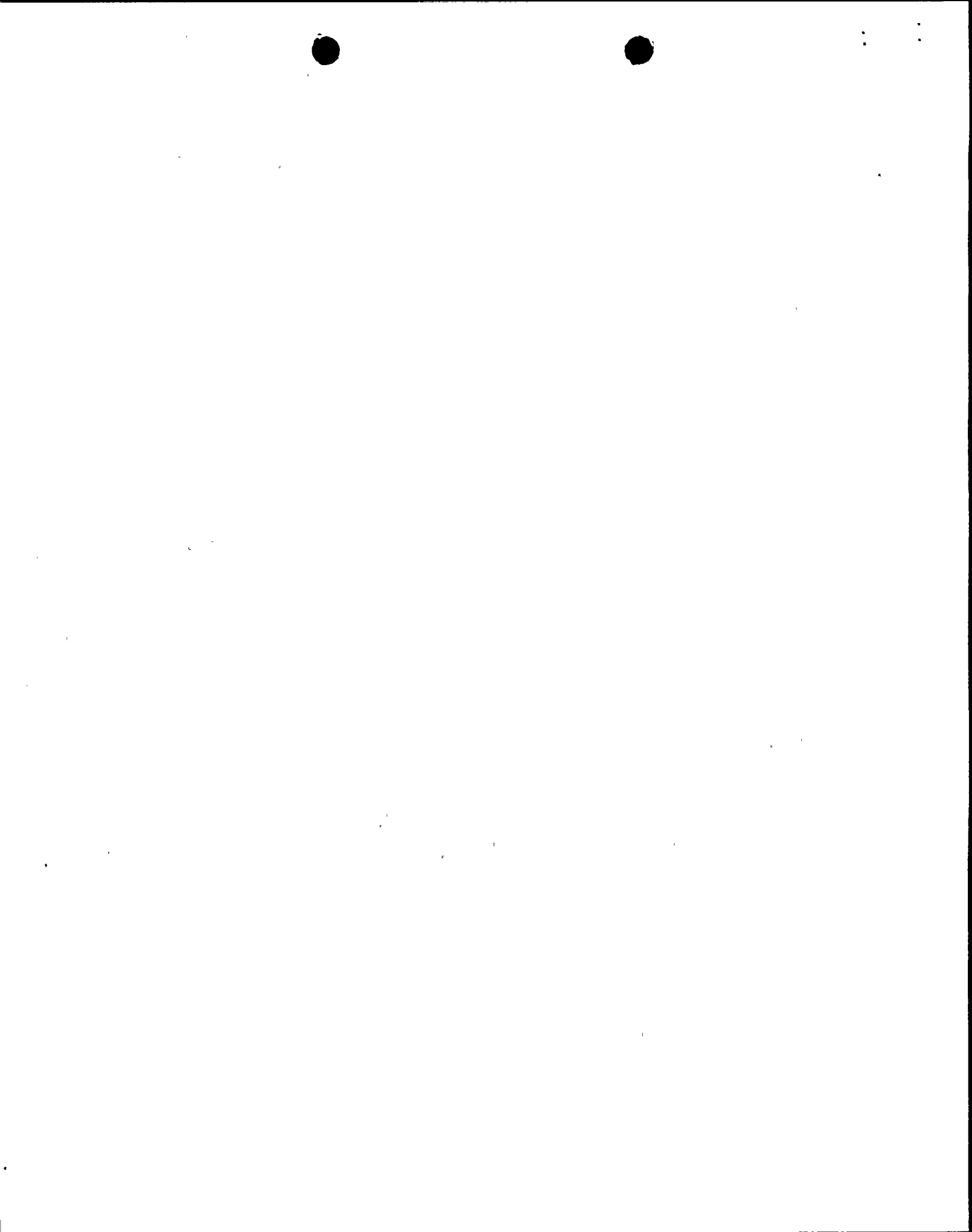


1 we found that, although there may not have been an
2 adverse effect. It is significant enough that I am glad
3 we fixed to, to some things that appear -- I will not use
4 the word "Mickey Mouse", -- but appear to be on their
5 face, at least, rather unnecessary when you look at them.

6 For example, as you go around the plant, you
7 will find certainly everywhere in the containment -- and I
8 think the rest of the plant is nearly done -- fire
9 extinguishers, for example, were identified as potential
10 missiles wherever they occurred, and some rather -- I
11 guess I will call them some rather absurd postulations
12 were made about the extent to which a fire extinguisher
13 could hurl itself sideways in a seismic event and impact
14 something. And, rather than deal with the difficult task
15 of making quantitative analysis of that, the solution was
16 simply to use a rather extensive system of restraining
17 fire extinguishers in their storage locations.

18 I know this is a simplistic answer, but
19 everything you have said we found, we found the program to
20 be, I think -- I think in retrospect it was useful, I'm
21 glad we did it. It gives us additional assurance that
22 none of these interactions, seismically-induced inter-
23 actions, were beyond acceptable.

24 In retrospect, however, it was expensive. I
25 think if we had to begin again from the beginning, we would



1 perhaps do it in a better fashion in terms of less lost
2 motion. It was the first of its kind.

3 One of the reasons the Staff wanted such an
4 extensive report, I believe, is I think the Staff is
5 looking toward some of the material in our report to use
6 as a basis for formulation of its policy in this area.

7 MR. SIESS: Are there questions, gentlemen?

8 MR. EBERSOLE: I have just a few of these, and
9 I believe it is called Category 2 area.

10 I notice in reference to the topic of jet
11 impingement, that all of the statements in here are
12 qualified by saying that they pertain to jet impingement
13 effects inside of containment.

14 Were jet effects accommodated outside of
15 containment on critical equipment?

16 MR. MOORE: Yes. The reason the reference is
17 only with regard to inside of containment was that as
18 part of the IDVP's program, specifically that program
19 that addressed quality assurance area, the Roger
20 Reedy effort, they were unable to identify any what they
21 call objective evidence with regard to a jet impingement
22 analysis being done inside of containment.

23 It was based on that finding out of the IDVP
24 that we then undertook a state-of-the-art, if you will,
25 current day rigorous analysis for jet impingement, and that.



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1 is why it is identified.

2 MR. EBERSOLE: And you do have such an
3 analysis outside of containment that was considered?

4 MR. MOORE: Yes.

5 MR. EBERSOLE: I have a few other items here,
6 the sources of which, besides being my own, they come from
7 various directions, and I am going to mention these, not
8 in a context that I think we have to rely on them today, but
9 we will sooner or later, I am sure.

10 One of these pertains to the actual real
11 experience of the board operations that you intend to use.
12 I do not mean the supervisory staff; I mean the people who
13 are going to be on the board. Not the bosses, but the
14 other fellows.

15 Could you comment on whether or not you believe
16 these people, who are really going to run the boards, have
17 adequate experience and give us some idea what sort of
18 real operating experience on reactors they have got?

19 MR. MOORE: I do not think I am qualified to
20 speak to that subject.

21 MR. EBERSOLE: Maybe nobody here is. We can
22 take that up later on. I am only advising you in advance
23 that these may be matters that will be brought up later.

24 MR. SIESS: I'm not sure what you mean by "later,"
25 Jesse.



1 MR. EBERSOLE: I'm not, either.

2 MR. SIESS: Are you proposing that we reopen
3 the review?

4 MR. EBERSOLE: I suspect we will see these
5 fellows again. And they can turn up some answers that
6 will be very short and simple.

7 MR. SIESS: Before you go on any farther, I think
8 maybe we ought to think a little bit about what we are
9 going to report to the full committee.

10 The committee has asked us to come in next month
11 and report on our subcommittee meeting. I will be prepared,
12 of course, to summarize our findings regarding the design
13 verification program, what we were told and the questions
14 we asked, which were, what was done, why was it done,
15 what was the consequence if it were not done, and then any
16 other recommendations we have to make.

17 Now one possible recommendation is that we
18 reopen our review of Diablo Canyon. We have written a letter
19 on the operating license and it has gone to hearing. They
20 are awaiting the decision of the Hearing Board, and the
21 Commission has two more stages before full power, and there
22 is a question then as to whether the ACRS wants to provide
23 further review and advice to the Commission on what would
24 be step 2, which is criticality and 5 percent power; and
25 step 3, which is full power.



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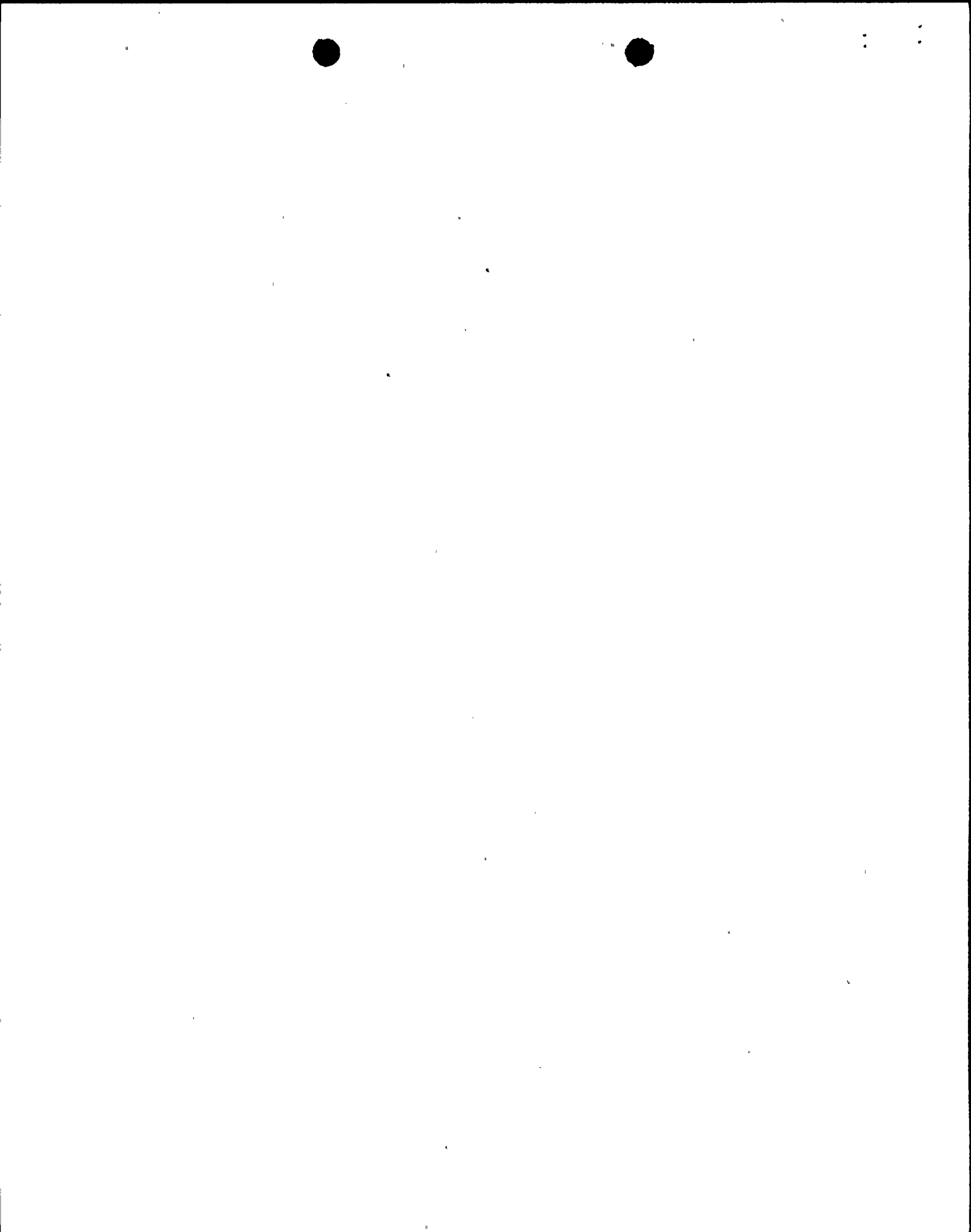
1 If the committee decides the subcommittee
2 recommends to reopen that, we are into a new era of review
3 matters, really reviewing issues, I would say, that have
4 come up since our previous review; not things that the
5 Staff has not reviewed, but -- let's see. When did we do
6 the operating license review for Diablo? '78. That is
7 five years ago. Since then the committee has gotten
8 interested in, among other things, the question that Mr.
9 Ebersole just raised about operator qualifications. In
10 fact, everybody has become interested in operator qualifica-
11 tions following TMI.

12 We have been looking at that on plants which we
13 probably did not at the time of Diablo. There are a number
14 of other things that come up on other plants and licensing
15 actions that we get into.

16 There is a question as to whether the ACRS
17 wants to reopen its review and provide the Commission some
18 advice on their actions. If we so decide, then the
19 Commission will probably hold up any action until they
20 have got another letter from us.

21 If we tell them we think they should wait until
22 we get a letter, then that is a decision, I think, that
23 the full committee needs to make.

24 I would suggest to the subcommittee that we not
25 initiate such a review until the full committee has



1 told us to.

2 MR. EBERSOLE: How will the full committee make
3 such a decision in the absence of identifying a set of --

4 MR. SIESS: I would suggest, if we have a list
5 of items, either developed by individual members, that
6 those be presented to the committee at the next meeting,
7 and let the committee decide.

8 MR. EBERSOLE: What if they can be resolved
9 right here on the floor?

10 MR. SIESS: Well, they cannot be. If they are
11 issues, the committee has got to resolve them. The
12 subcommittee cannot really resolve these things.

13 MR. EBERSOLE: Let me give you an example. I
14 got notice, or I got wind of a little problem in the RHR
15 system. I learned that there was found a single pump
16 failure in the RHR system with a fuse failing on open
17 circuit that would lead to closure of valves on the section
18 lines, and the problems that result from a pump continuing
19 to operate without any suction and probable damage to pumps
20 operating under that condition. It sounds like it might
21 really be a generic matter.

22 The absence of suction protection is the general
23 topic. This may be something, Chet, that can be answered
24 right off here. Do you have suction protection?

25 MR. KNIGHTON: Let me make a statement --



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1 MR. SIESS: I am not sure we are asking
2 questions that we are not -- we are asking questions not
3 on our agenda. The Applicant might have the right people
4 here and he might not.

5 MR. EBERSOLE: I understand.

6 MR. SIESS: I just do not know how far to go.
7 If we really reopen this thing, there are a number of areas
8 that we want to go into, and always find them. I do not
9 know whether this is the appropriate time to do it.. I
10 hate to spring questions on the Applicant that he has not
11 seen on the agenda.

12 MR. EBERSOLE: My impression is the Applicant
13 may probably want questions to be raised now that he might
14 see later on, and he does not want to be surprised by them
15 coming in later.

16 MR. SIESS: If he is going to see them later on,
17 because we reopen the review, we will inform him of what
18 they are, and we will have at least one subcommittee meeting,
19 and probably more, to explore them thoroughly.

20 MR. WARD: Jesse, I might suggest even if the
21 Applicant or the Licensee is --

22 MR. SIESS: Little bit of both.

23 MR. WARD: -- is in a position to answer some of
24 the questions, I doubt that he is all of them. So there
25 does not seem to me any particular merit in going into them.



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ar20-15

1 I think that list of questions, or whatever
2 questions we might have, might be something suitable to,
3 as Chet suggested, review with the full committee as part
4 of a basis for whether we want to open up --

5 MR. EBERSOLE: An alternative is to give them
6 to the Staff and get resolution through the correspondence
7 line.

8 MR. SIESS: Incidentally the Staff does not have
9 all of the people here they need. The project manager is
10 not here. Although George is branch chief, I suspect there
11 are things that Hans knows that George does not, that have
12 been reviewed by the Staff. So even the Staff cannot
13 respond to these.

14 I am not trying to say we should not do it,
15 but I think this is the wrong forum to go into those issues.
16 If we want to have another subcommittee meeting to decide
17 whether we are going to reopen the review, I am not sure
18 how that differs from reopening the review. I think we can
19 get enough time at the full committee meeting to bring up a
20 list of items that concern you or anybody else.

21 Okrent had a question about something that we
22 passed off this morning and he could not be here, and let
23 the committee decide whether these should be reviewed as a
24 part of the licensing operation, which we always had
25 the privilege of reopening. The time elapsed has been



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1 considerable. Or whether there is something that the
2 committee thinks could be reviewed in a generic fashion
3 or with the Licensee after, irrespective of the licensing
4 operation. I do not know.

5 I do think that the proper procedure, in fairness
6 to everybody, would say let's take this to the full committee
7 at the next meeting. It will be on the agenda. And see
8 what develops. And the Staff will be there. Clearly we
9 want the Staff there.

10 If we are going to do that, I think the Licensee --
11 Applicant-Licensee should be invited. I do not know that
12 his presence is necessary, because again you cannot get into
13 answering those questions in a couple of hours that we will
14 have there.

15 MR. EBERSOLE: I cannot characterize any of
16 these as being an impediment to the continued startup.

17 MR. SIESS: We have made reviews where we listed
18 a number of items that we wanted considered and said that
19 these are not an impediment. We have written letters to that
20 effect. We could do it in that context, but it seems to me
21 it is almost 5:00 o'clock now, and I suspect the list is a
22 little more than we could get into as thoroughly as I
23 would like at this time. We could easily do it -- I think
24 if you feel they are no impediment to license, we can simply
25 decide that when we report it to the committee and tell them



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1 that, and they will tell us, okay, go ahead and explore it and
2 we will do it. We may not even write a letter.

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1 Do you think there is any reason to write a
2 letter on it?

3 MR. EBERSOLE: No.

4 MR. SIESS: That brings me to the main question.
5 The main purpose of this meeting was to get information,
6 get insight into what had happened at the plant. We are
7 all swamped with long lists of errors and open items. We
8 had seen lists of hundreds of changes to pipe supports
9 without really understanding why all of these changes had
10 to be made.

11 It was not completely clear to some of us, and
12 not to me, to what extent seismic original margins had
13 been infringed on, et cetera, et cetera.

14 I think this has been a very enlightening
15 meeting in all of those respects.

16 The other plants -- there are some other plants
17 doing design verification. This gives a lot of insight --
18 into how one was done, I think, in a very excellent manner.
19 What kinds of things were found. I think we have got a
20 feeling for the significance of them.

21 Now we can report this to the full committee,
22 and I would intend to report rather briefly to that
23 effect, and ask other people to add comments.

24 Jesse feels that although there are some
25 things he would like to explore about this plant, probably



1 both individually and prototypically, he does not think
2 that they represent any impediment to steps 2 and 3 of
3 the licensing process, subject to the Staff's clearing up
4 the items they have.

5 Does anybody else feel that the ACRS should
6 propose any actions or take any actions at this point
7 regarding steps 2 and 3 of the licensing process? That is
8 essentially going to 100 percent full power within the next
9 few weeks, months?

10 MR. EBERSOLE: Months, I am sure.

11 MR. SIESS: Carl, how do you feel?

12 MR. MICHELSON: I think the Applicant or
13 Licensee has made a very fine presentation and has
14 answered all of the questions I had. I think I have seen a
15 few things that raised what I would call generic questions,
16 but certainly not to be pursued in Diablo Canyon as such,
17 but rather in an appropriate arena where such generic
18 questions are raised.

19 At this time I have no reservation with proceeding
20 to we issue the license or take it out as a suspension, or
21 whatever you call the term.

22 MR. EBERSOLE: I take no issue with that. I
23 am almost certain we can easily resolve some of these things
24 that just appear to be a bit muddy, only probably to me.

25 MR. SIESS: For a plant of this vintage, it is



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1 in pretty good shape. The word "vintage" got in there a
2 few times.

3 MR. EBERSOLE: In a relative sense I don't
4 think I have seen any plant that has been subject to
5 such intensive examination as this one.

6 MR. WARD: I think we should report to the
7 full committee and get the opinion of all the members.
8 My personal opinion is that the plant is ready to go. I
9 think the review has certainly been thorough, and I do not
10 think the questions that remain are substantial.

11 MR. SIESS: Forrest?

12 MR. REMICK: Although I think an ACRS letter,
13 which I feel would probably be in a positive tone, might be
14 helpful, I do not propose that the ACRS needs or should
15 write a letter. I do not think it needs to do that. If
16 the ACRS full committee were to decide that it wanted to
17 reopen the review, I would have some questions, but I am
18 also convinced that those would be satisfactorily answered.
19 It would be more to satisfy my curiosity on staffing and
20 shifts and STAs, the number of SROs and things like that.
21 And I know the Applicant is going to be required to meet
22 the current regulations by the Staff, so I think that would
23 just be satisfying my curiosity.

24 I do not feel that the ACRS needs to write a
25 letter, and I am satisfied that the plant is ready to



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1 proceed ahead.

2 MR. SIESS: Harold?

3 MR. ETHERINGTON: If the full committee meets
4 on this, it will probably feel it should write a letter.
5 I do not think a letter should be written unless one is
6 requested by the Commission.

7 MR. SIESS: No letter has been requested by the
8 Commission. They sort of indicated that if we found anything
9 wrong, to please tell them. That reflects well on the Staff.

10 The unanimous opinion of the subcommittee is
11 we do not really see any objections to the plant going
12 ahead on the schedule with the Staff review as it completes
13 its open items, to criticality, and eventually to full power.

14 I guess we could put it -- as far as writing a
15 letter, I would not recommend to the committee to write a
16 letter. I do not think it is quite right to say we still
17 think this plant is okay. We said it once. There are a
18 lot of plants we could say that about. It would seem a
19 little bit of a strange letter.

20 But we will get to the Commission by appropriate
21 means other than a letter -- and we have those means -- that
22 the committee does not have any objection. That is done
23 and our methods are summaries. There are clear-cut ways of
24 passing that information along.

25 I know what kinds of recommendations we can make



1 to the full committee. We will schedule -- I would like
2 to schedule a couple of hours, at least, at the full
3 committee meeting to talk about this.

4 There will be some questions from the other
5 members. We can bring up this list of things and get their
6 approval to go ahead on the sort of post-licensing generic
7 type review of some current issues as to how they apply to
8 Diablo. I think that would be a very appropriate thing.

9 I think this is a good plan, to look at some of
10 those things on, because the depth in which they have gone
11 into some of this stuff.

12 Are there any other comments?

13 MR. EBERSOLE: One other thing. I got a
14 substantial document which I took the trouble of looking into.
15 I guess I could call it the Stokes allegation.

16 MR. SIESS: You got an even more substantial one
17 with 103 allegations in it. I do not know if you have
18 looked at it.

19 MR. EBERSOLE: This is a very recent date.

20 MR. SIESS: It's in --

21 MR. EBERSOLE: How are they being resolved?

22 MR. SIESS: They are too recent. They are
23 in SSER 21 and those are all in the category of being too
24 recent for the Staff to have gotten into them. That is
25 what George was talking about.



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1 MR. KNIGHT: From the standpoint of the
2 process of being resolved, we have had a team of people at
3 the site for -- close to two weeks looking at the specific
4 areas. We will be meeting -- we met -- Mr. Stokes was
5 interviewed at some length at the plant. Now that we have
6 had a chance to develop our own views and gather some
7 information and digest it, we will meet with Mr. Stokes again,
8 probably next week, to be certain that we have understood
9 his concerns, and make him aware of where we are today in
10 looking at them.

11 MR. SIESS: Anything else?

12 (No response.)

13 MR. SIESS: The meeting is adjourned. Thank
14 you very much.

15 I would like to say personally, and I speak, I
16 think, for most of the committee, we have had some very
17 fine presentations from PG&E today. I thought you did an
18 excellent job of understanding what we were looking for
19 and giving us a good picture of it. I appreciate it very
20 much. Thank you. And the meeting is adjourned.

21 (Whereupon, at 5:00 o'clock p.m., the
22 meeting was adjourned.)

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3 This is to certify that the attached proceedings before the
4 NRC COMMISSION

5 In the matter of: ACES Subcommittee on Diablo Canyon

6 Date of Proceeding: Thursday, January 19, 1984

7 Place of Proceeding: Los Angeles, California

8 were held as herein appears, and that this is the original
9 transcript for the file of the Commission.

10
11 Barbara Whitlock

12 Official Reporter - Typed

13 *Barbara Whitlock*

14 Official Reporter - Signature



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