

**UNITED STATES OF AMERICA**  
**NUCLEAR REGULATORY COMMISSION**

**Title:            BRIEFING ON RESULTS OF SENIOR  
MANAGEMENT REVIEW OF OPERATING  
REACTORS, FUEL FACILITIES, AND RELATED  
ACTIVITIES - PUBLIC MEETING**

**Location:        Rockville, Maryland**

**Date:            Thursday, June 22, 1995**

**Pages:          1 - 73**

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1 UNITED STATES OF AMERICA  
2 NUCLEAR REGULATORY COMMISSION

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4 BRIEFING ON RESULTS OF SENIOR MANAGEMENT  
5 REVIEW OF OPERATING REACTORS, FUEL FACILITIES,  
6 AND RELATED ACTIVITIES - PUBLIC MEETING

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9 Nuclear Regulatory Commission  
10 Commissioner's Conference Room  
11 11155 Rockville Pike  
12 Rockville, Maryland

13  
14 Thursday, June 22, 1995

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16 The Commission met in open session, pursuant to  
17 notice, at 9:05 a.m., Ivan Selin, Chairman, presiding.

18  
19 COMMISSIONERS PRESENT:

20 IVAN SELIN, Chairman of the Commission  
21 KENNETH C. ROGERS, Commissioner  
22 E. GAIL de PLANQUE, Commissioner  
23 SHIRLEY JACKSON, Commissioner

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1 STAFF AND PRESENTERS SEATED AT THE COMMISSION TABLE:

2 JOHN HOYLE, Secretary of the Commission

3 KAREN CYR, General Counsel

4 JAMES TAYLOR, EDO

5 WILLIAM RUSSELL, Director, Office of NRR

6 CARL PAPERIELLO, Director, NMSS

7 THOMAS MARTIN, Region I Administrator

8 JOHN MARTIN, Region II Administrator

9 STEWART EBNETER, Region II Administrator

10 JOE CALLAN, Region IV Administrator

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

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[9:05 a.m.]

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CHAIRMAN SELIN: Today we have the regular briefing, the periodic briefing on operating reactors and material facilities, but the emphasis has somewhat changed. There's been a great deal of public interest in the role of the senior management meeting in the management of the NRC and, in fact, a lot more goes on at that meeting than just the discussion of the specific plans which are candidates for more careful or closer -- not more careful, but more frequent overall scrutiny.

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In the past, this briefing has basically concentrated on individual facilities and today the senior managers will give a broader discussion of some of the topics that were carried on at the meeting, partly because that's really the more important aspect and partly because there really aren't very many plants to talk about, which is one of the fine things that we can be very pleased with.

So without further ado, Commissioners?

[No response.]

CHAIRMAN SELIN: Mr. Taylor, the floor is yours and your colleagues'.

MR. TAYLOR: Good morning. With me are the regional administrators and the directors of the Offices of NRR and NMSS at the table.

1           As you've noted, Mr. Chairman, this senior  
2 management meeting we covered not only the discussion of the  
3 plants but a number of issues and today we'll touch on some  
4 of the technical issues, including -- and process issues,  
5 including the reactor inspection program, discussions  
6 regarding the status of NRC actions on steam generator  
7 issues, pressure vessel issues and dry cask storage and  
8 multi-purpose canister, initiatives that the staff has and  
9 did discuss at this meeting.

10           This is the 19th such meeting. We initiated these  
11 meetings after the casualty at Davis Besse in June of 1985.

12           We did brief the Commission on steam generator  
13 issues on May 26 and most of the technical discussion by Mr.  
14 Russell will concentrate on reactor vessel issues.

15           We do note that, as indicated by the performance  
16 indicators, by our own SALP process and the results of the  
17 senior management meeting, the performance of the industry  
18 across the board has improved and we continue to see that  
19 specific condition and generally greatly improved  
20 performance across individual utility nuclear plants.

21           I'll now ask Bill Russell to continue.

22           MR. RUSSELL: Thank you, Jim.

23           The senior management meeting process has two  
24 principal objectives as it relates to plant performance.  
25 First is to identify potential problem performance and

1 adverse trends before becoming actual safety events.

2 Secondly is to effectively utilize agency  
3 resources in overseeing operating reactor safety.

4 An integrated review of plant safety performance  
5 is conducted using objective information, such as plant-  
6 specific inspection results, operating experience,  
7 probabilistic risk assessment insights, systematic  
8 assessment of licensee performance results, performance  
9 indicators and enforcement history. Special attention is  
10 given to the effectiveness of licensee self-assessments and  
11 corrective actions.

12 Our objective is to identify facilities early that  
13 have negative performance trends or those facilities whose  
14 performance requires agency-wide close monitoring and  
15 oversight.

16 We also discussed planned inspections, NRC  
17 management oversight and allocation of resources for each of  
18 the plants discussed.

19 I'll now summarize the overall results of the  
20 senior management meeting held just recently, after which  
21 each of the regional administrators will discuss their  
22 facilities, and then I'll come back and talk about the  
23 inspection program, reactor pressure vessel issues, and then  
24 I'll pass it to Carl Paperiello, who will discuss our  
25 summary of what we went through on dry cask storage issues.

1 May I have slide 2, please?

2 Category 1 is identification for plants that are  
3 removed from the list of problem facilities. During this  
4 past meeting there were no plants removed. Slide number 3,  
5 please.

6 Category 2 plants are those whose operation is  
7 closely monitored by the NRC. These are Indian Point 3 and  
8 Dresden 2 and 3. Tim Martin will discuss Indian Point 3 and  
9 Jack Martin, regional administrator, will discuss Dresden 2  
10 and 3. Slide 4, please.

11 Category 3 facilities are plants that are shut  
12 down and require the approval of the Commission to resume  
13 operation. The staff monitors these closely as they  
14 implement their corrective actions prior to resumption of  
15 restart. Plants in this category are Browns Ferry 1 and 3,  
16 and we'll be briefing the Commission on both Watts Bar and  
17 Browns Ferry 3 early next month. Stew Ebnetter will discuss  
18 the status at Browns Ferry 1 and 3. Slide 5, please.

19 As a result of the discussions at the senior  
20 management meeting, we concluded that two facilities whose  
21 performance was previously trending adversely have  
22 demonstrated sufficient improvement such that the adverse  
23 performance trends appear to have been arrested. These  
24 plants will receive a letter informing them of our  
25 conclusions. We will obviously continue to closely monitor

1 their performance to ensure that the performance trends  
2 continue.

3           These facilities are Quad Cities 1 and 2 and  
4 Cooper. Jack Martin will discuss the performance at Quad  
5 Cities, and Joe Callan the performance at Cooper.

6           This completes my opening remarks. I'll turn it  
7 over to Tim at this point.

8           MR. THOMAS MARTIN: Thank you, Bill.

9           The New York Power Authority's Indian Point 3  
10 nuclear power plant was first discussed on June 1992 at our  
11 senior management meeting. In February 1993 the New York  
12 Power Authority, NYPA for short, voluntarily shut the plant  
13 down. Indian Point 3 was placed on the NRC's watch list in  
14 June of 1993.

15           Since their '93 shutdown, NYPA has expended  
16 significant efforts and resources on equipment maintenance  
17 and modifications, process improvements and management  
18 changes. The material condition at the facility has greatly  
19 improved. Noteworthy system modifications and improvements  
20 were accomplished on the emergency diesel generators,  
21 numerous motor-operated valves, the control room air  
22 conditioning system and the instrument air system.

23           Approximately 10,000 corrective and preventive  
24 maintenance activities were completed. A new system for  
25 reporting and tracking deficiencies has been instituted, and

1 the licensee has successfully reduced the threshold for  
2 problem identification and documentation.

3 The licensee's new Speak Out program has proven an  
4 effective alternative for resolution of employee safety  
5 concerns. Procedures have been substantially upgraded,  
6 particularly those required for shift turnover and power  
7 operations.

8 Substantial improvements have been made in the  
9 preventive maintenance program and in minimizing the  
10 preventive maintenance backlog. The work control, planning,  
11 scheduling functions have been revised to better control  
12 plant configuration and maintenance activities. The  
13 surveillance testing program, test scheduling, and the  
14 quality of test results, review and test deficiency  
15 resolution have been significantly enhanced.

16 Finally, the quality assurance organization has  
17 been substantially revitalized and appears to be effectively  
18 supporting management's effort to surface and resolve  
19 performance problems.

20 The licensee's new management team has been in  
21 place since September 1994. Two-thirds of the managers at  
22 the department head level and above are new. The NRC has  
23 noted substantial improvement in management teamwork, safety  
24 focus, support, communications, involvement and oversight.

25 Since the last senior management meeting, the

1 licensee competently performed a complex loss of power test  
2 and appropriately responded to an actual loss of off-site  
3 power, the latter precipitated by off-site work not under  
4 the licensee's control.

5 In March NYPA completed a comprehensive start-up  
6 readiness evaluation program. Subsequently, in April, the  
7 NRC performed a restart readiness assessment team inspection  
8 utilizing staff from all four regional offices and NRC  
9 headquarters. Six new restart issues were identified.

10 The team concluded that with the resolution of the  
11 licensee- and NRC-identified restart issues, the plant  
12 equipment, staff, management, programs and processes were in  
13 place to support a safe restart and continued operations.

14 Plant heat-up, which commenced on April 16, was  
15 well managed and implemented. Operators controlled plant  
16 testing and operational evolutions in accordance with  
17 procedures. The NRC staff also noted good adherence to  
18 procedures by other site departments.

19 During hot operations, NYPA demonstrated excellent  
20 safety perspective in pursuing the cause of an intermittent  
21 reactor vessel flange leakage alarm. Conservative actions  
22 were taken by NYPA when they decided to return the plant to  
23 cold shutdown to replace the reactor vessel O-rings, even  
24 though the leak rate past the outer seal was less than one  
25 gallon per hour.

1           The cool-down was conducted in a well controlled  
2 manner, in accordance with plant procedures. While in cold  
3 shutdown, the licensee replaced the O-rings and repaired  
4 other significant identified problems.

5           The NRC's NYPA assessment panel confirmed, on June  
6 1, that the restart issues identified in the NRC restart  
7 action plan had been completed.

8           Overall performance at the station has shown  
9 continued improvement. Strong senior management involvement  
10 and oversight of sight activities have been evident. The  
11 station management team has been effective in setting  
12 expectations and fostering a significantly improved safety  
13 perspective, questioning attitude, and attention to detail  
14 in the station's staff.

15           Some examples of this include identifying an  
16 adequate cooling water flow through the safety injunction  
17 pump coolers, while repairing an unrelated problem, delaying  
18 heat-up for station battery replacement, and the repair of a  
19 minor leak on an instrument line on the residual heat  
20 removal system.

21           The operation staff has demonstrated improved  
22 performance and ownership of plant activities. NRC  
23 observations, admittedly without the challenge of an  
24 operating plant, find operators more methodical and  
25 conservative in their approach to plant evolutions, control

1 room formality improved, and the control of routine plant  
2 activities good.

3 In addition, the operations staff has delayed,  
4 caused revision or halted activities for which they lacked  
5 information or had concerns. Recently, the licensee  
6 established and filled five new SRO-licensed control room  
7 supervisor positions to maintain a routine management  
8 presence in the control room.

9 In the engineering area, the NRC staff has  
10 observed notable improvements. Engineering department  
11 staffing, organization and location changes have resulted in  
12 enhanced cooperation and support of the site staff. A  
13 number of programs, processes and procedural changes have  
14 been implemented, and the engineering staff has demonstrated  
15 that they can provide timely support for emergent technical  
16 issues.

17 Both the design engineering and the technical  
18 services staff have taken appropriate steps to control the  
19 backlog of work and have effectively screened their backlog  
20 for plant restart issues.

21 Over 500 modifications were accomplished during  
22 the plant shutdown, and the quality of engineering was  
23 improved. Of particular note was the extent and quality of  
24 effort that went into resolution of the outstanding fire  
25 protection issues.

1           On June 13 the licensee submitted their letter  
2           stating their conclusion that the facility and staff were  
3           ready to restart. Earlier this week we agreed with NYPA  
4           that sufficient progress had been made to restart and resume  
5           operations of the plant.

6           In summary, although some performance problems  
7           have been observed, we have seen performance improvements in  
8           all functional areas at Indian Point 3. The licensee's  
9           restart and continuous improvement plan remains in effect.

10           Clearly a number of significant challenges remain,  
11           including start-up, power ascension and achieving reliable,  
12           event-free operations.

13           The NRC has received the licensee's letter stating  
14           their readiness to restart the unit and the NRC staff has  
15           concluded that sufficient progress has been made to support  
16           safe plant operations.

17           In addition, the licensee has agreed to perform  
18           and report the results of two self-assessments during start-  
19           up, the first before exceeding 40 percent power. The second  
20           assessment will be performed before reaching full power.  
21           The results of this latter assessment will be discussed with  
22           the NRC in a meeting open to observation by the public.

23           The NRC has an augmented inspection plan and staff  
24           in place to monitor licensee restart and power ascension  
25           activities. At this time Indian Point 3 remains a category

1 2 facility, subject to close NRC monitoring.

2 Are there any questions?

3 COMMISSIONER ROGERS: Yes. You mentioned the  
4 large number of engineering design changes. 5,000, I think  
5 you said?

6 MR. THOMAS MARTIN: 500, sir.

7 COMMISSIONER ROGERS: Oh, 500. Still a large  
8 number. With these changes and other changes, how different  
9 is Indian Point 3 from Indian Point 2? They basically  
10 started out as identical plants, I believe, or virtually as  
11 sister plants, and how different are they now in terms of  
12 engineering systems, design, so on and so forth?

13 MR. THOMAS MARTIN: Commissioner, I can't give you  
14 a definite answer to that. There's been sharing of  
15 information between the two units, in fact, quite a bit of  
16 cooperation. And as problems were identified on Unit 3,  
17 they would go over and ask Unit 2, have they experienced  
18 similar problems and how they have dealt with it.

19 In some cases, I think the two plants have  
20 actually been brought together because the corrective  
21 actions that have been taken at Unit 2 was then cookie-  
22 cuttered at Unit 3, but we have not done the kind of  
23 comparison that would allow me to answer your question  
24 directly.

25 MR. TAYLOR: We could take a quick check on that.

1 We encouraged this cross-utility cooperation because they  
2 are essentially started as identical units.

3 COMMISSIONER ROGERS: We've talked about that, you  
4 know, in the past and I'm very pleased to hear that, you  
5 know, your observation that they are talking with each other  
6 and sharing information.

7 MR. TAYLOR: I believe that has considerably  
8 improved as a result of these experiences at Indian Point 3  
9 in the past several years. Wouldn't you say so, Tim?

10 MR. THOMAS MARTIN: Yes, sir.

11 MR. TAYLOR: And we encouraged it at the time  
12 Indian Point 3 was having numbers of issues and problems.  
13 We encouraged that, and I believe that has happened. Both  
14 utilities have worked more closely together.

15 COMMISSIONER ROGERS: Well, I'm pleased to hear  
16 that because that wasn't always the case.

17 MR. TAYLOR: No, it wasn't.

18 COMMISSIONER ROGERS: At one time there was  
19 essentially a wall between the two.

20 Also, while they're not on our lists, Fitzpatrick  
21 and Nine Mile Point are sister plants, as well, and again,  
22 Fitzpatrick's a New York Power Authority Plant and Nine Mile  
23 is a private utility, and we've also been talking in the  
24 past about whether they were sharing information. Does that  
25 extend to that pair of plants as well?

1 MR. THOMAS MARTIN: Commissioner Rogers, it does  
2 extent to that pair of plants. In fact, there has been a  
3 great deal of discussion on looking even at maybe a  
4 statewide operating company to combine other plants, too.

5 So they are looking for was to help each other.  
6 And, in particular, at the Fitzpatrick and Nine Mile Point  
7 sites, because they share a lot of personnel -- they have  
8 personnel that move back and forth between the sites --  
9 there is a good relationship there, and they have looked at  
10 sharing fire protection capabilities.

11 Recently, they've moved toward sharing off-site  
12 incident response facilities, and there's a great deal of  
13 cooperation where there are similarities and economy of  
14 scale would help.

15 COMMISSIONER ROGERS: Well, I'm very pleased to  
16 hear that and I would hope that wherever we can, in good  
17 conscience, we should support and encourage that kind of  
18 activity.

19 MR. THOMAS MARTIN: We do, sir.

20 COMMISSIONER ROGERS: Thank you.

21 MR. EBNETER: Good morning. Browns Ferry. Browns  
22 Ferry is a three-unit boiling water reactor plant owned and  
23 operated by the Tennessee Valley Authority. All three units  
24 were placed on the problem plant list as category 3 units in  
25 October of 1986. Unit 2 was designated by TVA as the lead

1 unit for recovery of the station.

2 Unit 2 received Commission approval to restart in  
3 May of 1991 and this unit is presently at 100 percent power  
4 and performing well.

5 Units 3 and 1 are shut down and defueled and are  
6 on the problem plant list as category 3 units. Unit 3  
7 recovery plant is patterned after the effective plan used on  
8 Unit 2. Unit 3 is in the late phase of recovery and is  
9 transitioning from construction-related activities to  
10 operational readiness and start-up efforts.

11 Construction of bulk commodities is over 90  
12 percent complete, with major emphasis on cable replacement  
13 and installation. Quality of the construction is  
14 essentially good at the station.

15 There has been an effective interface between the  
16 design, construction, quality organization. Quality  
17 assurance and management oversight have been pro-active and  
18 aggressive in assuring that the recovery activities meet  
19 quality requirements.

20 Licensee root cause and corrective action programs  
21 have been effective in defining the scope of problems,  
22 deficient conditions and prevention of recurrence. No major  
23 deficient conditions are outstanding at Browns Ferry 3 and  
24 there are no indications of significant emergent work that  
25 could impact the recovery schedule.

1           System turn-over, as in area turn-overs, are  
2 generally good and are on schedule. System test turn-overs  
3 have not revealed any major construction deficiencies. And  
4 material condition of Unit 3 improves and continues to  
5 improve as construction work declines.

6           TVA has planned extensive self-assessment of  
7 readiness for pre-op start-up. Early self-assessments have  
8 generally been positive, and we think they have done a good  
9 job on those and they are consistent with the NRC findings.

10           The NRC has established a restart panel and this  
11 has both regional and headquarters representation to oversee  
12 the restart activities. We do have monthly status meetings  
13 with TVA on the restart.

14           The NRC monitoring of recovery and restart is  
15 consistent with the TVA schedule. There are no major  
16 outstanding licensing or inspection activities or other  
17 issues with Unit 3.

18           The generally efficient and trouble-free recovery  
19 of Unit 3 can be attributed to the use of the proven  
20 designs, programs and procedures that were utilized on the  
21 successful recovery of Unit 2.

22           Unit 3 fuel load is scheduled for late October  
23 1995, criticality for December and power ascension  
24 completion should be done by February of 1996.

25           There have been no major activities on the

1 recovery of Unit 1. TVA is reviewing Unit 1 in conjunction  
2 with their integrated resource plan, and that is due to be  
3 out in January of 1996.

4 Are there any questions on Browns Ferry?

5 [No response.]

6 MR. JOHN MARTIN: I'll speak to two plants --  
7 Dresden and Quad Cities.

8 Dresden was placed on the problem plant list for  
9 the first time in June of 1987. An NRC diagnostic  
10 inspection was performed and COMED responded with the  
11 Dresden station improvement plan later in 1987.

12 The plant was removed from the problem plant list  
13 in December of 1988. Problems with plant performance  
14 appeared again in late 1990 and the plant was returned to  
15 the problem plant list in January of 1992.

16 Over the past year, performance at Dresden has  
17 been cyclical. Through the first half of 1994, performance  
18 at Dresden improved in most areas but improvements were  
19 uneven and overall progress was slow.

20 In August of 1994, Unit 3 tripped during a restart  
21 from an outage. The cause of the trip was operator  
22 inattention, resulting in low water level in the reactor  
23 vessel.

24 At about the same time, Unit 2 was shut down due  
25 to multiple equipment problems with the high pressure safety

1 injection system that rendered it inoperable.

2 COMED management decided to keep both plants shut  
3 down for a period of operator retraining, selected material  
4 condition repairs and radiological condition improvements.

5 During the extended shutdown, station efforts were  
6 focussed on establishing new performance standards.  
7 Positive results were seen, including a reduction in the  
8 number of operator work-arounds, establishment of clearer  
9 operator expectations, a reduction in plant contaminated  
10 areas and an error-free restart of both plants.

11 The momentum developed in the latter half of 1994  
12 has not been maintained. Failure to follow procedures and  
13 to comply with technical specification limits has again been  
14 a problem. In January 1995, for example, a Unit 2  
15 recirculation pump tripped due to a technician error. The  
16 plant staff restarted the pump, in violation of the  
17 operating procedure and the technical specifications,  
18 despite the urging of a quality assurance auditor to stop  
19 and resolve the conflicts. Management recognition and  
20 response to this event was weak.

21 Plant material condition remains a problem at  
22 Dresden. Limited improvements have been made, but the  
23 underlying problems with assessing problems, correcting  
24 plant material condition deficiencies, getting them worked  
25 off and tested has not been effectively addressed. An

1 effective work management process to deal with the  
2 corrective maintenance backlog is needed.

3 The details supporting the above conclusions were  
4 discussed with Dresden's station and COMED management during  
5 the latest Dresden SALP meeting on May 12. COMED replied to  
6 the SALP report on June 2. In the reply, COMED agreed with  
7 the SALP assessment and outlined further actions they plan  
8 to take to recapture lost momentum and provide the basis for  
9 further improvements.

10 In summary, Dresden's performance has not  
11 demonstrated that the root causes of basic performance  
12 problems have been corrected. Accordingly, Dresden will  
13 continue as a category 2 plant.

14 COMMISSIONER ROGERS: In retrospect, if you go  
15 back to 1988, do you think that taking Dresden at that point  
16 off the watch list was a premature decision on our part?

17 MR. RUSSELL: Yes.

18 MR. JOHN MARTIN: I think it was, yes.

19 COMMISSIONER ROGERS: Could we understand that  
20 kind of a situation better today, so that we wouldn't take  
21 them off?

22 MR. JOHN MARTIN: I would have to say I hope so.  
23 I think the key here is that sometimes we need to  
24 distinguish between a run of good luck and have fundamental  
25 problems been addressed, and I think, in retrospect, the

1 fundamentals had not been addressed, and it came back again.

2 MR. RUSSELL: I would like to comment  
3 programmatically. After that experience we carefully  
4 relooked at what should be the criteria for removing a plant  
5 from the problem plant list, and we actually went through a  
6 rigorous review to identify the attributes which should be  
7 reviewed and we actually go through and develop a matrix  
8 against these questions and look for the evidence to be able  
9 to conclude, in each case, that the processes and procedures  
10 have, in fact, been changed.

11 Most cases, and I think Dresden is an exception  
12 but we've have some other facilities that have taken quite a  
13 long time to turn around performance, but in most cases, the  
14 time frame to turn around performance is something on the  
15 order of 12, 18, 24 months. But we've concluded you must  
16 see a period of performance following that to be able to  
17 objectively conclude that, in fact, conditions have changed.

18 And so it's not just seeing a motion, but it's  
19 actually seeing the results of that motion. And we have  
20 become quite careful in reaching conclusions that  
21 performance has, in fact, improved to the point where the  
22 facility is no longer deserving of agency close monitoring.

23 This includes, for example, on two-unit sites, a  
24 period of operation with both units, to ensure that the  
25 issues are able to be addressed with dual-unit operation.

1           CHAIRMAN SELIN: Dresden has been on this list for  
2 so long that rather than ask the same questions about it --  
3 are they getting a little better or a little worse -- I  
4 really only have one question. Has management, from the top  
5 of Commonwealth down to the site, gotten comfortable with  
6 being on the list or do you see a real desire to get the  
7 problems cleaned up, get Dresden off?

8           MR. JOHN MARTIN: Oh, I think there's a desire to  
9 get them cleaned up.

10          CHAIRMAN SELIN: Then there should be some  
11 progress because they've shown they can do this in other  
12 plants where the problems were at least as bad as  
13 Dresden's -- the recent improvements in Quad Cities, the  
14 long-term improvements in Zion. I'm most concerned about  
15 the complacency or coming to accept this as being, you know,  
16 just something -- the neuralgia is becoming dull there after  
17 a while and I'm pleased to hear that answer.

18          COMMISSIONER JACKSON: Was the Dresden plan -- are  
19 the elements of the Dresden plan meant to address the  
20 problems that you've just outlined?

21          MR. JOHN MARTIN: Yes, they are. The Dresden plan  
22 today has been segmented to a series of short-term goals and  
23 objectives, and looking over what the plan is for the next 6  
24 to 12 months, it appears to me it addresses the issues.

25          The plan has never been the problem at Dresden.

1 The execution of the plan has been the problem, and  
2 endurance, to stick with it.

3 So I think the plan's fine. It's will they be  
4 able to stick to it and actually perform it the next year or  
5 so?

6 MR. RUSSELL: The material condition issues, with  
7 the problems with the effectiveness of getting work  
8 completed, are going to take some time to address, probably  
9 on the order of two outages per unit. So this is not going  
10 to be a problem that is turned around quickly.

11 So a clear question becomes how effective  
12 management is in overseeing the problems that do arise, what  
13 kinds of actions do they take, particularly those which have  
14 implications or maybe precursors in how the company actually  
15 addresses those. This is going to be a relatively long  
16 period, and it's not going to be a quick turn-around.  
17 Material condition had substantially degraded at the  
18 station.

19 This is an issue I'll be talking about in the  
20 context of what are the lessons learned from the program,  
21 when we talk about the inspection programs in just a minute.

22 Basically, when it degrades as far as Dresden was  
23 allowed to degrade, it's going to take a long time to get it  
24 restored.

25 MR. JOHN MARTIN: I'll move on now to Quad Cities.

1 Adverse trends at Quad Cities station were discussed at each  
2 senior management meeting since January 1994. The major  
3 issues in the past have mainly involved poor plant material  
4 condition resulting from inadequacies in technical  
5 capability, maintenance, and work control. This has been  
6 aggravated by noncompliance with procedures and acceptance  
7 of poor plant material conditions by the operators.

8 The overall situation was assessed in an NRC  
9 diagnostic inspection in late 1993. Throughout 1994, some  
10 improvements were made but progress was slow.

11 During 1994, Quad Cities followed a path similar  
12 to that at Dresden. In early October 1994, technical  
13 specification differential temperature limits were exceeded  
14 during single loop operation due to operator inattention.

15 This required a shutdown of Unit 1. Meanwhile,  
16 several plant material condition problems with the scram  
17 pilot valves and the residual heat removal service water  
18 pump resulted in a COMED management decision to also shut  
19 down Unit 2.

20 During this dual-unit shutdown period, an  
21 intensive retraining program for the plant operators was  
22 undertaken, and selected operator work-arounds, plant  
23 material condition items and radiological protection  
24 improvements were addressed. Both units were restarted in  
25 December.

1           Most of the managers were replaced at that time  
2 with experienced managers from outside the COMED system.  
3 The new senior management team has been implaced at Quad  
4 Cities for most of 1995. The new management team has  
5 established a clear course of action for station improvement  
6 and has demonstrated firm commitment to enforcing  
7 expectations.

8           Much remains to be done to address material  
9 condition and human performance issues, but the fundamental  
10 building blocks for improvement appear to be in place.

11           Material condition, while still a significant  
12 problem, has been steadily improving. The scope of the  
13 spring '95 Unit 2 refueling outage was altered to address a  
14 significant number of important equipment reliability  
15 problems.

16           Positive steps are under way to improve a  
17 cumbersome work control process that is complicating efforts  
18 to reduce maintenance backlogs.

19           While there have been a number of personnel errors  
20 this year in procedural inherits and out-of-service tagging,  
21 management has swiftly and effectively dealt with them  
22 before they got to be big problems.

23           Strong steps were taken, for example, to improve  
24 supervisory oversight, accountability and rigor in control  
25 room operations.

1           Engineering resources have been increased and  
2 reorganized. However, continued management attention is  
3 needed to continue improvement in the technical support  
4 function.

5           Considering all these factors, the senior managers  
6 concluded that declining trends at the Quad City station  
7 appear to have been arrested in most areas, and COMED has  
8 been so advised.

9           MR. RUSSELL: Joe?

10          MR. CALLAN: Good morning. I'll be discussing one  
11 plant this morning. That's Nebraska Public Power District's  
12 Cooper Nuclear Station.

13          Cooper was identified as exhibiting an adverse  
14 trend in performance at the January 1994 senior management  
15 meeting. Then, just before the following senior management  
16 meeting in June, additional plant hardware and human  
17 performance problems were identified that led to an extended  
18 plant shutdown beginning on May 25, 1994.

19          At the June 1994 senior management meeting, the  
20 NRC's need for additional insights into the performance of  
21 the Cooper station was highlighted. To this end, AEOD  
22 established a special evaluation team, which was based on  
23 diagnostic evaluation team principles, that capitalized on  
24 NPPD's intention to conduct an independent self-assessment  
25 by industry peers.

1           This independent self-assessment, called a  
2 diagnostic self-assessment, was conducted during the summer  
3 of 1994 and the results were subsequently validated by the  
4 NRC's special evaluation team.

5           In retrospect, this dual effort was quite  
6 successful in identifying areas of performance weakness and,  
7 equally important, in helping NPPD to formulate effective  
8 corrective actions.

9           By the last senior management meeting, this past  
10 January, the NRC had noted some improvement in the  
11 performance areas of concern. NPPD already had implemented  
12 the first phase of a three-phase comprehensive performance  
13 improvement program. This first phase concentrated on  
14 short-term performance improvement actions necessary to  
15 support plant restart.

16           The NRC, meanwhile, had formed a restart oversight  
17 panel comprised of managers from both the region and NRR to  
18 coordinate inspection efforts necessary to verify that the  
19 identified restart issues were addressed.

20           Although there was tangible evidence that  
21 improvement was taking hold at the plant, both in terms of  
22 improved material condition and organizational performance,  
23 the staff determined that additional time was needed to  
24 establish that the corrective actions taken would be  
25 sustained.

1           This was essentially important since, by the time  
2 of the January 1995 senior management meeting, so many of  
3 the initial corrective actions were either on-going or just  
4 completed.

5           In early February of this year, a meeting open to  
6 public observation was held at Cooper for the purpose of  
7 reviewing the implementation of NPPD's actions to support  
8 restart and the results of the NRC's recent inspection  
9 activities. This meeting led to the staff's conclusion that  
10 overall performance at Cooper had improved sufficiently to  
11 support plant restart.

12           The plant restarted on February 9. The NRC  
13 maintained 24-hour inspection coverage during the period of  
14 start-up and power ascension, and maintained augmented  
15 inspection coverage for an extended period afterwards.

16           Our assessment of NRC inspection findings, as well  
17 as NPPD's own self-assessments, have further confirmed that  
18 overall performance at Cooper Nuclear Station has improved.  
19 In particular, the new management team has had success in  
20 instilling a new organizational climate that encouraged a  
21 questioning attitude, better teamwork among the various  
22 organizational entities, and a more rigorous approach to  
23 resolving problems.

24           Of particular note because of past weaknesses have  
25 been the relative effectiveness of the revitalized quality

1 assurance organization and the on-site and off-site safety  
2 review committees. Except for some hardware problems  
3 immediately after plant restart in February, the plant has  
4 presented few equipment challenges to the operators, and the  
5 plant has operated well.

6 Despite these and other encouraging signs, NPPD  
7 acknowledges that much work remains before the on-going  
8 improvements efforts result in a level of sustained  
9 performance that meets their expectations.

10 NPPD is currently completing its implementation of  
11 phase 2 of its three-phased performance improvement program.  
12 This phase concentrates on near-term improvements involving  
13 enhancing the conduct of operations, upgrading the  
14 surveillance testing program, improving engineering  
15 effectiveness, better planning and scheduling of work,  
16 improved management involvement in training, and more  
17 effective in-house assessments and corrective actions. Our  
18 inspections to date have confirmed progress in all these  
19 areas.

20 Phase 3 of this performance improvement program  
21 involves the long-term integration of the improvement  
22 process into their strategic business plan. This final  
23 phase is just beginning and will be crucial to the long-  
24 term sustainability of the performance improvement that  
25 we've noted.

1           In summary, the staff notes sufficient overall  
2   improvement in both plant material condition and  
3   organizational performance at Cooper Nuclear Station to  
4   conclude that the earlier identified adverse performance  
5   trends have been arrested.

6           Further, NPPD is implementing a comprehensive  
7   improvement program that should assure sustained improved  
8   performance. Progress to date has been encouraging in this  
9   regard. Are there any questions?

10           COMMISSIONER ROGERS: How is their financial  
11   situation? Are they strained with respect to resources to  
12   maintain the quality performance that they're hoping to  
13   sustain?

14           MR. CALLAN: Commissioner Rogers, again, I can't  
15   give you a definitive answer. I can just give you two data  
16   points. One is that we see no evidence of that through our  
17   inspection process. And the second is a recent flurry of  
18   media reports from the local newspapers that indicate that  
19   they are strong financially, and we've provided those  
20   newspaper articles to our public affairs staff. But I have  
21   no further information other than that.

22           COMMISSIONER ROGERS: But that doesn't appear to  
23   be a problem.

24           MR. CALLAN: We have seen no evidence of it to  
25   date.

1                   COMMISSIONER ROGERS: Their external oversight  
2 committee, does that have on it people from other parts of  
3 the country? I mean, it's external but to what extent does  
4 it reflect an up-to-date knowledge of how other plants are  
5 performing so that they can lean on the Cooper station  
6 people if they see adverse trends themselves?

7                   MR. CALLAN: You had asked a similar question in  
8 January, I recall.

9                   COMMISSIONER ROGERS: I guess I'm always concerned  
10 about plants that are somewhat off the beaten track.

11                  MR. CALLAN: Right. At that time, the issue of  
12 getting Cooper staff out to other sites was raised. There  
13 has been some movement in that area. That program has not  
14 been given top priority, understandably.

15                  Cooper is participating in some preliminary steps  
16 to join an industry consortium with some Midwest utilities  
17 that will help in that regard, but I think the most  
18 important thing that I can -- the most important factor has  
19 been the infusion of a large number of outside managers that  
20 go down to at least second level supervision. It's a very  
21 diverse and eclectic group of managers from sites throughout  
22 the country, and we've seen positive impact from that.

23                  COMMISSIONER ROGERS: Thank you.

24                  CHAIRMAN SELIN: Are you going to talk about this  
25 inspection process, on a generic basis?

1 MR. RUSSELL: Yes. And in fact, unless there are  
2 other questions, that's a good lead-in.

3 Let me just give you a little bit of background  
4 first. When we get together for our senior management  
5 meetings, we typically travel early, the day before. The  
6 regional administrators, the senior management of NRR, AEOD  
7 and, at this last meeting, NMSS, joined and we typically  
8 spend an afternoon and a long evening going over issues  
9 related to the inspection program and other issues related  
10 to programmatic oversight of issues.

11 We then take and summarize the results of those,  
12 usually spend a couple of hours at the senior management  
13 meeting discussing these, and the issue of the inspection  
14 program and where we're going with the inspection program  
15 has been a significant topic of discussion at the last two  
16 senior management meetings.

17 We have just issued to the Commission today a Secy  
18 paper which I will outline the major objectives for the  
19 inspection program and describe some of where we'll be  
20 going. But we will be briefing the Commission in detail on  
21 this on July 26.

22 By way of background, we have looked at the DETs  
23 from Quad Cities, the special inspection that was conducted  
24 at Cooper, to look backward in time to see whether these  
25 conditions could have been identified earlier.

1           We've also done a comprehensive review of the  
2 South Texas facility from construction through operation and  
3 the time of the DET at South Texas.

4           In addition, we've reviewed comments on the  
5 inspection program that were raised in the context of the  
6 Towers Perrin report and other draft reports from industry  
7 addressing plant performance. There have been many Secy  
8 papers that we've sent to the Commission that have addressed  
9 some of these issues.

10           We've also conducted some in-depth reviews of the  
11 inspection program from within NRR and also looked at  
12 inspection reports and the quality of the inspection  
13 reports. From that we've come up with three broad goals.  
14 If I could have slide 7, please.

15           The first goal of our inspection program is to  
16 ensure that the inspection activities are more performance-  
17 based. There are two aspects of this. First is to focus on  
18 results, rather than review of programs, and second is to do  
19 a better job of distribution of resources based upon  
20 performance.

21           We sent you a Commission paper just prior to the  
22 regulatory information conference where we identified  
23 inspection activities as a function of single-unit sites and  
24 dual-unit sites, and the fourth quartile performance  
25 consumes about 40 percent of the agency inspection

1 resources.

2 So we are making progress in distributing  
3 resources, but we feel we can actually improve this some  
4 more. Slide number 8, please.

5 The second major goal is to do a better job of  
6 integrating information; in particular, to use this to  
7 assess licensee performance. This will be broken into short  
8 term activity, medium term and longer term, and I'll discuss  
9 that in some more detail.

10 This is an area where we feel we are doing well,  
11 particularly if you look at what has been the results of the  
12 senior management meetings, in the context that we are  
13 identifying problem performance before it's revealed through  
14 events. What we want to do is identify the trends earlier  
15 so that action can be taken before conditions degrade, where  
16 it is such a significant effort to turn around performance.

17 And the third major goal, which is consistent with  
18 the action plan on implementing risk assessment techniques  
19 broadly within the staff, is to improve the use of risk  
20 insights to better focus our inspection activities to ensure  
21 that they are consistent with our objectives for safety  
22 performance.

23 COMMISSIONER DE PLANQUE: Before you go on looking  
24 at the information on the inspection hours, I'm pleased to  
25 see the distribution shifting to where the problems really

1 are. But if I look at the total number of hours per unit,  
2 you see about a 10 percent drop from 1988.

3 MR. RUSSELL: Yes.

4 COMMISSIONER DE PLANQUE: Is that, in your mind,  
5 commensurate with the improvements that we've seen in  
6 general in the plants? Is that balance about right?

7 MR. RUSSELL: Well, it's hard to use averages.

8 COMMISSIONER DE PLANQUE: I know.

9 MR. RUSSELL: That does reflect the average  
10 performance. I think there's actually been an increase in  
11 resources on the more marginal performers, which has masked  
12 that somewhat. The other aspect is that we have  
13 substantially reduced reliance on contractor resources to  
14 support inspection activities.

15 We are seeing reductions in the average inspection  
16 efforts, and I think that's as a result of performance. In  
17 fact, if you look at the top two quartiles, there's only a  
18 20 percent difference in the median inspection activity  
19 between the first and second quartile.

20 So the plants that are performing better are, in  
21 fact, getting less inspection activity at those facilities,  
22 and the plants near the bottom, the fourth quartile, are  
23 getting substantially more than the median overall.

24 We have been coming down. We're moving in this  
25 area very gradually because we see that there are some

1 things that we need to do to identify problems earlier. We  
2 were surprised by the South Texas results, by Quad Cities,  
3 by Cooper, and until we do a better job of assessing that  
4 information and identifying it earlier, I have concerns  
5 about what other plants may be potentially not receiving the  
6 level of focus, from an inspection standpoint, and are we  
7 really assessing their performance well?

8           COMMISSIONER JACKSON: I have two follow-on  
9 questions to Commissioner de Planque. In terms of resource  
10 use, as well as improved focus, you think that this improved  
11 use of risk insights will have impact in that regard?

12           MR. RUSSELL: We do, although it's going to take  
13 us probably two years or more to get to the point where we  
14 have both a trained core of staff to make better use of risk  
15 insights and inspection activities. We think this is  
16 clearly tied to the new maintenance rule, and what we've  
17 done, and endorsed through the regulatory guides for  
18 implementation of the maintenance rule, to use risk insights  
19 in identifying the more important systems and components in  
20 the plant which contribute to risk so that there is focus on  
21 those activities.

22           We've done some pilots to look at how risk  
23 insights are being used in managing plant configuration,  
24 particularly where utilities are voluntarily taking  
25 equipment out of service to perform preventive maintenance,

1 and we've found some weaknesses in that area which I have  
2 written to industry and Jim has written to each of the chief  
3 nuclear officers.

4 We believe, based upon the results of the  
5 inspections that were done last fall through the December  
6 time frame, that the industry is becoming more sensitive to  
7 issues of on-line maintenance, more sensitive to issues of  
8 reliability of important systems.

9 I think clearly the results at Quad Cities that  
10 Jack Martin talked about, with respect to their spring  
11 outage, they had focussed on a few very large ticket  
12 resource-intensive activities for that outage. They had  
13 Torus coating work to do to drain down the Torus,  
14 replacement of reactor water clean-up piping and some other  
15 activities, but they had not really focussed on a few  
16 systems that were contributing to unreliability.

17 Station management identified those issues,  
18 identified four systems that had been problems by way of  
19 performance, and they shifted resources and management focus  
20 to those systems.

21 So just as the staff is starting to look at these  
22 kinds of issues, we're seeing some indications that the  
23 industry is shifting their focus to address reliability of  
24 important trains and structures.

25 MR. THOMAS MARTIN: Commissioner, to give you an

1 example of how we've used this, the ratting inspection for  
2 Indian Point 3 looked at risk insights that came out of the  
3 IPE, identified the fact that the ventilation system for the  
4 auxiliary feedwater building was a risk-significant system,  
5 did an inspection there that would not normally have  
6 focussed on that area, found out that the controllers for  
7 the fans and the dampers were not subject to any  
8 surveillance, actually found that the set point for when the  
9 fans come on was not per drawings and that the system had  
10 not been subject to any impact testing.

11 That was, we thought, a fairly significant insight  
12 that came from the inspection activity that wouldn't have  
13 been looked at had we not come from an IPE risk insight.

14 COMMISSIONER JACKSON: Let me ask one other  
15 question. You talked about integrating all objective  
16 information. Do you feel that, with the way you're doing  
17 your reactor inspection program goals, that you're giving  
18 adequate consideration to multi-unit sites, where there  
19 could be differences between the unit performance and that  
20 the performance of one does not mask that of the other,  
21 either way, whether we're talking positively or negatively,  
22 to cause you to reach erroneous conclusions?

23 MR. RUSSELL: You just hit an emotional issues  
24 with many of the managers at the table. Jim?

25 COMMISSIONER JACKSON: Well, I didn't mean to --

1 [Laughter.]

2 MR. RUSSELL: We have seen cases where we have not  
3 recognized substantial differences between performance of  
4 units on the same site, where, in particular if the units  
5 are different in design, and I go back to Arkansas with two  
6 units on-site several years ago, or to the situation  
7 currently at the Millstone station, where we see substantial  
8 differences in Millstone 2 performance from what exists at  
9 3, in particular, but also 1.

10 And, in the past, we had looked at some of the  
11 management programs, and if we saw successful performance of  
12 one unit, we thought that that would be transposed to the  
13 other units, but we are seeing cases where management  
14 activities actually create competition between the units and  
15 in some instances create barriers to communications between  
16 the units.

17 And so we're starting to look at that as a part of  
18 our program, to try and understand if there are, in fact,  
19 differences in performance at the units. And that's part of  
20 the intended activity we have going on now.

21 One other generic activity as it relates to using  
22 risk insights, and this is one that we're seeing more of  
23 through the industry, particularly as they start to  
24 implement the maintenance rule, air systems, and  
25 particularly control air systems which often come from

1 service air systems, are used in many plants to control  
2 balance-of-plant equipment, whether it is valve position or  
3 control of feedwater heaters, things like that.

4           These systems, in the past, had not been  
5 maintained as well as they could, yet most of the risk  
6 insights show that this is a very significant contributor to  
7 transients, to loss of feedwater flow and things like that.  
8 We're seeing generally an upgrading of the air systems in  
9 the plants as people start to implement the new maintenance  
10 rules.

11           So this is one the longer term goals. It's going  
12 to take us a while to get there. We've tried some pilots on  
13 how to use this that have indicated to us we still have a  
14 long way to go, but it's going to continue to receive focus  
15 over the next two or three years.

16           What I'd like to do now is shift from the goals to  
17 talk about a few specific areas and how these fit together.  
18 I'll talk about the SALP process, the plant performance  
19 review, inspection reports and tools which we use to assist  
20 the inspectors, and also a conclusion slide. Slide 9,  
21 please.

22           The SALP process. SALP, particularly as we have  
23 redirected it to provide a management focus within  
24 individuals that have a broader perspective, we think has  
25 been quite effective. We've seen improvements in

1 communication with licensees through the SALP board  
2 meetings, where there's actually a two-way dialogue  
3 occurring, and in the quality of the SALP reports.

4           However, with the streamlining that's going on and  
5 the reduction in management resources, we've concluded that  
6 we have to look at this process, and we're looking at going  
7 to three managers for the SALP board, two from the regions,  
8 projects and technical division director, and a project  
9 director from NRR.

10           We also have concluded that we should not have a  
11 goal of an arbitrary average for the length of a SALP  
12 inspection, that it should vary between 12 months to 24  
13 months, 12 months generally being for a plant where you have  
14 performance concerns. Those plants would typically get more  
15 inspection activity, so you would have more information to  
16 review and to evaluate in a shorter period of time. And  
17 obviously, for the plants which are recognized as superior  
18 performers, to go to a 24-month SALP cycle.

19           So we want to retain the flexibility to schedule  
20 SALPs within a 12- to 24-month period.

21           We also recognize that with streamlining, there's  
22 going to be more of a burden on the regions, and doing  
23 multiple SALP reviews in a particular month would be  
24 difficult from the standpoint of the resource implication on  
25 the managers. So we recognize that a goal of, on average,

1 about one per month in a region would be appropriate so that  
2 there could be an appropriate focus on the performance at  
3 that facility.

4 We also want to clarify the relationship between  
5 SALP and the periodic performance reviews which are done.  
6 SALP is a broad review by managers of licensee performance.  
7 It's intended to be a vehicle to effectively communicate  
8 with the licensees and broadly allocate resources by way of  
9 functional areas that may need attention.

10 The plant performance review is the actual process  
11 that is used each six months to allocate specific resources.  
12 So while the SALP may identify a concern, for example, in  
13 maintenance at a facility, the actual allocation of  
14 resources to inspect maintenance and identification of which  
15 modules or which procedures to be used, would be done  
16 through the plant performance review process. Slide number  
17 10, please.

18 Plant performance reviews, which are conducted at  
19 least each six months in the regions, and which currently  
20 have a little bit different character in each region; this  
21 is one where we have identified broadly what are the goals  
22 and objectives of a plant performance review, and that is to  
23 use objective information from inspection reports, licensee  
24 event reports, performance indicators. We have not  
25 constrained the process at this point in time as to how it's

1 conducted within each region.

2           There are slight differences internally. We  
3 intend to exchange information between the regions as to  
4 what works more effectively within the regions and to, in  
5 fact, provide results on at least two plant performance  
6 reviews in each region amongst the other regions. And when  
7 we get together for the screening meetings this fall, we  
8 will actually review the results of those plant performance  
9 reviews and see how some of the information has been  
10 objectively evaluated.

11           We anticipate that by the time of the next senior  
12 management meeting, we will have had enough experience that  
13 we will be able to decide on how to structure the process so  
14 that there is consistency between the regions in performing  
15 these evaluations.

16           For example, one of the things we found, we use  
17 about a 12-month period of information. And if you think  
18 about just taking inspection reports and licensee event  
19 reports -- use a yellow highlighter and go through and  
20 identify the significant issues, and then you just have a  
21 chronology of what those issues are and you group them into  
22 hardware, equipment issues, or people issues, you start to  
23 develop the background information that would be appropriate  
24 to assess.

25           There are slightly different approaches being

1 taken as to how one then integrates that information to  
2 address issues, whether it's related to engineering,  
3 maintenance, operations or plant support. And that's the  
4 part of the internal analysis that we're still working on.

5 There is clear agreement amongst all the regions  
6 as to how we're using objective information to reach those  
7 conclusions.

8 The next thing that is significant, and this is  
9 something that's been going on now for several months, and  
10 that is following the plant performance review process,  
11 we're actually issuing the planned inspection activities for  
12 the next six months to the licensees. Not necessarily the  
13 schedule as to when the activity will occur, but what are  
14 the areas to be looked at with the region-based inspectors  
15 or headquarters inspectors?

16 The objective here is that you should be able to  
17 answer the question of why is this inspection being  
18 conducted? Is it being conducted because there's a  
19 performance concern on the part of the NRC, or is it being  
20 conducted because we don't know enough information to make a  
21 judgment on performance? But there ought to be a dialogue  
22 back and forth between the utility and the region as it  
23 relates to the rationale for the inspection activities.

24 And then lastly, we want to coordinate the plant  
25 performance review process and the senior management

1 screening meetings. Each six months we meet, one region at  
2 a time, here in Washington, and review the information on  
3 each facility to make judgments about which facility should  
4 be discussed at the senior management meeting, both those on  
5 the two extremes; that is, the potential candidates for  
6 superior performance, as well as those which we may have  
7 concerns about regarding trending and/or potential concerns  
8 which would require close overall agency monitoring. Slide  
9 11, please.

10 Inspection reports. This is a topic that's not  
11 had a lot of discussion in the past but just by way of  
12 background, we issue, on average, 25 to 30 inspection  
13 reports per plant per year. Some of these are very narrow.  
14 They may address a health physics inspection activity at a  
15 facility. It may be broad, with the resident's monthly  
16 report on all the activities conducted over a month.

17 In reviewing inspection reports in each region,  
18 and some issued by headquarters, we've found that the  
19 threshold for identification of issues to be followed up in  
20 inspection reports is not consistent.

21 We've also had some concerns fed back from  
22 licensees that there may be apparent differences between  
23 information communicated at an exit following an inspection  
24 and what they actually read in the inspection report at the  
25 time the inspection report is issued.

1           And we've identified some inconsistencies, region  
2 to region, in how issues are identified for follow-up or for  
3 potential treatment through the context of enforcement.

4           Each of these are areas that we've recently  
5 provided some feedback. It's an area that is going to  
6 receive emphasis within the regions because we feel that the  
7 inspection report is an important tool for communicating  
8 short-term concerns and issues from inspection findings.  
9 And I'll talk about some pilots that we have on-going to  
10 address improvement in the quality of inspection reports.

11           With respect to tracking systems, this is an area  
12 that we get a lot of feedback, both from the inspectors and,  
13 in some cases, from the public on some of the tracking  
14 systems we have, the quality of the information in them and  
15 the cumbersomeness of some of the automated tools that we  
16 use and electronic information exchange.

17           We're looking at whether there are some commercial  
18 packages available that would be more effective in doing  
19 this, that could be done on a local basis, rather than a  
20 central processing basis, to make this more efficient so  
21 that we can, in fact, use this more as a planning tool, both  
22 for following up on inspection findings, for enforcement  
23 tracking, and for planning inspection activities and  
24 allocation of resources.

25           COMMISSIONER JACKSON: Are you also looking at the

1 numbers of different tracking systems?

2 MR. RUSSELL: Yes. We have at least three now,  
3 and there is some duplication between those, and we're  
4 looking at how we can integrate those and potentially get to  
5 the point where we're using a similar system in NRR for  
6 tracking licensing actions, because there's, in fact, from a  
7 work planning standpoint, there's a chunk of work to do a  
8 licensing action, there's a chunk of work to do an  
9 inspection or to follow up on an inspection item, and we'd  
10 like to get it to the point where the same kinds of tools  
11 and processes are being used for both.

12 COMMISSIONER JACKSON: At the actual inspector  
13 level, do inspectors from one region ever participate as  
14 peers on inspections in another region?

15 MR. RUSSELL: Yes. That's done fairly frequently.  
16 As Tim mentioned, it was just done with the Indian Point 3  
17 readiness inspection, where we used inspectors from all the  
18 regions. But we do encourage that. In fact, it's  
19 sometimes --

20 COMMISSIONER JACKSON: I'm talking about on a more  
21 routine basis.

22 MR. RUSSELL: On a more routine basis, generally  
23 the inspections, I think, are within the region. There are  
24 special cases where you want to have a different  
25 perspective, where you either use inspectors from

1 headquarters, and there are some specialist areas where you  
2 may have the resource only in one region or in headquarters,  
3 and you'd want to use that activity in another region.

4 COMMISSIONER ROGERS: This 25 to 30 inspection  
5 reports per year, I don't know how to measure whether that's  
6 a lot or a few. I mean, it sounds like a lot to me, but it  
7 depends on what they are. To what extent do we indicate how  
8 important these reports are relative to each other?

9 In other words, with 30 reports, and they're  
10 dribbling in over a period of a year, you get an inspection  
11 report from the NRC and, "Well, we'd better do something  
12 about this." And then, you know, another week later you get  
13 another inspection report on something else, and another  
14 week later you get something on something else, and the  
15 question is, well, how do you allocate your priorities and  
16 resources? Which -- should you have dealt with the one you  
17 got first as the highest priority or does that turn out to  
18 be maybe relatively low priority compared to some of the  
19 others?

20 So do we have some way of indicating, on these  
21 reports, just how important they are? I think, Mr. Martin,  
22 the last time I was out visiting you, you were talking to me  
23 about trying to give some information to licensees about  
24 what we really think are important issues. I wonder whether  
25 that --

1           MR. JOHN MARTIN: I could talk about that a little  
2 bit. I think what I've found, in trying to sift through  
3 this integration program, one of the confusing factors was  
4 the large number of inspection reports from different  
5 organizational units within the region. And we essentially  
6 were leaving it up to the licensee to integrate what it all  
7 meant during the course of a year, and that didn't always  
8 match up at the end with our overall perception.

9           So what we've done, and I think others are  
10 considering this at about half the plants in the region, is  
11 to simply have a single report that's issued every six weeks  
12 or so that covers all of our activities, so that it allows  
13 you to have a single report with a high quality exit  
14 interview and then we can integrate what we think all this  
15 means and discuss it at the exit interview, rather than  
16 leaving it up to the licensee to figure it all out.

17           So that's one way to attack this problem, and the  
18 feedback I've gotten is that that's much preferable to what  
19 we were doing.

20           MR. THOMAS MARTIN: Let me add, Commissioner, that  
21 obviously the problems we identify are but a small subset of  
22 what their own staff identifies. And we could not  
23 prioritize our activities relative to theirs because it's a  
24 usually much larger base and they certainly are in a much  
25 better position to prioritize all the activities that they

1 must address.

2           So we, like Jack, are conducting a couple of  
3 pilots,. one focussing on trying to bring the inspection  
4 reports together in a single document so that the  
5 perspective on the relative significance of the findings and  
6 the consistency of the message is maintained, so that we  
7 don't send a bad message to the licensee.

8           The other pilot we're doing is we have established  
9 a document internally that is really a product of the plant  
10 performance review that is required reading by the  
11 inspectors prior to going into the field, so they know what  
12 the current perspectives are on that licensee's performance  
13 and what are the identified issues of concern? And so in  
14 their own inspection activities, they understand how their  
15 findings fit into that larger picture.

16           And then the individual inspection reports, which  
17 are not under the larger pilot, are required to be reviewed  
18 by the project organization to make sure we're not sending  
19 an inconsistent message, that we haven't said one thing one  
20 month and said something quite different another month  
21 without resolving that there really is a change in  
22 performance here.

23           But again, when I look at the corrective action  
24 systems that these licensees have, our input into those is  
25 but a small part of the problems being identified. And they

1 have to prioritize and address them all.

2 COMMISSIONER ROGERS: I'm sure that's true but,  
3 you know, one of the problems that we're all aware of and we  
4 were aware of before the Towers Perrin report was, that  
5 there has been an overreaction on some licensees to any kind  
6 of NRC findings, whatever they were, and that somehow a  
7 rational approach to the use of their resources, to hitting  
8 the most important things in the most effective way, is  
9 something that we want to be a part of, I would think.

10 And I'm just trying to find out, you know, what  
11 ways exist to try to improve that situation -- through  
12 communication, through some kind of review process. You  
13 know, you've touched on some tools here that might be used.  
14 But it does seem to me that that's an important area for us  
15 to continue to work on.

16 MR. RUSSELL: And I think it's one of the areas  
17 that is consistent with our goals. We've had inspections  
18 that have been done essentially with the inspection being  
19 completed, the findings from the inspection, issuing the  
20 inspection report without integration of what that means.

21 In the past, the tools have been essentially to  
22 highlight, in the cover letter for the inspection report,  
23 what were the management concerns regarding that issue, and  
24 generally you could tell from the level of signature within  
25 the NRC how serious the issue was as far as a tool to

1 communicate.

2 We need to get beyond that and do a better job of  
3 integrating the facts. And frankly, if they weren't  
4 integrated within the projects' technical organizations  
5 within the regions, which had their own reporting chains up  
6 to the division director level, which would leave the  
7 integration up to the regional administrator to perform, or  
8 integrated by the resident on-site, who sees all of the  
9 inspection reports, to try and make some sense out of it, we  
10 found that we were just not doing as effective a job of  
11 integrating and sending a consistent message to the  
12 licensees.

13 CHAIRMAN SELIN: I believe there are two somewhat  
14 different issues that are being addressed. One is this  
15 question of how do we go about doing an overall evaluation  
16 of a plant, substantive questions about how do we tie these  
17 different evaluations, and you have a briefing scheduled in  
18 a month or so --

19 MR. RUSSELL: Yes.

20 CHAIRMAN SELIN: -- to go through that --

21 MR. RUSSELL: The 26th.

22 CHAIRMAN SELIN: -- of which this is a sample, and  
23 I think it's very good that you've laid it out from the top  
24 down. Commissioner Rogers' questions are very helpful to  
25 sharpen some of the focus on how do we communicate with the

1 individual licensee.

2           The second is the overall process by which we  
3 evaluate a plant, not so much in the sense of telling each  
4 licensee, "Here are your strong points and your weak points"  
5 and what to do about it, but to do these overall  
6 evaluations, which lead to resource allocations, in extreme  
7 cases can lead to pieces.

8           And I think we haven't done as good a job yet as  
9 we need to do in laying this out for the public. You have a  
10 slide here. You know, we have a lot of different places --  
11 the role of the senior management meeting, the role of SALP,  
12 the role of this.

13           I think it would be very, very helpful if you did  
14 a tutorial document at some point, a short document that  
15 just says, "Here's the process, here's the role of each of  
16 these processes." And, in particular, continue to shed a  
17 little more light than has been shed on the role of the  
18 senior management meeting in how are plants nominated for  
19 selection, what kind of reviews are done before the meeting,  
20 what kind of things are taken on at the meeting?

21           I don't think it's a good idea that there be too  
22 much publicity as to which plants will be considered and  
23 which ones were considered and not found with problems, but  
24 I think the process has to be laid out in a single document.

25           So I see two separate processes. One is the

1 inspection process per se, which you've, I think, done quite  
2 a good job here, especially with answers to some of the  
3 Commission questions. Then the second is the overall  
4 evaluation process and the role of the different pieces; in  
5 particular, the role of the senior management meeting --  
6 what happens at the meeting, what's done in preparation for  
7 the meeting?

8 Let me rephrase this. It's not the role of the  
9 senior management meeting. It's the overall process into  
10 which the role of the senior management meeting is imbedded.  
11 And I think there's been quite satisfactory progress in  
12 bringing openness to this process, but it would be very  
13 useful if you could boil it down, condense this, and put it  
14 in a single document.

15 MR. RUSSELL: We have plans to do that. While the  
16 Commission meeting that's scheduled for July will address  
17 how some of these pieces fit together, the plans are by fall  
18 to have identified this and actually put together either a  
19 revision to the inspection manual or to characterize how all  
20 these pieces fit together in one document, recognizing that  
21 there is some change going on because we're trying to decide  
22 what are the most effective ways to do this.

23 And we would anticipate that while we'll put out  
24 information as to what are the areas that are still  
25 undergoing change and where are we going, we anticipate

1 putting this together in the form of a directive to identify  
2 how this whole process fits together.

3 CHAIRMAN SELIN: I think we'd best move on, to  
4 make sure we get to the two substantive issues.

5 MR. RUSSELL: If I could have slide number 12,  
6 I'll just quickly run through the last one. I think we've  
7 covered most of it.

8 We've talked about the inspection reports. Those  
9 are basically vehicles for communicating in the short term,  
10 on the average of monthly, with licensees.

11 In the mid-term, from the standpoint of  
12 communications, we have started to issue the inspection  
13 schedules that fall out of the periodic performance reviews.  
14 We also have screening meetings and then the senior  
15 management meetings, which look at the extremes of  
16 performance regarding plants.

17 In the longer term, we have two issues. One is  
18 the SALP process, which is the management review, which we  
19 discussed, and the other is the integrated performance  
20 assessment program. This would be an inspection activity  
21 that would be conducted in four phases, approximately once  
22 each four years, using inspectors who are independent of the  
23 normal inspection activities at that site.

24 The emphasis in this inspection process is upon  
25 the effectiveness of the licensees in identifying problems

1 through a self-assessment process and evaluating the  
2 effectiveness, over time, of the corrective actions that are  
3 taken, and identifying areas for future inspection.

4 And this is described in some detail. We'll go  
5 into a much more detailed briefing for the Commission later  
6 in July on that program. Slide number 13.

7 I won't cover the steam generator issues. We just  
8 briefed the Commission, and basically the discussion at the  
9 senior management meeting was to make sure all the managers  
10 had the same information that we had briefed the Commission  
11 on and what our plans were and where we were going.

12 As it relates to pressure vessels, we last briefed  
13 the Commission on Secy 94-267, where we discussed the early  
14 emerging issues associated with the Palisades vessel. Since  
15 then we've had two Secy papers that we issued in earlier  
16 May. One was information to the Commission regarding the  
17 plans to issue supplement 1 to generic letter 92-01, which  
18 was a direct follow-up to the earlier briefing that we gave  
19 to the Commission, and the second was what I would  
20 characterize putting the vessel issues into perspective.

21 We conducted a review, applying the Palisades  
22 information to other vessels, based upon all the information  
23 we had, and we identified that we have four years until the  
24 first vessel would start to reach problems with the current  
25 PTS rule.

1           That limiting vessel is the Palisades vessel, and  
2 we've also had meetings with Kewaunee and Ginna, and that  
3 safety evaluation put into context what is the current  
4 status of plants.

5           And while there are now a number of plants that  
6 may exceed the PTS screening criteria before their end of  
7 life, we have the next four years to look at this issue and  
8 put it in context.

9           COMMISSIONER DE PLANQUE: Bill, I noticed in your  
10 report I think you used generic values of chemical  
11 composition. How does that --

12           MR. RUSSELL: Yes, we did. The issue that's new  
13 is that we find that the variability in weld chemistry  
14 during the original fabrication of the vessel is much  
15 greater than we had anticipated. We have quite a bit of  
16 data from testing of surveillance specimen as to how the  
17 specimen behave under irradiation, and of course you sample  
18 those specimen and you determine what the chemical  
19 composition of the specimen is.

20           So we know the back side. That is, if you have  
21 knowledge of the chemical composition and the amount of  
22 neutron fluence, you can identify what is the change in the  
23 sharp energy or the toughness of the specimen. What we're  
24 finding now is that there's quite a bit of uncertainty as to  
25 what were the original properties, particularly of the

1 welds.

2           What we've encouraged is for the licensees to  
3 share information, particularly with sister vessels or  
4 vessels that may have been made around the same time, and  
5 progress is being made in that area.

6           So when I last reported to the Commission, I was  
7 concerned that there was not an open exchange of  
8 information, issues associated with some licensees treating  
9 it as proprietary and not sharing it with others or with  
10 vendors. That appears to have turned around. There is now  
11 an industry activity to share that information, and we've  
12 been encouraged by the leadership of the CE Owners Group,  
13 particularly executives of that owners group, where they're  
14 bringing others into it.

15           So I believe that the responses that come in in 90  
16 days will be ones which will identify how they intend to  
17 share information, to better identify what are the  
18 parameters as to variability of initial fabrication of  
19 vessels, and particularly the welds of the vessels.

20           We have met with the Ginna licensee, and based  
21 upon the information identified, Ginna has agreed to perform  
22 a revised PTS assessment and to submit it to the staff.  
23 We'll have a public workshop on reactor pressure vessel  
24 integrity issues to be held in July. And if I could have  
25 slide 15?

1           CHAIRMAN SELIN: I find this chart somewhat  
2 confusing. In particular, I don't understand the  
3 relationship between the annealing rule and the actual  
4 project to do annealing at Palisades. Is the rule  
5 sufficient to support that?

6           MR. RUSSELL: I will try and identify -- the rule,  
7 of course, is pending with the Commission, and the staff has  
8 made a recommendation as to how to handle this procedurally.

9           The issues that are involved, from a technical  
10 standpoint, are essentially whether the annealing process  
11 itself, which creates a potential for substantial stresses,  
12 particularly in the nozzle area or for attached piping, or  
13 could potentially cause subclad cracking to become worse as  
14 a result of the thermal annealing process, those questions  
15 relate mainly to whether or not you damage the vessel or the  
16 attached piping as a result of performing the activity.

17           The annealing demonstrations are to attempt to  
18 benchmark that process, because the annealing that's been  
19 done overseas, there's a greater separation between the belt  
20 line area and where the nozzles and the attached piping are.

21           COMMISSIONER ROGERS: Just by the fundamental  
22 difference in design?

23           MR. RUSSELL: Fundamental differences in design.  
24 Physical spacing. You have a taller vessel, the area that  
25 you're concerned about heating up is lower down in some of

1 the Russian-designed reactors, so that you don't have the  
2 same thermal stresses up around the nozzle region. That's  
3 not the case in U.S. light water reactors.

4 The purpose of the demonstration is to address  
5 questions about thermal stress, the process itself, and  
6 whether there is a potential for causing damage to the  
7 vessel.

8 Once those have been done, and assuming that the  
9 computer codes and the other activities, the modeling, are  
10 confirmed by those tests, we would expect that there would  
11 be generic topical reports on each of the processes. The  
12 staff would be able to review those and conclude that  
13 they're acceptable for referencing in an actual application.  
14 That would essentially address the concerns with a potential  
15 for an unreviewed safety question.

16 Absent that, you'd have to project and to put  
17 together technical arguments as to the annealing process and  
18 why this either does or does not constitute an unreviewed  
19 safety question. If it is an unreviewed safety question,  
20 then the current processes and procedures would provide that  
21 it would need to be handled through an amendment process.

22 That amendment process would require an evaluation  
23 as to whether there is or is not a significant hazard  
24 consideration associated with it.

25 If we make a final no significant hazards

1 consideration and there is a request for a proceeding, then  
2 the proceeding would not be a bar to going forward with the  
3 amendment approving the process. The proceeding would be  
4 after that process. That's the standard approach that we  
5 have in licensing activities today.

6 So the information that's critical from the  
7 demonstration is to provide sufficient information such that  
8 the staff would be in a position to make a finding which  
9 would be based upon the licensee's submission as to why this  
10 is not --

11 CHAIRMAN SELIN: An unreviewed safety --

12 MR. RUSSELL: It is an unreviewed safety question  
13 in that it hasn't been reviewed, it's not discussed in the  
14 FSAR, not discussed in the docket. But even though it's an  
15 unreviewed safety question, why it does not create a  
16 substantial hazard, so we can make a final no significant  
17 hazards determination.

18 CHAIRMAN SELIN: The sequence is to get the  
19 demonstrations done, to then wait for the individual  
20 applications from Palisades or anybody else who wishes to do  
21 it --

22 MR. RUSSELL: That's correct.

23 CHAIRMAN SELIN: And the safety analysis of that  
24 application, in light of the information --

25 MR. RUSSELL: And that's the timing issue that's

1 being faced now because at this point, we don't have the  
2 information to be able to perform a review to conclude that  
3 there's not a potential problem. If the annealing  
4 demonstrations are done and they address the issues  
5 associated with thermal stresses, et cetera, in the vessel,  
6 and we review that and approve it, we can make a finding  
7 that that's satisfactory, go through our process of handing  
8 this, with notice, handle it as a topical report, and allow  
9 it to be referenced on future applications.

10 So this is really a timing issue.

11 CHAIRMAN SELIN: Well, that part is fine but what  
12 about the specific demonstrations? Does DOE have the money  
13 to carry these out on the schedule? And is there anybody  
14 interested in the gas-fired heating method, or is the  
15 electric resistance method?

16 MR. TAYLOR: DOE has indicated -- the Office of  
17 Nuclear Energy -- that this is their number one project in  
18 support of operating reactors. So we believe that the money  
19 that they have, plus the other contributors to the process,  
20 will allow these demonstrations to be conducted.

21 That's information developed somewhat more than a  
22 month ago when I met with the appropriate DOE people, with  
23 our staff, and we intend to have sufficient participation.  
24 We have a MOU which we've drafted up and are sharing with  
25 DOE, so our role is clearly understood, which will be to

1 technically evaluate the process as it goes on, particularly  
2 with regard to instrumentation and that sort of thing.

3 CHAIRMAN SELIN: What about the two methods? Have  
4 any utilities expressed an interest in the gas-fired method  
5 or is it pretty much electric resistance method?

6 MR. TAYLOR: No, actually Palisades --

7 MR. RUSSELL: Palisades has expressed a preference  
8 for the gas-fired method over the electric resistance  
9 method.

10 MR. TAYLOR: I believe that is the first in-line  
11 demonstration. That's the information I have.

12 CHAIRMAN SELIN: So everything will go smoothly,  
13 provided the demonstrations take place.

14 MR. RUSSELL: Yes. Now, it is possible also that  
15 one could develop sufficient post-annealing inspection, and  
16 it's also possible that you could cut the piping loose so  
17 that you would not have the axial growth of the vessel  
18 putting loading on piping.

19 So these problems can be addressed technically.  
20 The issue becomes one of cost and schedule for addressing  
21 them.

22 CHAIRMAN SELIN: Those are all back-up, should  
23 something happen --

24 MR. RUSSELL: Those are all back-up.

25 CHAIRMAN SELIN: -- with either the funding or the

1 execution of the demonstration.

2 MR. RUSSELL: That's correct. The current path  
3 we're on would be to have the annealing demonstrations be  
4 completed, sufficiently instrumented such that NRC can  
5 conclude that they are adequate, that the code work that  
6 predicts what the stresses are are sufficient, that we  
7 understand what the temperature profiles are.

8 CHAIRMAN SELIN: Is there any reason that all this  
9 stuff is backed up to the point where everything is on the  
10 critical path? Was there some reason these demonstrations  
11 couldn't have been done earlier?

12 MR. RUSSELL: I think that the industry was  
13 surprised by the impact of the higher variability in copper  
14 that has caused this to be a much higher priority.

15 CHAIRMAN SELIN: So it's the Palisades schedule  
16 that's moved up --

17 MR. RUSSELL: Right.

18 CHAIRMAN SELIN: -- rather than the schedule that  
19 has slipped.

20 MR. RUSSELL: We saw a change of about four years  
21 in schedule with Palisades as a result of variability in  
22 weld copper chemistry, and several plants that didn't think  
23 they had a problem now may have a problem.

24 So this is a result of new information and the  
25 extreme sensitivity of copper to embrittlement that causes

1 it to potentially have plants reaching PTS sooner.

2 COMMISSIONER JACKSON: When do you expect these  
3 DOE demonstrations to be done?

4 MR. RUSSELL: I'm hopeful that one is completed in  
5 '96. I believe the other is '97, at this point in time.

6 That completes the discussion on reactor issues.  
7 I'll turn now to Carl, who'll talk about dry cask issues,  
8 which also have some reactor implications.

9 DR. PAPERIELLO: Could I have slide 16, please?

10 Dry cask spent fuel storage was discussed at the  
11 meeting, and I discussed the establishment of and the status  
12 of the spent fuel project office that reports directly to  
13 me. Regional managers, principally those from Region III,  
14 NRR and I discussed our recent experiences with  
15 implementation of dry cask storage regulations.

16 Earlier this year, the staff proposed and the  
17 Commission agreed to the establishment of a spent fuel  
18 project office, reporting directly to the director of NMSS,  
19 in order to ensure adequate resources, including the  
20 involvement of senior managers who are directed to the DOE  
21 multi-purpose canister program for transportation and dry  
22 storage of spent nuclear fuel.

23 The existing program being conducted by the  
24 Storage and Transportation Systems Branch within the  
25 Division of Industrial and Medical Nuclear Safety, had

1 insufficient resources to accomplish the task. The project  
2 office will have a staff of 45, as compared to 22 when it  
3 was in the branch.

4 This slide shows the responsibilities of the  
5 project office. We did consider placing other  
6 transportation activities, not involving spent fuel,  
7 principally type B transportation packages, in a separate  
8 section of IMNS, but the workload was considered too small  
9 to justify the managerial overhead.

10 Please note that any centralized independent spent  
11 fuel storage facility, private or DOE-sponsored, would be  
12 licensed by this project office. So if we have an interim  
13 storage, a national storage facility, this program office  
14 would be involved with that licensing. Could I have the  
15 next slide?

16 Although we've been conducting inspections of  
17 vendors and reactor facilities fabricating and using dry  
18 cask, we have made use of inspection procedures and  
19 temporary instructions developed primarily for the first dry  
20 storage systems, which were steel cast, and some of the  
21 procedures developed for operating reactors and reactor  
22 construction -- QA, for example.

23 Early in 1995, both NMSS and NRR recognized that a  
24 much more detailed and complete written program was needed,  
25 and this program has been under development for several

1 months.

2 The draft program, including five new specific  
3 procedures covering the entire process, from design through  
4 use, has been completed and is currently in the regions for  
5 review.

6 In the meantime, Region III has been heavily  
7 involved with the inspection activity at Prairie Island and  
8 Palisades. We made extensive use of their experience in  
9 developing the new procedures.

10 We expect that the spent fuel storage program  
11 inspections will continue to be upgrade. NMSS and NRR are  
12 completing a formal evaluation of our experiences in this  
13 area. This evaluation will likely result in evolutionary  
14 changes in the inspection program and additional licensee  
15 and vendor guidance.

16 You have up for your review an MOU between the two  
17 offices. There's an interface situation between our  
18 activities and NRR activities at operating sites, both in  
19 not only dry cask, but also the matter of decommissioning.  
20 And we wanted to make sure that there are things that are  
21 not being lost.

22 Two information notices were issued early in June  
23 for dry cask storage. One discussed the adequacy of site  
24 evaluations required by the licensees under 10 CFR  
25 72(2)(1)(2). In other words, if you want to use a

1 generically approved dry cask, you have to match that cask  
2 to your site. We've not reviewed the cask for certain  
3 situations. You have to make sure the site is suitable to  
4 do that.

5           The other notice discussed problems identified  
6 during QA inspections of the fabricators of the metal  
7 components of spent fuel storage systems. You see, the  
8 first systems were all-metal systems. The newer systems are  
9 metal liners in baskets and on-site construction of concrete  
10 shields. And many of the problems are the interfacing of  
11 the pieces together, the fact that you have people coming  
12 on-site who have not really worked in the nuclear business  
13 before that are fabricating some of these things. And, of  
14 course, some of the fabricators of the metal components are  
15 metal-working shops who have not previously been involved in  
16 the nuclear business. They're not used to working under a  
17 nuclear QA program.

18           The topic was also discussed at a session that I  
19 chaired at the NRR regulatory information conference in May.  
20 I will report that there was really essentially no  
21 disagreement between the NRC presenters and the industry  
22 presenters on the need by utilities using dry cask for  
23 storage to perform quality audits of vendors and fabricators  
24 and to have an early plan for the use of these casks. Thank  
25 you.

1           CHAIRMAN SELIN: But they've got to do it. I  
2 mean, that's the key point. We have a beautiful, simple  
3 process. It says that if the site is adequate for reactor,  
4 it ought to be possible to put a cask --

5           DR. PAPERIELLO: That's right.

6           CHAIRMAN SELIN: Then we have a second process  
7 that says, "Here's a way of certifying some casks in  
8 general, as long as they're within the envelope of the first  
9 process."

10           And the third thing says if they're built  
11 according to that design and if the licensee has made the  
12 match to make sure that the design fits in with the  
13 envelope, and if QA is carried out according to the rules,  
14 there shouldn't be any problems.

15           DR. PAPERIELLO: That's exactly right.

16           CHAIRMAN SELIN: And they've got to be carried  
17 out. I mean, there's too much complacency in this program.  
18 You know, we pay a lot of attention to reactors. The  
19 facility operators pay a lot of attention to reactors and  
20 they're just getting too casual about this program. They're  
21 going to undermine an absolutely essential program if they  
22 don't pay more attention to these very straight-forward  
23 if's.

24           MR. RUSSELL: I think there's also another area,  
25 and that is the area that's clearly reactor program

1 responsibility to oversee, and that is the procedures that  
2 are used on-site for loading casks, handling them, moving  
3 them from inside the buildings out to where the storage of  
4 the cask will occur. And we've had some experience that has  
5 indicated that this has not been as well thought out and  
6 planned as it should be, and this is an area that requires  
7 substantial attention, as well.

8           So it's not only in the context of quality of  
9 fabrication of a relatively simple device. That's  
10 specified. The design issues associated with the casks are  
11 well specified, and that needs to be closely monitored to  
12 ensure that the cask that's fabricated matches the cask  
13 that's certified.

14           CHAIRMAN SELIN: Exactly. I mean, we --

15           MR. RUSSELL: But then you've got to handle it,  
16 load it and do all the rest of it properly, as well.

17           CHAIRMAN SELIN: We've done an absolutely superb  
18 job in the process, making sure that the process by which  
19 the design is certified was done correctly. Everybody had a  
20 say, the review was done, and that's really terrific. But  
21 if the execution isn't good, then not only will the process  
22 not carry out the results, but the whole credibility of this  
23 process will just be shot. And it would be disastrous. I  
24 mean, who wants to go back to keeping the stuff underwater  
25 for years after the reactor's closed down?

1                   COMMISSIONER ROGERS: On this, I think you touched  
2 on it a little bit, Dr. Paperiello, but I'm just curious as  
3 to whether you believe that the licensees fully understand  
4 what kind of analysis they have to do with respect to the  
5 suitability of a cask and the pad that the cask is going to  
6 rest on, including taking into account seismic effects.  
7 This has been an issue that's --

8                   DR. PAPERIELLO: We issued an information notice  
9 on that matter.

10                  COMMISSIONER ROGERS: When did that come out?

11                  DR. PAPERIELLO: That was early in June.

12                  COMMISSIONER ROGERS: I see. And that clarifies  
13 any possible misinterpretation.

14                  DR. PAPERIELLO: It reflects our lessons learned,  
15 yes.

16                  COMMISSIONER ROGERS: Very good. Thank you.

17                  COMMISSIONER DE PLANQUE: I have nothing further.

18                  MR. TAYLOR: That concludes our presentation.

19                  CHAIRMAN SELIN: I think this is a terrific  
20 presentation. I really do think it's just outstanding that,  
21 in addition to the site-specific pieces, that the wisdom and  
22 the knowledge and the interaction that takes place at the  
23 senior management meeting, which is exemplary in itself, is  
24 reflected in some of these overviews, which will then be  
25 followed up in specific presentation and that, in effect,

1 you carry out the function that we relied on ACRS and other  
2 groups to carry out, which is the overview of how these  
3 pieces of our own programs come together.

4 And the fact that the issues that -- these are  
5 pro-active issues, straightening out, streamlining,  
6 integrating the inspection program, dry cask storage  
7 program, et cetera. And I think that's all to the good.

8 I want to stress I don't want this dry cask  
9 program to get off, you know, off path at the beginning.  
10 There's been a lot more controversy than there should have  
11 been. We've handled the controversy correctly and the  
12 opportunity for snatching defeat from the jaws of victory by  
13 sloppy implementation on the parts of the vendors, utilities  
14 and supervising the vendors and us in the inspections is  
15 significant.

16 It's all under control now. Let's not let it get  
17 out of control.

18 On a personal basis, I think you're a terrific  
19 management team. It's been a pleasure for me to work with  
20 you all these years. The management will go on very well.  
21 The Commission will do very well, but I'd like to express my  
22 own appreciation for your efforts and just your company,  
23 individually and collectively.

24 MR. TAYLOR: This is Jack Martin's last senior  
25 management meeting.

1 MS. CYR: It's also the chairman's last meeting.  
2 On behalf of the staff, we'd like to thank you for all of  
3 your support throughout the years. We've enjoyed working  
4 for you very much.

5 CHAIRMAN SELIN: Thank you very much.

6 MR. TAYLOR: We echo that.

7 CHAIRMAN SELIN: Jack Martin is not my son, rumors  
8 to the contrary. We are not going into the gas-fired  
9 business together.

10 [Laughter.]

11 [Whereupon, at 10:44 a.m. the above-entitled  
12 meeting was concluded.]

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CERTIFICATE

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

TITLE OF MEETING: BRIEFING ON RESULTS OF SENIOR  
MANAGEMENT REVIEW OF OPERATING  
REACTORS, FUEL FACILITIES, AND RELATED  
ACTIVITIES - PUBLIC MEETING

PLACE OF MEETING: Rockville, Maryland

DATE OF MEETING: Thursday, June 22, 1995

was held as herein appears, is a true and accurate record of the meeting, and that this is the original transcript thereof taken stenographically by me, thereafter reduced to typewriting by me or under the direction of the court reporting company

Transcriber: Susan Harris

Reporter: Susan Harris

**PERIODIC BRIEFING  
ON OPERATING REACTORS  
AND MATERIAL FACILITIES**

**June 22, 1995**

**J. Taylor  
W. Russell  
C. Paperiello  
Regional Administrators**

# **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.**

**NONE**

## **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.**

**DRESDEN 2 & 3  
INDIAN POINT 3**

## **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.**

**BROWNS FERRY 1 & 3**

**REMOVED FROM TRENDING STATUS**

**COOPER  
QUAD CITIES 1 & 2**

# **PRIORITY MATERIAL FACILITIES**

**NONE**

# **OPERATING REACTOR INSPECTION PROGRAM GOALS AND INITIATIVES**

- **Overall Goals/Direction For Next 2-3 Years**
- **Ensure Inspection Activities Are More Performance-Based:**
  - **Inspections Focus On Results Rather Than Review Of Programs**
  - **Distribution Of Inspection Resources Based On Performance**

# **OPERATING REACTOR INSPECTION PROGRAM GOALS AND INITIATIVES (Cont'd)**

- **Better Integrate All Objective Information, Including The Results Of Licensee Self-Assessments, To Reach Conclusions Regarding Licensee Performance**
- **Improve Use Of Risk Insights To Focus Inspection Activities, Evaluate Results, etc.**

# **SALP**

- **Reduced Overhead Structure As A Result Of Streamlining Will Result In Fewer Managers To Support The SALP Process**
- **Anticipate Following Changes To The SALP Program:**
  - **Go From Four To Three SES Board Members**
  - **Eliminate Requirement To Conduct SALPs On Or About An 18 Month Interval**
  - **Retain 12 Month Minimum And 24 Month Maximum (Regions Retain Flexibility To Schedule, Nominally One Per Month)**
  - **Superior Performers - 24 Months**
  - **Plants Warranting Additional Oversight - Increasing Frequency (Minimum Of 12 Months)**
- **Clarify Role Of SALP And PPR In Inspection Planning And Scheduling**

# **PLANT PERFORMANCE REVIEW (PPR) IMPROVEMENTS**

- **Discussed At The January SMM**
- **Regions Reviewing Current Process**
- **Emphasize PPR Review Of Objective Information**
- **Issuance Of Inspection Plan To Licensee**
- **Coordination Of PPR And SMM**

# **INSPECTION REPORT ISSUES**

- **Issue Approximately 25 - 30 Per Plant Per Year**
- **The Threshold For Identification Of Issues Is Inconsistent**
- **Effectiveness Of EXIT Meetings**
- **Regional Consistency Issues**
- **Tracking Systems - Improvements Needed**

# **COORDINATION OF PLANT EVALUATION PROCESSES**

**Short-Term (30 days)**

**Mid-Term (6 months)**

**Inspection Reports (4-6 Weeks)**

**Inspection Schedules (6 months)**

**PPR**

**SMM Screening Meetings**

**SMM**

**Long-Term**

**(25% per year) IPAP**

**(12-24 months) SALP**

# **STATUS OF REACTOR PRESSURE VESSEL ISSUES**

- **SECY-94-267, October 28, 1994, Provided Status of Reactor Pressure Vessel Issues**
- **SECY-95-118, May 8, 1995, Proposed Supplement To Generic Letter 92-01**
- **SECY-95-119, May 8, 1995, Provided Status of Reactor Pressure Vessel Issues**
  - **Greater Variability In Chemical Composition Resulted In Several Plants Including Ginna As Exceeding PTS Screening Criteria Prior To EOL**

# **STATUS OF REACTOR PRESSURE VESSEL ISSUES (Cont'd)**

- **Generic Letter 92-01, Revision 1, Supplement 1  
Issued May 19, 1995**
  - Initial Responses Expected Within 90 Days
- **Staff Met With Licensee For Ginna On  
May 16, 1995**
  - Licensee To Provide Revised PTS Assessment
- **NRC/NEI Workshop On RPV Integrity To Be  
Held July 11 To 13**

# **RPV ANNEALING**

- **Palisades Licensee To Anneal Reactor Vessel Before 2000**
  - Annealing Application Expected In 1995
- **Research Processing New Annealing Rule And Regulatory Guide**
  - Should Be Issued 3rd Quarter 1995
- **EDO And Staff Met With DOE On April 25, 1995 To Discuss Annealing Demonstration**
- **DOE Awarded Two Annealing Demonstration Contracts**
  - Gas Fired Heating Method (Marble Hill)
  - Electric Resistance Heating Method (Midland)
- **Palisades Anneal Dependent On Marble Hill Results**
- **NRC Staff To Monitor Annealing Demonstration**

# **DRY CASK STORAGE ISSUES**

- **Spent Fuel Project Office (SFPO) Created**
  - **Director: William D. Travers**
  - **Deputy Director: Charles J. Haughney**
- **Created To Support Certification And Licensing Activities Associated With DOE's Multi-Purpose Canister (MPC) Program**
  - **SFPO Will Assume Existing Staff and Responsibilities Of The Storage And Transport Systems Branch:**
    - **Certification Of Dry Storage Casks**
    - **Licensing Of Independent Spent Fuel Storage Facilities**
    - **Interface With Regions And NRR On Dry Storage**
    - **Licensing Of A DOE Centralized Storage Facility**
    - **Certification Of All Type B And Fissile Transportation Packages**
    - **Interface With Regions On Transportation Issues**
    - **Participation In IAEA Transportation Issues**

# **DRY CASK STORAGE ISSUES (Cont'd)**

- **Inspection Activities**

- Vendors
- Reactor Facilities

- **Program Upgrades**

- Evaluation Of Experience By NMSS, NRR, Regions
- Information Notices
- Inspection Program