



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION IV  
611 RYAN PLAZA DRIVE, SUITE 400  
ARLINGTON, TEXAS 76011-8064**

May 7, 2002

MEMORANDUM TO: FILE

FROM: William B. Jones, Chief, Project Branch C,  
Division of Reactor Projects

SUBJECT: UNREVIEWED TRANSCRIPT FOR DIABLO CANYON POWER  
PLANT END OF CYCLE MEETING HELD APRIL 17, 2002

Please find attached the unreviewed transcript from the Diablo Canyon end of cycle meeting. This unreviewed (not reviewed by participants for accuracy) document is being placed in ADAMS for internal use only.

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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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END OF CYCLE

PUBLIC MEETING

FOR DIABLO CANYON

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WEDNESDAY, APRIL 17, 2002

+ + + + +

Embassy Suites Hotel

333 Madonna Road

San Luis Obispo, California

The Public Meeting commenced at 6:30 p.m.

NRC STAFF:

WILLIAM B. JONES, Chief, Project Branch E

ELMO E. COLLINS, Deputy Director

STUART A. RICHARDS, Project Director

GIRIJA S. SHUKLA, Project Manager

DAVID PROULX, Senior Resident Inspector

TERRY JACKSON, Resident Inspector

BRECK HENDERSON, Public Affairs Officer

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PRESENT FROM PACIFIC GAS AND ELECTRIC COMPANY

David H. Oatley

Jim Becker

Greg Reuger

Jim Tompkins

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A-G-E-N-D-A

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## P-R-O-C-E-E-D-I-N-G-S

6:30 p.m.

1  
2  
3 MR. JONES: Good evening. My name is Bill Jones. I'm with  
4 the United States Nuclear Regulatory Commission. I'd like to welcome  
5 everyone here tonight. I'm pleased to see that we have members of the public  
6 and other interest groups here, as well as members of the media.

7 The purpose of tonight's meeting is for the United States  
8 Nuclear Regulatory Commission to describe their independent assessments  
9 and station activities associated with Pacific Gas & Electric operation of Diablo  
10 Canyon.

11 The period I will be talking about is from April through  
12 December of last year. We believe that a nine-month period, as the NRC is  
13 currently moving towards a calendar year assessment of these licensees.  
14 Therefore, each of the 103 operating plants that we have in the country, we're  
15 all moving -- the Nuclear Regulatory Commission, is moving to a yearly  
16 assessment cycle.

17 This is a meeting between the Nuclear Regulatory  
18 Commission and Pacific Gas & Electric. However, another purpose of this  
19 meeting is to inform members of the public as well as the other members here  
20 tonight of the Nuclear Regulatory Commission's oversight activities as well as  
21 the assessment results we have for Pacific Gas & Electric.

22 Therefore, in our assessment tonight, I'm actually going to be  
23 calling upon you members of the public and of the audience in whole. As such,  
24 I request that you hold any questions and comments till the question and  
25 answer period which will follow the formal presentation.

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1                   Tonight, we will be transcribing this meeting. It is necessary  
2 to catch any comments and questions that the members of the audience may  
3 have. The recorder will be transcribing the entire presentation.

4                   Oh, one area of note is the Nuclear Regulatory Commission,  
5 following the September 11<sup>th</sup> terrorist attacks on our country, have taken down  
6 our web site. That web site is now back, and we are bringing back pieces of  
7 it periodically after reviewing that information for public release, but all the  
8 information I will be discussing tonight is available currently on our NRC web  
9 site.

10                   Meeting agenda for tonight. I'm going to be covering four  
11 areas. First is it's important that I establish an overall prospective of the  
12 Nuclear Regulatory Commission's independent inspection activities that we  
13 perform at Diablo Canyon and at the remaining 102 nuclear power plants in the  
14 country.

15                   In addition, we will be providing a summary of the findings  
16 and assessments for the nine-month period from April 2000 to December of  
17 2001.

18                   I will also be talking about two focus areas that are important  
19 from both a national and a local prospective. These will be security as well as  
20 a vessel head -- reactor vessel head degradation issue that you people may've  
21 heard about at the Davis Besse nuclear power plant.

22                   And lastly and very importantly is the opportunity for members  
23 of the audience to ask questions and I will provide answers. And also that  
24 period will be for any comments that people may wish to make.

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1                   When you came in, we had a registration table. If you wish  
2 to be recognized for a statement, please sign in. Otherwise, we welcome you  
3 to listen and make comments as they arrive. In addition, we have a sign-up  
4 sheet for any comments or questions people may have knowing that they come  
5 into the meeting with.

6                   We will also take a break following the formal presentation  
7 and allow people to sign up for additional questions or comments that they may  
8 wish to make at that time.

9                   I'm providing two handouts on each of your chairs here. One  
10 is a feedback memo. The second is a copy of the pertinent issues. I  
11 encourage everyone to look at that feedback memo following the meeting and  
12 to fill it out.

13                   This is very important to us to assure that we're effectively  
14 communicating to the public the information that is shown to you, that you're  
15 able to identify in appropriately assessing that with you. So, please, if you have  
16 any recommendations, comments, please put them on the feedback form. You  
17 can either leave them with me when you leave or you can mail it in.

18                   In addition, if you have any questions that you feel need  
19 further clarification, feel free to provide those on the feedback form in the  
20 comment section also.

21                   First, I'd like to introduce the NRC personnel with me tonight  
22 that will be conducting the assessment of Diablo Canyon's performance during  
23 the nine-month period.

24                   With me tonight is Mr. David Proulx. Mr. Proulx is the Senior  
25 Resident Inspector at Diablo Canyon. Diablo Canyon is his work station. Mr.

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1 Proulx usually can be, and he is the one responsible for essentially the  
2 inspection program at Diablo Canyon.

3 And with me now is Mr. Terry Jackson. Mr. Jackson is the  
4 Resident Inspector at Diablo Canyon, and he also has responsibility for running  
5 a part of the inspection program at Diablo Canyon.

6 Also in the back is Ms. Agnes Chan. She is the Resident  
7 Assistant for Diablo Canyon for Nuclear Regulatory Commission.

8 In addition, we have provided -- we have brought additional  
9 NRC personnel to assist with any questions and comments that we receive  
10 from the audience tonight. With me tonight is Mr. Elmo Collins. Mr. Collins is  
11 Deputy Director for the Division of Reactor Projects.

12 In the back, when you have a chance during the break to take  
13 a look at, Mr. Collins has brought Lisa Forbes, and myself, we have  
14 responsibility for the oversight of nuclear power plants for assessment of the  
15 plants and the leak secure area. That also includes Diablo Canyon.

16 In addition, I have Mr. Stu Richards. Mr. Richards is the  
17 Project Director for the Office of Nuclear Reactor Regulations. He is located  
18 in Rockville, Maryland, and that is our headquarters office.

19 We also have with us Mr. Girija Shukla. Mr. Shukla is the  
20 Project Manager for Diablo Canyon. He also is located in Rockville, Maryland.

21 And I also have Mr. Tony Healy. Mr. Healy is the Branch  
22 Chief for the Operating and Licensing Branch in Region IV located out of  
23 Arlington, Texas.

24 At this time, I'd like to provide Mr. Oatley an opportunity to  
25 introduce the persons with you.

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1 MR. OATLEY: Good evening. I'm not used to stand and  
2 speaking, so if we stand and sit down, please bear with us. My name's David  
3 Oatley. I'm the Vice President of Diablo Canyon Operations for PG&E.

4 To my right is Greg Reuger. Greg is the Senior Vice  
5 President for Generation and Chief Nuclear Officer.

6 To my immediate left is Jim Becker. Jim is the Station  
7 Director, or other places it's called Plant Manager, for Diablo Canyon, and to  
8 my far left is Jim Tompkins. Jim is the Manager of Nuclear Quality Analysis  
9 and License.

10 MR. JONES: Thank you. The first area for discussion tonight  
11 because it's important to establish a competent understanding of how the  
12 Nuclear Regulatory Commission goes about inspecting a nuclear power plant.

13 Out of 103 operating nuclear power plants in the country, we  
14 have what is called reactor oversight process. By inspection activities, I mean  
15 that we have inspectors, such as Mr. Proulx, Mr. Jackson and others from our  
16 regional office, as well as individuals from headquarters, who overview or  
17 oversee a lot of these activities on a daily basis.

18 We'll describe some of these activities later on in the  
19 presentation. We are actively involved in an independent manner of  
20 overseeing the activities and operations of Diablo Canyon.

21 First of all, I'd like to describe the four goals that were  
22 developed in developing the NRC's independent inspection process. First and  
23 foremost is the NRC has responsibilities for overseeing the nation's 103 nuclear  
24 power plants to ensure the safety and protection of the environment. That is  
25 to maintain and to protect the environment.

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1                   Next is to enhance public confidence. The only way to try to  
2 do this is to provide forums such as this so that we can receive any comments  
3 and answer questions that you may have relative to the NRC inspection  
4 process.

5                   In addition, you will have an opportunity to ask these  
6 questions of the other individuals here regarding any other issues that are  
7 important to you involving the Nuclear Regulatory Commission's activities.

8                   We are not here to provide either a probe or -- to promote  
9 nuclear power regulatory -- to finally shut the plants down. Our purpose here  
10 is to inform the public of the NRC inspection activities and the independent  
11 activities that we are involved in throughout the NRC with regard to inspection  
12 and licensing activities.

13                   One of the principle reasons we go about doing this and one  
14 of the goals is to improve the regulatory effectiveness, efficiency and realism  
15 for the decision-making process.

16                   What we mean on this, is our process has to be scrupled, it  
17 has to stand up to reach at our stakeholders, to the licensees, to the Congress,  
18 to members of the public so that the decisions that we make and actually take  
19 are understandable. It also has to be repeatable. In other words, when we  
20 come up with an inspection finding, and we apply it through our oversight  
21 process, we want to ensure that we come up with the same decision each time,  
22 and that it is understandable.

23                   It allows us to reduce unnecessary regulatory burden. The  
24 key word here is unnecessary. We want to make sure that the regulations that

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1 we enforce are appropriate and that they actually have the same operation as  
2 Diablo Canyon.

3 This letter provides us an overview of where we're going to  
4 see and how many hours we're going to see a stint in overseeing --  
5 independently overseeing the operations of Diablo Canyon in our licensing  
6 bureau -- licensing activity of Diablo Canyon.

7 The headquarters activities involved over 1,700 hours of  
8 individuals reviewing license activities. Those are things such as licensing  
9 amendments, those regulations that governed how the plant has to be  
10 operated. So, that's the parameters for that.

11 Also, we allow plants such as the independent spent fuels 4-  
12 H facility the opportunity as we speak at the end of this last year. Those are  
13 the type of activities that the Office of Nuclear Reactor Regulations  
14 Headquarters is involved in.

15 Next is the regional hours. The regional inspectors provide  
16 specialized inspections for the Nuclear Regulatory Commission. They come  
17 out of the Arlington, Texas office mostly, sometimes, we give out other offices  
18 they have available to us.

19 These individuals perform inspections in specialized areas  
20 such as making a hearing application, which you're going to make in those  
21 activities, operator licensing activities. Those would be the type of things,  
22 especially performed out of the regional office.

23 Next we have over 3,200 hours expended by the Resident  
24 Inspectors, and this is for a nine-month period. The Resident Inspectors are

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1 those who are here everyday overseeing the plant operations. I'll go further  
2 into the activities they're involved in.

3 They're the ones who are in there to ensure on a daily basis  
4 that the plant is operating safely. They perform the inspection program on a  
5 daily basis, and they're the ones who would follow up on any events or  
6 conditions on a daily basis that are necessary.

7 Next I'd like to try and show reactor oversight process and  
8 how it's developed. I'd like to use reading off the slide to first illustrate the  
9 mission of the Nuclear Regulatory Commission, and that is to protect the public  
10 health and safety and to protect the environment.

11 To do this, to leave this in our submission, we have  
12 established three areas that we thought was key to gather information and  
13 perform inspections, and those areas are reactor safety, radiation safety and  
14 security.

15 Now, I want to point out that this oversight program was  
16 developed well over four years ago, and at that time, security was identified as  
17 one of the three peak strategic performance areas.

18 In addition, the NRC considers crosscutting areas in our  
19 inspection activities. These areas involve human performance, corrective  
20 action programs by the licensees and safety conscious work environment or  
21 the willingness of plant employees to bring forth issues.

22 The crosscutting issues are what we look at when we do our  
23 inspection activities and on a yearly basis, currently, to review the licensee's  
24 ability to bring forth problems, to address these problems and the willingness  
25 of the employee to bring forth issues to the licensee or to talk to us if necessary.

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1           The NRC has developed four key areas as part of our  
2 assessment program. The previous slide addressed the three key areas that  
3 we look at in order to ensure the health and safety of the public is maintained  
4 as well as protection of the environment.

5           We take the information we get through the inspection  
6 activities, we apply it to the assessment program. This assessment program  
7 falls under a scrutinizedable process.

8           When referring to a process, it usually implies taking  
9 information from an inspection and other independent source that we look at,  
10 which I'll describe here briefly. Putting together to come up with an objective  
11 review of the licensee's performance, we utilize an action matrix -- it's a very  
12 complex matrix, it provides for the NRC to determine what our appropriate  
13 inspection of it will be, what the appropriate NRC management involvement will  
14 be and what the appropriate enforcement activity will be.

15           This assessment matrix that I am referring to provides for a  
16 repeatable process and repeatable asset of our oversight process.

17           At the beginning of every year, we also provide a plant  
18 specific assessment letter. This has also been on the NRC web site. It is  
19 clearly available now for your perusal on our web site. This provides a year-  
20 end assessment of the performance of Diablo Canyon. This also provides  
21 reaching the other 102 operating nuclear power plants.

22           In addition to performing the end of the year review, the NRC  
23 also performs a quarterly review. This is concerning information that we obtain  
24 in both licensee and from our inspection activities, is reviewed periodically on  
25 a quarterly basis and to ensure that there's no action that the NRC needs to

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1 take in the interim before we know what to file, what to cycle, we need, which  
2 leads up to this meeting. This information is available on the NRC web site.

3 This site helps to put together how the NRC's oversight  
4 processes as I referred to comes together. The top is the strategic  
5 performance areas. These are reactor safety, radiation safety and security --  
6 strategic performance areas that I referred to.

7 The safety cornerstones are each broken out underneath the  
8 strategic performance areas. I will gladly go over that with you, for anyone  
9 who's interested, during a break or we'll take it up after the meeting.

10 Before going to the slides to show that there's two  
11 independent paths the NRC goes about in determining what information will be  
12 used to assess the performance.

13 The first is performance indicators. We use quantifiable data  
14 that the NRC gets from each of our licensees. The other half is based on  
15 inspection activities. These are the inspections that regional inspectors,  
16 resident inspectors perform to determine the licensee's overall performance.

17 There's a significance threshold approach that I'll go over in  
18 just a moment. That information goes into the action matrix and from that, we  
19 get the NRC response, and as I indicated, the NRC response indicates the type  
20 of inspection we're going to perform, we have NRC involvement as well as the  
21 appropriate action to be taken.

22 This slide is to provide a summary of the significant levels  
23 that the NRC has established for the findings that we could come up with. The  
24 inspection program, and what I'll refer to as the performance indicators, those  
25 two parallel paths use the same safety significance guidelines.

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1                   These show a very low safety significance at the green color.  
2                   Those performance indicators as well as the inspection problems that fall under  
3                   the very low safety significance.

4                   As we escalate, the white line is low to moderate in an  
5                   inspection significance or performance indicator. Yellow and then red is the  
6                   highest. Based on these findings, when they are assessed in the matrix, they  
7                   determine the NRC's overall response.

8                   Performance indicators. This is the information that is  
9                   provided by each of our licensees -- by licensees in this case I'm referring to  
10                  Pacific Gas & Electric. This is the same information that's provided by the  
11                  other 102 nuclear power plants. This information provides through objective  
12                  methods. It's the same information in each of the plants. They're provided on  
13                  a quarterly basis. It is quantifiable information, and it's one of the elements we  
14                  utilize in assessing Pacific Gas & Electric's performance at Diablo Canyon.

15                  We have indicators developed for each of the strategic areas.  
16                  In yellow, we have indicators developed for each of the cornerstones, which  
17                  feed into each of the strategic performance areas, and for clarity, combined  
18                  with simplicity, I'm going to maintain discussions at the strategic performance  
19                  area level.

20                  One important aspect of the performance indicator data is  
21                  that this information is verified by the Nuclear Regulatory Commission,  
22                  independent of the licensees. We have established inspection programs, and  
23                  we go out, we put the information that the licensee has provided, Pacific Gas  
24                  & Electric. We take that information, we perform inspections, we verify that the  
25                  information they're giving is accurate.

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1                   This next slide provides an example of how a performance  
2 indicator information is developed. This is updated on a quarterly basis by the  
3 Nuclear Regulatory Commission from each of the licensees. This is available  
4 on our web site.

5                   If you go to our web site, you could go to Diablo Canyon and  
6 pull all the indicators up for Diablo Canyon if you wished. This will give you the  
7 current performance in that area, as well as the area threshold, and you could  
8 go back historically to review that information.

9                   Next I'd like to transition to the inspection program itself.  
10 We've just been talking about the performance indicators and how that  
11 information is provided by the licensees and verified independently by the  
12 Nuclear Regulatory Commission.

13                   The first one I want to talk about is the resident inspectors.  
14 Resident inspectors are key to the reactor oversight process. In other words,  
15 they're the ones who perform the day-to-day inspections of the facility. They  
16 perform key areas, and Mr. David Proulx, I introduced earlier, and Mr. Terry  
17 Jackson, are purely the people who have responsibility for the resident  
18 inspectors inspection activity at Diablo Canyon.

19                   These individuals, as I talked about earlier, live in the  
20 community. These are the individuals that provide the prompt response  
21 capability in the event of a condition developed at a plant or if this were to  
22 occur. And these people, they live in the area and they report to Diablo Canyon  
23 to work everyday.

24                   Next is the regional inspectors. The regional inspectors  
25 provide a specialized inspection report, exactly in the area of engineering, in

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1 the area of maintenance, in the area of maintenance and in the area of  
2 operations. For example, we have an inspector in the operator licensing  
3 branch personnel.

4 These individuals are specialized in many areas. They visit  
5 each of the plants, and they provide an overall inspection of the licensee's  
6 performance in our regional office.

7 These individuals also make routine inspections. The most  
8 important routine inspections that they make is our problem on educational  
9 resolution. This is an inspection that goes out and looks at the licensee's  
10 corrective action process, looks at the safety conscious work environment and  
11 provides input back into the overall inspection and assessment process, which  
12 we call -- refer to corrective actions, safety conscious work environment. These  
13 are two of the three cornerstones and it's identified that can go across all the  
14 peak performance areas.

15 They also perform reactive inspections. If there's an event  
16 or a condition at the plant, and we have the capability to be out in a day or so  
17 and to provide inspection backup to the reg inspectors and to provide  
18 specialized inspections if need be. I'll follow with inspections that that they now  
19 perform.

20 The Nuclear Regulatory Commission performs based on  
21 inspections at each of the 103 nuclear power plants inspectors. These  
22 inspections are to gather objective evidence of plant safety, and we do note the  
23 Nuclear Regulatory Commission employees who are out there at the facility are  
24 doing inspection activities in each of those strategic performance areas.

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1           As I indicated, this is both based on inspections performed  
2           at each of the nation's 103 plants. This is the same inspection program for  
3           each one. This inspection program focuses on safety significant issues. We  
4           use information that we have developed as well as information from the  
5           licensees for Pacific Gas & Electric to ensure that the areas that we're looking  
6           at are wide areas.

7           And also we monitor the licensee effectiveness in finding and  
8           fixing safety issues and the key to ensuring that the licensees maintain a robust  
9           corrective action program, we look at this on a regular basis from resident  
10          inspectors, the regional inspectors look at this aspect of the program with  
11          Pacific Gas & Electric program and we perform an inspection as we have going  
12          on right now at Diablo Canyon for their overall corrective action program.

13          Next is Event Follow-Up and Supplemental Inspections.  
14          When at all possible, our inspection process that we perform allows us to  
15          review events for significance. I indicated that we established a baseline  
16          inspection program in the regional facility.

17          If needed, we have the capability to escalate our inspection  
18          to look at any issues that we find to be safety significant. Depending upon the  
19          level of significant, we can determine if this is a special inspection, which is a  
20          couple of members all go out to large teams of inspectors involved in our senior  
21          executive staff to be there, if necessary.

22          And basically we have supplemental inspections.  
23          Supplemental inspections fall out from and -- based on inspection program as  
24          well as the performance indicators.

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1                   We find during inspection activity that there is a event or  
2 mission that was blown outside the very low risk significance, and that would  
3 put us into an area where we would conduct additional inspections,  
4 supplemental inspections.

5                   The second part for performance indicators is we have data  
6 and we look at the licensee who are beginning to be or troubling to be a  
7 concern. That can also cause us to change or add onto based on inspections  
8 that we perform.

9                   These supplement inspections allow us to determine causes  
10 for performance decline. In addition, it provides for a graduated response. As  
11 I talked about earlier, the action matrix and the information from inspection  
12 finds and performance indicators comes together, and based on the  
13 significance, where we find out -- where a licensee could fall out, to determine  
14 what inspections we need to initiate, and this is the integral part of our  
15 inspection process.

16                   Inspection Program. Inspections reports are available also  
17 on the NRC web site. They describe findings and regulatory issues and safety  
18 significance that are more than minor. We believe they are important for the  
19 licensee to observe.

20                   Conditions we can talk about in moderation should there be  
21 an instance where they attempt moderations, and it's not corrected  
22 appropriately. These inspection reports, as I indicated, are publicly accessible.

23                   The assessment program. As I indicated earlier, this is pretty  
24 close to the slide we looked at. The objective of the assessment program

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1 provides for the integration of both the inspection activities that are performed  
2 and the performance indicators indicated by the licensees.

3 The assessment program provides for the objective review  
4 of the licensee performance. Again, the use of the action matrix determines  
5 the inspections and obviously mandatory response.

6 With this, comes the plant assessment letters, a description  
7 of how the licensee performed during the last year, and also this information is  
8 available on the NRC web site.

9 With that, I'd like to announce in addition to the discussion  
10 and the type of inspection activities and performance indicators that we look at  
11 Diablo Canyon and the plant safety performance, Mr. Jackson will provide that.

12 MR. JACKSON: Okay, as Bill mentioned earlier, the NRC  
13 mission is to ensure public health and safety in relation to operation of  
14 commercial in nuclear power plants, and the ways that we do that is one  
15 through, like he said, through inspections and through viewing performance  
16 indicator data.

17 And we look at the three primary areas, and that is reactor  
18 safety, and we look at radiation safety. We also look at safeguards or security,  
19 and what I'm going to do now is just kind of give you some examples of some  
20 inspections and performance indicator data that we look at as part of their job  
21 and part of what's going on at Diablo Canyon.

22 First of all, in the reactor safety area, one of the inspections  
23 we do is called equipment walk-ins, and we go out and we look at the safety  
24 pumps, the valves and associated equipment, medical equipment, and we walk

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1 these down, we make sure they're lined up, they're ready to go, if they were  
2 called upon.

3 We also look at exactly what function they're supposed to  
4 provide, and we make sure that the plant is not -- that the design of that system  
5 has not changed such that it wouldn't meet the assumptions that we had in the  
6 beginning of what this is to do.

7 Another inspection we do is we evaluate, operate or  
8 requalification. The operators that go through a requalification process and  
9 both the resident inspectors and the regional inspectors will go in there, they'll  
10 watch the operators on simulators, and they want to see how they respond to  
11 simulated events or see how they use the procedure, what procedures are  
12 adequate, and just overall process how particular events are handled.

13 We also have to look at the performance indicator data in the  
14 act of safety here, and one of the performance indicators we look at, as Bill  
15 mentioned earlier, are the drifts and that's a pretty easy one to track here.

16 Assuming the other performance indicator data that we look  
17 at also are the availability of the disarmaments that in turn up in the community  
18 and you've probably seen some of these, as you're driving along, and the NRC  
19 looks at the data that Pacific Gas & Electric will provide to us. We will review  
20 that data to make sure that they accurately reported it, and as Bill had also  
21 mentioned if it shows a steady state, and fills a certain criterion well, then the  
22 NRC will take the appropriate response.

23 Another area we look at is radiation safety, and this involves  
24 radiation safety for workers there at the plant and radiation safety of the public.  
25 One of the things for workers, as far as worker radiation safety is concern we

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1 look at, is we want to make sure that the kind of person there know the level of  
2 radiation in these particular areas of the plant.

3 We also make sure that these areas are controlled, that the  
4 people go into these areas, that they have the appropriate protective clothing,  
5 the monitoring devices and we check to make sure that if all the requirements  
6 as far as radiation safety is concerned with nuclear power plant workers.

7 One of the performance indicators that we look at, as part of  
8 public radiation safety is concerned, is that we look at the radiation that is from  
9 the plant as far as like the plant is required to have these monitoring devices,  
10 will monitor how much radiation will escape into the environment.

11 We'll review that data, and there's certain criteria that the  
12 releases have to be alerted, and if it sees that, then the NRC will take action  
13 part of the action matrix in response to that.

14 In the security area, we also do inspections and other  
15 performance indicator data, and we have regional inspectors that are security  
16 experts that come out to the plants and some things he'll check is he'll check  
17 the access control equipment and make sure that only authorized persons are  
18 able to get into the plant.

19 He will check the equipment that checks for contraband, that  
20 you may expect that terrorists may try to get into the plant. So, these  
21 investigators use that as part of the inspection and several others.

22 One of the performance indicator data steps that PG&E  
23 submits to the NRC in security area is security monitoring equipment  
24 throughout the plant, to make sure that that equipment is being maintained  
25 properly and that it's available.

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1                   So, PG&E will submit that data to the NRC and we will, in  
2 turn, review that data and make sure that what they have reported is correct.

3                   Mr. Jones also mentioned three crosscutting issues, and that  
4 was human performance, safety conscious work environment and corrective  
5 action, and as far as human performance is concerned, almost all of our  
6 inspection procedures, they usually address a human performance issue in  
7 this.

8                   For example, if an operator puts a valve in the wrong position  
9 and he forgot the safety equipment from the operating regulation, the  
10 equipment walk-down procedure I mentioned earlier we walk all through and  
11 see that, then we can address the human performance issue there, which is the  
12 operator placing the valve in the wrong position.

13                   One of the other -- one of our bigger inspections that we have  
14 -- we perform usually in nuclear power plants was the corrective action  
15 inspection that Bill mentioned, and what we do in the corrective action  
16 inspection, what we do is we look to see that plant personnel are identifying the  
17 problem areas within the plant, they're not only just to look on the problems, but  
18 making sure that these problems are being corrected.

19                   And we also will look at the -- how the employee concern  
20 program, and employees there -- they may have safety concerns, they can  
21 bring it to the plant employee concern program and the plant can then address  
22 and fix the concern any way, but if it seems like that another employee, for  
23 instance, brings concerns to the plant, and they're not being addressed  
24 properly, then we would detect that in the corrective action inspection program

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1 and also the residents who are there and walking through the plant, we're open  
2 to take any kind of safety concern that employees would have.

3 So, that would give us some indication also of a safety  
4 conscious environment and we've started seeing a lot of concerns that haven't  
5 been addressed in the past even though folks have brought it up to plant -- to  
6 the plant employee concern program.

7 And then, of course, the corrective action -- we have to look  
8 at the corrective action, in that one, the inspection -- the key inspections that  
9 they carry out, but they also look at the corrective action on a daily basis, and  
10 one of the advantages of having an inspector there at the plant is that we know  
11 what kind of activities are wrong, how long they stay in the control room until  
12 some of the operators find out how things have been going, what kind of issues  
13 that they deal with, and then we'll follow up on these issues and make sure that  
14 they are properly addressed.

15 So, right now, I'll hand it off to David Proulx, the Senior  
16 Resident Inspector, and he'll discuss some of the inspections over the past nine  
17 months.

18 MR. PROULX: Thank you, Terry. As Bill and Terry said, I'm  
19 David Proulx, I'm the Senior Resident Inspector at the site. I'm in charge of  
20 ensuring that the inspection program is completed, and I also have conducted  
21 a number of inspections myself.

22 Okay, what I want to talk about first is the performance  
23 indicator results. All performance indicators are within, what we call, the  
24 licensee's response venues, which means that they're all coded green. And  
25 these are the performance reactor results that you can find on the web site.

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1                   And to give you an idea of what we do as resident inspectors,  
2                   one of the things that we do is evaluate the validity of the performance  
3                   indicators, and one example of a finding that we had in the past nine months  
4                   is that PG&E was slightly under-reporting their leak rates on their reactor  
5                   holding system, which is one of the performance indicators governed by the  
6                   area computer program.

7                   There's only a minor difference of the actual amount was but  
8                   PG&E corrected the problem, placed it in the corrective action system. We  
9                   determined it was of very low significance, and it didn't affect the color of the  
10                  performance indicator either way, but it does show that we're looking very  
11                  closely at the validity of their performance indicators to ensure that the public  
12                  and the NRC are getting the right numbers.

13                  Our overall inspection findings. Inspection findings were all  
14                  in a very low safety significance, which is what we would call a green finding.

15                  I'd like to mention that I have a sign above my desk that I  
16                  received from my boss, when we first went into the new process that says  
17                  green does not equal good, and essentially what -- that's a fairly accurate  
18                  statement, we're talking about NRC inspection findings.

19                  When we determine that a finding is of green significance, it  
20                  means it's of very low safety significance, and it's a finding that the licensee,  
21                  PG&E can correct on their own, placing an inner corrective action process and  
22                  fixing it with their own processes.

23                  A couple of examples of findings of note in the past year.  
24                  With respect to reactor safety, there was an issue with respect to an  
25                  atmospheric steam belt valve which is used for cooling.

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1                   There was a cracked bolt on a valve, and the correction and  
2 identification of it and evaluation of it were not timely. Of course, PG&E  
3 performed a significant evaluation of this, took the proper corrective actions  
4 and placed in their program and fixed it using their normal processes.

5                   We evaluated using our significance determination process,  
6 determined the finding was green, which meant that they could place it in the  
7 corrective action process and fix it using their normal processes.

8                   In addition to the area of reactor safety, we found issues  
9 related to the training and preparation for operations for cooling the reactor off  
10 when you shut down. The thing -- under the same thing that was also  
11 determined to be of very low safety significance which meant that PG&E could  
12 place it in their corrective action system and correct it using their normal  
13 processes.

14                   An example of finding we had a radiation safety involved an  
15 air-born radiation monitor that wasn't operable during movement of items over  
16 the spent fuel pool. Again, we determined it was of very low safety significance,  
17 placed it in their corrective action program, and it was of very low risk  
18 significance.

19                   Each of these findings you can find on the NRC's web site  
20 under the inspection findings sections. You can click on any one of them and  
21 find it green. There are several other findings which we also determined to be  
22 of very low safety significance.

23                   And just to give you those examples to illustrate that -- just  
24 because everything was green in the inspection process doesn't mean that

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1 there weren't findings, and there weren't issues -- it's just that they were of very  
2 low significance.

3 Now, those are the findings that we had during our weekly  
4 operations. There was one special inspection conducted in the year in  
5 response to a gas fire, which we'll talk about in just a minute, and there were  
6 no supplemental inspections performed, which are normally performed  
7 following a defecation of items that were of light or higher significance.

8 Now, in May of last year, the licensee in conjunction with the  
9 California Department of Forestry was conducting a controlled burn in the  
10 hillsides just outside of the plant protected area.

11 The controlled burn became larger than they anticipated and  
12 caused a flash over on their off-site power sources and caused a temporary  
13 loss of one of their sources of off-site power.

14 The plant continued to operate, and there were some minor  
15 challenges to operators, but because we believed that there was a potential for  
16 a loss of more than one source of off-site power, we conducted a special  
17 inspection which I was team leader of that special inspection.

18 In addition, the Davis Besse event was going on. I personally  
19 responded to the controlling and monitoring of the operator responses, which  
20 was very good and focused on safety.

21 Now, the special inspection found that the controlled burn  
22 was not maintained properly and it did provide some challenges to the plant,  
23 and the licensee took significant corrective actions to ensure that such an event  
24 doesn't happen again, and in evaluating this from our significance  
25 determination process, we determined that the event was of very low risk

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1 significance and that PG&E corrected, using their normal corrective action  
2 processes.

3 And now I'd like to turn over to PG&G to see if they have  
4 anything to add for those -- findings.

5 MR. OATLEY: Thank you, David. Jim Becker, our station  
6 director is going to be addressing the special inspection.

7 MR. BECKER: Yes, I'd like to take just a minute and briefly  
8 discuss corrective actions we did take for this fire.

9 Immediately after the event occurred, once we had stabilized  
10 the plant recovery from the event, we immediately placed a hold on any further  
11 activities to do controlled burns until we could complete an investigation and  
12 take corrective actions, and that is what we did.

13 We entered into our corrective action process, like David and  
14 others have referred to here, we did an investigation, determined what we  
15 thought were the causes of the event, and we ended up writing a special  
16 procedure just to be used for when we're doing a controlled burn with California  
17 Department of Forestry and that special procedure includes all the lessons  
18 learned from this event to make sure -- test results with respect to the nine-  
19 month period we just had is that PG&E effectively managed reactive safety,  
20 radiation safety and plant security.

21 Now, as I said before, that doesn't mean that there weren't  
22 any issues that needed to be corrected during this nine-month period, but it  
23 does mean that when each of these issues came up we determined they were  
24 of low significance and PG&E effectively corrected and managed the issues  
25 and maintained plant safety, such that we've determined that they are in the

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1 licensee response columns, which means that we did not perform any  
2 additional; inspections.

3 The strategic area objectives were fully met and that we've determined that the  
4 public health and safety was properly ensured, and if you have anything to add  
5 --

6 MR. OATLEY: Just a couple of quick comments before  
7 moving on. You know, PG&E believes that Diablo Canyon performance  
8 remains high especially during the period that this discussion of last year.  
9 If you go back in time and look at where we started the year from, from a PG&E  
10 perspective, the internet energy crisis, the shortage of electricity in the state,  
11 the company entered into bankruptcy, and if that weren't enough, when  
12 September 11<sup>th</sup>, the horrific event of the World Trade Center and the Pentagon.  
13 In spite of that, however, we've remained focused on safe operation at Diablo.  
14 We've taken the plant down in power when there were severe electrical storms.  
15 Even though there were shortages in electricity in the state at that time. We  
16 had our safest outage ever last year, by all measures, our lowest radiation  
17 exposure for our personnel and our team, least amount of industrial injuries and  
18 industrial performance.

19 And the Institute of Nuclear Power Operations, which evaluates us  
20 independently in addition to the Nuclear Regulatory Commission continues to  
21 give us high marks. So, we felt that nine months that we're talking about here  
22 in this public meeting we're going to have strong performance. Thank you.

23 MR. JONES: As Mr. Proulx indicated, the Nuclear Regulatory  
24 Commission during this current consistent cycle is conducting the baseline  
25 inspection program, and we're also currently conducting the problem

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1 identification and resolution inspection which is looking at the corrective action  
2 program. We will conduct the second cycle based on current performance  
3 baseline on as well as the corrective action inspections.

4 I'd like to move on to the next issue, to provide an overview of the reactor  
5 inspection process that we have utilized at each of the major nuclear power  
6 plants to assess their performance, describe the inspection activities that we  
7 perform at Diablo Canyon, the inspections that we will performing here in the  
8 current cycle or currently at the baseline inspection level and the massive  
9 involvement of the NRC, as well as the resident inspector. Those are all the  
10 issues that come out of the action matrix as far as how the NRC will respond  
11 based on our inspection findings as well as the performance indicator data that  
12 we have.

13 With that, I'd like to move on to two issues that are clearly of concern for both  
14 the national and the local level. The first is the security of nuclear power plants,  
15 and I'll follow that with reactor vessel head regulations.

16 It is also important that I provide some context for Nuclear Regulatory actions  
17 related to the two issues where they may emerge. The Nuclear Regulatory  
18 Commission responded as required and as needed. Following the terrorist  
19 attacks on our country of September 11<sup>th</sup>, the Nuclear Regulatory Commission  
20 initiated both our Emergency Response Center in Rockville, Maryland, and  
21 these are the incident response centers in the regional offices. Based on that,  
22 we've established communications with each of the 103 licensees as well as  
23 other holders of the licenses or materials, and based on that, the licensees  
24 were placed into the highest level of security based on a safeguard for security,  
25 a document that had previously been issued to these licensees.

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1 So, within hours of the attacks on our country, the Nuclear Regulatory  
2 Commission responded by getting information out to each of the licensees and  
3 the security program was put to our highest level.

4 As I indicated and intimated, our emergency response, and we stated that  
5 heightened response was for a certain period of approximately ninety days and  
6 continued to monitor daily each of the licensee's activities.

7 In addition, the mandated licensee actions, and I'll talk about that when we get  
8 to the security programs. The NRC was challenged in two ways since  
9 September 11<sup>th</sup>. First is, what actions were we going to require of each of our  
10 licensees, in this case Pacific Gas & Electric, based on the security events, and  
11 second, based on the findings and based on inspections that were performed  
12 on our reactor vessel head.

13 We have currently 69 plants in the United States affected by similar conditions  
14 in today's threat to nuclear power plants. Next slide.

15 First, I think it's important to understand that there has been since the licensees  
16 of Diablo Canyon and the other 102 nuclear power plants, substantial securities  
17 program in place. These involve defense in depth from the security standpoint  
18 -- we call them security officers -- well-trained security officers, barriers,  
19 detection devices, security programs that access monitoring, just to mention  
20 several of them.

21 In addition to those that we have one of the three strategic performance areas  
22 involves security. It is the subsequent events four years ago that is identified  
23 as one of the three key areas the Nuclear Regulatory Commission need come  
24 out to a safe operation of each of the nuclear power plants in the country to  
25 ensure the health and safety from day to day and to protect the environment.

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1 However, the security programs that we demonstrated following the September  
2 11<sup>th</sup> attacks was the integrated federal, state and local licensee response to the  
3 terrorist threat. This involved Department of Defense, Department of Energy,  
4 the Nuclear Regulatory Commission, the Federal Aviation Administration, the  
5 Federal Bureau of Investigation and other intelligence agencies.

6 They've come together in an integrated fashion to ensure that intelligence  
7 involving potential terrorist attacks is transmitted to the licensees.

8 As a footnote, there has not been a credible threat to any U.S. nuclear power  
9 plant. I'll repeat that again. There has not been a credible threat to any U.S.  
10 nuclear power plant, but the NRC, as I indicated immediately following the  
11 terrorist attacks on September 11<sup>th</sup>, took several measures.

12 One of them was to put the plants at the highest level of security. Next, we  
13 took the integrated security information that we obtained from different federal  
14 agencies and local officials, in some cases, integrated that and issued  
15 advisories. There's been numerous advisories issued to the licensees, and this  
16 week I wanted to talk about the nuclear power plant.

17 These advisories were to provide insights in areas for them to focus on if there  
18 was an area of concern. As I indicated, there has not been a credible threat  
19 against any U.S. nuclear power plant.

20 These advisories are updated periodically with integrated threat information  
21 from each of the sources that I talked about earlier, and this came about later  
22 from a separate previous homeland security office which the NRC sits in on.

23 The second action is the Nuclear Regulatory Commission -- since each of the  
24 licensees going to the high level of security has verified that the licensee is  
25 actually at the high level of security. The resident inspectors have taken on a

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1 tremendous new role and a lot of them have security updated at many nuclear  
2 power plants.

3 In addition, we have specialists from the regional office who have gone out to  
4 each of the power plants and observed the kind of activities they've been  
5 involved in.

6 And actually, the NRC issued a report stating what specific requirements were  
7 going to be for the licensees to go from, which included such things as moving  
8 back some of the barriers. This shows essentially that security of the advisors  
9 that were sent out and to establish worker requirements in the long run for  
10 security of nuclear power plants.

11 I'd like to point out that there is a coordinated effort with the federal agencies,  
12 the FAA, the FBI and other agencies to assess intelligence information, and  
13 again, there was the utilization of transportation security law, to protect nuclear  
14 power plants and other non-nuclear facilities from terrorist activities.

15 So, there have been a significant amount of activities ongoing since September  
16 11<sup>th</sup> in emergency response, as well as enhancements to the existing security  
17 programs at nuclear plants.

18 The last issue is reactor vessel head integrity. This just identifies that the Davis  
19 Besse nuclear power plants in Ohio, the NRC, last year, year 2001, issued a  
20 bulletin requiring each of the 69 special light water reactors to do do a head  
21 inspection. In addition, during the vessel head inspection, this is the dome, the  
22 top of the reactor vessel, identifies that the carbon steel top around the control  
23 rod penetration essentially corroded away. Underneath that is a stainless steel  
24 island that was serving strictly as a pressure boundary. This was a substantial  
25 degradation for the margin of safety of that power plant.

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1 Based on that information, we also issued a second bulletin, initially, requiring  
2 the licensees to respond to the -- to respond based on inspections that they  
3 had before, and provide assurance that those conditions did not exist at their  
4 facility.

5 Diablo Canyon provided that response and the NRC is looking at. In addition  
6 to reviewing that, they are able to do a regional inspection of the vessel head.  
7 Importantly, the NRC in this case has acted to ensure that these conditions  
8 which can potentially affect safety in the case of Davis Besse was a substantial  
9 challenge to the safety margins do not occur at the other plants, in this case,  
10 Diablo Canyon.

11 The NRC will be performing an inspection to specifically look at a licensee's  
12 activities related to reactor vessel heads at Diablo Canyon, for both units, and  
13 we'll be doing that during the upcoming review.

14 With that, I'd like to provide an opportunity for any closing remarks you'd like  
15 to make.

16 MR. OATLEY: I think the two areas that I'd like to make brief  
17 comments on are the last two areas that Mr. Jones talked about.

18 First, on reactor pressure vessel head issue that he mentioned Davis Besse,  
19 we are very cognizant of that. We have very competent people that have been  
20 following that for some time, and as mentioned, we developed our own robotic  
21 device that we do an inspection -- full visual inspection of our reactor head.

22 We'll take whatever actions are necessary. However, we don't expect to find  
23 any issues, given the age of our plant.

24 Second, the security issue, and that's one we clearly recognize our obligation  
25 to the community to have a very robust program in Diablo Canyon. If you

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1 haven't had an opportunity to come out to Diablo, which you can't these days  
2 because we don't allow visitors on the plant site, you'd find that we have a very  
3 robust security program.

4 It's a highly trained group of individuals that must by NRC regulations repel a  
5 paramilitary-style attack. To repel a paramilitary-style attack, you must yourself  
6 be yourself be paramilitary force. So, these individuals are rigorously trained  
7 and have the best tools available including state-of-the-art protection  
8 equipment available to them.

9 Employees working at Diablo go through a rigorous background screening,  
10 including fingerprints and FBI background checks, and we know who those  
11 individuals are and what their backgrounds are prior to working on site and  
12 being allowed inside our protected areas.

13 And finally we cooperated fully with all of the agencies. We appreciate the  
14 NRC providing this information as we move through these difficult times.  
15 We've cooperated fully with the local sheriff's department, the FBI and various  
16 other state agencies and take whatever actions are necessary for Diablo  
17 Canyon. Thank you very much.

18 MR. JONES: In closing, the Nuclear Regulatory Commission  
19 has established an independent, comprehensive reactor oversight program.  
20 The program is implemented by inspectors regulated by the Nuclear Regulatory  
21 Commission and information that's provided by Pacific Gas & Electric which  
22 also can be verified by the Nuclear Regulatory Commission.

23 Based on that information, assessing it under the action matrix in other words  
24 is a suitable and repeatable aspect of our process, we found that Pacific Gas  
25 & Electric maintained the public health and safety for the assessment period,

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1 and the NRC demonstrated the capability and resources to respond and  
2 impose additional requirements. These involved both security requirements as  
3 well as requirements with regard to reactor safety, in particular reactor vessel  
4 head degradation.

5 With that, I'd like to take about a ten-minute break to allow people to move  
6 around, do whatever they'd like. Then we'll get back together and for the  
7 question and answer period, additional NRC staff will be here to take any  
8 questions you might have.

9 We'll also provide some additional handouts in the back regarding the oversight  
10 process that we talked about and some of the features of the security at the  
11 power plants and some additional information will be all there on the back table.

12 We would like you to sign up if you want to speak initially and then to sort of run  
13 through those people first, and after that, if you don't wish to sign up, we'll just  
14 do questions from the audience and then following we'll take the people who  
15 have first signed up, and you'll have an opportunity at this point to sign up for  
16 any questions or comments you'd like to make.

17 One thing that's important is that when you come up to speak, if you could, to  
18 provide your name and the subject matter, because we are transcribing the  
19 question and answer period and that will assist us in understanding your  
20 question and making sure it's appropriately answered.

21 Also, if you have a business card, we would appreciate that information also to  
22 help with our spelling. With that, I'll go ahead -- oh, one more time, we've  
23 established a three-minute limit on any comments or questions and then we  
24 can take -- so everyone can have a question and still adjourn by ten o'clock this  
25 evening.

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1 So with that, I'd like to take a break now. Thank you.

2 (Whereupon, the foregoing public hearing went off the record  
3 for a ten-minute break.)

4 MR. COLLINS: Good evening. I'm the Deputy Director for the  
5 Division of Reactor Projects in Arlington, Texas, and I want to thank you for  
6 taking the time to come out this evening. This is -- I know you have a lot of  
7 choices about where you could be, I appreciate your interest. I hope the  
8 meeting is informative for you, and I hope we're able to answer some of your  
9 questions here in this next session.

10 We have a few people signed up and we'll get to those but before we open it  
11 up, I just wanted to talk a little bit about the Nuclear Regulatory Commission.

12 Those of you who heard the presentation that want to talk about the Nuclear  
13 Regulatory Commission as it applies to Diablo Canyon oversight and inspection  
14 process and the results, I'm going to back off a little bit and let the broader  
15 picture talk a little bit about the agency we call the Nuclear Regulatory  
16 Commission.

17 It was created in 1975, when the Atomic Energy Act was established by  
18 Congress. Sometimes today, the NRC is criticized for promoting nuclear  
19 power.

20 In 1970, the mid-'70's to the early '70's, the older -- our predecessor agency,  
21 the Atomic Energy Commission, was highly criticized, and in fact, they did have  
22 both promotional and developmental responsibilities in nuclear energy and  
23 regulatory responsibilities and any criticism was taken seriously by the  
24 Congress.

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1 Congress changed the law and created the Nuclear Regulatory Commission  
2 in 1975, and our only statutory mission is to provide for the safe use of the  
3 civilian uses for nuclear power.

4 So, that's an issue that we take very seriously. The other agency which was  
5 created in 1975 then was the predecessor of what we call the Department of  
6 Energy now, the Energy Resources Development Agency. They have  
7 responsibility for development and promotion of nuclear energy.

8 So, we stay away from that. If it's going to be used, the NRC will be the agency  
9 to make sure that it's used safely.

10 So our statutory mission is clear. We are an agency which falls in the  
11 executive branch of the federal government, remember of the separation of  
12 power from your civics class, legislative and executive and judicial so we fall in  
13 the executive branch.

14 Everything we do is governed by law and especially one that comes into play  
15 under Administrative Procedures Act of 1947. The NRC can't act or can't pass  
16 a regulation without following the Administrative Procedures Act, and this Act  
17 was put in place with the different government agencies. Really, from being  
18 abusive and overrunning the rights of the people.

19 So, we have a regulation that has to be public for prior comment. We have to  
20 respect those comments on the board, and that's an opportunity for the public  
21 to tell a five-member commission what you think about that subject, and that  
22 is for the public, and I encourage you, if you get a chance, to look at the  
23 proposed rule which the Commission is considering and engage yourself and  
24 send your comments to the Agency.

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1 So, that's one of the opportunities -- if you're providing it for you, one of the  
2 NRC's jobs -- the NRC forms its regulations. We are an executive branch, as  
3 I said, that means we're subject to Congressional oversight. The agency has  
4 said we do judicial review.

5 Remember the other part of separation from power is checks and balances.  
6 This is your federal government at work. Congress has oversight committees  
7 and especially since September 11<sup>th</sup>. The Chairman and other members of the  
8 NRC staff have answered a number of inquiries on Capitol Hill and so your  
9 representatives in the House of Representatives and the Senate don't have the  
10 ability to get any question answered from the NRC, and they are your  
11 representatives.

12 So, once again, this is an opportunity for you, if you so desire, to make your  
13 needs known to your representatives.

14 Like I said, we're subject to judicial review and that means, we meet the highest  
15 level we have to operate before the Constitution of the United States.

16 So, we take that seriously and we just don't go out and use regulations  
17 because we desire to. So, we are charged with the safety of these facilities,  
18 and so the NRC developed rules and set standards and licenses that people  
19 will use these facilities and inspects them to make sure that the rules are  
20 followed.

21 How does the NRC set the rules? How does the NRC decide what is safe and  
22 what's not safe? There's a lot of different ways, but amongst them are  
23 engineering codes. Engineering societies set the engineering codes which are  
24 necessary for construction of a lot of facilities and nuclear power plants.

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1 For instance, the society of mechanical engineers has established a code  
2 which is in place and the NRC has adopted that engineering code as part of its  
3 regulations for construction, and included in that, is one of the reactor pressure  
4 vessels that we talked about.

5 Some of the problems that have occurred especially in other facilities are  
6 inspected, and those are engineering codes which specify how that's to be  
7 built, and the NRC has developed that.

8 Also, the industry of electronic and electrical engineer codes are adopted by  
9 the NRC safety regulations. Also, the NRC sets standards by consensus.

10 The international and national committees, for instance, the international  
11 community on radiation protection makes recommendations on what they  
12 believe are the correct levels for radioactive material and radioactive doses for  
13 people, and the NRC has adopted these as its basis for its regulations, and you  
14 can find those in part point of our regulations.

15 So, the end result of all this, and I'm just kind of glossed over it real fast is if  
16 you'll let me, this depicts the safety scheme of the nuclear power plant. We've  
17 talked about the three main areas, but we also identified seven cornerstones,  
18 and if you will, you can get a sense for the -- we call it the fence in depth.

19 What that means is if you have a problem here or you have the other layers of  
20 defense to protect you from reactor safety and any changing events making  
21 a decision on the barrier integrity and emergency preparedness.

22 This is a rather -- this is a simplified depiction of that safety scheme, but it is --  
23 provides for multi-layers of protection and redundancy in the safety equipment  
24 at the facility, and so this is the result of the NRC's licensing and inspection  
25 process, and we hope we've been able to convey some of this here tonight

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1 about the safety scheme and the processes the NRC checks so that we can  
2 assure the facility is operating in a safe manner.

3 Just as a point of clarification from the earlier session, I want to thank Bill and  
4 Terry and David for what they've been able to convey to you this morning.

5 David and Terry are on the front lines of the safety for the Nuclear Regulatory  
6 Commission. We rely heavily on them, they've done a good job, but we talked  
7 about some reactor pressure vessel problems.

8 In case our presentation wasn't clear, those problems were identified in a  
9 nuclear power plant in Ohio. So far, no other nuclear power plant has really  
10 had the problems to that extent, but the NRC is requiring an inspection of those  
11 facilities to ensure that the problem is not in place, and that includes Diablo  
12 Canyon and Unit 1, we're going to be getting inside of shortly, and they'll be  
13 performing inspections on that, and then later on, in early 2003, Unit 2 will have  
14 a review on that one, and they will also be performing inspections on that.

15 So, with that, I'll turn it back over to Bill, for the questions, and we have some  
16 people signed up. I appreciate your interest, and I would ask that you use the  
17 microphone, if you would, in forming a question. I'll set it up here, so you can  
18 get to it.

19 MR. JONES: Okay. What I'd like to do is we'll take the five  
20 seats that we currently have, give everyone an opportunity to speak for three  
21 minutes on this, and after that, if you'd like, just ask the questions and we'll take  
22 care of questions from that.

23 The first individual and we have allowed for three minutes, and then we'll  
24 respond to your question or comment is Henrietta Groop?

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1 MS. GROOP: I have two questions listed actually, I call it a  
2 third one. The first question is why is the Office, the Public Affairs Office, or I  
3 forget what it's called, for Diablo located in Monterey, not in San Luis Obispo.  
4 It doesn't make sense to me. If that is something that the public might need to  
5 report, it certainly would be a little easier if that office was in town here.

6 Next question is about the -- again, I don't know the name of the committee  
7 exactly, there's some sort of public safety committee that several of us local  
8 people feel could use more members of the public from our community here.  
9 Again, it doesn't make sense if we're going to have that kind of a community,  
10 we should have a good feeling of commitment to the community from the NRC,  
11 I don't know, the Commission, actually, but a lot could be done to seek more  
12 qualified members of the public on that.

13 And the third thing was here in this thing, we have something called unplanned  
14 scrams, I think you might just quickly explain what scram is.

15 MR. JONES: I'll start with the last question first. Scram is --  
16 and in this case an unplanned scram is essentially the shut down of a reactor,  
17 and an unplanned scram, for example, if some conditions listed where the plant  
18 will be challenged, for example, if the main generator were to trip offline, then  
19 the reactor would immediately scram, and that would be one of those times  
20 when we qualify it as an unplanned scram.

21 So, it would address such things as equipment failures on the plant equipment  
22 such as the main generator and there could be lots of people hurt, but those  
23 are the type of things that qualify as scram, and scram is a shut down of a  
24 reactor. The control rods go into the core to shut down the nuclear reaction.

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1 With regard to the public affairs office in Monterey, the Nuclear Regulatory  
2 Commission has a public affairs office in headquarters in Rockville, Maryland  
3 and also a public affairs official in each of the regional office, in our case in  
4 Arlington, Texas. The public affairs office in Monterey, I believe, would call to  
5 Pacific Gas & Electric-

6 MR. REUGER: I think what you're probably referring to is the  
7 Diablo Canyon Independent Safety Committee, but let me explain. We have  
8 a number of different organizations that review our safety. The Nuclear  
9 Regulatory Commission is the only organization that has responsive  
10 enforcement authority. They're set up to do that by the federal government as  
11 was explained.

12 Okay, California, the California Public Utilities Commission  
13 working with the attorney general, when we originally brought the plant to  
14 operation, set up a Diablo Canyon Independent Safety Committee.

15 That committee is completely separate from the Nuclear  
16 Regulatory Commission. It reviews our operations, not to the extent the NRC  
17 does, in their advisory nature. They can make recommendations both to the  
18 state and to PG&E, but they don't actually have enforcement authority.

19 I believe they have an office, their lead attorney, that helps  
20 run that committee has an office outside of the area here, I think maybe  
21 Monterey, I'm not sure, that maybe what you're referring to, and I believe that's  
22 the committee that I know that there's been some proposals, I believe it's the  
23 California Public Utilities Commission ask they consider they change the nature  
24 and membership of that committee. That's completely separate from the  
25 Nuclear Regulatory Commission.

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1                   If there's any comments to be made, I know there's a  
2 member of that committee, Mr. Clark, I don't know if you want to say anything,  
3 but-

4                   MR. CLARK: Here I am.

5                   (Laughter.)

6                   MR. JONES: Did we answer both your questions? Next is  
7 Peter Wagner.

8                   MR. WAGNER: Thank you. I'm here for the Sierra Club. I  
9 just have one question. Could you describe the way that the spent fuel rods  
10 are being stored, and how robust the liquid storage pools are against a  
11 potential terrorist threat at Diablo?

12                   MR. JONES: The spent fuel pool where the spent fuel is  
13 stored on site at Diablo Canyon. We talked earlier about security at nuclear  
14 power plants. The plant is protected by several interests of principle security,  
15 by well-trained security officers, by the testing equipment, by multiple barriers.

16                   In addition, the same systems that protect the public concern  
17 that the health and safety and protect the environment also apply to the spent  
18 fuel pools.

19                   There are multiple safety systems, spent fuel cooling can  
20 apply cooling to the spent fuel pool. In addition, there is a barrier from the  
21 spent fuel itself and from the water around it, and also there's the same  
22 emergency preparedness plan that we utilize in the event of a terrorist attack  
23 that could be utilized if necessary, and these plans are implemented by well-  
24 trained operators and utilize the same plant staff to ensure that the health and  
25 safety of the public is protected.

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1                   This is the coordinated effort with state and local officials that  
2 these emergency plants all practice on a regular basis with the Nuclear  
3 Regulatory Commission, with the state and local officials, as well as Federal  
4 Emergency Management Agency.

5                   With regard to an actual threat to the spent fuel pool, the  
6 same protective natures that fall in place from the integrated national response  
7 to terrorist activities also apply to the spent fuel pools, and that is the security  
8 that's around the nuclear power plant itself, also applies to the spent fuel pool.

9                   The protection that we provided from the Aviation and  
10 Transportation Security Act on the same interest as provided that nationwide  
11 preparation from terrorist activities.

12                   One of the other measures that I would speak to protecting  
13 the spent fuel pool without discussing any other physical aspect of the program  
14 itself, I'll give one my colleagues an opportunity to respond to that.

15                   MR. RICHARDS: My name is Stu Richards, I'm with the NRC  
16 Headquarters Office. I'm going to try and expand on that a little bit further.

17                   One of the comments you occasionally hear is that the fuel  
18 is stored in a little pool that sounds not very significant, and that's not the case  
19 at all.

20                   Typically, the spent fuel pools are reinforced concrete walls,  
21 typically four to six feet thick, and then the fuel's under at least forty feet or so  
22 of water.

23                   So, the structure in which it's contained is very robust. It's  
24 also located in a manner, I think, in Diablo Canyon, with a physical

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1 configuration in a site that it's -- you wouldn't describe it as out in the open. So,  
2 it is no way a soft target for a terrorist attack.

3 MR. COLLINS: All right, I appreciate the question. Before  
4 September 11<sup>th</sup>, no one envisioned we would need to provide protection from  
5 an airplane being flown deliberately into a structure.

6 So, since September 11<sup>th</sup>, we've looked at everything  
7 differently, and the NRC believes the best way to provide protection for nuclear  
8 power plants and other industrial facilities across the United States with an  
9 integrated federal government response.

10 Accordingly, the Nuclear Regulatory Commission is working  
11 closely with the Federal Aviation Administration and the Department of Defense  
12 to assure that the air space in the same area as nuclear power plants is  
13 monitored and is protected.

14 Also, the NRC believes that the measures which are being  
15 taken with airport security to include that treatment and to prevent someone  
16 from being in control of an aircraft are also important, and that's a necessary  
17 element to providing protection of a nuclear power plant.

18 MR. JONES: Next we have Mr. Jim Barbour.

19 MR. BARBOUR: Hi, I'm just a local citizen, and I was very  
20 appreciative of all the presentations that were given this afternoon. In fact, the  
21 earlier question was a little bit of a segue into mine, and that is or was  
22 attributed to our address tonight.

23 The issue of dry cask storage is one that has some interest  
24 for me particularly, and I was curious, for one, how many other facilities will be

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1 having dry cask issues associated with their particular plants out of the 103 that  
2 are in the United States.

3 And I also would like to find out whether or not there are any  
4 suggestions by the NRC with regard to storage of those dry cask in a central  
5 location as it goes to the site around the United States that could be at higher  
6 risk.

7 For instance, I know that the governor has vetoed Yucca, and  
8 that is, in fact, something that comes to fruition, and we did lose Yucca  
9 Mountain as a repository.

10 Would it not make more sense at that juncture to have a  
11 staging location for all the dry cask at close proximity to Yucca as opposed to  
12 surveying other prospects? Thank you.

13 MR. RICHARDS: Hi, Stu Richards again. Well, we didn't  
14 bring anybody with us tonight that's an expert or well versed in dry cask  
15 storage, but I do have some knowledge and the number of facilities already  
16 using dry cask storage, I think, are probably about 20 to 25.

17 There's other utilities who are building dry cask storage and  
18 will be moving in that direction in the near future. So, the technology has been  
19 around for a while. There is a track record.

20 With regard to your question about storing the fuel someplace  
21 else in a centralized location, that's really the responsibility of the Department  
22 of Energy to find a final waste repository. They're separate from the NRC, and  
23 of course, as it was mentioned before, they are exploring a mountain. If Yucca  
24 Mountain goes forward, the NRC's goal is to license the facility, put it through  
25 a safety review.

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1                   The ministry has the option of trying to coming up with some  
2 interim storage, and in fact, there's an attempt in Utah, I believe, for a group a  
3 minion tribe, as a matter of fact, to license a facility for private fuel storage or  
4 PFS, as it's called.

5                   So, the NRC regulations are there to have that kind of  
6 storage facility built, but it's up to the ministry and people who would be  
7 interested in doing that and propose it and fund it, and make that go forward.

8                   The NRC's view is that the fuel can be safely stored in spent  
9 fuel pools as they are now, it can be safely stored in a dry cask storage on site,  
10 and if there is a central location, such as PFS, assuming that they meet our  
11 licensing requirements then they can be safely stored there also.

12                   MR. JONES: Does that answer your question?

13                   MR. BARBOUR: Yes, I think so, but I look at the mission of  
14 the NRC as being one of the safety of the public interest, and I would think if  
15 there was all that redundancy of dry cask storage around the United States,  
16 and that if there's an inherent risk associated with that, and we talked about fly  
17 overs, there's been one fly over I think at Diablo reported in the paper on the  
18 main page and others.

19                   It seems to me that that would be inherently more risky than  
20 a central place that could be protected from violation and things of that sort of  
21 thing. Given that that's your mission, I would think it would be more proactive  
22 in recommending something similar to that in a direction of dry cask.

23                   MR. RICHARDS: Well, that remains to be seen. I think that  
24 Elmo mentioned that one of the responses of the NRC out of the 9-11 event is  
25 that we are doing a so-called top-to-bottom review of security measures.

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1 Part of that effort is to try and work with other government  
2 agencies to try and define what the threat is before you can protect against  
3 something you have to assume what the threat will be. That is underway but  
4 hasn't been completed.

5 You know, when that occurs, maybe they'll be some  
6 recommended changes along those lines, and I'm not going to speculate what  
7 that might be. I might note, however, for at least Diablo Canyon, they don't  
8 have a dry cask storage facility right now.

9 I believe they're not scheduled to build one for some time.  
10 I would think that before that time comes, before Diablo Canyon does go to dry  
11 cask storage, the NRC and other federal agencies will have completed that  
12 threat assessment and if there are changes to be made, they'll probably be  
13 implemented at that time.

14 MR. JONES: Next we have Ms. June Von Ruder.

15 MS. VON RUDER: I just have a few more questions. First of  
16 all, I'd like to thank you for coming here, thank Mr. Clark for coming, who I see  
17 often, the safety of Diablo Canyon Independent Safety Committee.

18 I wanted to congratulate -- I don't think I've ever heard the  
19 NRC or PG&E say out loud that radiation is released, if you're going to be  
20 honest and tell people that, they don't really believe it. They say no way, they  
21 don't release radiation, and thank you for that. I appreciate it. I'm not sure  
22 which one said that in your remarks.

23 I just have a few questions for the staff, two of you here. Are  
24 you on call like 24 hours a day, on weekends, just the two of you, and how  
25 many employees positions are there at the plant?

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1 MR. JONES: I'd like to refer that Diablo Canyon-

2 MS. VON RUDER: I'm just to trying to figure out if the two of  
3 you overseeing how many people who work -- how many employees are there  
4 at the plant?

5 MR. OATLEY: If I can answer from a PG&E prospective,  
6 there's about 1,320 permanent employees at Diablo Canyon.

7 MS. VON RUDER: Thank you. And another thing I had -- a  
8 reference was made to a response from PG&E on the degradation of the  
9 reactor vessel head, and I'm not quite sure from the response -- don't you have  
10 to dismantle it or actually look into it to see if there's any evidence at all? Well,  
11 you don't have to answer -- it's your question.

12 MR. OATLEY: I feel we need to answer it.

13 (Laughter.)

14 Yes, we do have access ports where there's insulation on top  
15 of the reactor vessel head, and there's access ports and you can get  
16 underneath, and you can do it one of two ways, you have people down in there  
17 and crawl around, or we can send down a robotic device with a camera and  
18 crawl around, and it's usually the latter. We'll be doing that in about three  
19 weeks-

20 MS. VON RUDER: -response was you responded -- I  
21 appreciate it. Let's see -- oh, the three problems regarding the example of the  
22 green alert -- identified by the NRC or were there incident report identified? Did  
23 you have to find them or were they reported to you by staff?

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1 MR. JONES: We actually have a combination of both. We  
2 perform the independent inspections. In addition, part of our inspection  
3 activities is to look at the effectiveness of the corrective action program.

4 MS. VON RUDER: Well, I guess that's what I'm saying is-

5 MR. RICHARDS: Well, there are a large number of people  
6 within our agency that are on call 24 hours a day. We wear pagers, we have  
7 an incident response center that's manned 24 hours a day.  
8 There are regulations in place that require Pacific Gas & Electric to notify us of  
9 a large range of events within a fairly short period of time. The regional office  
10 has provisions for incident response, including chartering aircraft and flying out  
11 of here.

12 We have people come up from San Onofre or from other sites. So, there's a  
13 whole array of people who are trained and practiced to respond to about  
14 anything. So, you know, they're on the front line but they're backed up by a lot  
15 of people.

16 MS. VON RUDER: Thank you, that's it.

17 MR. JONES: Thank you. Mr. Jackson?

18 MR. JACKSON: Yes, I just wanted to respond to the  
19 comments you made about the NRC and the radiation being released at Diablo  
20 Canyon, and first of all there is a -- the performance indicator I'm talking about  
21 has to do with radiological fluent control program. And during the operation of  
22 the plant you had some what you might call nuclide radioactive waste and  
23 some gaseous radioactive waste.

24 Now, what's the criteria for -- that they have to be under and in this indicator  
25 program here, we measure the effect that the radiation has on the dose, and

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1 what kind of biological effect it has. For example, fluid that is released into the  
2 environment, it has to be under 1.5 or it should be under 1.5 millirem per  
3 quarter.

4 Now to put that in perspective, just from background radiation from the sun,  
5 from radiation in rocks and so forth, the average American gets about 300  
6 millirem per year. So, this is being released out into, you know -- through the  
7 discharge 1.5 millirem per quarter, so that's like every three months.

8 So, it's like the average American gets 300 millirem per year on and average,  
9 and depends on what kind of job -- if you're like an airline pilot, airline pilots get  
10 a lot more than that, so just wanted to put that into perspective for folks and if  
11 anybody has any more questions about that-

12 MS. VON RUDER: Can you-

13 MR. JACKSON: Okay, I think you're asking if it's cumulative  
14 as far as like-

15 MS. VON RUDER: I mean, is it just key standings-

16 MR. JONES: Can you take the microphone to her?

17 MS. VON RUDER: -- so it would add up? Is it cumulative, I  
18 guess that's what I'm saying.

19 MR. JACKSON: Okay, your question was the fluent that's  
20 released from the plant, do we measure it on a cumulative basis, and the  
21 answer is that we're measuring it as far as like how much per quarter -- not only  
22 like going back, you know, years.

23 MR. RICHARDS: It's not short-lived.

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1 MR. JACKSON: Right, and that's true, too, because, you  
2 know, the fluent that's released undergoes decay, and once it's decayed, it  
3 becomes stable, so there's no biological impact to the activity.

4 MR. JONES: Okay. Next we have Mr. Bill Denneen.

5 MR. DENNEEN: I'm not sure where to stand here. I'm sorry  
6 I'm late. I went to the Sierra Club meeting on the beach and a little bit of  
7 background. I'm a retired biology -- college biology teacher and back in the  
8 early '70's, I kind of opposed Diablo Canyon because, what are you going to  
9 do with the nuclear waste.  
10 And in 1977, I wanted to join the group that were going to be arrested, because  
11 I felt very strongly about, what are you going to do with that nuclear waste, and  
12 I couldn't participate because I hadn't had the non-violence training.  
13 Anyway, in 1978, I had my training, and I was arrested, and my question in a  
14 reason as a biologist, what are you going to do with that nuclear waste? Here  
15 we are almost thirty years later, they're storing it on-site next to an earthquake  
16 fault and very vulnerable to terrorists.  
17 Now, my question is I've heard a little -- as I say I came late and I'm sorry, I  
18 would like to have each one of you answer the question and that question is,  
19 dry storage of nuclear waste.  
20 Why not disperse it. Everyone that says nuclear waste is not a problem. I've  
21 heard Paul talking about how low the radiation is. Why not take each cask and  
22 store it at the home of the CEO on and down, the Nuclear Regulatory  
23 Commission, all the safety people, each one take a cask and store it on-site --  
24 their home, it's disbursed, the terrorists can't get it, it's all over the place.

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1 Why not do that? I would like for each one here that is being paid to be here,  
2 why don't you take a cask in your back yard. It'd be a wonderful conversation  
3 piece during the cocktail parties and things like that.

4 It'd be a lot better than playing golf, yes, we've got our own nuclear waste here,  
5 our dry storage site. So, okay, that's my question, that's my background, and  
6 I wish everyone would use this so I can hear all the way out from here -- you  
7 whisper, I can't hear.

8 MR. JONES: Thank you. The question that we can answer  
9 for you is in our safety process, we're evaluating the licensee and dry storage  
10 casks. Clearly, they have to be protected.

11 We're looking at, as Mr. Richards indicated, a top-to-bottom review of security  
12 in nuclear power plants. That also includes storage of dry cask internals and  
13 again, Mr. Richards talked earlier about some of the licensing aspects and I'll  
14 ask him to address that further.

15 MR. RICHARDS: Can you hear me? Good, I'll try to speak  
16 up. You made two comments that I think I need to respond to. One that it's  
17 very seismically vulnerable. I disagree. Diablo Canyon was built with a very  
18 significant seismic loading consideration and the spent fuel pool, where the fuel  
19 is right now is designed to withstand very large earthquakes. I think it would  
20 do very well.

21 Likewise, the dry cask storage, when it goes into operation some years down  
22 the road, will be designed to withstand a very large seismic input, and I think  
23 that it would do well in a seismic event.

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1 That's our responsibility and we have people expert in that area that study that  
2 and make sure that it's true. You also said it's very vulnerable to a terrorist  
3 attack. I disagree again.

4 I think that the security force at Diablo Canyon's very significant and that the  
5 structures that the fuel is contained in right now are quite robust and would be  
6 a very hard target for the terrorists.

7 I can only respond for myself, you talked about moving this fuel around and  
8 how would I feel, how would we feel about living in the city. Well, obviously  
9 we're not asking PG&E or any other utility that's not proposing to build a dry  
10 cask storage container in your back yard or anybody else's backyard but at the  
11 power plant, which is somewhat isolated, but let me caveat that by saying that  
12 I have lived within sight of a nuclear power plant. I had children born within  
13 sight of it, and I did not worry about it one bit.

14 I did worry about some of the other industrial facilities that were collocated  
15 because I knew the safety regulations that applied, particularly at the nuclear  
16 power plant I was at, and I am confident that if Diablo Canyon does go forward  
17 and build a dry cask storage facility, that it will be safely built and safely  
18 operated, and we're going to make sure of that.

19 MR. JONES: To follow up with that, the Nuclear Regulatory  
20 Commission does have a stricter licensing process that it would go through in  
21 order to license such a facility. In addition, we would inspect the building and  
22 storage of that material, should a license application be granted.

23 With that, if you don't have any other additional questions on the sign-up sheet,  
24 is there someone who would like to speak? Yes, ma'am?

25 MS. FLOYD: Yes. I have a couple of questions --

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1 MR. JONES: Can you provide us with your name for the  
2 record?

3 MS. FLOYD: Yes, I'm sorry. My name is Yvonne Floyd. I'm  
4 a resident of this city. Yvonne Floyd.

5 MR. JONES: Can you hold that close?

6 MS. FLOYD: How close? This close? Okay. First of all,  
7 explain the dry cask system. I'm not quite sure how that works and how it's  
8 going to -- what kind of container is it, and how is tested for leaking radiation  
9 and all that?

10 My second question is regarding safety. What kind of background questions  
11 are being made regarding employees that have been there a long time, long  
12 before September 11<sup>th</sup>? How do PG&E know that you don't have, for instance,  
13 a terrorist among your employees? How much of a background check is done  
14 on the people that work for you? Have you done it for every single person that  
15 is working out there?

16 MR. OATLEY: Yes.

17 MS. FLOYD: And what is the background check? I mean,  
18 going how far back?

19 MR. OATLEY: The -- all of the --

20 MR. JONES: The second question first and then we'll  
21 respond to your question on dry cask storage.

22 MR. OATLEY: Thank you, Mr. Jones. So, I'll respond to the  
23 background checks of individuals at Diablo Canyon, and this applies to both  
24 PG&E employees and to any individual that is going to be remaining within our  
25 protected area.

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1 Individuals that have unescorted access, that can freely roam, must fill out an  
2 18-page application that talks about who they are, where they come from, and  
3 we go through an extensive background check to verify their sources, including  
4 talking to previous employers, talking to the universities they say they may have  
5 gone to.

6 We take fingerprints of those individuals, those fingerprints are submitted to the  
7 FBI, and they're not allowed unescorted access until the fingerprint results are  
8 received. So, we cooperate with the FBI.

9 We also, as we learn more as we go through this process, we get lists from the  
10 FBI occasionally, people that they would like to talk to or are concerned about.  
11 We verify that we have none of those individuals working within our facility.

12 So, it's an extensive background check for all individuals on site ever since the  
13 plant became a commercial operation back in the mid-'80's.

14 And if you're interested, I do have -- if you'd like to answer the question on dry  
15 cask storage, I also have the expert here. I'd like to introduce Gerald Stricklin,  
16 and he's our technical expert and project manager for Eastfield Storage, and  
17 maybe Gerald, you can give some insight on this.

18 MR. STRICKLIN: Thank you, Dave. I'll give out the  
19 information in general terms to begin with. There are a number of systems  
20 available out there for use by nuclear facilities today, and they range from  
21 systems that store the fuel in what's called multi-purpose canister in a  
22 horizontal configuration, to facilities that store it in a vertical configuration.

23 The system that has been selected by Diablo Canyon for development is from  
24 a corporation by the name of Holtec International. Their systems is comprised  
25 of what they call a multi-purpose canister that's constructed with three-quarter

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1 inch stainless steel with a stainless steel basket. So the materials are very  
2 inert, very high quality, such that they don't react the way carbon still does with  
3 some of the other materials.

4 In return, this vessel is welded shut, and it's a process where we put a lid in  
5 place after the fuel's been placed in the baskets inside. To weld it shut, the  
6 remainder of the moisture is removed through a system that you pump helium  
7 through, and then once you've completely dried the system out, then you have  
8 the fuel stored in a helium blanket.

9 From there, these access ports are then closed and closure plates are put over  
10 them, they're weld shut, and then another plate's placed on top of that with  
11 another weld, so you have a redundant series of welds to make sure that the  
12 vessels are fully contained.

13 From there, the multi-purpose canister is stored in a concrete and steel  
14 overpack. The ones for Diablo have walls that are approximately three feet  
15 thick. They're comprised of essentially two steel vessels, an internal vessel, an  
16 external vessel, and then the interstitial space is filled with concrete.

17 Other systems don't use the steel internal, external vessels like the one that  
18 Diablo has selected. We've done that because of the additional strength that  
19 the system provides.

20 On top of that, for Diablo, we elected to develop a modification to the Holtec  
21 system in that we require that our system be anchored to the supporting slab.  
22 Even in a higher seismic zone like this, we decided to exercise additional  
23 conservatism to evaluate our system for higher seismic input than the nuclear  
24 facility itself was designed for.

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1 We've established a licensing basis that's essentially the same as the Diablo  
2 plant, but then we've added additional margin on top of that to fight  
3 conservatism for ourselves.

4 MS. FLOYD: How much?

5 MR. STRICKLIN: It depends on what components, but  
6 there's a significant amount of conservatism above what the original licensing  
7 design basis for the plant is for these storage vessels.

8 When you look across the industry right now for facilities that have installed dry  
9 storage facilities, Diablo Canyon's the only one that's elected to use an  
10 anchored system, and that provides an additional margin for us. The only other  
11 utilities right now that are looking at potential to use an anchorage system is  
12 the utilities based in Japan.

13 MS. FLOYD: So, the storage space that you said had three  
14 feet of concrete, is that on all sides and the top of it?

15 MR. STRICKLIN: Yes, what you-

16 MS. FLOYD: Then how do you get the cask in?

17 MR. STRICKLIN: I actually have a series of slides that -- if  
18 you leave your name and address, we can send you the link to our web site,  
19 but there's a process that's utilized.

20 We have a transfer cap that's -- that multi-purpose canister's placed inside of.  
21 This is moved into our spent fuel pool, which then the multi-purpose canister  
22 is loaded with the fuel assemblies, the used fuel assemblies.

23 From there, you go through the process of moving from the spent fuel pool,  
24 weld the enclosure, as I noted before, and then that transfer cask is transported  
25 up to our storage facility.

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1 Up at the storage facility, there's what we call the cask transfer facility, where  
2 you actually then move that multi-purpose canister from a transport cask into  
3 the steel and concrete longer-term storage container.

4 And so then from there, you move it across towards it and put it in place, but  
5 that longer-term storage container is a circular vessel that does have three feet  
6 of concrete all the way around it, plus then a heavy lid that's placed on top of  
7 it. That's also still in concrete.

8 MS. FLOYD: And that lid is how thick?

9 MR. STRICKLIN: About two and a half feet.

10 MS. FLOYD: And so you kept saying that it is hard for a  
11 terrorist to recognize where that facility is. Is it dug into a hill or how is it  
12 concealed?

13 MR. STRICKLIN: I think the NRC's response was dealing with  
14 the spent fuel pool itself within the power plant facility. When you look at the  
15 proposed dry storage facility, it is up above the power plant itself, and it's  
16 proposed to be excavated into the hillside, so the proximity does afford some  
17 additional protection by being partially in the hillside.

18 MS. FLOYD: Can I ask -- I have another question. I  
19 understand there is no law for flying over the plant. It's suggested that people  
20 are not to fly over. A terrorist is not going to follow that suggestion.

21 Now, what kind of control is there? Is the military up at Camp Roberts or  
22 somewhere else where they have a plane, are they on alert all the time, or is  
23 the airport here, the towers on alert for unauthorized flights over the plant, and  
24 how does that work?

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1 And another thing about safety, what about threats from the seaside.  
2 Speedboats coming in with a load of explosives, what -- how is that checked?

3 MR. JONES: First, I'm going to give it to Mr. Richards. He  
4 wanted to respond to an earlier question, and we'll make sure we --

5 MR. RICHARDS: Just to expand a little bit on what Mr. Oatley  
6 said. You said what if one of these terrorists works at the plant, let's say, you  
7 know, I've passed all the background checks and now I've converted to be a  
8 terrorist, so now I work at the plant.

9 One thing you need to consider is that when you go into the plant, any nuclear  
10 power plant, it's like going through the airport check-in line security gate, except  
11 worse-

12 MS. FLOYD: Which I don't trust very well.

13 MR. RICHARDS: Well, you're -- you know, they have the X-  
14 ray machines, they have the guard, guns. The whole idea is to prevent  
15 somebody from bringing a weapon into the facility or to bring explosives into  
16 the facility.

17 Once people are in the facility, the plant is divided into a number of different  
18 security areas. It's not one common area, and people are only allowed access  
19 into the areas that they need to go in, and there's a continuous computer  
20 record of where everybody goes.

21 So, if somebody internal to the organization becomes untrustworthy, there are  
22 other checks and balances to try and account for that.

23 MS. FLOYD: Now, the latest question I had is I was not  
24 referring to people that work at Diablo. I was referring to people coming from  
25 outside.

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1 MR. JONES: Dave, give her the microphone. She's probably-

2 MS. FLOYD: I thank you for saying about the people that  
3 work at Diablo Canyon, but there are people that might come from the outside,  
4 terrorists that fly over the plant, that come in from the seaside, and what kind  
5 of procedure is there to detect these people coming in, trying to get to the  
6 plant?

7 MR. JONES: Thank you. One of the areas we covered was  
8 the integrated security -- from the federal government standpoint including local  
9 and state officials. I'll let Mr. Collins respond to this condition.

10 MR. COLLINS: I'm going to just repeat what I said earlier,  
11 that the NRC believes that protection for nuclear power plant from the air or the  
12 sea and protecting for any other industrial facility in the United States, is done  
13 with an integrated approach by different agencies.

14 Amongst them, key, are the Federal Aviation Administration and the  
15 Department of Defense. You know, the Department of Defense has provided  
16 a protection for America's homeland for many years, whether it's monitoring the  
17 North American defense, which system is provided for by the Department of  
18 Defense, is integrated and the NRC and FAA are in communication with them,  
19 and when -- and on some occasions when an airplane is not where it's  
20 supposed to be, they have been escorted out of that area, once they have  
21 determined that they are not going to be of a malevolent nature.

22 So, protection is being provided and it's being provided -- for the nation's  
23 homeland across the country and the sea with the Department of Defense and  
24 the Federal Aviation Administration.

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1 MS. FLOYD: I still don't understand. I understand all of the  
2 agencies responding -- sea, but I'm talking about the practical defense of the  
3 area. Where is the defense for that?

4 MR. OATLEY: Mr. Collins, if I may?

5 MS. FLOYD: There was no defense --

6 MR. OATLEY: You have very good questions. I would say  
7 there's several ways that we protect ourselves. First, I think for all of us, the  
8 best way to protect is to keep the darn things from falling out of the sky, and  
9 that's where the federal agencies that the NRC have been talking about have  
10 a responsibility to ensure that what happened September 11<sup>th</sup> does not reoccur,  
11 and I think that's important not just for Diablo Canyon, but for all -- you know,  
12 any manufacturing site and industrial facility, that's paramount.

13 Now, absent that, there are measures that can be taken. For example, you  
14 know, the old one if by land, two if by sea. We talked about the paramilitary  
15 staff security force at Diablo Canyon. Two if by sea, we have worked with the  
16 U.S. Coast Guard, and there's a one-mile exclusion area now around Diablo  
17 Canyon where vessels are not allowed in. If they come in, the U.S. Coast  
18 Guard responds. If the U.S. Coast Guard doesn't respond, we will respond.  
19 We have three if by air now to worry about, and as I said, the best way is to  
20 keep them from falling. Now, if you look at Diablo structurally, it's an extremely  
21 robust facility. It's protected on a couple sides by very hilly terrain, and would  
22 be a very difficult target.

23 Notwithstanding that, though, we have cooperated with federal agencies, and  
24 if we have seen anything that is unusual, we do have access to the Naval Air

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1 Station in the valley, and we can request the air support activities at Diablo  
2 Canyon.

3 So, it is -- we do have access to federal agencies to help us out, and now if  
4 there's anything else you want to mention, Girija?

5 MR. SHUKLA: Yes, my name is Girija Shukla. I'm the project  
6 manager for the NRC for Diablo Canyon, and as Mr. Collins said, that security  
7 of nuclear power plants is integrated of course by all the federal agencies, but  
8 I can tell you from personal knowledge that waters around Diablo Canyon is  
9 monitored by U.S. Coast Guard, and airspace is monitored by FAA and  
10 NORAAD.

11 So, if something happens, we have means and the time to respond quickly.  
12 So, nothing to worry about.

13 MS. FLOYD: I'm not so sure.

14 MR. JONES: I think the important message is nobody could  
15 imagine before September 11<sup>th</sup> that somebody would take an aircraft and crash  
16 it into a building and then someone else would do the same and we'd have an  
17 attack on our Pentagon, and then the fourth aircraft also.

18 The important message is that the Nuclear Regulatory Commission, the  
19 different licensees, Pacific Gas & Electric, in this case, are all working together  
20 in an integrated fashion. We're taking the intelligence community, we've got  
21 the Office of Homeland Security, and those different -- the intelligence that they  
22 gather is properly disseminated where applicable to some licensees in these  
23 proceedings.

24 As I indicated earlier, there has not been a credible threat to any U.S. nuclear  
25 power plant. That doesn't mean that the licensees aren't at the highest level

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1 of security. The NRC has integrated, from the intelligence communities, the  
2 information that since September 11<sup>th</sup>, integrated that, issued advisories and  
3 came out with an order that is essentially keeping the licensees at this highest  
4 level and establishing additional requirements.

5 So, the message that I think is very important is that the NRC is working with  
6 other federal agencies, your state and local officials also, we talked about the  
7 Coast Guard and also with licensees to guard against terrorist attacks.

8 But again, we are providing an integrated response, and that's what we have  
9 to take away. This is a national issue. It's not just Diablo Canyon, Pacific Gas  
10 & Electric. It is our entire nation working together on essentially an active war  
11 against this country, and that's -- does anybody have a question? Yes, sir?

12 MR. CURRIER: I'm Peter Currier. I'd like to go on with the  
13 dry cask situation a little bit further. The way I understand it you're going to  
14 build a slab, a substantial slab, and you're going to mount these dry casks  
15 vertically, they'll actually look like grain silos sticking up.

16 They are accessible. For instance, if somebody was to take a heavy-body  
17 aircraft, such as the ones that flew into the World Trade Center and was to fly  
18 one of those aircraft -- I have a question here -- was to fly one of those aircrafts  
19 into this dry cask farm, based on the specifications that you have right now,  
20 would the dry cask stay intact?

21 MR. STRICKLIN: I guess the best way for me to answer that  
22 is that the NRC has commissioned a study associated with Primafield Storage  
23 such that they are modeling a heavy aircraft impact on actually the Holtec  
24 system and the primary results of that study, if I -- is it appropriate that I provide  
25 information?

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1 MR. JONES: Sure.

2 MR. RICHARDS: Sure.

3 MR. STRICKLIN: The preliminary results at this point in time  
4 note that the items that you're most concerned about are the hardened objects,  
5 such as the landing gear and the engine components, and the preliminary  
6 analysis shows that the Holtec system is able to withstand the impact of those  
7 objects at the design-rated speeds without impacting the qualification of the  
8 multi-purpose canister inside, that it maintains its integrity.

9 Those studies are currently in the process of being completed, and from what  
10 I understand from the owner of Holtec International, it should be available  
11 sometime in the winter.

12 MR. CURRIER: A couple of other questions I have is why are  
13 you going to build this massive spike out, you're going to mark these things  
14 vertically like they're -- as far as I'm concerned, they're kind of like fingers  
15 sticking up. They're kind of vulnerable from a structural point of view.

16 Why couldn't the slab be built and for instance, hold within the slab and these  
17 containers dropped in, is there a cooling problem where they have to keep a lot  
18 of air circulated around them, or it is -- and then I have one other one.

19 The other one is the containment structures are iffy, I think, on the heavy body  
20 attack also. One of the questions I have is why don't you guys build some  
21 towers similar to KVEC, the radio tower, so that any incoming aircraft will be  
22 totally not able to make a direct hit or would you know, cause the plane to start  
23 to fall apart before impact and will reduce the significance of you know,  
24 anything that might happen.

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1 MR. STRICKLIN: It's interesting that you would mention  
2 towers. That was -- if you look at our Davis Besse location, we actually have  
3 our 500 KV towers on all four corners, and so part of our design basis is  
4 looking at the impact of towers collapsing within the storage facility, and a 500  
5 KV line drop and so forth. So, there is a series of towers just by coincidence  
6 around this facility.

7 The other question was --

8 MR. CURRIER: Why not sink the casts into the slab rather  
9 than-

10 MR. STRICKLIN: When you look at the cooling process for  
11 the fuel, you end up having to use convection cooling, and so we draw cool air  
12 in at the bottom, and it's discharged out the upper vents, and so it's part of our  
13 licensing process that you have to maintain a certain amount of cooling through  
14 there.

15 And if you use the standard types of fuel that are discharged from a facility  
16 such as Diablo, the fuel has enough energy still left, and we need to be able to  
17 have a proper amount of air circulating, so in our facility, you could not use a  
18 completely recessed-type installation like that.

19 Some of the older facilities on the east coast that have fuel that's been in the  
20 spent fuel pools for a long period of time, then potentially we'd use that type of  
21 design.

22 MR. JONES: I'd like to again reiterate that the spent fuel  
23 storage casks are part of the overall top-to-bottom review that the Nuclear  
24 Regulatory Commission is going through as far as security for nuclear power  
25 plants.

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1 That's including within there, and this is what the current design basis for the  
2 plants actually needs to be. Anyone else?

3 MR. BARBOUR: Jim Barbour, again. I have a couple of  
4 questions, and these should be short ones. David, when you got up and  
5 talked, you talked about safety and you talked about well, a couple of things  
6 relating to employee concern program that PG&E have, and I would just like to  
7 ask a question about that, but before that, I wanted to find out whether the NRC  
8 measures employee turnover rate as a safety-related issue and the longevity  
9 of the employees at the different facilities from a safety perspective.

10 And then addressing another question to PG&E quality or safety measure,  
11 regarding this employee concern program that David spoke about, are the  
12 employees rewarded, or encouraged to use this program, and if so, how is that  
13 -- the results quantitatively measured?

14 MR. JONES: David, do you want to take that one?

15 MR. OATLEY: Go ahead with that one.

16 MR. JONES: The NRC does not specifically look at turnover  
17 rates. For example, in the area operator licensing, actually let me let Mr. Gody  
18 answer this one if he would, to address the operator licensing aspect --

19 MR. GODY: Hi, my name's Tony Gody, Chief of the Operator  
20 Licensing Branch in Region IV. We don't specifically look at turnover rates  
21 during our inspection process, and we don't look for safety issues associated  
22 with turnover.

23 However, from an operator licensing prospective, we have a fairly extensive  
24 program that verifies that licensees are properly training candidates to operate  
25 a nuclear power plant.

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1 That is approximately an 18-month process that the candidate goes through to  
2 learn the systems of the plant, the emergency operating procedures.

3 At the end of that process, we go through an extensive testing program for that  
4 individual, and that's a one on one test for those individuals that are seeking a  
5 license.

6 From the prospective of an aging work force, turnover of personnel, it's  
7 important for me as the Chief of the Operations Branch to understand the aging  
8 work force and the predicted class sizes that are going to take place in the  
9 future, and we've had significant conversations about the aging work force and  
10 preparing ourselves for the increased class sizes and encouraging licensees  
11 to be proactive in bringing people earlier and getting trained up and licensed  
12 before the aging workforce issue becomes an issue.

13 I'm not sure if that addresses all of your concerns, questions there --

14 MR. JONES: We've got additional response to that question.

15 The residents do review the work activities and follow up to corrective actions  
16 that may result from some personal errors, but that is something that we've  
17 talked about. We've talked about that in our crosscutting issues, so human  
18 performance, those are the attributes that you spoke to, turnover would be  
19 something that adversely affects human performance, and that's an area we  
20 look at. I'm going to have Greg Reuger also address that.

21 MR. REUGER: Yes, a couple of items. We do monitor  
22 turnover. We've had extremely low turnover at Diablo Canyon, pretty light. We  
23 do have some concerns going forward, not because of any concerns  
24 employees have that they don't want to work there, in fact, just the opposite,  
25 because we are starting to get an aging workforce, and we are going to be

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1 seeing over the next five years, you know, starting to see some turnover,  
2 because of people retiring.

3 We do have plans today that we are putting into place -- have started already,  
4 we're hiring people into the organization, giving them a lot of time for training.  
5 I, myself, sit on the accreditation board of the nuclear industry, where all  
6 training programs are used for operators, maintenance technicians, radiation  
7 protection technicians go through a very rigorous every other year accreditation  
8 process to make sure that they're good programs.

9 So, we have had actually, I guess, good luck largely because we're in an  
10 excellent location. There's not another location in this country with nuclear  
11 power plants as beautiful as our own, but we've had extremely low turnover  
12 among our employees, but it is an issue we monitor, not so much from  
13 employee concerns prospective. We have other measures with that, and I'll  
14 ask Jim if you want to talk to those, but from a standpoint of making sure we  
15 have a lot of personnel with the skills to run the plant very well.

16 MR. TOMPKINS: Yes, I have three people that are on my  
17 staff that pretty much full-time evaluate employee concerns that people bring  
18 to them. They do it on a confidential basis, and we try to seriously -- take their  
19 concerns very seriously and try to get them a good answer back.

20 Do we reward people? We don't give people money for bringing up concerns.  
21 On the other hand, we try to reward them by giving them a good answer, and  
22 as I mentioned earlier, taking their concerns seriously.

23 I would also say, though, that if somebody in the plant finds a safety problem,  
24 we do reward that behavior, not through the employee concerns program  
25 specifically, but I've been in many management meetings in the morning where

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1 somebody brings in an issue that was an excellent catch that could've led to a  
2 safety problem. We then treat or reward those folks.

3 MR. JONES: Due to the late hour, we'll take four more  
4 questions. I think we have Bill Denneen?

5 MR. DENNEEN: Bill Denneen. My question is a simple one.  
6 About a month ago, on the front page of the Tribune was an aerial photo of  
7 Diablo and just behind it, looked like a couple of swimming pools.  
8 Now, I've been in the containment structure and it's the cement, everything,  
9 wow. I've been in before, during and just before you put the radioactive stuff,  
10 but what are those swimming pools, just to the east of the containment  
11 structures?

12 Are they swimming pools for the employees, or is that where they store  
13 radioactive waste?

14 (Laughter.)

15 MR. BECKER: I've been waiting for that question. The pools  
16 you see, they're called raw water reservoirs, and they are much like swimming  
17 pools, except very big swimming pools.

18 Each swimming pool is several million gallons, and what we use that for is sort  
19 of temporary storage of water. We take the water out of those reservoirs as we  
20 need it for the plant itself. We purify it to an ultra-pure level, and then we use  
21 it in the plant.

22 The water that's in those reservoirs is roughly, you know, drinking quality water,  
23 and we make it a lot cleaner than that before we use it.

24 MR. DENNEEN: Thank you.

25 MR. JONES: And, I'll give one more question.

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1 MR. BARBOUR: This may be a dumb question, but I  
2 remember my old days in the lab, I didn't realize first with helium, helium is  
3 notorious for leaking over a long time. Do you plan to recharge the cask every  
4 so often?

5 That was one question. The other question is the word reprocessing as it  
6 means to basically get more electricity for getting a lot of waste hasn't even  
7 come up tonight. Is there an NRC policy on that? What's the status of it?

8 MR. JONES: We'll address the second question first.

9 MR. RICHARDS: Reprocessing is illegal since the Carter  
10 Administration, so it's against the law.

11 MR. STRICKLIN: You're very correct that helium is a gas  
12 that's very hard to confine and contain and that the systems that are required  
13 to be able to handle it and move it through it such as the drying process that I  
14 noted it has to have very tight connections.

15 So, a lot of effort goes into ensure that the system -- that system is tight for the  
16 actual purging process and cooling process for drying that vessel out, but once  
17 the helium is inside the multi-purpose canister and the various ports are welded  
18 shut, the additional inspection of the welding itself to show that that has good  
19 fine closure with no cracks or defects in the welds, and it provides enough of  
20 a barrier, that you don't have the helium leaking potential.

21 The only other thing I want to say is that as far as the county permitting  
22 process, there will be another public meeting that looks at dry storage on the  
23 29<sup>th</sup> of this month, and in that meeting, we'll have some models that'll show you  
24 what the multi-purpose canisters look like, what the transfer cask looks like and

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1 what the overpack larger storage container looks like, and from there, we'll  
2 have some other photos that show of the facility.

3 MR. JONES: First, I want to be to sure to thank everyone for  
4 coming, for taking time out of their schedules to come out and hopefully  
5 become informed as to how the Nuclear Regulatory Commission goes about  
6 independently assessing performance in this case, at Diablo Canyon, will  
7 become useful.

8 I do want to encourage you to utilize the feedback forms. We gladly accept any  
9 comments that you have. We do want to improve our interface with the public,  
10 and this is a meeting that we're going to be conducting on a yearly basis, based  
11 on the current program, and we want to ensure that we meet the needs of the  
12 public in transferring and informing you as to how we go about our business  
13 and what our specific plans are, and also to provide this question and answer  
14 period and for comments, so that your concerns can be brought forward.

15 With that, I'll conclude the meting, and again, I thank you very much.

16 (Whereupon, the foregoing public hearing was concluded at  
17 9:05 p.m.)

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