

ORIGINAL

UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

Title: PERIODIC BRIEFING ON OPERATING REACTORS
AND FUEL FACILITIES

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1 UNITED STATES OF AMERICA
2 NUCLEAR REGULATORY COMMISSION

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4 PERIODIC BRIEFING ON STATUS OF OPERATING REACTORS
5 AND FUEL FACILITIES

6 ***

7 PUBLIC MEETING

8 ***

9 Nuclear Regulatory Commission
10 Commissioners Conference Room
11 One White Flint North
12 11555 Rockville Pike
13 Rockville, Maryland

14
15 WEDNESDAY, DECEMBER 21, 1988
16

17 The Commission met in open session, pursuant to
18 notice, at 2:02 o'clock p.m., the Honorable LANDO W. ZECH,
19 Chairman of the Commission, presiding.

20 COMMISSIONERS PRESENT:

21 LANDO W. ZECH, Jr., Chairman of the Commission
22 THOMAS M. ROBERTS, Member of the Commission
23 KENNETH CARR, Member of the Commission
24 KENNETH C. ROGERS, Member of the Commission
25 JAMES R. CURTISS, Member of the Commission

1 STAFF AND PRESENTERS SEATED AT THE COMMISSION TABLE:

2 J. Hoyle

3 W. Parler

4 V. Stello

5 R. Martin

6 J. Martin

7 T. Murley

8 M. Ernst

9 B. Davis

10 B. Russell

11 J. Partlow

12 B. Bernero

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P R O C E E D I N G S

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CHAIRMAN ZECH: Good afternoon, ladies and gentlemen.

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Today's meeting is a periodic briefing by the NRC staff concerning the status of operating reactors, fuel facilities and other materials licensees.

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NRC senior staff managers meet semi-annually to review the performance of operating nuclear power plants, fuel facilities and others which use nuclear materials licensed by the NRC.

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This afternoon the NRC staff will discuss those licensees that were determined to warrant increased NRC attention and resources during the December meeting of the NRC senior managers.

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In addition, the Commission has requested that the staff discuss those plants warranting reduced NRC oversight activities based on overall good performance. I welcome each of our regional administrators who are here with us this afternoon and are available to answer any questions the Commission may have.

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I understand that copies of the slides are available as you enter the room. Do any of my fellow Commissioners have any opening comments before we begin?

23

[No response.]

24

25

CHAIRMAN ZECH: If not, Mr. Stello, you may proceed.

MR. STELLO: Thank you, Mr. Chairman. I don't

1 believe any of those of us here at the table need an
2 introduction except I will say that Mr. Bernero will be talking
3 about the materials licensees since Mr. Thompson is here with
4 us but he has laryngitis and is not in speaking voice this
5 afternoon.

6 What I would like to start with as we continue to
7 have these meetings, we are in my view getting much better at
8 trying to understand both the problems as we see them at
9 facilities and, of course, those attributes and those
10 facilities which we think are doing better although our
11 emphasis and much of our time is spent on trying to understand
12 problems at facilities.

13 Our aim and our purpose is to try to identify as
14 early as possible issues and problems at facilities where we
15 see the performance changing to try to identify to the best of
16 our ability the reasons for it and try to initiate a program to
17 where we can get corrective actions.

18 We use a variety of vehicles to do this, one of which
19 you were briefed on in the past month is our diagnostic
20 inspections in trying to help understand those kinds of
21 problems.

22 I feel and I think I can speak for all of us here
23 today very, very comfortable in the review process that we go
24 through and feel pretty confident that what we bring to the
25 Commission in our understanding is the best that we can bring

1 but I think it is also a good job and one that the Commission
2 can have confidence in.

3 I will ask in a moment for Dr. Murley go give you an
4 overview but what I want to say is we also are keeping very
5 careful track and Dr. Murley will explain that, that I am also
6 convinced that the efforts of the past several years are
7 bearing fruit, that this industry today I can say with
8 confidence is a safer industry, that the plants are, in fact,
9 safer and that we are accumulating the data and the information
10 to demonstrate that progress is being made in the most
11 fundamental part of our mission, the safety of the plants.

12 With that, I feel very, very good to be able to
13 report to the Commission that that kind of progress is one that
14 I personally am very, very delighted with and proud of and our
15 effort at these meetings will be to continue to see that kind
16 of improvement.

17 With that, I will ask Dr. Murley to begin the
18 briefing and then we will have each of the regional
19 administrators talk in some detail about each of the plants
20 that we have gone through and we will then turn it over to Mr.
21 Bernero on the fuel facilities.

22 CHAIRMAN ZECH: All right. Thank you very much. Mr.
23 Murley, you may proceed.

24 MR. MURLEY: Yes, thank you, Mr. Chairman. One of
25 the NRC's major initiatives in the past few years has been to

1 improve nuclear safety by focusing regulatory attention on
2 improving operational safety; that is, improving the general
3 quality of operations at nuclear plants.

4 As Mr. Stello mentioned, there are firm indicators
5 that show that the average operating performance is improving
6 among the plants in the United States and we are pleased that
7 that is happening.

8 Without taking away from that improvement however, I
9 think we can only take limited comfort. First, we have a long
10 ways to go. There is a great deal of room for improvement at
11 the plants, I believe. Even though the average operating
12 performance among U.S. plants is improving, there are some
13 plants whose performance is declining and you will hear today
14 that we have added two plants to our watch list.

15 The improving trends, I believe, should be the
16 expected state of affairs. I think we should always be trying
17 to improve operations. Because if we become satisfied with
18 plant operational performance, there is the chance that
19 complacency will set in and performance might start to decline
20 and we have seen examples of that.

21 Still, I think we can take some satisfaction that we
22 are on the right path. Our methods for assessing licensee
23 performance is effective. We are identifying the problems
24 earlier and we are communicating those views to the licensees
25 early so they can correct their own problems.

1 The keystone of the staff actions to improve
2 operational safety is, I believe, the meeting of the senior NRC
3 managers that we have twice each year. As you know, we had our
4 sixth senior management meeting in Arlington, Texas on December
5 6 and 7.

6 In preparation for that meeting, I and my staff had
7 sat down with each of the regional administrators and AEOD and
8 our staffs in early October. In those five separate days of
9 meetings, we reviewed each plant in the country and from those
10 screening meetings then, we selected the plants that we wanted
11 to discuss at the senior management meeting.

12 It takes two months of intense staff effort between
13 the screening meeting and the senior management meeting to
14 prepare the analysis that we go through. Now before we turn to
15 discussing the individual plants which, of course, will focus
16 on problems.

17 I would like to lend some balance to the discussion
18 by describing some of the overall improving trends that we see
19 in plant operations. Ed Jordan from AEOD briefed the
20 Commission earlier this year on the performance indicator
21 trends.

22 We see those trends continuing this year, through
23 1988; that is, the reactor trip rates are reducing, safety
24 system actuations are down, the significant events are
25 reducing, the collective radiation exposures are going down

1 among other indicators.

2 One set of data that we examine closely is the
3 performance indicator set for individual plants that were
4 formerly on our watch list but have been taken off because of
5 their improved performance, for example, LaSalle 1 and 2,
6 Palisades, Fort St. Vrain and Davis-Besse.

7 Although they all have a ways to go, we are quite
8 encouraged that the plant and the management improvements that
9 led the NRC to take them off our watch list have been effective
10 in improving performance trends at those plants.

11 The Commission asked us to discuss whether there were
12 some plants whose sustained good performance warranted reduced
13 regulatory oversight. We discussed that briefly and we
14 re-affirmed our actions of a few years ago where we took
15 actions to reduce the inspection oversight at five plants and
16 those plants were Yankee Rowe, Kewaunee, Monticello, Prairie
17 Island 1 and 2.

18 We also believe there are other plants that are close
19 in quality to the quality of operations to that group that also
20 had good performance but has not quite been sustained long
21 enough that we would feel comfortable in substantially reducing
22 inspection effort. Some examples of plants in that category
23 would be Susquehanna 1 and 2, Saint Lucie 1 and 2 and Grand
24 Gulf, just to mention some examples.

25 In addition, the Commission asked the staff to

1 examine whether there were examples of particularly good safety
2 practices or programs at some plants that were worthy of
3 emulation at all plants. We did discuss several of those. We
4 realized that we were not able to have a comprehensive program
5 but let me mention four examples of good licensing programs.

6 First, I think I would want to put just to emphasize
7 the importance of it, at Grand Gulf, they have maintenance
8 training and facilities, maintenance training facilities which
9 we feel are quite good.

10 They have a detailed well-defined maintenance
11 training program with excellent facilities. The staff is well-
12 qualified. They use lesson plans. They have specific training
13 beyond core training. The crafts work toward accreditation and
14 they are oriented toward both safety related and non-safety
15 related equipment.

16 A second example of good licensee programs occurs at
17 both the Oyster Creek plant and the Millstone site where they
18 use photography and videotape libraries to help them in their
19 maintenance and radiation activities. Both of these plants
20 have taken extensive photographs of most of the areas that are
21 difficult to accept during plant operation or that are
22 characterized by high radiation fields.

23 This photographic library is used to help plan the
24 work activities and the videotapes are taking of repetitive
25 type maintenance activities to provide training assistance and

1 to allow workers to visualize what has to be done to minimize
2 exposure to radiation.

3 The third example is at San Onofre where they have a
4 well-developed scram reduction program and I should say
5 effective. A close analysis of the underlying root causes of
6 unplanned trips has enabled San Onofre to initiate several
7 specific programs to attack and eliminate the major causes of
8 the trips. Since the end of 1986, this program has succeeded
9 in reducing the trip rate by a factor of five and has resulted
10 in an increase of 7.4 percent in the station's capacity factor.

11 The fourth example and the final one I will mention
12 is at Braidwood. They have an automatic surveillance testing
13 program and technique. It is called MESC, micro electronic
14 surveillance calibration, and I know several Commissioners have
15 been there and have seen that facility. It reduces the time it
16 takes to perform surveillance activity and thereby, we believe,
17 decreases the chances of inadvertent reactor trips.

18 So those are not meant to be exclusive, of course.
19 We think there are other examples. We certainly just didn't
20 have the time to examine all of the examples but these are four
21 we think are worthy of emulation.

22 Now we will move to the points that we want to
23 discuss today. We have them in three categories as you.
24 Category 1 are those plants removed from our watch list, our
25 list of problem facilities. Those are plants that have

1 improved to the point where we believe that no further NRC
2 special attention is needed and on that list today are Dresden
3 2 and 3 and Rancho Seco.

4 The second category are those plants that are
5 authorized to operate but that are having or had weaknesses
6 that warrant increased NRC attention and that the NRC will
7 monitor closely.

8 On that list are Nine Mile Point 1 and 2 and I should
9 add that Nine Mile 2 has been added to the list so that is a
10 new plant on our list, Calvert Cliffs 1 and 2 has been added
11 this time, Sequoyah 1 and 2 and Sequoyah 1, of course, moves up
12 into this category, Turkey Point 3 and 4, Fermi 2 and Fort
13 Calhoun.

14 In category 3 are those plants that are shutdown and
15 they require NRC authorization to operate and which NRC will
16 monitor closely. In this list are Browns Ferry 1, 2 and 3,
17 Peach Bottom 2 and 3 and Pilgrim which may, of course, change
18 based on this morning's results.

19 With that introduction then, I will turn to the
20 regional administrators and the director of the Office of
21 Special Projects to talk about each individual plant and we
22 might as well start around this side of the table and Jim
23 Partlow will lead off.

24 CHAIRMAN ZECH: Thank you.

25 MR. PARTLOW: This is a status report on TVA's

1 Sequoyah and Brown's Ferry facilities. As Dr. Murley has
2 pointed out, during the Commission's July 1988 briefing on
3 operating reactors, we reported to you the successful restart
4 of Sequoyah Unit 2 and our staff's conclusion that this plant
5 could at that time be placed in the category of being an
6 operating plant but still requiring increased NRC attention.

7 At that time, Sequoyah unit 1 as well as all three
8 Brown's Ferry units remained in a shutdown status pending a
9 demonstration of their implementation of improvement programs
10 and permission for restart granted by the Commission.

11 Today, the status of TVA's licensed reactors is that
12 Brown's Ferry units remain in a shutdown status while both
13 Sequoyah units have been authorized for operation but remain
14 under increased NRC monitoring.

15 Following our August 4 briefing with the Commission
16 on the status of Sequoyah, the Commission gave the staff the
17 authority to approve the restart of unit 1 when we were fully
18 satisfied that TVA was ready to do so. Following our review of
19 those remaining technical issues at that time and the conduct
20 of an operational readiness inspection, on November 5 we
21 granted our approval for the restart.

22 Sequoyah unit 1 was taken critical the next day and
23 was successfully tested up to 70 percent power when an
24 electrical fault in the main generator caused a reactor trip
25 and the plant has been in an outage since that time. They have

1 some complications in repairing a pressurizer safety valve but
2 they hope with the successful repairs, they will be ready to
3 restart unit 1 before the end of this month.

4 Although the first period of critical operations for
5 Sequoyah unit 1 was shortened by the equipment problem, we
6 found that the general conduct of their operations there to be
7 quite satisfactory. The reactor startup last month was in my
8 view conducted in a cautious manner, in a professional manner
9 and in a deliberate manner.

10 Now throughout this past six month period, Sequoyah 2
11 has operated satisfactorily and without any remarkable
12 incident. As the Commission will recall, there was a series of
13 trips caused by the secondary system last spring but for the
14 past six months that unit has operated quietly and without
15 incident. A good portion of that time has been at 60 percent
16 power to extend the core life so that they could enter into a
17 refueling outage next month in January.

18 Over the next six months, we will continue to closely
19 monitor operations at the Sequoyah site, a period then that
20 will include the refueling outage at unit 2 and the return of
21 unit 1 to full power operations.

22 At Brown's Ferry, the recovery process is proceeding
23 slowly, but I believe deliberately and in control. In order to
24 re-establish an environment of operational awareness at Brown's
25 Ferry, TVA management developed a schedule to re-load fuel

1 early relative to the re-start, to re-load fuel some four to
2 six months before they are ready to re-start the plant.

3 After several delays in the schedule of completely
4 checking out the some 20 systems necessary to support fuel
5 loading, they now appear to be close and we would expect that
6 they would be ready to start re-loading fuel early next month,
7 early in January.

8 Much work, however, has to be accomplished before
9 unit 2 at Brown's Ferry is ready for re-start later on next
10 year. Our master inspection plan for the next six months is
11 pencilled in with many, many verification inspections in such
12 basic areas as verification of the fire protection program, the
13 environmental qualification program, electrical cable capacity
14 and so forth, seismic modifications, the conduct of an
15 emergency preparedness exercise, NRC operator re-qualification
16 exams and so forth.

17 The corrective action plans for recovery at Brown's
18 Ferry have been developed and they have been reviewed by us.
19 The next six months is going to be very important for TVA to
20 demonstrate to us that the plans have, in fact, been put in
21 place, that they are working and that they are able to
22 withstand and stand up to our on-site evaluations and
23 inspections over the next months.

24 I would like to close with a brief status report on
25 the current TVA management structure. The Commission will

1 recall that in July, 1988, there was a major corporate
2 reorganization at TVA.

3 For the nuclear program, a main point was the
4 creation of a senior vice president position with seven vice
5 presidents reporting to the senior vice president. This was a
6 great reduction in the number of different positions reporting
7 to the previous, I believe, head of the office of nuclear
8 power, to Steve White.

9 Today, the senior vice president of nuclear,
10 Mr. Kingsley, all seven of the vice presidents and each of the
11 site directors and plant managers for the TVA facilities are
12 full-time TVA employees. So I believe there is real progress
13 being made there.

14 A few managers at lower levels are still non-TVA
15 employees but it appears that the era of having TVA's nuclear
16 program managed by contract managers is on the way out and that
17 concludes my briefing.

18 CHAIRMAN ZECH: Thank you very much. Before we
19 proceed, do any of my colleagues have any questions they would
20 like to ask Mr. Partlow? Commissioner Roberts.

21 COMMISSIONER ROBERTS: No.

22 CHAIRMAN ZECH: Commissioner Rogers.

23 COMMISSIONER ROGERS: No.

24 CHAIRMAN ZECH: Commissioner Carr.

25 COMMISSIONER CARR: No.

1 CHAIRMAN ZECH: Commissioner Curtiss.

2 COMMISSIONER CURTISS: No.

3 CHAIRMAN ZECH: Fine. Thank you very much, Jim, we
4 appreciate this.

5 MR. MURLEY: Mr. Martin.

6 CHAIRMAN ZECH: Mr. Martin, Region IV, you may
7 proceed.

8 MR. R. MARTIN: The plant that I wish to provide you
9 a summary on is the Fort Calhoun facility which is owned by
10 Omaha Public Power District which is a public power utility
11 servicing the area around Omaha, Nebraska.

12 The Fort Calhoun plant is currently in a refueling
13 outage which began on September 27 after an operating run of
14 some 477 days. It is an outage of approximately 100 days
15 duration and plant operation is expected to resume in early to
16 mid-January.

17 The Fort Calhoun management after having been
18 identified in our previous briefing of the Commission as a
19 plant warranting close attention but being permitted to
20 continue to operate did develop a comprehensive action plan to
21 address our concerns appropriately.

22 You may recall at the risk of oversimplifying that
23 our fundamental concern was the ability of the Fort Calhoun
24 organization to withstand complex technical challenges or to
25 carry forth action across a broad spectrum of activities

1 simultaneously. That was a general characterization of the
2 concern.

3 The plan to improve their capabilities in these areas
4 and to withstand those challenges has been reviewed by the
5 region and NRR. We are optimistic about the early phase
6 execution of the plan which they began to execute even before
7 any approvals were given but they conditionally began
8 executing.

9 Some representative examples of the progress they
10 have made that add to our early confidence is that they have
11 realigned all plant and engineering activities for the nuclear
12 facility under one corporate executive.

13 The system engineering function has already been
14 created and staffed. They staffed it partially with licensee
15 personnel, partially with contractor personnel and they are
16 phasing out the contractor personnel as quickly as they can
17 obtain seasoned or appropriately qualified individuals to come
18 and replace the contractor personnel. Right now, 18 of 28 lead
19 engineers in the system engineer scheme are already licensee
20 permanent personnel.

21 They have authorized a staff increase of 136 people
22 which was about roughly speaking a 25-percent increase in total
23 staffing in 1988 and they are expecting further increases in
24 staff to be authorized in 1989.

25 They have been by virtue of having put together a

1 more competitive salary structure been more successful in being
2 able to retain people with the kind of experience that they
3 need.

4 As of this stage, about 110 of the shorter term
5 corrective actions have already been completed. The total plan
6 has about 240 actions in it but the longer term ones are still
7 being worked on.

8 The operating and maintenance budget for 1989 was
9 increased to \$77 million dollars compared to \$55 million
10 dollars in 1988 which is a substantial dollar investment.

11 Now all of those are items. They are individual line
12 items in which they have obviously made progress but the issue
13 which is giving us some early confidence in how they are able
14 to synthesize these activities in the areas that have been our
15 concern has been their performance during this 100 day outage.

16 They have tackled major modifications including the
17 activities in support of the action plan, the modifications
18 they had planned to make in any event, as well as some one of a
19 kind jobs that they have not tackled before on this plant and
20 they have carried them out well.

21 So our early optimism on the ability to do what we
22 had been concerned about is really being drawn from their
23 performance through this outage. However, it is still too
24 early to be able to judge their ability to continue to carry
25 out those corrective actions across such a broad front in the

1 long term, one of the kinds of problems we have had concern
2 about in the past.

3 So as a result of that, it is our judgment then that
4 they remain categorized as a plant that we will monitor closely
5 although permitting them to operate, we will monitor them
6 closely during the upcoming interval to see how they do over
7 the longer term. Those are my comments.

8 CHAIRMAN ZECH: All right. Thank you very much. Any
9 questions from my fellow Commissioners? Yes, Commissioner
10 Rogers.

11 COMMISSIONER ROGERS: What is their simulator
12 situation?

13 MR. R. MARTIN: I believe it is 1990 that the
14 simulator is scheduled to be operational. They have one on
15 order. The training center has been completed with space
16 available for the simulator. Simulator delivery is due in
17 1990.

18 CHAIRMAN ZECH: All right. Thank you very much.

19 MR. MURLEY: Mr. Ernst.

20 CHAIRMAN ZECH: Mr. Ernst, Region II.

21 MR. ERNST: I will talk about Turkey Point owned and
22 operated by Florida Power and Light. The status of Turkey
23 Point is unit 4 is in refueling. Unit 3 is in a maintenance
24 shutdown to repair a seal leak in an RHR pump and has since
25 been extended, more extended maintenance shutdown and also a

1 process of improving their engineering drawings.

2 Just to refresh your memory, there was an order
3 issued in October of 1987 which required an independent
4 management assessment to be conducted of Turkey Point
5 operations and also required a management on shift program be
6 implemented.

7 Last November, we removed the requirement or
8 indicated that the requirement for performing the independent
9 management assessment was satisfactorily completed and we
10 removed that from the order. Last week, the utility came in
11 and formally requested relief from the management on shift
12 program and that is currently under staff consideration.

13 We note that Turkey Point has improved performance in
14 1988. There are a number of pluses since the Commission had
15 this type of discussion six months ago. One plus is that they
16 have replaced the plant manager last summer.

17 The plant manager has brought in our view an
18 increased sense of responsibility, ownership and accountability
19 to the site. He has implemented daily meetings with direct
20 assignments on expectations and follow-up to make sure they
21 have been accomplished.

22 There have been a number of conservative decisions
23 that have been made on the site that indicate that the emphasis
24 will be on reliability of the plant and less on production
25 realizing this will cause a decrease in production in the near

1 term but enhanced operation in the future.

2 He also has indicated that if you shut the plant down
3 for a reason to improve the reliability of the plant, that the
4 plant manager will support that action. One example of that
5 was that the operations crew postponed a turbine trip test. It
6 was not mandated to be performed. The plant manager found out
7 about this and decided it was not prudent from a reliability
8 standpoint and required the crew to shut the plant down and
9 perform that test.

10 They also shut the plant down to replace a leaky
11 O-ring in the pressure vessel head which the leak was within
12 specs but the plant manager felt it was more prudent to repair
13 that problem before going on.

14 In the maintenance area, they have reduced their
15 maintenance backlog by about 50 percent in the past year.
16 Their preventive maintenance to corrective maintenance ratio
17 has gone from about two-tenths to four-tenths in the past year.
18 Green tags which is your inoperable equipment in the control
19 room has been cut by about 50 percent in the last seven months.

20 These are all positive indicators, however, I will
21 caution in the maintenance area we still believe their general
22 maintenance is rather poor although improving and we are
23 looking for substantial improvements in this area as they are
24 focusing more and more on this issue.

25 They have broken ground to upgrade their diesels.

1 They are going to add two more diesels to the site in addition
2 to the two they already have. There is a significant minus in
3 their security performance. They have had poor performance in
4 security over the past several years and they still have not
5 yet fully resolved that issue. So we are still concerned about
6 that.

7 As a summary statement, they are improving but
8 particularly, for example, in maintenance, we have noted
9 improvements in maintenance backlog and things like that
10 before. We are closely monitoring.

11 We want to make sure that the trends that we now see
12 continue and that the philosophy of responsibility, ownership
13 and accountability is not only accepted by the upper site
14 management but also accepted by all of the working personnel on
15 the site and that is pretty much it.

16 CHAIRMAN ZECH: Thank you very much. Are there
17 questions or comments from any of my fellow Commissioners?

18 COMMISSIONER ROGERS: They have a rather exposed
19 location, don't they? A lot of their equipment basically is
20 outside and exposed to the elements?

21 MR. ERNST: Yes, sir.

22 COMMISSIONER ROGERS: Does that pose a particularly
23 difficult maintenance situation for them?

24 MR. ERNST: It certainly adds to the problems. They
25 are an older plant. They have not paid attention to

1 maintenance in the past as they should and this is exacerbated
2 by the environmental situation for the equipment. It is a
3 typical southern, Deep South, kind of construction where this
4 equipment is indeed open to the environment.

5 COMMISSIONER ROGERS: But they are also subject to
6 salt air there.

7 MR. ERNST: Yes. The safety equipment is covered.
8 We are talking BOP.

9 COMMISSIONER ROGERS: Yes, right.

10 CHAIRMAN ZECH: Any other comments?

11 [No response.]

12 CHAIRMAN ZECH: Just one comment I would have is that
13 Turkey Point has been appearing on this list that we have
14 talked about pretty consistently for quite a while as we all
15 recognize.

16 I appreciate hearing that they are making improvement
17 in some areas but it seems to me that they should get the
18 message that they have been on there on long enough and we
19 don't want to see them not making considerable improvement. I
20 hope they get that message because they have been on here just
21 about as long as anybody. Thank you.

22 All right. Mr. Stello, who is next?

23 MR. STELLO: Mr. Davis.

24 CHAIRMAN ZECH: Mr. Davis, Region III, you may
25 proceed.

1 MR. DAVIS: Mr. Chairman, I will be discussing Fermi
2 2 and Dresden 2 and 3. First Fermi, as has already been
3 discussed we plan to keep Fermi 2 as a category 2 facility.
4 Fermi has been on the NRC plant status list since the first
5 senior management meeting in April of 1986.

6 CHAIRMAN ZECH: I am glad you made that comment
7 because if you didn't, I was going to.

8 [Laughter.]

9 CHAIRMAN ZECH: I would say the same thing on Fermi.
10 They have been on there too long, too, and we expect to see
11 improvement. Go ahead, Mr. Davis. I didn't want to interrupt
12 you.

13 MR. DAVIS: I agree 100 percent. The plant has also
14 had close NRC attention since the premature criticality in July
15 of 1985 so it has been a long time. After the June, 1988
16 senior management meeting and the subsequent meeting with the
17 Commission, several actions were taken by the NRC.

18 The SALP period was reduced from one year to nine
19 months and that SALP period ends December 31st of this year.
20 So we will be having our SALP board and issue the SALP report
21 early next year.

22 In addition to that, Tom Murley and I met with the
23 nuclear committee of the Board of Directors. Also in
24 attendance at that meeting were the CEO, the President and the
25 vice presidents associated with the Fermi plant.

1 There was a diagnostic evaluation performed at Fermi
2 in August of 1988. We have continued augmented inspection
3 coverage and we meet monthly with the plant to review their
4 performance trends. In addition to that or as a part of that,
5 on a quarterly basis either I or my deputy also attend that
6 meeting to monitor the performance trends at Fermi.

7 Based on everything we have done and the company's
8 efforts, a broad overview of their status is as follows. The
9 plant has appropriate management overview and support including
10 resources.

11 We concluded after meeting with the nuclear committee
12 of the Board of Directors that they are well aware of what is
13 going on at Fermi and paying close attention to it and making
14 sure that the necessary resources are provided.

15 Actions being taken at Fermi generally are addressing
16 the causes of the performance problems while maintaining an
17 acceptable level of safety. The licensee's current performance
18 is not where we would like it to be but it is improving.

19 Progress is slow and appropriate assignment of
20 resources to resolve problems timely has not yet been
21 demonstrated. The new management team has more nuclear
22 experience but has not demonstrated overall effectiveness,
23 however, I believe they are beginning to do so.

24 In the most recently monthly meeting, one that I did
25 not attend, I had separate briefings by my own staff and NRR

1 folks this morning and the feedback I got from that meeting is
2 that the performance trends are positive and the staff, both
3 NRR and the Region III staff, were encouraged by what they saw
4 and heard.

5 Sustained continued improvement, however, will
6 require all levels of management and supervision to improve
7 their ability to work as a team in dealing with the general
8 experience at Fermi. They brought in a lot of new people but
9 that cadre of new people has to work as a team with the
10 previous first and second line supervisors to become effective.

11 They still have weaknesses exhibited in performance
12 of routine operations, root cause analysis, engineering and
13 technical support, understanding and compliance with technical
14 specifications but they do have programs in these areas that
15 are beginning to work.

16 We believe that continued close NRC monitoring is
17 necessary to insure that the recent improving trends continue
18 and that current weaknesses are corrected. We will continue
19 the monthly management meetings with them. We will have some
20 augmented inspections and I will continue to make sure that
21 there is top management attention to them at least on a
22 quarterly basis. That concludes my remarks on Fermi.

23 CHAIRMAN ZECH: Any comments?

24 [No response.]

25 CHAIRMAN ZECH: You may proceed.

1 MR. DAVIS: The next plant is Dresden. I am pleased
2 to say --

3 CHAIRMAN ZECH: Before you do that, let me just say
4 that I hear what you are saying on Fermi and it is nice to be
5 encouraged but we have been watching that plant for a long time
6 now and we want to see improvement, Bert, and I know they are
7 trying. You are telling us they are improving. It is
8 encouraging in some ways but we need to see a stronger effort,
9 it seems to me, on the part of that plant that we have been
10 watching ever since we started this program. All right, let's
11 go.

12 MR. DAVIS: I agree. Dresden has been made a
13 category 1 plant. Dresden was placed on the NRC plant status
14 list in June of 1987.

15 CHAIRMAN ZECH: Category 1 means that you are
16 removing them from the list?

17 MR. DAVIS: That is correct.

18 CHAIRMAN ZECH: So they have improved?

19 MR. DAVIS: That is correct.

20 CHAIRMAN ZECH: All right.

21 MR. DAVIS: In late 1986, both NRC and INPO
22 inspections identified the need for significant improvements in
23 the management operation and material condition at Dresden.
24 There was an NRC diagnostic evaluation performed in August of
25 1987 and we have had augmented inspections and monthly

1 management meetings with the company since 1987 again to
2 monitor their performance and the trends in that performance.

3 The root cause of the problems at Dresden were that
4 we believe that it was neglected in favor of newer plants both
5 from the standpoint of management and resources. We felt that
6 there was over confidence by the staff at Dresden based on
7 their being a pioneer in the nuclear field.

8 There was little outside nuclear experience brought
9 into the plant and the improvement programs that they put into
10 effect, the diagnostic evaluation found were somewhat
11 fragmented and needed to be brought together to make up one
12 single good program.

13 Corporate attention, Dresden management, plant
14 operations and plant material condition have been significantly
15 improved. The major factors in this improvement are as
16 follows. I believe there is a corporate commitment all the way
17 from the plant up through the CEO of Commonwealth to improve
18 Dresden Station and to keep it or to further improve it even
19 from where it is now and then to keep it as a good operating
20 facility.

21 Another factor, I believe, was the corporate
22 reorganization and I have discussed this before with you folks.
23 They put a vice president in charge of BWRs and another one in
24 charge of PWRs and general managers for each. I believe that
25 that corporate reorganization under Cordell Reed who is the

1 senior vice president is beginning to be very effective.

2 They now have a comprehensive Dresden Station
3 improvement program which they have schedules, commitments and
4 we monitor that on a monthly basis and again, either I or my
5 deputy have been attending those to discuss that with
6 management on a quarterly basis.

7 They have made major management changes at Dresden.
8 More than 20 management positions have been filled at Dresden
9 and many have been brought in from other portions of the
10 Commonwealth organization.

11 They have made significant improvements in the plant
12 material condition and housekeeping and I think also very
13 important is that my senior resident inspector and my own
14 observations in visiting the plant have shown that there is an
15 improvement in the worker attitude and morale at the plant.

16 Dresden for a number of years, we had a concern with
17 respect to worker morale and attitude and that is turning
18 around. They appear to be a member of the team. They are
19 supporting the new plant manager and his programs and I believe
20 it is beginning to work so I am pleased that we have been able
21 to take Dresden off the plant status list. That concludes my
22 remarks.

23 CHAIRMAN ZECH: Thank you very much. Any questions
24 or comments from my colleagues?

25 COMMISSIONER ROGERS: Yes.

1 CHAIRMAN ZECH: Commissioner Rogers.

2 COMMISSIONER ROGERS: There was a category 3 rating
3 on the maintenance, one of those two or whether it was both of
4 them, I am not sure.

5 MR. DAVIS: That is correct.

6 COMMISSIONER ROGERS: And that was as I understand it
7 more or less as a result of your own personal view of their
8 situation. Would you say something a little bit about that?
9 It looks a little inconsistent to take them off a list but give
10 them a 3 in maintenance.

11 MR. DAVIS: That was done quite some time ago and
12 yes, I changed the rating on that. The SALP board decided that
13 they were a category 2. I looked at it from the standpoint of
14 the status of their preventive maintenance program and material
15 condition of the plant, the following of procedures by the
16 maintenance people, the involvement of maintenance supervisors
17 out in the plant and concluded that they weren't good enough to
18 be a 2.

19 My view today is and I can't speak for the SALP
20 board, but my view today is that they are a 2 and, in fact,
21 maintenance is improving across the spectrum of Commonwealth
22 plants.

23 COMMISSIONER ROGERS: Do you think your decision to
24 rate them as a 3 rather than a 2 at the time you did it spurred
25 them out to greater efforts than they might have made if they

1 had been given a 2 on the basis of the SALP board?

2 MR. DAVIS: That is hard to say. I believe that they
3 were planning to improve their maintenance. They already had a
4 corporate program to institute a preventive maintenance program
5 so I would like to sit here and say I think I spurred them on.
6 I am not sure that I can do that. I do feel still today that
7 the rating that I gave was proper and some of my staff agrees
8 with that.

9 Now I don't know whether they are saying that because
10 they think I want to hear it or not but I feel good about that
11 rating.

12 COMMISSIONER ROGERS: Thank you.

13 CHAIRMAN ZECH: Commissioner Curtiss.

14 COMMISSIONER CURTISS: Just a quick question on the
15 diagnostic evaluation. I wonder if you could comment on
16 whether in your view that was effective in pulling together the
17 problems that were identified in the plan and, in particular,
18 whether you see that as a key catalyst in some of the progress
19 that we have seen?

20 MR. DAVIS: I think the diagnostic evaluation that
21 was done at Dresden was very effective. I welcomed it because
22 I am interested in getting other views. We had a number of
23 different, I shouldn't say, "we," the company had a number of
24 different improvement programs down at Dresden that they were
25 working on and they were making progress and even though I was

1 in favor of the diagnostic, I really believed that Dresden was
2 going to make progress based on the programs they had.

3 But after the diagnostic was completed and we saw the
4 results, all those programs were brought together into a single
5 program. I am not sure I remember the number now, but I think
6 they increased their staff by about 15 people. They
7 established a position of the Dresden Station Improvement
8 Program Coordinator and when you put all that together, the end
9 product was that we got a positive result out of the diagnostic
10 evaluation.

11 CHAIRMAN ZECH: Any other comments or questions?

12 [No response.]

13 CHAIRMAN ZECH: All right. Thank you very much. We
14 are up to Region I and you may proceed.

15 MR. RUSSELL: I would like to brief you first on the
16 Nine Mile Point Station Unit 1 and Unit 2. Unit 2 is new to
17 the agency on the list of facilities receiving increased
18 attention.

19 Unit 1 was identified as requiring increased agency
20 wide monitoring at the June senior management meeting. It has
21 been shut down since December 19, 1987 when it experienced a
22 feedwater transient. In March, we issued a SALP report that
23 concluded that management at the facility had not been
24 effective in identifying and correcting problems.

25 Most of these were in engineering or support areas,

1 such as the in-service inspection program, fire protection
2 program and other engineering support activities. However, we
3 did have a significant finding with respect to operator
4 performance on unit 1 as it related to emergency operating
5 procedures and we concluded that we were not able to
6 effectively operate the station using those procedures.

7 As a result of those findings, Mr. Stello and I met
8 with the company management and the operators of the facility
9 on July 24, 1988. I issued a confirmation of action letter
10 which requires the company to develop a comprehensive plan
11 which addresses both, principally unit 1 but both units 1 and
12 2, as it relates to corporate oversight and support activities
13 and to address the root causes of the problems of their failure
14 to identify and resolve issues early.

15 What we found is that these issues and problems were
16 known within the organization but were not brought forward in a
17 timely manner and they lingered and that was a very serious
18 concern on our part. They were not aggressively pursuing and
19 resolving known problems.

20 When we met in June and we discussed both units, we
21 decided at that time that Unit 2 did not require agency wide
22 close monitoring principally based upon a rather significant
23 difference in attitude and performance of the operating crew on
24 unit 2 which performed very well using the symptom based
25 emergency operating procedures.

1 However, in looking at it further unit 2 has
2 continued to experience a very high rate of reactor scrams and
3 operating events. They had a significant vessel overfill event
4 in January of 1988. They have had 17 reactor scrams since
5 October of 1987 and recently we have been having problems with
6 operator performance, personnel errors and missed
7 surveillances.

8 Two of these have resulted in forced outages and the
9 unit is currently shut down. Our concern is that the recent
10 licensee focus on unit 1 may be contributing to a continuation
11 of operational problems on unit 2 and specifically that they
12 are still having new plant hardware issues which are challenges
13 to the operating crews.

14 There have been a number of management changes. They
15 brought in a new executive vice president, Larry Burkhart.
16 They have a new site director, Jim Willis, a new training
17 manager, plant manager at Unit 1 is new and they have new
18 operations managers on both units.

19 They are proposing to submit, in fact, have scheduled
20 to meet in Region I tomorrow with the company for them to
21 submit their action plan as a result of the confirmation of
22 action letter. We will start to review that.

23 I have established a task force of senior region
24 management and headquarters managers to coordinate the staff
25 review of that plan and the inspection activities in a manner

1 very similar to the task force approach or restart panel
2 approach being used on both Pilgrim and Peach Bottom. Our next
3 steps are to review that plan and determine its adequacy in
4 addressing the root causes of the problem which have occurred.

5 If there are no questions on Nine Mile Point, I will
6 go on to Calvert Cliffs Units 1 and 2.

7 CHAIRMAN ZECH: Let's just see if we have any
8 questions on Nine Mile Point? Any questions from my
9 colleagues?

10 [No response.]

11 CHAIRMAN ZECH: You may proceed.

12 MR. RUSSELL: Calvert Cliffs 1 and 2, by way of
13 background, Calvert Cliffs was discussed at the last two senior
14 management meetings. In those meetings we focused on what will
15 characterize as engineering and hardware types of issues,
16 equipment qualification issues which resulted in the staff
17 proposing a \$300,000.00 civil penalty.

18 We had concerns with the reliability and the
19 performance of the auxiliary feedwater system and how it was
20 being tested through surveillance testing. We had concerns
21 with the emergency diesel generators, the cooling water
22 systems. There were problems associated with reactor coolant
23 pumps and also, the loss of off-site power event, we would have
24 had a total loss of off-site power at the station.

25 However, we have had some recent operational events

1 that indicate a declining trend is continuing, some fairly
2 significant operational errors and failures to follow
3 procedures. There are three examples that I would like to
4 highlight which occurred this summer and fall.

5 In one instance, during performance of emergency
6 diesel generator surveillance testing, the operators failed to
7 follow the procedures. They took the voltage regulator from
8 the automatic mode to the manual mode in order to conduct the
9 test without an amendment to the procedure and failed to
10 restore it back to automatic following the test such that it
11 would not have functioned as intended if challenged.

12 The second event was a reactor start-up with a common
13 mode personnel error. This was a start-up following a long
14 lived core modification, the second time. The other unit had
15 already performed this start up.

16 There was a lower leakage flux from the core sensed
17 by the nuclear instruments such that the prior calibration of
18 the instruments would not be accurate and indicated power would
19 be less than actual.

20 During the course of the start-up, they did
21 experience an indicated difference between power as measured by
22 temperature rise across the core and the power as indicated by
23 the nuclear instruments.

24 The error that occurred was one in which an operator
25 then reduced the gain on the indicated power from the

1 temperature rise across the core such that all four nuclear
2 instrument channels of power already were reading low and now
3 the four channels of power by Delta-T were reading low and it
4 resulted in a situation where they were outside of the analyzed
5 envelope.

6 This was particularly disturbing in that they had
7 extra people available. This was the first start-up. The
8 reactor engineering staff was there and there were a number of
9 opportunities for people to question what was being done and it
10 also raises concerns about the premise of believing your
11 instrumentation and not taking the highest reading instrument
12 and reducing it to match the others until you really understand
13 why. Both of these events resulted in civil penalty actions to
14 the company.

15 The third one which raised concerns regarding use of
16 procedures resulted in a worker fatality. Now this was
17 essentially an activity in a condensate storage tank that was
18 conducted at power. It resulted in the fatality as a result of
19 drowning.

20 The individual went into the tank. The tank had a
21 nitrogen blanket on the top of the tank. But there were a
22 number of instances of failure to adequately control the
23 evolutions. Blocking and tagging was not done properly.
24 Again, an instance where there were several opportunities if
25 people had questioned what was going on, they could have

1 interceded and prevented this from occurring.

2 Those three events are the principal reason that the
3 staff concluded that close monitoring of Calvert Cliffs would
4 be required.

5 Some management issues at the facility that were
6 recent changes and some of these were anticipated but they have
7 not had an opportunity to yet demonstrate their effectiveness,
8 in the same time frame that these events were occurring the
9 licensee did reorganize his activities on site.

10 He has combined the operations and maintenance
11 activities, has a new manager in charge of the plant and
12 maintenance, a new engineering manager, so that there have been
13 senior on-site management changes to effect better
14 communications between the working units on site.

15 However, a concern that we have is that at this point
16 there does not appear to be an overall action plan with respect
17 to both procedural usage and upgrading the quality of the
18 procedures.

19 We also in the past have had instances of issues not
20 elevating to an appropriate level of management for resolution.
21 We believe that there has been recent improvement in this area
22 and there have been specific examples of engineering issues
23 being identified which had the potential for impacting
24 operation. So there are some encouraging signs.

25 We are somewhat concerned that there in the past has

1 been either a complacent or an over-confident attitude based
2 upon their prior excellent operating record and that they have
3 not been constructively self-evaluating their own performance
4 and this needs to be done at all levels within the
5 organization.

6 Are there any questions on Calvert Cliffs?

7 CHAIRMAN ZECH: Questions from my fellow
8 Commissioners?

9 COMMISSIONER ROGERS: Yes.

10 CHAIRMAN ZECH: Go ahead, Commissioner Rogers.

11 COMMISSIONER ROGERS: They were the subject of an
12 OSART not so long ago. Were there any indications at that
13 time, were any of these problems picked up in that OSART or did
14 they just at other things? That raises the question of what
15 the value of an OSART is in a sense. I am sure it has value,
16 but how much? I don't know.

17 MR. RUSSELL: Clearly, the message from the OSART
18 indicated that the plant had done well during the inspection.
19 There were some areas that were identified for improvement.
20 They were consistent with areas that we had identified but I
21 don't believe it went into the depth.

22 At that time, we were principally concerned about
23 engineering support of operations activities. They have
24 subsequently implemented a systems engineering approach and
25 provided additional engineering support on site. They

1 reorganized. They moved the engineering from Baltimore to the
2 facility.

3 So while there were some areas that were identified,
4 it was felt that there were plans in place and actions underway
5 to address those. But it clearly was a message to the company
6 that was positive and in retrospect, some of the issues that
7 were being addressed through other forums were not getting
8 appropriate levels of attention and that may have contributed
9 to the complacency or over-confident attitude of where they
10 were.

11 MR. MURLEY: Could I respond to that, also, a little
12 bit?

13 CHAIRMAN ZECH: Yes.

14 MR. MURLEY: I don't think we should leave the
15 impression that the OSART team inspections really miss things.
16 There is a limit to what any two to three week inspection can
17 find particularly if the weaknesses are such that they can be
18 masked by a two to three week performance on good behavior by
19 the licensee.

20 CHAIRMAN ZECH: This was done when, in 1987, wasn't
21 it?

22 MR. DAVIS: August 1987.

23 CHAIRMAN ZECH: It was a year and a half ago almost.

24 MR. MURLEY: So it has been a year ago.

25 CHAIRMAN ZECH: And it was well before you identified

1 any serious concerns there as I understand it.

2 MR. RUSSELL: We have discussed Calvert Cliffs at the
3 two previous senior management meetings so we discussed them in
4 June of 1988 and December of 1987.

5 CHAIRMAN ZECH: Not in August of 1987 is what I mean,
6 I don't think.

7 MR. RUSSELL: No, sir. That is correct.

8 CHAIRMAN ZECH: So you were pretty much in line with
9 the OSART people at that time. I think that is what Dr. Murley
10 was saying perhaps.

11 MR. MURLEY: I was making partly that point but
12 partly another point and that is, if the problems, we don't for
13 sure know what the problems are there, but if they are such
14 that it is an attitudinal problem, then any organization can be
15 on their best behavior while a team is there evaluating them
16 and there is a limitation in that sense.

17 We think from what we can see that the OSART did a
18 good job and made some valuable observations but it is not a
19 100 percent guarantee that it will find these kind of
20 institutional weaknesses. I just wanted to make that point.

21 COMMISSIONER ROGERS: Well, I think that is something
22 that we should keep very much in mind though.

23 MR. MURLEY: Yes, absolutely.

24 COMMISSIONER ROGERS: When we get a report like that
25 from an organization such as OSART. Now obviously that was

1 just one, the only one. Our own procedures are still very
2 important.

3 MR. MURLEY: And he observations by resident
4 inspectors, for example, yes.

5 COMMISSIONER ROGERS: And also may say something
6 about the time constant with which any inspection has value,
7 how long it takes to decay away.

8 CHAIRMAN ZECH: Any other comments?

9 [No response.]

10 CHAIRMAN ZECH: All right. You may proceed.

11 MR. RUSSELL: The Peach Bottom facility is category
12 3, a facility which is shut down and requires Commission
13 approval to restart. Rather than covering everything, I will
14 just update what has occurred since the October Commission
15 meeting.

16 While we did review the material at the senior
17 management meeting before that, I will do that to save some
18 time. A key milestone since then on October 19th, I approved
19 the plan submitted by the company under the terms of the order
20 to address the activities needed for restart of the facility.

21 We have also had a number of observations of the
22 crews' performance on the simulator, on their team work. We
23 actually completed last week observations and we are scheduling
24 an exit meeting with the licensee tomorrow and expect to issue
25 our inspection report on those results in early January.

1 There has been for the most part substantial
2 improvement in their performance. There are some areas of
3 weaknesses on some crews with some individuals that we are
4 still addressing.

5 In addition, we issued a systematic assessment of
6 licensee performance report on October 19th. We reviewed that
7 with the company on site on November 1. We found that there
8 was significant improvement across the board. One category 1
9 in engineering support, principally based upon the high quality
10 of work that was done in support of the pipe replacement outage
11 which is ongoing now, one unit.

12 The second area that was not rated as a category 2
13 was the area of security. We have had some concerns in that
14 area. We have recently issued a \$50,000.00 civil penalty. We
15 rated that area as category 3.

16 They have recently changed over the security
17 contractor and they have augmented their security program with
18 direct Philadelphia Electric Company employees on charge on
19 each of the shifts monitoring the security program. We believe
20 that they are being responsive to the concerns in that area and
21 with time will turn that program around.

22 There have been continuing negotiations going on
23 between the Commonwealth of Pennsylvania and the Philadelphia
24 Electric Company regarding issues that may result in a
25 negotiated settlement regarding the license amendment for the

1 reorganization that was proposed for the station.

2 There is a meeting being planned in early January for
3 the staff to meet with the Commonwealth and the company to
4 discuss the results of that negotiation. If the negotiations
5 are successful, it may terminate the proceeding before the
6 licensing board.

7 We are planning additional public meetings to
8 incorporate public comment and provide feedback to the public
9 regarding the results of our integrated assessment team
10 inspection. We are presently planning for that inspection. It
11 may occur in January or in early February.

12 We are completing our review of the licensee's self-
13 assessment of its readiness for operation and once we complete
14 that, we will conduct a comprehensive team inspection on the
15 site to verify the action readiness of the facility.

16 Following that team inspection and making the results
17 publicly available, we will have an ACRS review and a
18 Commission review. That is pretty much the status and the next
19 steps as it relates to Peach Bottom.

20 CHAIRMAN ZECH: Any comments on Peach Bottom?

21 [No response.]

22 CHAIRMAN ZECH: Did I understand you to say that the
23 SALP you conducted on October 19, 1988?

24 MR. RUSSELL: That is the date was issued the SALP
25 report, sir.

1 CHAIRMAN ZECH: It was issued.

2 MR. RUSSELL: It was issued with those marks.

3 CHAIRMAN ZECH: And they had one category 1, one
4 category 3 and all the others category 2?

5 MR. RUSSELL: Yes, sir.

6 CHAIRMAN ZECH: That is what I was wondering about.

7 All right. Thank you. You may proceed.

8 MR. RUSSELL: The next facility is the Pilgrim
9 facility. We have extensively briefed the Commission on
10 October 14th and December 9th and based upon the Commission's
11 action this morning, I don't think further discussion is
12 needed.

13 CHAIRMAN ZECH: I don't think so either.

14 MR. RUSSELL: We described the power ascension
15 program.

16 CHAIRMAN ZECH: Unless anybody wants to comment?

17 [No response.]

18 CHAIRMAN ZECH: Let's proceed.

19 MR. RUSSELL: That is the four I have, sir. That is
20 enough.

21 CHAIRMAN ZECH: You have your hands full, don't you?

22 MR. RUSSELL: We are going to have a busy time this
23 next six months in Region I.

24 CHAIRMAN ZECH: Well, keep at it. Mr. Martin,
25 welcome, Region V.

1 MR. J. MARTIN: The only facility that I have to
2 discuss is Rancho Seco. They have been on a rather extended
3 and deliberate power ascension test program in the last six
4 months. The last time we talked, I believe, they were
5 somewhere around 25 percent power.

6 The theory of this test program is it has been a
7 rather lengthy stay at the plateaus of 25 percent, 40 percent,
8 65 percent, 80 percent and 92 percent power. To test the
9 equipment and the people, they have spent in the order of six
10 weeks at each of those plateaus during which time we have had
11 team inspections from NRR and Ed Jordan's outfit.

12 We have had help from the resident inspectors at TMI
13 and also at Davis-Besse to get a rather broad view of how
14 things are going.

15 Generally, the conclusion has been that the plant is
16 operating well. During this time period, there has been
17 relatively few events to challenge the operators. They have
18 had a few upsets in the feed system that have been dealt with
19 competently.

20 In November, there was a disturbance on the Pacific
21 Gas and Electric transmission lines that caused a plant trip
22 from full power. This was interesting in that the plant had to
23 go on natural circulation and was dealt with quite well. All
24 the safety equipment worked. The operators handled it well.

25 I think up until that point they had not been

1 challenged dramatically and operated quite well. Continued
2 attention is required in some of the post-restart areas like
3 there are still some work items that need to be done in the
4 maintenance area, procurement and engineering but those seem to
5 be proceeding acceptably.

6 At this point, the staff considers that they have
7 certainly re-entered the mainstream of nuclear power plants in
8 the country and no longer warrant the intense attention that
9 they have been getting lo these many years. They have been on
10 the list before we even had a list.

11 [Laughter.]

12 MR. J. MARTIN: So it has been a long haul but I
13 think in all seriousness, it is a case where a utility had to
14 be dismantled and re-built and that takes a long time and the
15 last six months have been reasonably stable. The management
16 team has pulled together and is still learning but seem to be
17 making the right kinds of judgments.

18 With somewhat bad timing, there was an incident last
19 Monday where during a plant start-up from a maintenance outage,
20 there were difficulties in the steam supply to the main feed
21 pumps and the operators had to manually scram the plant from on
22 the order of 12 percent power.

23 I am really not prepared to get into the details of
24 exactly what happened there. All I can tell you is that the
25 utility seems to be taking this quite seriously. They are

1 doing their review of it. It seems to be self-critical. They
2 have asked for assistance from INPO and B&W and they have both
3 been out there this week.

4 I haven't gotten a report yet in detail on what they
5 have found and our own staffs are looking into it. But they are
6 nearing the end of the test program. They still are in a test
7 program and, of course, that is what test programs are for is
8 to shake these kinds of problems out of the system and on
9 balance, as I said, I think things have gone well and we feel
10 they should be taken off the troubled plant list.

11 CHAIRMAN ZECH: All right. Thank you very much.
12 Questions or comments from my fellow Commissioners?

13 COMMISSIONER ROBERTS: Yes.

14 CHAIRMAN ZECH: Commissioner Roberts.

15 COMMISSIONER ROBERTS: I would just ask that after
16 you fully understand this recent incident, is that possible
17 that it might make you change your mind about taking them off
18 the list?

19 MR. J. MARTIN: Well, I have never had any hesitation
20 with taking those actions if they are necessary. I would have
21 no inhibition whatsoever.

22 COMMISSIONER ROBERTS: It seemed like a pretty
23 serious thing to me just reading the account.

24 MR. STELLO: I think what we ought to do is wait.

25 COMMISSIONER ROBERTS: I don't mean to pre-judge it.

1 MR. STELLO: Yes. I think there were a lot of
2 actions that were in there that looked like they were doing the
3 right things, too. I think what we ought to do is wait until
4 we are finished. I have no reluctance if we take somebody off,
5 we put them back on. I think we ought to judge on the basis of
6 the past performance.

7 If past performance warrants what we did, I am
8 completely satisfied that that is right and whether we have a
9 list and whether a plant is on it or off it, a plant having an
10 event, Mother Nature is such that from time to time we are
11 going to have one that after we take it off the list, they are
12 going to have an event, I am sure.

13 But I don't think that ought to deter us from looking
14 at their performance. Mr. Chairman, with your permission if
15 there are no questions, I would suggest we just go right into
16 the fuel facilities.

17 CHAIRMAN ZECH: Let me just see if there are other
18 questions from my colleagues before we go off the reactor
19 plants? Anything else?

20 [No response.]

21 CHAIRMAN ZECH: I had one other for Mr. Partlow. Are
22 you satisfied concerning Brown's Ferry, that things are moving
23 along in a satisfactory manner?

24 MR. PARTLOW: Yes, sir. As I said, they are moving
25 slowly but there seems to be a deliberate process that is going

1 on.

2 CHAIRMAN ZECH: All right, fine. Thank you very
3 much. All right. Mr. Bernero, you may proceed.

4 MR. BERNERO: Turning to the NMSS licensees, as you
5 all know they number in the thousands and they vary in size, in
6 scope of activity over a broad range so we don't have the same
7 sort of bin or category system that the reactor plants have.

8 We have a list for priority attention. I have a half
9 a dozen facilities on that list and I will be giving you the
10 reasons why we think those licensees warrant extraordinary
11 attention.

12 Before I do so though, I would like to note that the
13 ordinary level of attention we put on material licensees is
14 increasing and will continue to increase. All of our regions
15 now are giving special attention to new applicants with early
16 inspections so that we can identify and deny licenses to the
17 unqualified and to discover right at the beginning if there are
18 bad habits or practices starting and snuff them out before they
19 are embedded.

20 We have also developed a trial set of performance
21 evaluation factors and all five regions are now applying them
22 in materials licensing. There is a one year trial period for
23 this effort and it runs through June of 1989 and we will be
24 reporting to you later in 1989 with the results of that trial.
25 I can say at this time that the use of these performance

1 evaluation factors looks very favorable though.

2 In addition, we have a priority system which we have
3 used for some time to set the inspection frequency for
4 materials licensees and due to the large number of licensees
5 and the limited resources, inspection frequencies are measured
6 in years; every year, every two years, every three years and so
7 on.

8 Some of the priorities recently changed signal the
9 increased attention especially in the medical area that the
10 Commission has called for. We have just recently increased
11 these frequencies of inspections; for example, teletherapy
12 licenses from once every three years to annual inspections,
13 medical institutional broad licenses from every other year to
14 annual inspection and nuclear pharmacies from every other year
15 to annual inspection.

16 These increased inspections are beginning with the
17 new year of 1989. Four of the regions have already hired new
18 medical inspection specialists and Region I, the fifth region
19 here, is about to do so. So they should be ready for that.

20 I would like to turn to the six facilities that we
21 have identified as our priority list and review for you the
22 status and the circumstances that warrant this extraordinary
23 list.

24 [SLIDE.]

25 MR. BERNERO: The Combustion Engineering Windsor,

1 Connecticut facility is a classic fuel cycle facility. This
2 licensee fabricates low enriched uranium fuel for LWRs and
3 conducts R&D on LWR fuel. They also have a by-product material
4 license for R&D in use in the maintenance, repair and
5 decontamination and failure analysis of reactor components
6 which could be contaminated, of course.

7 They have 250 employees there involved in the fuel
8 production. Difficulties in the radiological safety program
9 and other areas led in 1988 to a civil penalty of \$12,500.00
10 and an enforcement conference followed by a confirmatory action
11 letter to the licensee which required a performance improvement
12 plan, a licensee self-assessment and periodic reports to and
13 meetings with the regional staff on the improvement status.

14 In a unique step because we don't ordinarily use the
15 process for NMSS licensees, a SALP was conducted on this
16 licensee covering a two-year period from July 1, 1986 to June
17 30, 1988. The SALP board report was issued on September 21,
18 1988 and a management meeting followed the next month.

19 Ten general areas were evaluated. Five were rated
20 category 2. They are criticality safety, safeguards, equipment
21 maintenance, vendor QA and fire protection and five were rated
22 as category 3 SALP, operations, radiological control, emergency
23 preparedness, management controls and licensing.

24 Senior regional management and NMSS management have
25 toured the site and met with senior Combustion Engineering

1 management and I am happy to say that clear progress has been
2 observed in the cleanliness of the site, the worker attitude
3 and people recognizing the importance of meeting regulatory
4 requirements.

5 Recent meetings with the Combustion Engineering
6 management indicate a genuine commitment to put into effect the
7 necessary upgrades to bring the facility into regulatory
8 compliance.

9 Review of their performance improvement program
10 suggests that they have a comprehensive approach toward
11 accomplishing this and our recent inspection activity suggests
12 a movement toward strong improvement in all areas involved.

13 There is one reservation we would express here. Mr.
14 Fred Stern who was vice president of Nuclear Fuel Manufacturing
15 and appeared to be instrumental in oversight of this
16 improvement program has been moved to another part of the
17 company so that the region will closely follow the effects of
18 his removal from the management chain to see whether any lapse
19 is associated with it.

20 COMMISSIONER CARR: They are also moving part of
21 their operation to St. Louis. You are following as it goes out
22 there, I guess?

23 MR. BERNERO: Yes, we will.

24 CHAIRMAN ZECH: Five category 3's doesn't sound very
25 good. How many categories do you have?

1 MR. BERNERO: Five 2's. Well, there are ten
2 categories. It was five 2's and five 3's, not a very
3 encouraging SALP.

4 CHAIRMAN ZECH: Yes.

5 MR. BERNERO: But the management appears to have
6 listened and responded.

7 CHAIRMAN ZECH: Let's proceed.

8 MR. BERNERO: The second facility on the list is the
9 Safety Light Corporation in Bloomsburg, Pennsylvania. Safety
10 Light has two NRC licenses. One authorizes the possession of
11 350,000 curies of tritium and production of tritium light
12 sources.

13 The second license authorizes possession of a
14 contaminated site and requires clean-up of contamination. This
15 site goes back under previous ownership to the late 1950's and
16 early 1960's, a very old site. It is contaminated with
17 radium-226, cesium-137, strontium-90, tritium and other
18 materials from those earlier operations.

19 Buildings not used for production activities were
20 deteriorating and not completely secured and there is some
21 substantial question about the licensees financial ability to
22 clean-up the site from all those old operations to conduct the
23 appropriate remedial actions.

24 The licensee even experienced difficulty disposing of
25 tritium waste from the current manufacturing operations because

1 of the cost of disposal and they have made no progress on
2 cleaning up the site.

3 Inspection by Region I recently verified that their
4 production activities are being conducted safely and in
5 compliance with the NRC requirements. A shipment of tritium
6 waste was made earlier this year to maintain compliance with
7 license conditions and they are presently remaining in
8 compliance with respect to tritium.

9 Repairs have been made to some of these buildings
10 containing contamination to make them weather tight. An action
11 plan for what to do about the long range situation with this
12 facility was prepared in July of this year but is now under
13 review again by Region I and NMSS management in order to seek a
14 better response from the licensee to initiate clean-up of the
15 site. That is the essential issue with us now.

16 CHAIRMAN ZECH: Any questions?

17 [No response.]

18 CHAIRMAN ZECH: Let's proceed.

19 MR. BERNERO: The next facility on the list is the 3M
20 Company in St. Paul, Minnesota. The 3M Company has operations
21 in the St. Paul, Minnesota area on a number of NRC licenses
22 making a variety of gauges, seal sources and the static
23 eliminators which you heard so much about all through 1988.

24 Only about a dozen employees were involved in the
25 static eliminator production activities there under the NRC

1 license. As you may recall, in early 1988 there was evidence
2 of widespread incidence of leakage of polonium-210 from those
3 static eliminators that were distributed under general license,
4 about 50,000 such eliminators were out in the marketplace in
5 use.

6 In a series of orders in January and February of
7 1988, 3M was ordered to suspend distribution and recall those
8 static eliminator devices and we gave priority to the recall of
9 those used in the Food, Beverage, Cosmetic, Drug and Medical
10 Device applications.

11 They responded to that Show Cause order in July of
12 this year and they are now held on an R&D mode. 3M can
13 continue research and development to determine to the best of
14 their ability what caused the failures and what corrective
15 actions they might take but they are not permitted general
16 distribution of those static eliminators.

17 A fairly large number of those devices are still not
18 returned though. Of the 50,000, we sent up a status report to
19 you last week, you may have seen it by now or at least it is in
20 your mail, number on the order of eight percent is still not
21 returned.

22 We are working with the regions and with the Office
23 of Enforcement and, of course, with 3M to follow up with those
24 licensees who have not returned it, to develop notices of
25 violation for those licensees who have the devices and haven't

1 returned them and, of course, to do what we can to track down
2 the lost devices.

3 Some assurance is there. The safety hazard is not
4 great with these devices since they are all relatively old.
5 They are on the order of a year old or more and the
6 polonium-210 activity would have decreased substantially in
7 that period of time. It drops a factor of six every year.

8 We have conducted inspections with their other
9 activities up there, other license activities. We didn't find
10 problems with their devices but we did find problems with their
11 management oversight on the other facilities as well.

12 3M is taking steps to improve management oversight of
13 those activities to establish new procedures for some of their
14 product lines and to conduct QA/QC of these changes that they
15 are making. We will have to do follow-up inspection to
16 determine the effectiveness of these changes.

17 CHAIRMAN ZECH: Any questions or comments from my
18 fellow Commissioners?

19 [No response.]

20 CHAIRMAN ZECH: Please proceed.

21 MR. BERNERO: The next facility on the list is
22 Advanced Medical Systems in Cleveland, Ohio. This is a
23 licensee, NRC license, for manufacturing and distribution of
24 cobalt-60 and cesium-137 sources for teletherapy and
25 radiography.

1 Difficulties with this facility principally with
2 contamination have run from 1985 through 1988. In October of
3 1987, NRC accepted Advanced Medical Systems proposed
4 decontamination plan to clean-up the facility.

5 Work commenced and the licensee has been in
6 compliance with the schedule to date. The licensee has now
7 decontaminated all use areas except the hot cell and the waste
8 hold-up tank room which is down in the basement of the
9 facility.

10 Work on the hot cell is in progress and the staff
11 recently authorized isolation of the waste hold-up tank room
12 for radioactive decay over a period of at least five years to
13 reduce occupational exposures when the work is done, a rather
14 high level of activity in that room.

15 So some of the decontamination work is still in
16 progress and in addition, there are recent management changes
17 at the site. Both the RSO and the plant manager have been
18 replaced. Further inspection and oversight are needed for
19 completion of these decontamination activities and for
20 surveillance of operations under the new management.

21 CHAIRMAN ZECH: Any questions?

22 [No response.]

23 CHAIRMAN ZECH: All right. You may proceed.

24 MR. DAVIS: May I make a comment? I think the
25 decontamination is about complete. It is very close.

1 CHAIRMAN ZECH: Thank you. You may proceed.

2 MR. BERNERO: The next licensee on the list or
3 licensees, it is actually two licenses, is Syncor Nuclear
4 Pharmacy and I have listed the two, Blue Ash, Ohio and
5 Columbus, Ohio.

6 These are two nuclear pharmacies in a nationwide
7 network of about 50 nuclear pharmacies. This company owns
8 these 50 pharmacies but each one is separately licensed by the
9 NRC or an agreement state in their individual locations.

10 The Blue Ash and Columbus facilities each employ
11 about four pharmacists, one technician and about 14 drivers to
12 deliver the products to the hospitals. These pharmacies are
13 authorized to prepare and distribute radiopharmaceuticals and
14 redistribute sealed sources in radiopharmaceuticals from
15 manufacturers.

16 Earlier this year, in April and May, we received
17 reports of 14 mis-administrations from the Blue Ash facility.
18 Region III conducted a follow-up inspection and found problems
19 with them following package instructions with how they
20 conducted QC tests and some aspects of their radiation safety
21 program.

22 This prompted a July, 1988 confirmatory action letter
23 to require corrective actions to be taken and in follow up a
24 second confirmatory action letter in September of 1988 to deal
25 with further actions in QC test conduct in mis-administration

1 reporting.

2 Some of the same problems found at Blue Ash were
3 found in a separate inspection of a second Syncor pharmacy at
4 Columbus, Ohio but inspection of two other Syncor facilities,
5 one in Toledo, Ohio and one in Wisconsin did not find
6 significant problems so it appeared to be a mixed bag with
7 these facilities.

8 In October of 1988, an Order was issued to Syncor
9 International incorporating extant confirmatory action letters
10 and to require corporate assessment of the Blue Ash, the
11 Columbus and half of their other facilities for staff
12 qualifications, staffing levels, operational controls,
13 deficiency procedures and management oversight.

14 Syncor has responded by submitting a plan for
15 evaluation of QA at several of its facilities and they have
16 begun those evaluations. The staff will conduct follow-up
17 inspections to verify that any needed steps are taken promptly.

18 CHAIRMAN ZECH: All right. Any questions?

19 [No response.]

20 CHAIRMAN ZECH: All right. You may proceed.

21 MR. BERNERO: The last one on my list is Radiation
22 Sterilizers, Incorporated at Decatur, Georgia. Radiation
23 Sterilizers, Inc. at Decatur is an agreement state licensee.
24 In Decatur, they operate a large pool irradiator for medical
25 products in packaging for food containers.

1 This facility uses 252 cesium-137 sources of 40,000
2 to 50,000 curies each. They are very large sources which are
3 leased from the Department of Energy. RSI also operates a
4 similar cesium-137 irradiator facility in Westerville, Ohio
5 under an NRC license and three cobalt-60 irradiators under
6 agreement state licenses.

7 In June, 1988 the cesium-137 capsules at RSI,
8 Decatur, were found to be leaking. Within a short time the
9 State of Georgia, RSI and the Department of Energy were
10 investigating the matter and the state asked for NRC assistance
11 and, of course, we had our own interest for possible
12 relationship to other cesium-137 facilities of that type, not
13 only Radiation Sterilizers' Westerville facility but two other
14 people, one an NRC licensee in Virginia and another, a state
15 licensee in Colorado, are using the same capsules in somewhat
16 different ways I might add.

17 Extensive evaluations of the capsules are being
18 conducted under DOE technical management using the Oak Ridge
19 National Laboratory. For some time no leaking capsules could
20 be identified but just recently the search has identified one
21 capsule which is definitely leaking in the pool and another
22 which has a very clearly visible circumferential swelling.
23 Both of these will be shipped to Oak Ridge National Laboratory
24 shortly for close examination and we may get to the bottom of
25 the problem of what is causing it.

1 While the investigation proceeds, the Decatur
2 irradiator facility is not operating. The Westerville facility
3 has put its cesium-137 capsules into storage and brought in
4 Cobalt-60 capsules to resume operations.

5 Continued NRC attention will be required until all
6 one thousand of these cesium-137 capsules are back in
7 Department of Energy hands and the irradiators facilities are
8 put in order.

9 That completes my coverage of the priority NMSS
10 facilities. I will be pleased to answer any questions you may
11 have.

12 CHAIRMAN ZECH: All right. Any questions from my
13 colleagues? Any comments?

14 COMMISSIONER CARR: I might comment that I am happy
15 to see a little increased attention to the materials licensees
16 and I think especially the reduction in inspection times in
17 some of them.

18 CHAIRMAN ZECH: Yes. Commissioner Rogers.

19 COMMISSIONER ROGERS: We keep seeing these problems
20 of accidental exposure by operators using some of these
21 sources, retractable sources, for x-ray purposes. Is there any
22 progress in improving the basic unit there to help to prevent
23 that?

24 When I read of these incidents, there seems to be
25 some time no indication that the source had not been retracted

1 and, therefore, the operator was exposed fairly severely in
2 some cases. It seems like an ancient technology that hasn't
3 had much attention in years and that some relatively simple
4 steps could be taken to make it a little less likely to fail in
5 the way we seem to see with fair regularity these events.

6 MR. BERNERO: There is attention to the design of
7 these devices in a rulemaking directed in that vein but
8 probably the most important thing we have found is years ago,
9 we instituted procedures or required procedures by the
10 radiographers so that such things can't happen.

11 The survey instrument, you don't walk up to one of
12 these things without a survey instrument in front of you
13 looking at it and they often forget to do that or leave the
14 instrument in the truck or something like that.

15 Probably the most significant step that I can see in
16 the near horizon to improve the situation is the certification
17 of radiographers. We have a very active effort right now with
18 the American Society for Non-Destructive Testing and the
19 states, particularly the State of Texas which is deeply
20 involved in it, toward a very systematic certification of
21 radiographers where the onus and the benefit of being a
22 certified radiographer are put on the individual so that we
23 just don't get this behavior of failing to use the available
24 instruments that would greatly cut down those exposures.

25 COMMISSIONER ROGERS: Thank you.

1 CHAIRMAN ZECH: All right. Anything else, Mr.
2 Stello?

3 MR. STELLO: We have nothing further, Mr. Chairman.

4 CHAIRMAN ZECH: All right. Any other questions or
5 comments? Commissioner Roberts.

6 COMMISSIONER ROBERTS: On that certification on
7 radiographers, isn't that somewhat controversial among the
8 radiographers?

9 MR. BERNERO: Oh, certainly.

10 CHAIRMAN ZECH: I thought so.

11 MR. BERNERO: It is onerous and it would put some
12 burden on the individual radiographer to operate under proper
13 and strict working conditions and to demand that from the
14 employer because he could lose his certification.

15 CHAIRMAN ZECH: Commissioner Carr.

16 COMMISSIONER CARR: No.

17 CHAIRMAN ZECH: Commissioner Rogers.

18 COMMISSIONER ROGERS: No.

19 CHAIRMAN ZECH: Commissioner Curtiss.

20 COMMISSIONER CURTISS: No.

21 CHAIRMAN ZECH: Let me just on behalf of the
22 Commission thank all of you for an excellent presentation. I
23 think the Commission appreciates very much your valuable
24 insights into the regulatory performance of our licensees.

25 Many plants in our country are operating very well as

1 we know and Mr. Stello and Dr. Murley, I know you both alluded
2 ot that in your opening remarks and I think that it is
3 important to keep in mind, too, as we focus today on the plants
4 that are performing below what we would like to see because as
5 was pointed out earlier, per operating reactor there is
6 considerable improvement across-the-board in the trends in the
7 past four years in our country in all the safety parameters
8 that we are watching. So that is encouraging.

9 So it can be said, I think, as Mr. Stello stated
10 early on that reactors are operating safer today. They
11 certainly are in my judgment. They are safer today than I
12 believe when I came on the Commission four and a half years ago
13 and that is very encouraging.

14 On the other hand, I think it is important that we
15 closely monitor those facilities that are not performing as
16 well as we would like to see them perform. We do have
17 responsibilities for public health and safety and we don't like
18 to see reactors operating close to that margin of our judgment
19 where a reasonable assurance that the public health and safety
20 will be protected and we don't have unlimited resources. We
21 know that.

22 We audit really and our inspections are not a very
23 big percentage of perhaps what we would like to do so we have
24 to be careful with our resources and I think this program that
25 the staff is conducting, your management review process is very

1 valuable and it is a very fine management tool as far as the
2 Commission is concerned, certainly as far as I am concerned, in
3 order to focus our resources where they should be focused and
4 also, reduce the resources where we can reduce them and point
5 out to us where they are being reduced because I think we
6 should know that and I appreciate, Mr. Stello, your doing that
7 here today.

8 I think that is important that we recognize that
9 because we recognize that we are putting an awful lot of
10 resources on some few plants. I think it is appropriate but it
11 does mean that then we are taking them from somewhere and we
12 should take them from those plants that are operating and have
13 operated for a considerable period of time on the top of our
14 operating performance scale.

15 So I think these parameters you are watching are very
16 important. Again, it is encouraging to see overall per reactor
17 improvements but focusing on these plants that we are focusing
18 on, I think, is responsible action on the Commission's part.

19 Also, I would like to point out in the material
20 licensees area that Commissioner Carr emphasized, I would like
21 to second that and I think my colleagues would agree with me,
22 all of them, that it is encouraging to all of us to see the
23 increasing attention being given in the material licensees
24 area.

25 I know, Mr. Stello, when we discussed our budget

1 preparation this year why we continued to try to increase
2 nuclear material licensing activities as far as our agency is
3 concerned for inspection and monitoring.

4 We really do a very minimal amount of that in my
5 judgment but I think we are increasing that. I think the
6 attention we are giving it in bringing material licensing to
7 the table with the reactors is important and we want to
8 continue that to bring out the importance of the nuclear
9 materials part of this Commission's responsibility.

10 So I do think these meetings are extremely important.
11 I think it is excellent management work on the part of the
12 staff. Dr. Murley pointed out the great amount of time and
13 effort and resources that go into this but I think it is
14 valuable because it helps us be sure we are focusing on those
15 areas that need the most attention.

16 So I commend the staff for this excellent program. I
17 think it does give the Commission some confidence that we are
18 prioritizing our work and focusing on those areas that need
19 more attention as far as public health and safety is concerned
20 in the area of material licensees as well as the reactors.

21 So I do commend you for what you are doing in this
22 program and we look forward to your briefing again in about six
23 months. In the meantime, I hope all of you regional
24 administrators will, of course, continue and I know you will to
25 watch very carefully the plants we have talked about today and

1 also others we haven't talked about that I know you continue to
2 watch on a normal basis.

3 But I do think the regional administrators have
4 provided to the Commission directly in this session and in the
5 previous sessions we have had a valuable insight to where we
6 are prioritizing and where we are focusing our efforts. So to
7 all of you, I think it is a very valuable presentation and
8 thank you very much. We stand adjourned.

9 [The meeting of the Commission was adjourned at 3:41
10 o'clock p.m., to reconvene at the Call of the Chair.]

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CERTIFICATE OF TRANSCRIBER

**This is to certify that the attached events
of a meeting of the U.S. Nuclear Regulatory Commission
entitled:**

TITLE OF MEETING: PERIODIC BRIEFING ON STATUS OF OPERATING
REACTORS AND FUEL FACILITIES

PLACE OF MEETING: Washington, D.C.

DATE OF MEETING: WEDNESDAY, DECEMBER 21, 1988

**were transcribed by me. I further certify that said
transcription is accurate and complete, to the best
of my ability, and that the transcript is a true and
accurate record of the foregoing events.**

Marilynn Nations

Ann Riley & Associates, Ltd.

**PERIODIC BRIEFING ON STATUS OF
OPERATING REACTORS**

**COMMISSION BRIEFING
DECEMBER 21, 1988**

CATEGORY 1

PLANTS REMOVED FROM THE
LIST OF PROBLEM FACILITIES

PLANTS IN THIS CATEGORY HAVE TAKEN EFFECTIVE ACTION TO CORRECT IDENTIFIED PROBLEMS AND TO IMPLEMENT PROGRAMS FOR IMPROVED PERFORMANCE. NO FURTHER NRC SPECIAL ATTENTION IS NECESSARY BEYOND THE REGIONAL OFFICE'S CURRENT LEVEL OF MONITORING TO ENSURE IMPROVEMENT CONTINUES.

DRESDEN 2/3
RANCHO SECO

CATEGORY 2

PLANTS AUTHORIZED TO OPERATE
THAT THE NRC WILL MONITOR CLOSELY.

PLANTS IN THIS CATEGORY ARE HAVING OR HAVE HAD WEAKNESSES THAT WARRANT INCREASED NRC ATTENTION FROM BOTH HEADQUARTERS AND THE REGIONAL OFFICE. A PLANT WILL REMAIN IN THIS CATEGORY UNTIL THE LICENSEE DEMONSTRATES A PERIOD OF IMPROVED PERFORMANCE.

NINE MILE POINT 1/2
CALVERT CLIFFS 1/2
SEQUOYAH 1/2
TURKEY POINT 3/4
FERMI 2
FORT CALHOUN

CATEGORY 3

**SHUTDOWN PLANTS REQUIRING NRC
AUTHORIZATION TO OPERATE AND WHICH
THE NRC WILL MONITOR CLOSELY**

PLANTS IN THIS CATEGORY ARE HAVING OR HAVE HAD
SIGNIFICANT WEAKNESSES THAT WARRANT MAINTAINING
THE PLANT IN A SHUTDOWN CONDITION UNTIL THE
LICENSEE CAN DEMONSTRATE TO THE NRC THAT ADEQUATE
PROGRAMS HAVE BOTH BEEN ESTABLISHED AND
IMPLEMENTED TO ENSURE SUBSTANTIAL IMPROVEMENT.

PILGRIM
PEACH BOTTOM 2/3
BROWNS FERRY 1/2/3

PRIORITY MNSS FACILITIES

- O COMBUSTION ENGINEERING - WINDSOR, CT
- O SAFETY LIGHT CORP. - BLOOMSBURG, PA
- O 3M Co. - ST. PAUL, MN
- O ADVANCED MEDICAL SYSTEMS - CLEVELAND, OH
- O SYNCOR - BLUE ASH & COLUMBUS, OH
- O RADIATION STERILIZERS INC.- DECATUR, GA

ADDITIONAL NMSS FACILITIES DISCUSSED

- o RADIATION STERILIZERS INC. -
WESTERVILLE, OH
- o UNC - MONTVILLE, CT
- o B&W - LYNCHBURG, VA
- o CASE WESTERN RESERVE U. -
CLEVELAND, OH
- o U.S. AIR FORCE BROAD LICENSE
- o US TESTING Co. - MODESTO, CA