

ORIGINAL

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

**Title: MEETING WITH COMMONWEALTH EDISON**  
**PUBLIC MEETING**

**Location: Rockville, Maryland**

**Date: Tuesday, June 30, 1998**

**Pages: 1 - 123**

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1 UNITED STATES OF AMERICA  
2 NUCLEAR REGULATORY COMMISSION

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4 MEETING WITH COMMONWEALTH EDISON

5 \*\*\*

6 PUBLIC MEETING

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9 Nuclear Regulatory Commission

10 One White Flint North

11 Rockville, Maryland

12 Tuesday, June 30, 1998  
13

14 The Commission met in open session, pursuant to  
15 notice, at 10:04 a.m., Shirley A. Jackson, Chairman,  
16 presiding.  
17

18 COMMISSIONERS PRESENT:

19 SHIRLEY A. JACKSON, Chairman of the Commission

20 GRETA J. DICUS, Commissioner

21 NILS J. DIAZ, Commissioner

22 EDWARD MCGAFFIGAN, JR., Commissioner  
23  
24  
25

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STAFF AND PRESENTERS SEATED AT THE COMMISSION TABLE:

JOHN C. HOYLE, Secretary

KAREN CYR, General Counsel

OLIVER KINGSLEY, President and CNO, ComEd

JOHN ROWE, President and CEO, Unicom

DAVID HELWIG, Senior Vice President, Nuclear  
Division

J. STEPHEN PERRY, Vice President for BWRs

JEFFREY BENJAMIN, Vice President of Nuclear  
Oversight

H. GENE STANLEY, Vice President for PWRs

CARL PAPERIELLO, Acting Region III Administrator

MARC DAPAS, Chief, Reactor Projects, Branch 2,  
Region III

JOSEPH CALLAN, EDO

SAMUEL COLLINS, Director, NRR

STUART RICHARDS, Director, PD III-2

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

[10:04 a.m.]

CHAIRMAN JACKSON: Well, good morning, ladies and gentlemen. The purpose of today's meeting between the Commission, senior executives of the Commonwealth Edison Company and the NRC staff is to discuss the results, to date, of Commonwealth Edison's efforts to address the cyclic performance at its nuclear facilities.

In January, 1997, the NRC issued a formal request for information pursuant to 10 CFR 50.54F, requiring Commonwealth Edison to explain why the NRC should have confidence in the company's ability to operate its nuclear station safely, while sustaining performance improvements at each site.

The letter also required the company to describe criteria which would be used to measure performance at all its nuclear stations.

Commonwealth Edison responded to that letter in March, 1997, describing a combination of actions which it said would meet the challenges before the company.

The company met with the Commission in April of last year to explain the planned actions.

In a November, 1997 Commission meeting, Commonwealth Edison and the staff provided an assessment of the early results of Commonwealth's efforts. It now has

1     been a year and a half since the Commission required  
2     Commonwealth Edison to address how it planned to safely  
3     operate it's nuclear facilities and sustain improvements at  
4     each site.

5             It has been seven months since the Commission was  
6     briefed on the effectiveness of the company's actions. This  
7     seven-month period has seen significant management and  
8     organizational changes at the company and extended forced  
9     outage at the Quad Cities Station and the announcement of  
10    the permanent shutdown of the Zion Station.

11            Additionally, Commonwealth Edison has informed the  
12    NRC of changes made in the plans and performance measures  
13    described in the Commission meetings of April and November,  
14    1997.

15            While I am certain that these changes and issues  
16    will be discussed today, it is important to remember that  
17    the purpose of today's meeting is not simply to provide  
18    status on current conditions and organizations. Rather, it  
19    is to describe the effectiveness of the actions taken to  
20    ensure the safe operation and sustained performance  
21    improvement at all Commonwealth sites.

22            With this in mind, during the course of their  
23    presentations, both Commonwealth Edison and the staff should  
24    address whether the actions taken over the last year and a  
25    half have been effective in addressing cyclic performance.

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1           Where actions have not been effective I'm  
2 interested in your assessment of why they have not been  
3 effective, as well as the changes which have been made to  
4 address the problem. And this is addressed to both the  
5 staff, NRC staff, as well as the company.

6           I also would appreciate hearing from both  
7 Commonwealth Edison and the staff whether the performance  
8 indicators currently in place have provided insight into the  
9 effectiveness of the corrective action efforts. If the  
10 performance indicators are too new to have had an  
11 opportunity to demonstrate their effectiveness, you should  
12 so state, and you could discuss that within the context of  
13 the effectiveness of previous indicators.

14           So we look forward to presentations by  
15 Commonwealth Edison executives and the NRC staff. I  
16 understand that copies of the presentation material are  
17 available at the entrances to the meeting. And unless my  
18 colleagues have any opening comments, Mr. Rowe, welcome, and  
19 you may proceed with your presentation.

20           MR. ROWE: Thank you, Chairman Jackson, members of  
21 the Commission.

22           We appreciate the opportunity to bring you up to  
23 date in what is going on at ComEd. Let me start by saying,  
24 we do hear and hear explicitly the need to tell you tangible  
25 things about tangible results, and Oliver Kingsley and my

1 colleagues will seek to do that during this presentation.

2 As you know, I am in the middle of my fourth month  
3 at ComEd. I am a lawyer, by trade, something of an expert  
4 on the restructuring on the utility industry, and not  
5 principally, an expert in nuclear power operations.

6 I do, however, have experiences of different sorts  
7 which I believe inform my judgments about the matters we are  
8 dealing with.

9 First, as a young lawyer, I had something to do  
10 with licensing most of the ComEd nuclear plants, and second,  
11 as a utility CEO in the eighties and nineties, I've had a  
12 great deal to do with both the successes and the problems of  
13 a number of New England nuclear units.

14 I hope those experiences inform my work and give  
15 some meaning to what I'm about to say.

16 I've sat back and looked at what can a CEO do to  
17 help with a turnaround of the magnitude of the one which is  
18 required at ComEd. It has struck me that the first thing is  
19 simple clarity about the size of the challenge.

20 To say, again and again to our people, that we  
21 must build a superior nuclear operation, not rebuild what we  
22 had in some mythical year, but build an operation which is  
23 superior by the standards of today and tomorrow.

24 I have tried to make clear, over and over again,  
25 in visits to the plants and in meeting with employees, that



1 this is a fundamental and inescapable corporate priority.

2 There is no way that my company can meet its  
3 obligations to the public or to its shareholders without  
4 success in this objective, and I have sought very hard to  
5 give it clarity.

6 The second thing that a CEO can do is to try to  
7 make certain there are good people with strengths which  
8 exceed my own in doing the job.

9 As you know, Oliver Kingsley came to ComEd in  
10 November with both a successful record and a successful  
11 turnaround record. I did some of my own investigation  
12 before I took the job because, in some sense, I was betting  
13 my career on it, as well as watching the company, and  
14 uniformly, I have been told that he's one of the finest  
15 people in the country to make this happen.

16 But my responsibilities go deeper in deferring to  
17 Oliver, because you have seen before, and Chairman Jackson,  
18 you pointed out in November, that one of the problems is  
19 seeing a new team from ComEd every time.

20 We have to build an enduring team, a team that  
21 reflects Oliver's devotion to performance and to high  
22 standards, but a team that adds its own judgment, it's own  
23 depth, its own experiences to this effort. In other words,  
24 we have to institutionalize results and performance  
25 expectations.

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1           And I have tried to help with that, not only by  
2 backing Oliver's mandates, but by working with him on the  
3 development and stabilization of the team that you see here  
4 today.

5           At least Gene Stanley was here with Oliver last  
6 time he appeared. I believe Steve Perry was in the group,  
7 although perhaps not sitting at the table.

8           We've tried to take people who have that kind of  
9 experience and mix them with new people like David Helwig to  
10 start to build a team that transcends a leader.

11           It is clear to me that one of ComEd's failures has  
12 been to have a Chief Nuclear Officer who had the authority  
13 and the support and the experience and the know-how to lead  
14 this effort. I believe that Oliver has those.

15           But a second failure has been to build a deep  
16 enough team around a leader so that the program is larger  
17 than any one person, and we are certainly hard at work on  
18 that.

19           A third failure, one that you have pointed out,  
20 has been the need to provide stability in resources. The  
21 need to recognize that nuclear budgets can't be yanked  
22 around like tree-trimming budgets for the convenience of one  
23 year's operating results.

24           I have made it very clear to Oliver and to his  
25 team, and indeed, to his individual employees that from my

1 perspective, the nuclear problem at ComEd transcends any one  
2 year's budget goals; that I will provide a consistent flow  
3 of funds to meet their needs if they accept the fundamental  
4 responsibility for achieving very high performance  
5 standards, for keeping commitments, and for operating the  
6 plants in a way which is economic on a long-term basis.

7 As I sit with my colleagues and explore where we  
8 have failed, it is exceedingly obvious that we have not made  
9 enough commitments and we have kept too few of those that we  
10 have made.

11 Our willingness to make and to meet and to hold  
12 ourselves to meet commitments is something that I can  
13 reinforce in my role, and I intend to do that.

14 You ask, and properly so, about results. It is  
15 only results that count in this area. I think the answer is  
16 we are beginning to show results, but only beginning. There  
17 are things which are tangible. The recent Braidwood  
18 operating record, the 37-day refueling at Byron II, the  
19 successful replacement of the Byron I steam generators, the  
20 restart of Quad Cities, and those are tangible successes.  
21 And yet, they are only a beginning, and a modest beginning.  
22 We have to do more, and that is what my colleagues will talk  
23 about.

24 There are, however, cultural things which are also  
25 real. You mentioned the Zion shutdown. The shutdown of

1 these two 1100 megawatt units has made tangible, has made  
2 real to every employee in the nuclear division that only  
3 successful performance will sustain jobs. And that is a  
4 health result of a sad situation.

5 We are also focusing on making the nuclear  
6 organization, led by the team you see here today, an asset  
7 to the operation of each station, rather than a liability.  
8 With the largest fleet in the country, there is no escaping  
9 the fact that ComEd should have had the best operation; that  
10 it should have known best how to learn from one plant to  
11 another, and should have known best how to learn from other  
12 people's operations.

13 We have not done that, and indeed, historically,  
14 our good news has come from the actions of individual site  
15 managements rather than a uniform and consistent supportive  
16 and demanding corporate culture. Oliver and his colleagues,  
17 with my complete support, are setting about to do that.

18 So I believe that we have tangible results to  
19 report. I trust you will think so, also, as you hear Oliver  
20 and his colleagues, but please do understand that we do get  
21 it. We have a long ways still to do, and we haven't got  
22 there in six months. You do not change a culture in six  
23 months. We have only begun.

24 MR. KINGSLEY: Thank you, John.

25 I'm Oliver Kingsley, Chief Nuclear Officer,



1 Commonwealth Edison. I'm delighted to be here, give you a  
2 complete update on where we are and what we're about and  
3 what we have to do to put this nuclear program in the top  
4 quartile of performance.

5 I'd like to have the first slide, please.

6 When I came aboard and took this job, I set a  
7 number of objectives for the first year.

8 First was to put the right management team, and  
9 I'm going to introduce them later -- in place, such that we  
10 can effect the changes that we need.

11 Second is to have no significant events on our  
12 nuclear program.

13 Third is to have no programmatic breakdowns. We  
14 have had problems with both of these, as you well know.

15 Fourth is to put the basics and fundamental  
16 processes in place, which we have found lacking.

17 Fifth is to shift the culture. John talked about  
18 that, to being more self-critical and where we establish  
19 accountability by name as a basic.

20 And last, and certainly not least, is to arrest  
21 the cyclic performance that has plagued the ComEd nuclear  
22 power program.

23 So this is my agenda. Now I'd like to shift, have  
24 the next slide and show you what we're going to do here  
25 today.

1 I'll review of our performance results to date.  
2 I'll identify the four fundamental root causes of ComEd's  
3 cyclic nuclear performance.

4 Dave Helwig, Jeff Benjamin and I will discuss how  
5 we are correcting these root causes. Steve Perry, Gene  
6 Stanley will give an overview of station performance, and  
7 I'll wrap up and give our plan, going forward.

8 I'd like now to introduce our management team.

9 Can I have the next slide?

10 It's also in your slides.

11 I've spent a great deal of time working on putting  
12 this management team into place. It is my experience that  
13 without proven recovery experience, this job cannot be  
14 accomplished. I'd like to introduce this team and tell you  
15 what we have.

16 To the left of John Rowe, Steve Perry. He's our  
17 BWR Vice President. He's made significant improvements at  
18 our Dresden Station.

19 To Steve's left is Gene Stanley. He's our PWR  
20 Vice President. Led a number of improvements at our  
21 Braidwood Station. He was also very successful as Site VP,  
22 Plant Manager at the Susquehanna Dual Unit Boiling Water  
23 Reactor.

24 To my immediate right is David Helwig, our Senior  
25 Vice President of Nuclear Services. David's had senior

1 leadership positions at General Electric and Philadelphia  
2 Electric. He was involved in all aspects of the turnaround  
3 at Philadelphia Electric at a number of key jobs.

4 He took Limerick from not the best performance to  
5 a SALP 1 across the board. Most recently came to us from  
6 running the Worldwide Services at GE Nuclear, which is very  
7 appropriate to our boiling water reactors and what we have  
8 to do.

9 To Dave's right is Jeff Benjamin. He's our Vice  
10 President of Nuclear Oversight. He comes to us most  
11 recently from Salem Instrumental and their turnaround  
12 process. He was also Unit 1 Recovery Manager there at that  
13 station.

14 Seated behind me, we have some of our corporate  
15 executives and our Site Vice Presidents. Rod Krich, Vice  
16 President of Regulatory Services. Came to us most recently  
17 from Carolina Power and Light. He was involved in their  
18 turnaround. He was also involved earlier in a number of the  
19 improvements at Philadelphia Electric.

20 We've got Site Vice Presidents, Joel Dimmette, our  
21 Site Vice President, Quad Cities, is out at the station  
22 taking care of restart and taking care of business out  
23 there.

24 Mike Heffley, our Site Vice President from  
25 Dresden, is here.

1 Fred Dacimo, Site Vice President, LaSalle County,  
2 is here.

3 Ken Graesser, our Byron Site Vice President, and  
4 Tim Tulon, our Braidwood Site Vice President.

5 Last, we've recently named an Engineering Vice  
6 President, Bill Bohlke. He will be reporting on board  
7 Monday. He's not with us today. Comes to us as a Director  
8 of Nuclear Services, Nuclear Operation Services from Stane &  
9 Webster.

10 Prior to that, he worked some six full years in  
11 the turnaround -- the successful turnaround at Florida Power  
12 & Light. Actually ran the engineering and took them to SALP  
13 1, and made significant improvement there.

14 I've got a great deal of confidence in this team  
15 and their skills. They have strong operating technical  
16 skills. They have proven recovery experience. They've been  
17 through this. They know what it takes to make the  
18 improvements, and they have high performance standards. So  
19 I think we've done a very good job putting the team in  
20 place, Chairman Jackson.

21 We have to demonstrate, though, that we can give  
22 results with this team.

23 CHAIRMAN JACKSON: Let me ask you a question. I  
24 mean since the issue has been, over time, systemwide  
25 performance improvements and sustaining the performance at



1 the sites that have reasonable records, a question that  
2 arises, and you know, I'm not trying to get into the nits  
3 and nats of your business planning, but where in the  
4 organization is the determination made in terms of resource  
5 allocation, both for the nuclear generation group and among  
6 the sites?

7 Do the sites feel that they compete with each  
8 other for resources?

9 And then are -- how are risk insights used in  
10 terms of allocation of --

11 MR. KINGSLEY: Well --

12 CHAIRMAN JACKSON: -- resources?

13 MR. KINGSLEY: -- let me address that.

14 When I came aboard, we had a money number budget.  
15 We were in the process of developing a detailed budget.

16 We looked at that very carefully. We funded a  
17 number of projects that we knew had to go forward. We then  
18 set aside a substantial amount of money in the O&M area,  
19 some -- between 60 and 70 million.

20 We have allocated that out. Some of that had to  
21 go to LaSalle County for the restart. We did not have a  
22 good restart plan.

23 We have allocated over five million to -- over and  
24 above what the budget was when we finalized it at the end of  
25 the year to our Dresden Station.

1 CHAIRMAN JACKSON: See, I'm not -- I'm less  
2 interested in the detailed numbers as in the relative -- the  
3 how the decisionmaking is done, and what's the basis is, you  
4 know, the risks -- relative risks of what the situation is  
5 at the various plants, the basis of the resource allocation.  
6 Is it in material condition? Is it a rotating --

7 MR. KINGSLEY: No. It's not --

8 CHAIRMAN JACKSON: -- token or --

9 MR. KINGSLEY: It's not a rotating. It's -- we  
10 have an absolute from a material condition. We will fund  
11 any material condition needed, whether it be capital or O&M.  
12 We'll fund any significant risk.

13 We do not have a good risk basis in the projects  
14 that were laid out, as far as improvement. We've been  
15 funding the improvements that we needed to make from a  
16 design basis standpoint. Those have been continued on.

17 We've had significant discovery, such as in our  
18 LaSalle Plant, such as in our Dresden Plant, such as in our  
19 Quad Cities Plant, with maintenance issues. We start back  
20 to material conditions. And we fully funded those items.

21 We had several items that we uncovered on our  
22 Byron Station while we were down for refueling involving  
23 steam generators, involving some flow accelerated corrosion.  
24 We fully funded those items.

25 So we have done this on a need basis. We've also

1 done a great deal of it as we move forward from a discovery  
2 standpoint.

3 CHAIRMAN JACKSON: But you don't have some overall  
4 risk gradation that drives how you plan the projects?

5 MR. KINGSLEY: No. We do not at this time.

6 CHAIRMAN JACKSON: Okay. Would you go on?

7 MR. KINGSLEY: Sure.

8 CHAIRMAN JACKSON: Thanks.

9 MR. KINGSLEY: I'd like to have the next slide.

10 This is a relatively busy performance indicator  
11 chart. It is almost exactly the same chart that we had in  
12 November, so I want to present this strictly as a matter of  
13 comparison.

14 It does provide an overview. It clearly shows  
15 that we have a long way to go to reach our top quartile  
16 performance goal that we have.

17 When you look at the very top of this chart, and  
18 it has reactor SCRAM's.

19 Clearly, Dresden is an outlier. We've got actions  
20 underway to correct that. We've had problems recently, this  
21 weekend, on our Quad Cities Plant where we experienced two  
22 SCRAM's, one of them weather related. We're going to  
23 discuss both of these later, but I'd like to hit this head  
24 on on the Dresden Plant.

25 What we have found is that the BWR Owners Group

1 recommendations have been limitedly implemented on the  
2 Dresden Plant. That is, things that we done before on  
3 plants were not in place.

4 There was a detail review, which we have found  
5 within the last month, on the Dresden Plant, which also  
6 points out these, and material condition problems. They  
7 have not been corrected. We're in the process of doing  
8 that, as we speak. We have some 40 people dedicated  
9 full-time to this initiative.

10 We've also found a confused division of  
11 responsibility between our corporate office, between the  
12 substation design and construction, and between the plant.  
13 That led to one of these SCRAM's on the Dresden Plant, where  
14 we put a design change in improperly. Not installed, but  
15 designed improperly. We have corrected that problem.

16 On the Quad Cities Plant, had we have implemented  
17 the BWR Owners Group recommendations fully, we would not  
18 have had our first SCRAM.

19 We did have a material condition problem, where we  
20 were in a half-SCRAM which brought that in, but we should  
21 have done that.

22 We had just put that in within the last two to  
23 three weeks. We discovered this after startup on the Quad  
24 Cities Plant.

25 CHAIRMAN JACKSON: Let me ask you a question for a



1 second.

2 You said if you had implemented the BWR Owners  
3 Group recommendations fully, you could have avoided the  
4 SCRAM's you thought relative to Quad Cities.

5 Could you be a little more -- give a little more  
6 specificity?

7 MR. KINGSLEY: Yes. We've been --

8 CHAIRMAN JACKSON: What was --

9 MR. KINGSLEY: -- spending an inordinate amount of  
10 time in half-SCRAM's. There are a number of techniques that  
11 can be employed to not check the ultimate end device so that  
12 when you're in a half-SCRAM, you can actually block that.  
13 You check everything up to that. Then if you get the other  
14 end -- we found that a number of CIL's and TIL's -- these  
15 are the GE information letters -- had not been done.

16 We found that there were things on rack separation  
17 between instruments that had not been put in place.

18 CHAIRMAN JACKSON: Now these recommendations,  
19 these Owners Group recommendations, they were part of the  
20 overall industry SCRAM reduction?

21 MR. KINGSLEY: That's correct.

22 CHAIRMAN JACKSON: Is that correct?

23 MR. KINGSLEY: That's correct.

24 CHAIRMAN JACKSON: And so you're saying --

25 MR. KINGSLEY: Yeah.

1 CHAIRMAN JACKSON: -- that the company had not  
2 really fully bought into that?

3 MR. KINGSLEY: That's correct. It's a similar  
4 thing to what we've seen before, a comprehensive review, but  
5 not implemented. Comprehensive, you know, that's a promise  
6 and not carried forward.

7 This -- it was interfaced back with the NRC on  
8 this in the mid to late 1980's, and it had not been -- not  
9 been effective, not been carried out.

10 We did find an additional problem when we had a  
11 very severe lightening storm early Sunday morning. However,  
12 we found a loose connection on the CT. This certainly  
13 contributed to that. It would have made our chances much  
14 better of not having that reactor scrambled.

15 We had had that checked, I thought, prior to  
16 startup, but we didn't check enough. I had a certified  
17 letter come in to ensure that we had checked the entire  
18 yard, because I had seen those problems elsewhere.

19 So I want to hit this head on. It's not complete  
20 work. It's a failure to follow through, which is part of  
21 our discovery, but we are working on this. We have  
22 dedicated people also working on this at Quad Cities. And  
23 before we do these tests again, after those units are  
24 returned to service this week, we'll have a number of these  
25 in place so we don't do that again.

1 CHAIRMAN JACKSON: Commissioner?

2 COMMISSIONER MCGAFFIGAN: Could I just clarify?

3 The SCRAM's that we've had -- that you've had thus  
4 far, have they been handled routinely?

5 I mean does --

6 MR. KINGSLEY: Yes.

7 COMMISSIONER MCGAFFIGAN: -- everything perform  
8 well?

9 MR. KINGSLEY: Yes.

10 COMMISSIONER MCGAFFIGAN: I mean --

11 MR. KINGSLEY: In all cases.

12 COMMISSIONER MCGAFFIGAN: Okay. So there is not a  
13 public health and safety issue except to the extent that, if  
14 you go down, the whole midwest might go down or something?

15 MR. KINGSLEY: Well --

16 COMMISSIONER MCGAFFIGAN: And then there's a  
17 public health and safety that's not radiological?

18 Is that -- I mean I'm just trying to place this in  
19 some sort of NRC regulatory context.

20 MR. KINGSLEY: In context, the plants have  
21 performed very well. We have had all systems operate.  
22 They've operated properly.

23 I have worked in other jobs where that was not the  
24 case; where we had --

25 However, it does challenge safety systems. It's

1 not something we want.

2 We're in the electricity business, also, so we're  
3 expecting these plants to operate and have these problems  
4 corrected.

5 COMMISSIONER DIAZ: Excuse me. I'm not following  
6 on that question. No safety system failures associated with  
7 --

8 MR. KINGSLEY: No.

9 COMMISSIONER DIAZ: -- those SCRAM's?

10 MR. KINGSLEY: No safety system failures.

11 CHAIRMAN JACKSON: Do you feel that the  
12 performance indicators that you've shown give you an  
13 adequate level of detail to use in measuring the  
14 effectiveness of your improvement plans?

15 MR. KINGSLEY: No. Not the ones I've put up here.  
16 They're somewhat limited.

17 We have new performance indicators that cover more  
18 of the entire equation. I'm going to speak to that a little  
19 bit later.

20 But I'm simply showing this to give an apples to  
21 apples comparison on where we were before when we were in  
22 here.

23 I do want to move through this.

24 Safety system actuations. We've had none to date.  
25 A clear improvement over where we are. We're before



1 radiation exposure.

2 It's better than before. We've had steam  
3 generator replacements, recovery on both Quad and on LaSalle  
4 County. We've had two complete refuelings, a maintenance  
5 outage.

6 We are working on this. We're still not satisfied  
7 with our radiation program, though.

8 Capacity factor. It's not high, but we are  
9 meeting our goal for the first time in a long time where we  
10 actually have a goal laid out, and we're attracting slightly  
11 above that. But we're not satisfied with that.

12 Our forced outage rates. You can see those  
13 numbers. They're extremely high. We have taken into  
14 account the full effect of Quad Cities and LaSalle. We're  
15 100 percent hit on all four of those units.

16 Dresden SCRAM's has affected this. We took a hit  
17 on our Byron steam generator. Overrun. We did have  
18 problems with that, as far as the weather, and some tendon  
19 replacement, and we charged ourselves 100 percent on that.

20 Safety system performance. Safety systems are  
21 performing well, but you just can't focus on that. You got  
22 to focus on the entire plant.

23 And then our industrial safety accident rate shows  
24 that we have improved slightly there.

25 CHAIRMAN JACKSON: Let me ask you: How do these

1 performance indicators, if I look at the collective  
2 radiation exposure -- well, first of all, I'm not sure of  
3 what the numbers -- what you normalize to in terms of the  
4 units, but -- I think I do, but --

5 MR. KINGSLEY: Yeah.

6 CHAIRMAN JACKSON: -- it's not labeled.

7 How do -- how do they compare with norms, industry  
8 norms?

9 MR. HELWIG: I have that.

10 MR. KINGSLEY: David's got that.

11 MR. HELWIG: The -- there are -- either currently  
12 -- either third or fourth quartile performance.

13 CHAIRMAN JACKSON: And I note that you have a wide  
14 variation. You did do a steam generator replacement at  
15 Byron.

16 MR. HELWIG: That's correct.

17 CHAIRMAN JACKSON: So that's -- but if I look at  
18 Dresden and Quad Cities and LaSalle --

19 MR. HELWIG: Dresden has completed its refueling  
20 outage. Quad Cities has not done their --

21 CHAIRMAN JACKSON: Okay.

22 MR. HELWIG: -- refueling outage yet.

23 MR. KINGSLEY: Both Dresden and Quad Cities need  
24 significant improvement. It does effect or show the effect  
25 of a great deal of work in Quad Cities, particularly in

1 starting into January, February, as we really got into  
2 business out there, what had to be done to restore that  
3 plant.

4 And there's a full effect of the vast majority of  
5 the modification work and testing work on our LaSalle County  
6 Unit 1 in their numbers.

7 CHAIRMAN JACKSON: Now one of your plants -- was  
8 it Dresden -- that historically has had a high source term?

9 MR. KINGSLEY: Dresden has had a higher than  
10 normal source term, has had extremely high radiation  
11 exposure.

12 Our Quad Cities Plant has a very, very abnormally  
13 high, which we're in the process of coming up and doing some  
14 chemical cleaning to reduce that source term.

15 CHAIRMAN JACKSON: Okay.

16 MR. KINGSLEY: I'd like to speak -- get to the  
17 next slide.

18 I won't say too much about this. These are  
19 significant events. We have not had any of those. That's a  
20 part of my goal for this year.

21 However, I will add that we are having too many  
22 low-level events, which my experience, if you continue to  
23 have them, that sets up an environment where you can have  
24 the big event. So even though we show good performance, I'm  
25 not satisfied with what we're showing at a low level.

1           And now I'd like to have the next slide and shift  
2           our focus of our presentation to the root causes of our  
3           cyclic performance, and then we're going to tell you what  
4           we're going to do about that, or what we are doing about it.

5           We did submit this to you in our February 17  
6           letter. I'd like to briefly run over what these are.

7           First is our lack of focus on performance and  
8           results.

9           I found low performance standards. Lack of  
10          complete execution and follow-through in a number of areas.  
11          Some of them, we've already talked about.

12          Inadequate focus on correcting problems, and I  
13          emphasize that again. Correcting problems.

14          Second root cause is our failure to put basic  
15          processes and fundamentals in place. Key programs missing  
16          or not completely implemented. Operating fundamentals were  
17          inadequate.

18          Third root cause is ill-defined roles and  
19          responsibilities. One of them, I already talked about.  
20          It's particularly true with the Nuclear Generating Group  
21          corporate office, a lack of accountability. It contributed  
22          to lack of follow-through. Who, by name, is responsible and  
23          accountable.

24          And the final root cause is inadequate oversight.  
25          Simply, formal oversight was not there. We've gotten our

1 first formal quality assurance report since I've been  
2 aboard. We had poor corporate support. We did not  
3 understand the -- how you can have both oversight and  
4 support to our nuclear problem. We've never gotten that  
5 right.

6 CHAIRMAN JACKSON: Do you have any comments about  
7 NRC oversight?

8 MR. KINGSLEY: I think the NRC oversight has been  
9 adequate. I think the NRC has been put in a position of  
10 having to set the standards. We are taking that away from  
11 the NRC.

12 ComEd culture was that they were satisfied if --  
13 if they got by an NRC inspection. And I've had it said to  
14 me many times, "Well, the Regional Administrator seems to be  
15 satisfied," or, "Some of the staff", or, "The resident is  
16 satisfied."

17 And I said, that's not it. So I do not think this  
18 is a nuclear -- NRC problem at all. It's a ComEd management  
19 and ComEd culture problem.

20 We're now going to address the -- what we're doing  
21 about the -- correcting these root causes.

22 From an overall perspective we have developed 13  
23 strategic reform objectives. Implemented properly, they do  
24 address the root causes of cyclic performance. We are  
25 covering these on a routine basis with the NRC staff,

1 particularly at the CEPOP meetings. They are back to  
2 basics, how-to documents, putting in place how you get  
3 things done.

4 CHAIRMAN JACKSON: Let me ask you a question --

5 MR. KINGSLEY: Okay.

6 CHAIRMAN JACKSON: About that. I don't want to  
7 distract you from your presentation, but you've listed the  
8 13.

9 MR. KINGSLEY: Right.

10 CHAIRMAN JACKSON: And these are what you feel you  
11 need to kind of get back to where or get to where you need  
12 to be. At the same time, you have performance indicators.  
13 Are the two linked? I mean, did your performance indicators  
14 indicate --

15 MR. KINGSLEY: They are now.

16 CHAIRMAN JACKSON: For these SRIs?

17 MR. KINGSLEY: They are now.

18 CHAIRMAN JACKSON: They are now linked.

19 MR. KINGSLEY: Um-hum.

20 CHAIRMAN JACKSON: But they were not linked  
21 before.

22 MR. KINGSLEY: What we did is that I took and  
23 looked at the organization, and I looked -- we had some  
24 pretty good goals in the past, but we didn't have these  
25 basics in place in order to make sure the goals happened.

1 So we put these in place. We had to do these no matter what  
2 indicators.

3 Now we have overhauled the indicators where they  
4 align to this. You take in the area of communication, work  
5 engagement, we had no indicator in that. We do now have  
6 indicators that address that. We've overhauled our material  
7 condition indicators. Those were not adequate. They looked  
8 at maintenance backlog and a few other things. But they  
9 were not comprehensive in nature.

10 CHAIRMAN JACKSON: So I guess what I'm really  
11 asking is if you walk back through and you start with where  
12 the problems are, you know, you ask whether the performance  
13 indicators showed you that there were problems there. Then  
14 you get to the root causes of those. Then that leads you to  
15 the strategic reform initiative.

16 MR. KINGSLEY: Um-hum.

17 CHAIRMAN JACKSON: Is that how you've walked  
18 through this?

19 MR. KINGSLEY: Well, what we did is we came in and  
20 identified the root causes. I spent some two full months  
21 going out and talking to NRC, talking to the workers, did a  
22 lot of listening, talked to INPO, looked at the INPO notes,  
23 went through those. Got a number of briefings from the NRC  
24 staff. And we said we've got these problems. And we put in  
25 the SRIs. And the performance indicators have been mapped

1 to that, both at a corporate high level and down at the  
2 site. We have just finished going through and spent some  
3 four hours with all of our executive team looking at every  
4 site indicators and how they tie this together.

5 CHAIRMAN JACKSON: I guess the only reason I'm  
6 pressing you is obviously it has to do with comments  
7 specifically, but it is kind of an abyss that I've seen in  
8 the past where there are performance indicators and you  
9 track them and, you know, we look at them and everything  
10 looks okay. And say it's material condition or --

11 MR. KINGSLEY: Sure.

12 CHAIRMAN JACKSON: You pick one.

13 MR. KINGSLEY: Um-hum.

14 CHAIRMAN JACKSON: And then -- but there's some  
15 repeat problem that occurs, whether it's SCRAMS --

16 MR. KINGSLEY: Yes.

17 CHAIRMAN JACKSON: And it goes on and on and on  
18 and on, and you say but -- and I've had licensees say this,  
19 but I have these performance indicators, and according to  
20 these performance indicators, you know, we're doing real  
21 well. But what about this that keep happening?

22 MR. KINGSLEY: Well, let me give you some  
23 examples.

24 CHAIRMAN JACKSON: And then that's all I'm saying,  
25 that as long as you're satisfied that you have them all



1 linked up where what's happening is shown up by what you  
2 look at and that the initiatives that you have under way,  
3 which you will tell us more about if I give you the  
4 chance --

5 MR. KINGSLEY: A classic example is in the  
6 engineering area we're tracking the engineering requests.  
7 That was one of our indicators. Well, that simply tells you  
8 how many you've got and what backlog. It doesn't tell you  
9 about your programs, and we had a number of programs.  
10 Material condition. If you look at our numbers on the Quad  
11 Cities plant, when we were in here before, they looked very,  
12 very good --

13 CHAIRMAN JACKSON: Okay.

14 MR. KINGSLEY: But our threshold was incorrect and  
15 we didn't have the right input into that.

16 CHAIRMAN JACKSON: Okay.

17 MR. KINGSLEY: We didn't know what we had out  
18 there. And then we failed the maintenance rule inspection,  
19 as you are well aware of.

20 We are using these SRIs to manage. We have  
21 executive ownership by name. We have biweekly meetings. We  
22 provide for continuous monitoring. We're engaging the line  
23 management. We put in systematic effectiveness reviews,  
24 which has been one of our problems also, taking action.  
25 It's a three-step process, line management review and

1 signoff, nuclear oversight, independent review, and then  
2 we're going to bring in a third step before we say we've got  
3 this in the woodwork of industry experts, industry peers,  
4 outside experts, along with our top management to make sure  
5 that we're actually putting these 13 processes in place.  
6 They do focus on near-term improvements this year, but we're  
7 not going to let this die, because each one of these will  
8 serve as a long-term governing principle.

9           Since establishing these SRIs we've continued to  
10 have discovery. Some of that we've talked about. We've had  
11 to accelerate our action. We've had to be more aggressive.  
12 But each discovery is validated that these root causes are  
13 correct and they've validated the SRIs.

14           As an example, the material condition, which is an  
15 SRI, on the Dresden plant I told you we had not implemented  
16 the SCRAM reduction initiatives. We had material condition  
17 problems. These are also applicable in some degree to our  
18 Quad Cities and LaSalle County. So we've accelerated that.  
19 And that goes in that initiative.

20           I talked about this corporate site division of  
21 responsibility. That was applicable to all six of our sites  
22 or five of our sites. We're not going to let this just be  
23 transitory. We're going to put these in full-time. They're  
24 going to be with a passion with that. And I believe that  
25 they will do it.

1           Now I want to talk just a little bit about  
2 dispersed root cause, what we're doing about it on our  
3 failure to focus on performance and results.

4           Could I have the next slide.

5           Very clearly, we didn't focus on results. We  
6 didn't have high performance standards.

7           We've taken a number of actions to correct that.  
8 In 1998, we set immediate short-term improvements, five  
9 measurable goals, Chairman Jackson.

10          Longer term, we've laid out a three-year set of  
11 goals, which will bring us to the top quartile. More  
12 importantly, what's different, we developed action plans in  
13 order to carry these goals out.

14          In November, we talked about performance measures,  
15 and we've aired that, I think. These performance measures  
16 were limited, in nature, and they did focus more on an  
17 action in a number of areas, versus a result.

18          We have put in the integrated measures. I talked  
19 about that, about the overall NGG and site. We're actually  
20 using this to manage in my monthly staff meetings, at the  
21 site management review meetings, quarterly business plan  
22 reviews, and on a number of special meetings for special  
23 topics. So I feel confident that we have the management  
24 processes in, but we have to achieve results out of that.

25          We've also changed our compensation programs, such

1 that incentives are tied to. Such things as having no  
2 programmatic breakdowns, having no significant events, and  
3 getting certain things done. Meeting an improvement in our  
4 INPO performance index, where we have not had that in the  
5 past. It's been more of an action versus a result.

6 We're working as hard as we can to tighten  
7 performance standards. We're using every opportunity to  
8 dive in, challenge, investigate and address real issues.

9 I just showed you some action. Now let me tell  
10 you what we're seeing.

11 We are seeing some improvement. However, I'm not  
12 satisfied.

13 We're executing the SRI's. We've met every  
14 milestone on the SRI. However, we've not done our  
15 effectiveness reviews.

16 We are seeing progress on things such as material  
17 condition. We are identifying the problems, and we are  
18 putting plans in place to correct that.

19 We're working -- improvement opportunities. We're  
20 lowering the threshold. This management team routinely will  
21 spend six and seven days a week diving down in, correcting  
22 problems.

23 We're focusing on precursors, trying to get ahead  
24 of the curve. We've addressed a number of areas. I talked  
25 about substation design. I've talked about SCRAM's.

1           We have quite a problem with configuration  
2 control, and we're putting that up on the very front burner.  
3 And we are seeing some improvement, but we do have work to  
4 do there.

5           This completes the first root cause in our  
6 corrective action. I'd now like to go to David Helwig, who  
7 will address the second and third root causes and what we're  
8 doing about them.

9           CHAIRMAN JACKSON: Now before you do that --

10          MR. KINGSLEY: Okay.

11          CHAIRMAN JACKSON: -- you mentioned that you  
12 haven't done the effectiveness reviews.

13          MR. KINGSLEY: That's correct.

14          CHAIRMAN JACKSON: So when, in the process, do  
15 they get done? When do you --

16          MR. KINGSLEY: Some of them get done later this  
17 year. The lion's share of these SRI's, the first actions  
18 are completed in the first eight to nine months of this  
19 year. And then we will start that on a systematic basis in  
20 the latter half of this year.

21               We are doing some reviews, though, with our  
22 quality assurance organization now, such as in what's  
23 causing configuration control?

24               Why can't we get this material condition problem  
25 corrected?

1           So we're diving down in, and we've got Mr. Helwig  
2           and his organization now where they're very intrusive into a  
3           number of these problems. They were not intrusive in the  
4           past.

5           CHAIRMAN JACKSON: How do you determine  
6           effectiveness overall? You've mentioned two things  
7           vis-a-vis nuclear oversight, but -- or QA, but, you know,  
8           can you give us some sense of how you know that you've been  
9           effective, vis-a-vis give an SRI?

10          MR. KINGSLEY: Certainly. Let's take operations  
11          as an example. We put in a number of measures to ensure  
12          that we handle critical sensitive evolutions. We're  
13          measuring that at a lower level. We have indicators that  
14          look at that.

15          We're ensuring that operations is a standard  
16          there. It carries -- in charge of the plant, so it's a  
17          standard there.

18          We're having people go out and actually monitor  
19          and check that.

20          In material condition, we're simply measuring  
21          things that break, how many unplanned LCO's we go into, the  
22          reactor SCRAM's. So we have a number of measures that we're  
23          checking.

24          And then we have this very formal process, and I'm  
25          going to talk about some pictures that we painted at the

1 very end of the presentation of how we're going out and  
2 checking what these SRI's bring about. We'll wrap the  
3 presentation up with that.

4 CHAIRMAN JACKSON: So the effectiveness reviews,  
5 though, are systematically built into --

6 MR. KINGSLEY: Yes.

7 CHAIRMAN JACKSON: -- your SRI's?

8 MR. KINGSLEY: Systematically built in. That was  
9 in our February 17 letter.

10 CHAIRMAN JACKSON: Right. Okay. Commissioner  
11 McGaffigan had his hand up, and then Commissioner Diaz.

12 COMMISSIONER MCGAFFIGAN: On the configuration  
13 control issue that you just mentioned, is that configuration  
14 management while you're doing -- trying to do online  
15 maintenance?

16 Is that what you're talking about?

17 MR. KINGSLEY: Yeah. We're talking having  
18 components. We're talking about having valves in the right  
19 position.

20 COMMISSIONER MCGAFFIGAN: And do you have, you  
21 know, some of the plants I visited have fairly sophisticated  
22 configuration control wrist monitors and all that sort of  
23 stuff.

24 Is that something PECO -- I know some of your  
25 folks --

1 MR. HELWIG: Yeah.

2 COMMISSIONER MCGAFFIGAN: -- come in from PECO.  
3 PECO, I think, is a leader in that.

4 Is your goal to get to PECO quality standards?

5 MR. HELWIG: Actually, I'd like to clarify that a  
6 little bit.

7 The problems that we're referring to is  
8 configuration management problems. Our configuration  
9 control problems are more like issues of precision of the  
10 control of the alignment of valves, switches and things like  
11 that.

12 COMMISSIONER MCGAFFIGAN: Okay.

13 MR. HELWIG: As opposed to the higher order  
14 configuration control, your consideration of risk, and  
15 taking things out of service.

16 We do have --

17 COMMISSIONER MCGAFFIGAN: What about --

18 MR. HELWIG: We do have --

19 COMMISSIONER MCGAFFIGAN: What about latter?

20 MR. HELWIG: -- programs in that regard. They're  
21 not, at this point, as sophisticated as those at PECO.  
22 We're moving in that direction.

23 We have some fundamental things to improve on in  
24 our modeling before we can really do an extremely good job  
25 there.



1 COMMISSIONER MCGAFFIGAN: Good.

2 MR. HELWIG: We're doing at least a rudimentary  
3 good job there.

4 COMMISSIONER DIAZ: Yes. You obviously are saying  
5 of a complex structure to address a series of issues. I  
6 just wonder if you could put in perspective for me how are  
7 the workers at Commonwealth Edison being trained and  
8 cognizant of what they have to do so they -- you know, you  
9 can actually --

10 MR. KINGSLEY: Yeah. So we can actually get  
11 there.

12 COMMISSIONER DIAZ: Right.

13 MR. KINGSLEY: What we're doing there is, one, we  
14 have now established that there will be a face-to-face  
15 meeting with every nuclear generating group employed on a  
16 monthly basis. In this meeting, we talk about performance  
17 measures. We talk about what the performance has been. We  
18 listen. So we open the communication channels.

19 We've had a number of standdowns on certain issues  
20 where we address, specifically, performance issues.

21 We've improved our training programs so that  
22 they're more focused.

23 We spent a great deal of time working on the kind  
24 of basic fundamentals of being a nuclear employee, following  
25 procedures, pointing out problems. We still have work to do

1 in that arena, but we are not leaving that out because you  
2 can't do this let's say, at the ninth floor in Downer's  
3 Grove, or at a high level. You got to get right down to the  
4 worker.

5 So we're working on this extremely hard to put  
6 these basics in place with our worker.

7 COMMISSIONER DIAZ: And what is the response that  
8 you have received from the workers right now?

9 MR. KINGSLEY: I think it's been relatively good.  
10 We've not had any adverse reaction.

11 I mentioned when Chairman Jackson asked about how  
12 the workers are receiving this, our activity index, which  
13 tracks our complaints, whatever they may be, is actually  
14 substantially down from where it was a year ago. So we are  
15 seeing some improvement in that.

16 So we're not being fault in these areas. We still  
17 have more leadership, though, to paint the exact picture of  
18 what's expected.

19 COMMISSIONER DIAZ: Chairman Jackson?

20 CHAIRMAN JACKSON: Are there plant variations in  
21 this arena with the culture?

22 MR. KINGSLEY: Yes. Yes. And the plants are  
23 different.

24 MR. HELWIG: Yes. Thank you. If I could have the  
25 next slide, please.

1           As Oliver discussed at the outset, the second root  
2           cause that we identified was the lack of fundamentals.  
3           We've taken a number of specific actions to improve in this  
4           regard, already. These include some that I'll highlight  
5           here, just for a moment, but we have established standards  
6           and protocols to insure close management involvement in the  
7           performance of critical evolutions. Oliver mentioned that  
8           before.

9           We've adopted industry best practices and  
10          processes for the management of work. These fundamental  
11          processes are currently in use at each of the stations,  
12          albeit with varying degrees of proficiency to your point of  
13          variation in the performance of the different plants.

14          We have developed higher and consistent standards  
15          of operations performance. These are most apparent in the  
16          area of our standards for the conduct of operations, things  
17          like command and control, conduct of turnovers, board  
18          monitoring, log keeping, things like that, basic  
19          fundamentals, once again.

20          And, also, we've clearly communicated expectations  
21          that operations will play a leadership role in all aspects  
22          of station performance.

23          We've also adopted industry best practices and  
24          processes for the prioritization of work, for maintenance  
25          work, for engineering work, and for modifications.

1           We've clearly established expectations that we  
2 intend to be thorough in our pursuit of generic  
3 implications, addressing industry issues and internal issues  
4 as they may pertain to each of our units.

5           As -- some of the results that we have achieved,  
6 I'll highlight here. Some, I think, are particularly  
7 noteworthy and are indicators of progress, not overall  
8 success, but at least progress in the right direction.

9           Oliver mentioned that one of the apparent things  
10 was your performance in challenging evolutions. We've now  
11 performed a number of those successfully in the last several  
12 months.

13           MG -- motor generators have changeouts at Byron  
14 during operation. Control rod drive power supply repairs at  
15 Braidwood during operation, again. Repair of a bottom head  
16 drain leak at Quad Cities, and the successful on time and  
17 error-free performance of logic system functional passing at  
18 LaSalle Unit 1, in addition, I might add, to the operator's  
19 handling of the transients that have been associated with  
20 these SCRAM's that we've experienced.

21           Beyond that, both our outage performing at Byron  
22 and Dresden and the progress that we have made towards  
23 restart at LaSalle in the last six months, I believe are  
24 indicative of substantial improvement in our proficiency and  
25 work planning and execution.

1           The Byron and Dresden -- did I say Braidwood --  
2   Byron and Dresden. The Byron and Dresden outages that we  
3   completed this spring were in the range of 40 days, which  
4   would place them at about the industry median this year, a  
5   substantial improvement compared to their history.

6           We have also made a modest improvement thus far in  
7   the number of maintenance work activities that we are able  
8   to perform in a given work, on the order of about 10  
9   percent.

10           Could I have the next slide?

11           CHAIRMAN JACKSON: Before you go.

12           MR. HELWIG: Yes, ma'am.

13           CHAIRMAN JACKSON: And I, you know, seem to be  
14   wanting to ride this particular horse today, but --

15           MR. HELWIG: Okay.

16           CHAIRMAN JACKSON: Because it's a problem I think  
17   generally with organizations, including our own, in terms of  
18   results-orientation as opposed to the actions.

19           MR. HELWIG: Yes.

20           CHAIRMAN JACKSON: When Mr. Kingsley was talking,  
21   you know, you talked about kind of not really having  
22   implemented the SCRAM reduction program or Owners Group  
23   recommendations.

24           MR. KINGSLEY: That's correct.

25           CHAIRMAN JACKSON: So now you have your basic

1 processes and your fundamentals. How do you know, or how  
2 are we going to know that your basic processes and  
3 fundamentals ensure that you capture what you had not  
4 captured heretofore? Because I guess your latest SCRAM  
5 occurred on June 28th. And I am not trying to particularly  
6 pick on you relative to the SCRAMs, although I tend to view  
7 SCRAMs seriously, and there are a lot of them.

8 MR. KINGSLEY: I do, too.

9 MR. HELWIG: Yes, ma'am.

10 CHAIRMAN JACKSON: But that you should always shut  
11 the plant if you have to, obviously. But it is really more  
12 if there is an issue in an area, and you have these basic  
13 processes and fundamentals, what gives you comfort that the  
14 one is going to ensure that you don't have a problem with  
15 the other? And if you were putting these into place, why  
16 did you not capture those things? Or are the two  
17 disconnected or this just hasn't been in place long enough?  
18 That's really all I am trying to understand.

19 MR. HELWIG: I have two parts of an answer to  
20 that.

21 CHAIRMAN JACKSON: Okay.

22 MR. HELWIG: One is that we were just putting them  
23 in place. It's unfortunate that to some degree it became  
24 self-revealing on the SCRAMs. However, our reviews of our  
25 different programs and our situation and performance did

1 lead to our discovery that there had been a comprehensive  
2 material condition improvement plan developed for Dresden  
3 that we had not followed through on adequately. That was  
4 not self-revealing, that was identified by our rather  
5 intrusive involvement in checking on the status of things.

6 CHAIRMAN JACKSON: But I am saying, will these  
7 actions that you have listed on this slide capture that or  
8 ensure that that kind of thing --

9 MR. HELWIG: In and of themselves, not everything.  
10 The next root cause I was going to speak to on roles and  
11 responsibilities I believe also goes fundamentally to that  
12 issue, primarily the issue of the effectiveness of  
13 oversight.

14 CHAIRMAN JACKSON: Okay. All right.

15 MR. HELWIG: I would like to -- well, let's see,  
16 where was I? Talking about the basics.

17 In order to resolve our Appendix R issue and a  
18 number of other issues associated with Quad Cities' restart,  
19 it turns out that required a rethinking of our fundamental  
20 approach to implementation of a number of fundamental  
21 regulatory programs, Appendix R, Appendix G, maintenance  
22 rule, et cetera.

23 For a moment, I would like to focus on the Quad  
24 Cities Appendix R experience as an example of what we are  
25 doing in that regard and share with you what we have learned

1 from it. It is certainly an issue that has gained --  
2 required a lot of our attention, and your staff's, over the  
3 last year or so.

4 Based on my involvement in the resolution of this  
5 issue, and my review of its history, I conclude that there  
6 were four fundamental root causes of the situation. First  
7 and foremost was a weak minimalist, if you will, original  
8 approach to compliance with Appendix R.

9 Consistent with that attitude, if you will,  
10 towards compliance, the subject was given relatively low  
11 priority and the procedures were not well maintained or well  
12 implemented or maintained over time.

13 Third, and most significantly, there was  
14 inadequate management oversight from the very beginning of  
15 the concept for compliance through the assessment of risk,  
16 and including through the attempts to figure out how to  
17 address these problems during the past year.

18 And, lastly, there was, in fact, a failure to  
19 recognize and take broader corrective action when lower  
20 level gaps, deficiencies or questions were identified over  
21 the years.

22 CHAIRMAN JACKSON: Would a more robust risk  
23 assessment have helped you in some regards with regard to  
24 the Appendix R issues?

25 MR. HELWIG: I have a fairly substantial



1 background in risk and it is fascinating to me to review the  
2 history here. There were -- it is my conclusion that there  
3 were significant shortcuts that were, in some people's  
4 minds, viewed as conservative, taken to the assessment of  
5 risk that led to substantial misunderstanding and  
6 mischaracterization of the plant's capability and it's risk  
7 situation with regard to fire.

8 CHAIRMAN JACKSON: Okay. Thank you.

9 MR. HELWIG: Next slide, please.

10 In the area of corrective actions we have taken a  
11 number in order to establish and interim basis for  
12 compliance. We have implemented a number of modifications  
13 at Quad Cities. We have upgraded the safe shutdown analysis  
14 and the procedures. We have trained the operators on them  
15 and we have implemented a number -- instituted a number of  
16 compensatory actions, again, to establish an interim basis  
17 for compliance.

18 Perhaps most significantly, we have substantially  
19 reduced the fire risk at the station, about 90 percent -- by  
20 about 90 percent, based on a qualitative assessment. That  
21 is based on these changes that I have identified here and a  
22 reexamination of the modeling shortcuts.

23 I would tell you that the changes we have made,  
24 both in -- probably the 90 percent could be divided in  
25 approximately thirds. About a third due to the

1 modifications, a third due to the improvement in procedures  
2 and training, and one-third due to the modeling, correction  
3 of some of the modeling shortcuts.

4 CHAIRMAN JACKSON: I think you know what kind of  
5 questions I am asking today.

6 MR. HELWIG: Yes, ma'am.

7 CHAIRMAN JACKSON: Performance indicators. Did  
8 you have or do you have performance indicators that would  
9 have made you go more aggressively, or in the future would  
10 you go more aggressively, you know, after this kind of  
11 problem? I mean obviously this specific one is on the brain  
12 now because you have -- and that is also part, of course,  
13 folding in learning. But, again, I am harping on this issue  
14 of, --

15 MR. HELWIG: Yeah.

16 CHAIRMAN JACKSON: -- you know, basic processes  
17 and actions, and performance indicators --

18 MR. HELWIG: Sure.

19 CHAIRMAN JACKSON: -- and to what extent they  
20 would allow you to capture this.

21 MR. HELWIG: I believe that our more robust and  
22 comprehensive set of performance indicators would reveal  
23 such items. But that is not enough. I would also say that  
24 what is essential is the degree of management attention that  
25 is applied to identify these issues, assure that their

1 potential significance is understood and that actions are  
2 taken to address them.

3 So I never like to answer these kind of questions  
4 narrowly about do you have the performance indicators that  
5 will tell you. In my experience --

6 CHAIRMAN JACKSON: No, no, no. I mean I am not  
7 disagreeing with you at all. In fact, part of the reason I  
8 keep asking the question is that performance indicators are  
9 important.

10 MR. HELWIG: Yes, ma'am.

11 CHAIRMAN JACKSON: One has to be looking at the  
12 right performance indicators, and at the right level of  
13 specificity. But in the end one also cannot be slaves to  
14 performance indicators.

15 MR. HELWIG: Right.

16 CHAIRMAN JACKSON: And that is basically --

17 MR. KINGSLEY: It is very difficult. In a number  
18 of these programmatic areas, you can have some indicators,  
19 but you have to ensure that program is fully in place.

20 CHAIRMAN JACKSON: That's right.

21 MR. KINGSLEY: Our protection, ISI, IST, EQ.

22 CHAIRMAN JACKSON: Right. And that your work the  
23 plan. That's correct.

24 MR. KINGSLEY: And that you actually work it and  
25 make sure that that is fully implemented out there.

1 COMMISSIONER McGAFFIGAN: When you say that the 90  
2 percent figure, you have improved 90 percent in the fire  
3 area, does that mean that the core damage frequency for  
4 calculated -- if you redid your IPEEE today, it would be  
5 substantially lower?

6 MR. HELWIG: Yes, sir.

7 COMMISSIONER McGAFFIGAN: By approximately 90  
8 percent, it would be below 10 to the minus 4?

9 MR. HELWIG: We have -- the limitations on the  
10 modeling that were done before prevent us from really  
11 accurate requantifying that at the moment. We are in the  
12 process of redoing the analysis to give us a better tool for  
13 that purpose. But we are able to parametrically adjust for  
14 different things and approximate that benefit, and the range  
15 would be from 1.2 to 2 orders of magnitude improvement.

16 COMMISSIONER McGAFFIGAN: Orders of magnitude.

17 MR. HELWIG: Yes.

18 CHAIRMAN JACKSON: Those are orders of magnitude?

19 MR. HELWIG: Yes, ma'am.

20 COMMISSIONER McGAFFIGAN: This modeling issue, it  
21 keeps coming up because one of my earlier questions on  
22 configuration management, you mentioned that you needed to  
23 improve modeling across the board.

24 MR. HELWIG: That's correct.

25 COMMISSIONER McGAFFIGAN: Is it across the board

1 or do you have a plant that -- this came up, I think, at a  
2 previous ComEd meeting we had where perhaps in the IPE and  
3 IPEEEs, you all didn't quite meet industry standards at that  
4 time, but did one of your plants really do a swell job that  
5 you can go to and use as the model for the rest, or is it  
6 really across the board here?

7 MR. HELWIG: I don't have the confidence to point  
8 to one particular plant that was done extremely well. In my  
9 review of both the IPE and IPEEE work that has been done for  
10 each of the plants, I believe there are some unique things  
11 about Quad Cities that made it be worse than the others, if  
12 you will. But not trusting that first level review, we have  
13 a number of experts, we have put together of outside experts  
14 that are very experienced in doing these, who are basically  
15 assisting us in redoing and reexamining all of the IPEs and  
16 IPEEEs.

17 COMMISSIONER MCGAFFIGAN: One of the themes I  
18 sense, -- maybe it goes to Mr. Kingsley -- you know, there  
19 really is a break with the old ComEd in the sense that the  
20 isolation from the industry, the willingness to do the BWR  
21 Owners Group, SCRAM initiatives, the willingness to fix the  
22 modeling, I mean that is the signal you are trying to convey  
23 across --

24 MR. HELWIG: Yes, sir. In fact, in the area of  
25 the PRA modeling that was done at ComEd, it was done rather

1 uniquely, and without a great deal of industry input.  
2 Through the BWR Owners Group we established a process to  
3 certify the PRAs or IPEs. And through that review process,  
4 there were quite a number of problem areas in the IPEs that  
5 have been done for the BWRs that were identified, and we are  
6 in the process of having those corrected.

7 CHAIRMAN JACKSON: That's interesting.

8 MR. KINGSLEY: I think the message is very clear,  
9 we are taking absolutely nothing for granted here. We are  
10 taking no absolutes, other than it needs to be checked and  
11 we need to make sure it is fully in place.

12 MR. HELWIG: If I could have the next slide.

13 MR. ROWE: Could I just interject something? This  
14 is so fundamental and on the key questions from Chairman  
15 Jackson about, Have you got all the measurements right?, you  
16 know, one is always in management in any form seeking for a  
17 better set of measurements to tell you more about the  
18 future, and you never have enough, or the right ones  
19 exactly. But they are getting better.

20 And, unfortunately for you, as well as for me,  
21 some of what we need to see requires three years of  
22 measurements before we have proven to ourselves, let alone  
23 to you, that we have got all the right linkages in place.  
24 But it's easier to answer Commissioner McGaffigan's  
25 question. The problem here is no longer insularity, if that

1 is what it was. Whether you look at the team around me at  
2 the table with the diverse experiences they have or whether  
3 you look at the management teams in all of the plants that I  
4 have been to, we have lots of people who have done it  
5 elsewhere and who would like to see us do it better. We  
6 don't have a problem of ComEd arrogance at this level.

7 What we do have is the need to hammer all these  
8 new and diverse resources into a new culture which has  
9 standards and expectations and commitment adequate to the  
10 challenge, and so, you know, we have gone through your first  
11 level of question. We are more than willing to listen but  
12 we are at the second level of problem -- how do you pull  
13 this all together into a self-reinforcing set of exercises.

14 It is truly underway but it is truly far from  
15 done.

16 MR. HELWIG: Next slide, please.

17 Wrapping up on Appendix R, as I indicated, we  
18 satisfied ourselves and the Staff that we have achieved at  
19 least an interim basis for compliance and improved the  
20 situation at Quad Cities, but beyond that, we have committed  
21 to the timely completion of an enhancement plan. This is an  
22 orderly process that I am very closely and tightly  
23 controlling.

24 First, to perform analyses to determine the  
25 available times to take action.

1           Second, to assess our vulnerability and capability  
2 to cope with fires in each and every fire area.

3           Next, to identify the improvement opportunities  
4 that are available given that, to understand their risk  
5 reduction potential and then to select an optimum set of  
6 improvements to be made in the plant.

7           This complete review will be finished by the end  
8 of the year, and as we are proceeding and specific change  
9 opportunities that are obvious or apparent in their benefit  
10 are identified, we will be implementing them as we go.

11           We have extended our reviews beyond Appendix R for  
12 Quad Cities, to Appendix R at all of the stations and to 15  
13 other regulatory programs at each of the sites. Today we  
14 have completed thorough reviews of five of those programs --  
15 ISI, IST, Appendix R, Maintenance Rule, and Service Water --  
16 Generic Letter 89-13, and we have completed as well 11 less  
17 thorough scoping reviews, I call it, to identify any  
18 weaknesses.

19           Out of those reviews we have prioritized our focus  
20 and our improvement initiatives going forward.

21           Leaving this discussion of the fundamentals and  
22 what we are doing to put it in place on each of the  
23 programs, I will turn to the next slide and discuss the  
24 third root cause briefly, the lack of clarity with regard to  
25 roles and responsibilities.



1           As Oliver indicated, this was quite a problem. As  
2 I came into the organization in January, it was fascinating  
3 to me to discover that the mindset or understanding of this  
4 issue was rather simplistic. Everyone's thought pretty much  
5 was either you were centralized or decentralized -- yes/no,  
6 black/white -- instead of a more fundamental understanding  
7 of what it took at the next level of understanding of  
8 appropriate roles and responsibilities in order to be  
9 successful and perform effectively in a large organization.

10           There was apparently quite a bit of history to  
11 doing it either one way or the other that left things a  
12 little bit confused -- more than a little bit confused.

13           At this point we have completed a review of all of  
14 our support functions. We have redefined their roles  
15 specifically to address the appropriate corporate functions  
16 of governance, strategy, and oversight, as well as technical  
17 expertise. We have evaluated the station organizations and  
18 are in the process of finalizing an defining standard site  
19 organizations and staffing levels.

20           By design in our process the site organizations  
21 and the support organizations are aligned for effectiveness  
22 of communications and interface.

23           We have also completed an assessment of the skills  
24 and experience of our existing staff. We have selected  
25 those best suited to perform these corporate roles, and we

1 have just completed a reformulation of the organization and  
2 its staffing more closely along the lines of industry  
3 standards in terms of numbers of personnel.

4 In the area of results, it is a little harder in  
5 this area -- you know, organization roles and  
6 responsibilities -- to point to tangible results. I have  
7 attempted to think of a few that would articulate the  
8 progress that we believe we are seeing, and I would submit  
9 to you that they are in the area of the kinds of reviews  
10 that we have performed that I was talking about before of  
11 each of the programs, to be involved in this corporate  
12 oversight role in each of these areas, to go out and view  
13 exactly what is being done, how it is being implemented,  
14 identify performance weaknesses or programmatic weaknesses  
15 that may affect more than one site.

16 We have also been successful of resolving a number  
17 of longstanding technical issues beyond the Appendix R issue  
18 at Quad Cities, and actually that success has been  
19 demonstrated in the successful resolution of quite a large  
20 number of questions and challenges that have been raised in  
21 "A" inspections that we have been successful at both  
22 Braidwood and Quad Cities this spring.

23 Lastly, I would point to the success that we are  
24 having in developing common processes and procedures, which  
25 we did not heretofore have in order to ensure consistent

1 performance. Such programs as our program of alternate  
2 parts replacement, for modifications, for operability  
3 evaluations, and for performance-centered maintenance,  
4 programs like that.

5 That concludes my discussion on these two.

6 MR. KINGSLEY: You have a question here.

7 COMMISSIONER McGAFFIGAN: Can I ask, as you went  
8 to the standard site organization, did these alignments --  
9 how did your negotiations with the bargaining unit go? I  
10 mean was this something that had to be negotiated?

11 MR. HELWIG: I defer that to Mr. Stanley.

12 MR. STANLEY: Not at the present time. There's no  
13 negotiations required for the standard site organizations.  
14 If needed, we can do that in the future. However, this  
15 information has been communicated with the bargaining unit.

16 MR. HELWIG: Thank you for your interest.

17 CHAIRMAN JACKSON: Thank you.

18 MR. KINGSLEY: Jeff Benjamin will now discuss the  
19 fourth root cause -- inadequate oversight. Jeff?

20 MR. BENJAMIN: Thank you, Oliver, and I will try  
21 to punctuate the discussion that has been ongoing relative  
22 to the role of oversight.

23 We do recognize the importance of oversight, in a  
24 strong and continuing and intrusive oversight in terms of  
25 making sure that these behaviors become institutionalized,

1 as discussed earlier, and therefore we have put in place a  
2 more rigorous oversight program designed at really driving  
3 the behaviors at the sites predominantly to self-identify  
4 issues and to drive those issues to resolution. Rather than  
5 let the issues self-review or be identified by outside  
6 organizations. In light of this I will discuss our efforts  
7 to date to enhance the corporate oversight of our plants,  
8 and although early in changing the behaviors of the  
9 organizations, we do have some early results that I'd also  
10 like to discuss.

11 First of all, we have increased management  
12 involvement, and that has been one of our strongest actions  
13 taken to date. This has been a step change in terms of the  
14 involvement at the sites, and could best be described as an  
15 intrusive type of involvement. It involves a daily phone  
16 call each morning with each plant and discussion of plant  
17 performance each day. There are ongoing and routine plant  
18 performance review meetings at each of the sites, and those  
19 are I will emphasize at the sites, where we are again  
20 discussing these performance issues, bridging the  
21 performance indicators, as you may. And Mr. Kingsley also  
22 holds a once-monthly or a monthly senior executive site  
23 leadership management meeting where again we're discussing  
24 the performance of the sites and the progress on achieving  
25 results. Again, primary emphasis on all these meetings is

1 results and performance.

2 We have strengthened independent oversight by  
3 better focusing our resources and by monitoring performance.  
4 We have really gone to a big-picture performance monitoring  
5 mode, which also involves real-time debrief of site  
6 management as far as what the issues are that are impacting  
7 performance. We're utilizing people with the right  
8 expertise to look at the right types of things at the sites.  
9 Currently at the five operating sites I have 12 individuals  
10 overseeing operations who have formerly held senior reactor  
11 licenses. I will continue to emphasize the need to have the  
12 right people looking at the right stuff.

13 We provide ongoing oversight of our corrective  
14 action program to make sure not only that the process is  
15 being followed -- and you spoke of indicators earlier. I  
16 would say our indicators to date have been predominantly  
17 process oriented. We are also focusing on what the results  
18 are in terms of what's getting fixed, and are in the process  
19 of implementing some enhanced performance indicators to  
20 focus now on the results end of the program.

21 We've spoken a little bit about the role my  
22 organization will play relative to the effectiveness reviews  
23 of the strategic reform initiatives. That will be another  
24 key item, and I believe will be an exercise that will also  
25 enable my organization to also understand what it looks like

1 to go out and monitor for results. I have some continuing  
2 work to do in my organization to do that.

3 I also want to emphasize I have the full support  
4 of Mr. Kingsley and the executive team to provide an  
5 intrusive oversight function at each of the sites.

6 As far as the integration of the support function,  
7 as Dave Helwig mentioned, we've clarified the  
8 accountabilities for the various support functions,  
9 including their role in providing oversight as part of their  
10 ongoing support. In addition to their self-assessment  
11 focus, our organizations are also beginning to perform  
12 collaborative assessments. What that allows us to do then  
13 is to leverage both the technical expertise within his  
14 organization as well as some of the oversight skills I have  
15 in providing a broader set of appropriately technically  
16 oriented assessments, and an assessment focus.

17 We have improved our analysis and reporting by  
18 focusing -- again Mr. Kingsley mentioned earlier the monthly  
19 nuclear oversight report. We have shifted the focus of that  
20 oversight report to include both site-specific issues as  
21 well as Nuclear Generation Group-wide issues, and to deliver  
22 those to the management team so those issues are getting the  
23 right level of attention.

24 For example, last month through the conduct of our  
25 review of material condition progress we identified

1 weaknesses in implementing our system health indicators  
2 program. That issue was discussed at Mr. Kingsley's monthly  
3 executive meeting, and further reinforcement was made to the  
4 site vice-presidents to make sure that additional management  
5 attention is provided to make sure that program does for us  
6 what we believe it should do for us.

7 Finally in NGG-13 we are also enhancing our review  
8 boards, and very simply stated what that is is putting in  
9 place a contemporary board such as a plant operating review  
10 committee and the Nuclear Safety Review Board to perform our  
11 license basis reviews as you would see at most other nuclear  
12 sites.

13 CHAIRMAN JACKSON: That did not exist?

14 MR. BENJAMIN: That's correct. We had relied upon  
15 the older version of the onsite and offsite reviews, which  
16 are typically staff personnel performing those reviews.

17 Moving on to discussion of results, through the  
18 collective efforts I've discussed, we have begun to shift  
19 our management focus to fixing lower-level performance  
20 issues, and again issues we view as precursors to events or  
21 possibly programmatic in nature. Examples of this include  
22 our current focus on configuration control. Our  
23 self-identification of radiation protection issues across  
24 our sites was another issue that was identified through  
25 these processes, and recently at our boiling water reactors

1 as discussed earlier, the lack of progress in addressing  
2 some of the vendor information that was available to us.

3 We implemented effective oversight of the Quad  
4 Cities restart and are implementing a very similar process  
5 for our LaSalle restart. We implemented a Quad Cities  
6 restart readiness review board comprised mainly of  
7 executives from the corporate office, and also included Mike  
8 Heffley, our site vice-president from Dresden.

9 I will mention this board gave us some valuable  
10 insights as far as the rigors that were employed by the site  
11 organization in their own review process, and also gave us  
12 some insights in terms of the plant organization's readiness  
13 to operate safely and reliably following restart.

14 We intend to employ a very similar approach for  
15 our LaSalle restart board, and that will be getting under  
16 way later this week.

17 As far as our nuclear oversight products, as  
18 mentioned earlier, we're continuing to improve our products  
19 now and exercising to meet the expectation that we deliver  
20 accurate and timely performance assessment results that fold  
21 into the mixer with performance indicators in the management  
22 meeting so we get a collective view of performance within  
23 the Nuclear Generation Group. We have implemented year to  
24 date several multisite audits of a broad area of topics --  
25 for example, maintenance and engineering. And it gives us a



1 good basis now to compare from site to site the various  
2 performance that we're seeing. And again, using this to  
3 complement what we understand through our meetings and  
4 through the performance indicators.

5 Finally, our integrated monthly performance  
6 reviews are being used to identify and drive the resolution  
7 of key performance issues. The site management review  
8 meetings and the monthly executive meetings are focused on  
9 performance, and again we're using these to validate what  
10 the performance indicators are telling us as well as what  
11 the nuclear oversight products are telling us.

12 Interestingly it was through this process that we  
13 identified the need to better focus our performance  
14 indicator on these configuration control issues we spoke of  
15 earlier. Previously the focus was on out-of-service-related  
16 areas, and the goals that were in there we felt were also  
17 inappropriate. Through this process and through this review  
18 we identified the need to make those more appropriate.

19 And with that, that concludes my remarks, unless  
20 there are some questions.

21 CHAIRMAN JACKSON: What are your metrics for  
22 effectiveness? I mean, how do you decide that you're being  
23 effective in your oversight?

24 MR. BENJAMIN: I'm using primarily a couple of  
25 metrics. First of all, I am looking at the

1 self-identification of issues by the line organization. One  
2 of our key roles is to reinforce the need for strong  
3 self-assessment, and to get away from the reliance of others  
4 identifying problems. I use that as one of my metrics for  
5 effectiveness. I also look at the nature of issues that are  
6 being identified.

7 Certainly the most preferable identification  
8 metric is self-identified, followed by identification by my  
9 organization. Issues identified by external organizations  
10 or those that are self-revealing -- I view those as failures  
11 on the part of my organization. And those metrics  
12 surrounding those concepts are primarily the ones I look at.

13 CHAIRMAN JACKSON: Some utilities have begun to  
14 make extensive use of industry peers when performing  
15 independent reviews and assessments. Are you doing any of  
16 that?

17 MR. BENJAMIN: Yes. That is a core value of mine  
18 that I believe strongly in. For example, we brought in some  
19 outside help to assist in our oversight of the Quad Cities  
20 restart.

21 CHAIRMAN JACKSON: Okay. Thank you.

22 MR. KINGSLEY: Thank you, Jeff.

23 Now I'd like to direct our presentation to Steve  
24 Perry, our BWR vice-president. He'll discuss Dresden, Quad  
25 Cities, and LaSalle.

1 Steve?

2 MR. PERRY: First I'll discuss Dresden.

3 There has been much improvement over the last two  
4 to three years at Dresden, and one of the better performance  
5 indicators to measure that improvement is capacity factor.  
6 And if I look at the last 12 months from today, which  
7 included a refueling outage and a planned two-week outage to  
8 replace a main power transformer at Dresden, the capacity  
9 factor has been 83 percent over that one year. If you  
10 contrast that to an average over the last five years of 51  
11 percent, the improvement's evident.

12 Now despite that improvement there are many issues  
13 which remain to be addressed, not the least of which is the  
14 recent high frequency of automatic SCRAMs.

15 But first I'll talk about some of the  
16 accomplishments here. Only a couple will I call out to  
17 contrast where we were in the past to where we are now.

18 First, the high level of operations  
19 professionalism. In 1994, as the vice-president for BWR, as  
20 I kept Dresden plant shut down for four months because I was  
21 uncomfortable with the degree of professionalism and  
22 attitude of the operators in the plant.

23 Contrast that to the current situation as best by  
24 an anecdote. Last Tuesday, one week ago, in the evening I  
25 was watching a power ascension on one of the units in the

1 control room at Dresden. There was an NRC inspector from  
2 Region III headquarters licensing branch. And he told me he  
3 was there at Dresden so that he could keep current on the  
4 degree of professionalism, decorum, and formality that he  
5 should expect to see at other main control rooms as he did  
6 his license exams. So that's the contrast between four  
7 years ago and where we are today.

8 More quantitative measure, we talked briefly  
9 before about radiation exposure. At the end of 1994 the  
10 three-year average exposure per unit at Dresden was over 500  
11 rem. It was one of the worst in the United States. At the  
12 end of last year, 1997, the three-year average exposure per  
13 unit at Dresden was 290 rem. At the end of this year, a bit  
14 of a promise here, but if we continue on the track that we  
15 are with Dresden's exposure, the three-year average will be  
16 210 rem per unit. So there's measurable improvement.

17 Now I'd like to go on to the challenges.

18 CHAIRMAN JACKSON: Let me talk to you for a quick  
19 minute.

20 MR. PERRY: Sure.

21 CHAIRMAN JACKSON: Do NRC routine inspection  
22 assessments reports, what's documented in the inspection  
23 reports, do they agree with your conclusions?

24 MR. PERRY: Yes, they do. We have seen many  
25 inspection reports that talk of the operators' performance.

1 You may recall in the end of 1996 we had an independent  
2 safety inspection conducted, and comments made at the  
3 time -- in fact, Mr. Collins, who's over here, was manager  
4 of the team -- the comments made by the team then was the  
5 control room was one of the best two or three in the United  
6 States. And we see the same sort of thing in these other  
7 areas.

8 CHAIRMAN JACKSON: Now I think I saw information  
9 to the effect that Dresden station has 60 systems in the  
10 maintenance rule A1 category. Is that correct?

11 MR. PERRY: No, it's not quite that high yet.

12 CHAIRMAN JACKSON: Okay.

13 MR. PERRY: I think the number is 23.

14 CHAIRMAN JACKSON: Okay. All right.

15 MR. PERRY: Quad Cities has a much higher number,  
16 but not Dresden.

17 CHAIRMAN JACKSON: Aha.

18 MR. PERRY: But Dresden, 23 is still a high  
19 number.

20 CHAIRMAN JACKSON: How does that compare to  
21 industry peers?

22 MR. PERRY: To the top quartile performers it's  
23 much higher, much higher. The top quartile performers are  
24 in the single digits.

25 CHAIRMAN JACKSON: And the lower quartile

1 performers are where?

2 MR. PERRY: I don't know. I'm looking at the top  
3 quartile to be honest with you.

4 [Laughter.]

5 COMMISSIONER DICUS: Good.

6 CHAIRMAN JACKSON: Okay.

7 MR. PERRY: Let's talk a little bit about  
8 challenges here. On this slide we already discussed  
9 configuration control. I'd like to particularly point out  
10 the material condition, which requires continued  
11 improvement. It's one of the highest priorities at the  
12 Dresden station. And despite a resolution of a number of  
13 longstanding issues and a considerable corrective work  
14 backlog reduction over the last year, we have to continue to  
15 improve material condition. It still affects D rates at the  
16 site, and it has had a direct effect on the frequency of  
17 SCRAMs. And I'll talk about SCRAMs here in a minute. In  
18 fact, right now.

19 I would say that the SCRAMs are the result of a  
20 residual problem from Dresden's history. And on the next  
21 slide I'll talk more in detail.

22 I'll start off by saying I am accountable for this  
23 area. I was the site vice-president for most of 1996 and  
24 most of 1997. Dresden's history is such that in the  
25 eighties and early nineties, performance, especially in the

1 engineering-related areas, was often inadequate. This was  
2 the same period of time that much of the industry's efforts  
3 to reduce the frequency of SCRAM's were occurring. And  
4 Dresden's response is best described as partial. It left  
5 much to be desired.

6 In the last several years, in all that we were  
7 doing to improve operations, maintenance, engineering, RAD  
8 protection, chemistry, we overlooked this. It did not get  
9 the rigor or review it should have gotten, pure and simple.

10 As a consequence to that, on the second bullet on  
11 root causes, where we talk of tolerance of half-SCRAM's --  
12 half-SCRAM's means that one of the two sets of relays  
13 required to SCRAM the reactor, two divisions, one of them is  
14 deenergized for testing, and that leaves you with this  
15 susceptibility to a random or a malfunction in the other  
16 unit, and you SCRAM.

17 The amount of time we were in a half-SCRAM at  
18 Dresden, in a month's period, per unit was one hour. We  
19 entered half-SCRAM about 105 times to do the surveillance  
20 testing, almost all of which were not necessary to go that  
21 far.

22 Today, and just very recently, it's 15 seconds a  
23 month, as contrasted to an hour.

24 Now I don't tell you that as an indication of  
25 improvement, because I don't look at it that way. We're now

1 where the industry is. I mention that to you as indicative  
2 of where we were not very long ago in this area.

3 And, similarly, I also mentioned about material  
4 condition. Many of the things that the rest of the industry  
5 had done in material condition to address SCRAM's, in  
6 particular, were not done at the Dresden Station to the  
7 degree that they should. As a result of this, we're going  
8 back and reviewing everything that we did in SCRAM-reduction  
9 efforts in the industry, even ones that we think were done  
10 well or were accomplished. I shouldn't use the word,  
11 "well." Were accomplished at the Dresden Station. We're  
12 going to re-review those to make sure that they were done  
13 well. And that's what current effort is today.

14 CHAIRMAN JACKSON: Let me ask you a couple of  
15 quick questions:

16 So your argument would be that, even with these  
17 root causes of ineffective utilization of industry  
18 performance, tolerance of half-SCRAM conditions, and the  
19 material condition issue, that it's not indicative of a  
20 decline in performance?

21 It's -- you're telling me it's a residual of the  
22 past?

23 MR. PERRY: I think that's true.

24 CHAIRMAN JACKSON: As opposed to a reflection of  
25 the present?



1 MR. PERRY: Yeah. I think that's true, Chairman  
2 Jackson. I -- I've looked pretty carefully at this because  
3 I know there is interest. My boss is interested in your  
4 part, on whether we're seeing decline at any station. We've  
5 just gone through that at the Quad Cities Station over the  
6 last six to 12 months.

7 I don't think it is because I don't see that  
8 decline indicative in other areas -- indicated in other  
9 areas.

10 CHAIRMAN JACKSON: Have you done a systematic  
11 review on all plant systems or by some kind of risk ranking?

12 I mean how --

13 MR. PERRY: Yes.

14 CHAIRMAN JACKSON: How --

15 MR. PERRY: As a matter of fact --

16 CHAIRMAN JACKSON: -- show it --

17 MR. PERRY: -- in 19 --

18 CHAIRMAN JACKSON: Let me finish the question,  
19 please.

20 MR. PERRY: Oh, I'm sorry.

21 CHAIRMAN JACKSON: That's okay.

22 MR. PERRY: Beg your pardon.

23 CHAIRMAN JACKSON: How are we to be assured that  
24 the material condition issues affecting your SCRAM  
25 performance are not more widespread?

1 MR. PERRY: Yeah. In 1996, we conducted an  
2 exhaustive review of a number of systems -- 27 systems --  
3 important systems to its reliability and safety at the  
4 station. It was jointly managed by Dresden and by General  
5 Electric and --

6 CHAIRMAN JACKSON: When was that?

7 MR. PERRY: In 1996.

8 CHAIRMAN JACKSON: 1996. Okay.

9 MR. PERRY: Right. We identified 494  
10 recommendations to improve the reliability of the various  
11 systems at the Dresden Station, a number of which were  
12 related to some of the SCRAM's that we've just had --

13 CHAIRMAN JACKSON: So if that was --

14 MR. PERRY: -- and --

15 CHAIRMAN JACKSON: -- the case, why did you not  
16 catch this?

17 MR. PERRY: Well, it did not identify the  
18 half-SCRAM situation in those things, which has been a  
19 cause. And we did identify some of these things.

20 We're about one-third of the way through resolving  
21 all of those 494. We will get another 50 or so this year,  
22 another 150 next year.

23 As a matter of fact, we're increasing the rapidity  
24 with which we deal with these issues. We're re-reviewing  
25 them for what priority we want to attack them, specifically

1 related to avoidance of SCRAM's in the future.

2 Before we do maintenance now, before we do  
3 surveillances now, we are, each time, reviewing the list to  
4 see if there's something in the areas that we're dealing  
5 with that could cause us some problems that we haven't fixed  
6 as yet.

7 CHAIRMAN JACKSON: But do you understand my  
8 difficulty?

9 In a certain sense, if you've done this  
10 comprehensive review, which you began two years ago, and you  
11 have this huge number of systems that you say you looked at,  
12 and you particularly looked at material condition issues,  
13 but then you have something as basic as a SCRAM reduction,  
14 and there's been a -- an industry SCRAM reduction program in  
15 existence for over a decade, but yet you didn't get that,  
16 how do I have comfort relative to what you're saying in  
17 terms of your overall assessment that began two years ago?

18 MR. PERRY: Well, it's not that we didn't do any  
19 of these things. We did a good many of them.

20 A specific example -- I don't want to focus too  
21 much on an example -- is the feedwater control system, which  
22 has caused numerous problems at Dresden Station. That is  
23 fixed. That is working as well as it could work at the --  
24 so we fixed that and, you know, there are many others of  
25 those things.

1           We didn't approach it with enough vigor to get  
2       them all, quite frankly, and that, as I started off by  
3       saying, that's my accountability here.

4           MR. KINGSLEY: Let me give you my read on this.  
5       This is a good news, bad news story.

6           Clearly, a number of these measures should have  
7       been taken care of prior to my coming aboard and I worry  
8       very much about, you know, why we didn't do that. I was  
9       worried about discovery, you know, when I first found out  
10      about this.

11          The good news is, we at least know what -- what we  
12      have to do, but we have to get at it and really get these  
13      things fixed so we can come up, and that's part of our  
14      performance again. Just as simple as that.

15          We did not do as many of those items. We did a  
16      large number of items on feedwater, as an example, but we've  
17      fixed other problems. But there should have been more done.

18          CHAIRMAN JACKSON: It's just closing the loop  
19      here.

20          MR. KINGSLEY: Oh, yes. Right.

21          CHAIRMAN JACKSON: All right. I mean that's the  
22      problem I have, that is it your discovery or is it that you  
23      don't -- didn't fix the problem?

24          MR. PERRY: I believe it's the latter.

25          CHAIRMAN JACKSON: Okay.

1 MR. PERRY: All right.

2 COMMISSIONER MCGAFFIGAN: Could I ask whether the  
3 latter was a resource constraint issue?

4 Were you resources constrained in how many of the  
5 494 items identified could be addressed, and what time  
6 period, and have any of those resource constraints been  
7 relaxed?

8 MR. PERRY: I don't think it was a resource issue.  
9 I think that -- and this, to me, sounds like a bit of an  
10 excuse. But there was so much to do at the Dresden Station,  
11 and there was so much attention being given, principally to  
12 operations, a lot to overall areas and the material  
13 condition at --

14 It wasn't that we didn't have the resources. I  
15 have plenty of resources. We didn't get to manage  
16 everything that we should have.

17 I'll talk a little bit about Quad Cities.

18 There is no doubt that the performance declined in  
19 1997. Some of the things that we have done to address this  
20 performance declination was to change the site management.

21 We've made significant changes in the senior  
22 managers at the site. Six of the senior managers are new,  
23 including the Site Vice President.

24 We have instilled high standards and a strong  
25 sense of accountability. I chose that word, "instilled,"

1 carefully because it was the corporate organization that  
2 infused these standards and accountability into the site  
3 management at the Quad Cities Station, the individuals  
4 sitting here at this table.

5 We are now watching to see if these high standards  
6 and improved sense of accountability come self-sustaining  
7 with the senior management team we now have in place.

8 So we are continuing the extensive oversight that  
9 we've provided Quad in the last five or six months to watch  
10 the senior management team and how they perform.

11 I'd like to talk about one of the fundamentals  
12 that we've been chatting about here, and that's the  
13 increased sensitivity to regulate -- regulatory compliance.  
14 This is a basic fundamental to operate the plant in  
15 accordance with the regulations.

16 We had many problems with this in 1997. I'll  
17 discuss a few of them in a second. But this fundamental,  
18 amongst others, is receiving considerable attention, and  
19 we're watching closely how the site now picks up the load on  
20 this, dealing with fundamentals.

21 On the next page, I've listed some  
22 accomplishments. I have to emphasize that all of these  
23 items are recent. In all of these areas mentioned here, in  
24 1997, we had significant problems, and we are now starting  
25 to see a reversal of the trend.

1 I'll give you one example and that's in the  
2 technical specification surveillances.

3 From the end of 1996 through 1997, we had 19  
4 performance areas in the conduct of surveillances carved by  
5 technical specifications. Since February of this year, we  
6 have had none.

7 Now four months does not a trend make. However,  
8 it is a start, and it is continuing to get significant  
9 management oversight at the station, as well as from me and  
10 the corporation.

11 CHAIRMAN JACKSON: What about the Saturday SCRAM  
12 during a surveillance test? Was that due to an error?

13 MR. PERRY: No. That was not an error. The  
14 situation was that we were in a half-SCRAM condition --

15 CHAIRMAN JACKSON: Okay.

16 MR. PERRY: -- and quite frankly, did not need to  
17 be.

18 If we had promptly employed the changes that were  
19 made at the -- recent changes that were made at the Dresden  
20 Station, very recent changes, we would not have had to be in  
21 a half-SCRAM. But we were doing surveillance on power range  
22 meter, and we had a failure on a SCRAM discharge high-level  
23 switch which caused the other set of relays to drop out on  
24 the SCRAM.

25 CHAIRMAN JACKSON: Would it be fair --

1 MR. PERRY: Those are --

2 CHAIRMAN JACKSON: -- to say that you did not have  
3 a procedural error, but you might have had a judgment error  
4 or a timeliness --

5 MR. PERRY: It was a --

6 CHAIRMAN JACKSON: -- to propagating --

7 MR. PERRY: -- process error in the way we were  
8 doing testing.

9 CHAIRMAN JACKSON: All right. All right.

10 MR. PERRY: The people error occurred before the  
11 actual conductive thing and that we hadn't taken action on  
12 it. Preventable SCRAM. No doubt about it.

13 CHAIRMAN JACKSON: But you're taking steps now to  
14 propagate more lessons learned from one site -- one site to  
15 --

16 MR. PERRY: Yes, we were. And, in fact, we were  
17 in the process of doing that. We were not fast enough.

18 CHAIRMAN JACKSON: Okay. Commissioner?

19 COMMISSIONER MCGAFFIGAN: The sort of data that  
20 you had on Dresden about the half-SCRAM situation going from  
21 an hour to 15 seconds, et cetera, do you have that same data  
22 for the Quad Cities?

23 MR. PERRY: I don't have it exactly, but it's  
24 closer to the hour than the 15 seconds.

25 COMMISSIONER MCGAFFIGAN: Right.



1 MR. PERRY: But it is becoming, today, before we  
2 do the next surveillance, in the order of 15 seconds.

3 COMMISSIONER MCGAFFIGAN: Okay.

4 CHAIRMAN JACKSON: Okay.

5 MR. PERRY: Quad Cities challenge, we just  
6 discussed one of them here. SCRAM's are a real concern to  
7 us.

8 I mention up again at the top, "reinforcing  
9 operations fundamentals," just to make a point about  
10 fundamentals.

11 I'm talking about the senior reactor operators in  
12 the control room holding their reactor operators accountable  
13 for achieving the high standards of performance. That's a  
14 very basic fundamental, accountability in the control room.  
15 It's one of the things that we're providing significant  
16 amount of oversight to watch those senior reactor operators  
17 and how they control their reactor operators.

18 Mr. Helwig mentioned all of the activities and  
19 efforts that we're going to put in place in the fire  
20 protection improvements. All of these other areas have a  
21 significant amount of works associated with them similar to  
22 that.

23 I believe that the site is well aware of the  
24 amount of work that must be done, and it's now just a  
25 question of doing the work.

1 I'd like to go on briefly to LaSalle.

2 CHAIRMAN JACKSON: Before -- let me just ask you  
3 this overarching question.

4 Was your statement -- would you make a statement  
5 that you think Quad Cities' performance has declined,  
6 improved or remained the same?

7 MR. PERRY: I think that since the beginning of  
8 the year that the decline that was noticed in 1997 has been  
9 arrested. It is too early to say that it's improving.

10 CHAIRMAN JACKSON: Okay. Thank you.

11 MR. PERRY: LaSalle Station, very briefly, is  
12 making progress towards restart. We know where we are with  
13 a great deal of accuracy. We are on track to finish all the  
14 work and all the testing by the end of July, and we plan to  
15 be ready to restart at that point.

16 I would just briefly mention, in expanded scope,  
17 over the last six to eight months, we have significantly  
18 expanded the scope of the restart effort. We have added  
19 reviews of all the regulatory programs, as Mr. Helwig just  
20 discussed. We have put the SCRAM reduction lessons learned  
21 from Dresden into their -- into their effort, and we have  
22 taken a two-year, and then, subsequently, a five-year look  
23 back in every department at all of the corrective actions  
24 performed, to look for effectiveness, and added what needed  
25 to be into the scope.

1 CHAIRMAN JACKSON: Let me ask you a question. Is  
2 the -- is the LaSalle containment the same as the WNP2?

3 MR. PERRY: In some respects, yes, and some  
4 respects, no. Not in detail, but in concept, it's a Mark 2  
5 containment. Yes, ma'am.

6 CHAIRMAN JACKSON: Is there anything in terms of  
7 the WNP2 ECCS room flooding event that at all pertains to  
8 LaSalle?

9 MR. HELWIG: It does not appear to be.

10 CHAIRMAN JACKSON: It doesn't appear.

11 Are you taking a look at that --

12 MR. HELWIG: Yes, ma'am.

13 CHAIRMAN JACKSON: Okay.

14 MR. PERRY: I will boil down these accomplishments  
15 into saying that we have improved the plant. We've improved  
16 the programs. We've improved the procedures to which we  
17 conduct operation -- conduct operations and maintenance, and  
18 we have improved the people.

19 Now this last comment is the toughest to say with  
20 any assurance because people are involved. So if we turn to  
21 the challenges, human performance and operations leadership  
22 relate very closely to human performance.

23 We are giving very sharp focus in this area and  
24 our preparations to get started up, but in our transition to  
25 the operating mode, we will very closely provide senior

1 management oversight, both from the station and from other  
2 stations, to watch operations perform in the early stages of  
3 critical operation, similar to what we did at Quad Cities  
4 and similar to what we did, very successfully, as we look  
5 back at the Dresden Station. That will happen as we do  
6 this.

7 CHAIRMAN JACKSON: Have you done system readiness  
8 reviews on all the --

9 MR. PERRY: Yes, we have. Every single system has  
10 had a system readiness review. The site has been through  
11 that. The site has been through all the department -- or is  
12 working through the departmental reviews, and my oversight,  
13 as part of the Corporate Oversight Team -- I'm the Chairman  
14 of that group -- is going to start Thursday of this week.

15 COMMISSIONER MCGAFFIGAN: How closely are the two  
16 units going to start up?

17 MR. PERRY: Unit 2 is well behind. We've  
18 concentrated on Unit 1 and Unit 2's efforts will be  
19 essentially starting at the end of next month in earnest.

20 In fact, that's what the second bullet there is,  
21 to indicate that we will have a number of people working in  
22 Unit 2 at the station, and we've taken clear steps to  
23 protect the operating unit while we're working on the -- on  
24 the second unit.

25 CHAIRMAN JACKSON: Okay. Thank you.

1 MR. KINGSLEY: Thank you, Steve.

2 Gene Stanley will now briefly discuss our  
3 pressurized water reactor at Zion, Byron and Braidwood.

4 Gene?

5 MR. STANLEY: Good morning. Zion has been  
6 permanently shut down, defueled and decommissioning  
7 continues without incident.

8 We have completely destaffed the station. We  
9 successfully completed recently a maintenance room  
10 inspection.

11 CHAIRMAN JACKSON: I mean somebody goes around  
12 periodically and looks at just --

13 [Laughter.]

14 MR. STANLEY: Our destaffing plan took the plant  
15 from about 800 people to 180 people. That's completed.

16 We are conducting routine public meetings with the  
17 NRC to discuss our process. In addition, we converted both  
18 generators to synchronous condensers to support the  
19 electrical grid stability.

20 With regard to Byron and Braidwood, the bar has  
21 been raised. Byron Station, steady deployments. Recent  
22 back-to-back outages has allowed us to make many  
23 improvements. We had 159 days of outage since November of  
24 '97.

25 We are emersed from the outage, and it does now

1 allow us to implement programmatic and process changes with  
2 --

3 CHAIRMAN JACKSON: How did the steam generator  
4 replacement go?

5 MR. STANLEY: It went very mixed. As far as the  
6 success of the steam generator's performance subsequent to  
7 the outage, that's excellent.

8 As far as the actual installation of the steam  
9 generators, we have many areas for improvement, and I will  
10 go through that in lessons learned, talking about Braidwood  
11 Station.

12 CHAIRMAN JACKSON: Okay.

13 MR. STANLEY: We are refocusing the organization  
14 of strong operations and a drive for excellence.

15 In accomplishments, in operation -- operational  
16 leadership, they are strong, especially in the reactivity  
17 management area.

18 There has been a significant reduction in our  
19 engineering overall backlog.

20 We have improved radiation exposure controls. In  
21 fact, the steam generator replacement outage, although  
22 extended by 22 days, came in at 75 percent of the original  
23 goal.

24 We have improved our foreign material exclusion  
25 controls program. This was a prior weakness at Byron

1 Station.

2 We have reduced the fire protection barrier  
3 impairments to only three from some 200 in the past.

4 Our challenges. We are implementing the improved  
5 technical specifications. We expect to implement that in  
6 January of 1999. We have to implement that without error.

7 Design control is another area. We have problems  
8 in attention to detail and in post-modification testing, and  
9 we are focusing on those two areas, specifically.

10 Maintenance rework is another area. Some 40  
11 percent of all rework done relates to the actual maintenance  
12 worker performance. We have provided the tools to the  
13 individual. Now it comes down to strict accountability to  
14 do their job correctly the first time.

15 Braidwood Station. Overall performance is strong.  
16 Operation performance with a definite focus by the people of  
17 the station at achieving excellence.

18 Their accomplishments are a strong safety focus,  
19 especially in operations, and operations leadership role is  
20 improving continuously.

21 We are decreasing our maintenance backlogs, and we  
22 are improving our ability to execute work.

23 The challenges, like Byron, they are implementing  
24 the improved tech specs during June -- or January of 1999.

25 Configuration control. This is an issue across

1 all of our stations. I am trying to discuss all of them,  
2 but it's an issue at Braidwood.

3 We have put the tools in place. It is a human  
4 issue. It is accountability and management involvement in  
5 solving this problem.

6 CHAIRMAN JACKSON: Now as far as implementation of  
7 the improved tech specs --

8 MR. STANLEY: Yes.

9 CHAIRMAN JACKSON: -- there is no holdup here? I  
10 mean you've gotten all of the approvals that you need from  
11 here?

12 MR. STANLEY: We will be receiving the improved  
13 tech specs this fall for implementation in January.

14 CHAIRMAN JACKSON: But there are no hangups?

15 MR. STANLEY: No.

16 CHAIRMAN JACKSON: Everything is on track?

17 MR. STANLEY: We've had some delays through the  
18 process. Some of it, our misunderstanding, where planning  
19 an execution, although listed as an improvement, is also a  
20 challenge. It does not meet our expectations, and we need  
21 to improve it mainly in the accountability area here.

22 The upcoming steam generator replacement outages  
23 at Braidwood happened this fall, in September. We have  
24 transferred some 300 lessons learned from Byron Station to  
25 Braidwood Station. We expect to do that very much better



1 than what we did with Byron's outage.

2 This concludes my remarks. I will turn it back to  
3 Oliver Kingsley for closing remarks.

4 MR. KINGSLEY: Thank you, Gene. I'd like to wrap  
5 up here and focus on what we have done and where we are  
6 headed.

7 The past eight months we have worked a great deal  
8 on putting fundamentals in place; we have emphasized  
9 accountability, problem identification and correction;  
10 prioritize use of resources that we talked about earlier;  
11 and follow through on implementation.

12 We have seen some tangible results. I'd like to  
13 briefly review just a few of these and state that this is a  
14 start; that by no means getting us there towards our goal of  
15 top quartile performance. We talked about putting the  
16 management team in place at Quad Cities; processes which led  
17 us to conclude that we could safely restart the plant.

18 We had a relatively uneventful start-up. We had a  
19 couple of down powers on the unit. I'm not satisfied with  
20 the scrams, nor am I satisfied with the sense of urgency  
21 that we went about that. We had people that actually  
22 visited Dresden within the last two weeks. There was an  
23 opportunity, I think, even though it was late-breaking news  
24 for us to have corrected at least one of these.

25 We did a successful refueling at Byron. We threw

1 absolutely nothing over the fence. That's another firm  
2 rule. We're not going to get in a hurry, we're going to do  
3 all the required work.

4 We did replace the steam generators that Gene  
5 talked about, and we have learned a great deal from that.  
6 We had good refuelings on Dresden 2, and Dresden 3. With a  
7 maintenance outage, we corrected many longstanding problems.  
8 I wish we had known about the previous report and could have  
9 done more, but we didn't. But we will do it.

10 Our Braidwood plant is running well. Unit 1 is in  
11 the fourth longest run, 400 days, of any Com Ed unit ever.

12 We have made a number of programmatic  
13 improvements. We are looking at all programs, whether it be  
14 IST, maintenance rule that David talked about. We still  
15 have a lot of work to do. We have made some improvement in  
16 our standardized processes. They are not totally down in  
17 the ranks. We have to do a lot more to ensure that they are  
18 there.

19 Work planning and scheduling, conduct of ops that  
20 we talked about. Procedures to handle critical sensitive  
21 evolutions, so we don't have events.

22 We are effectively managing our maintenance  
23 backlogs. We have more attention that we have to give to  
24 other backlogs. We still don't have all the appropriate  
25 indicators, but we have met on that, and they are in the

1 process of being put in place.

2 We did successfully defuel Zion and handle what I  
3 think would have been a potentially tough situation with a  
4 very volatile environment. I'm quite proud of how that's  
5 gone.

6 We developed this integrated resource-loaded  
7 schedule on LaSalle. We did not have anything close to that  
8 when I came on board, and we are successfully implementing  
9 that and learning a quite deal about how you do that, things  
10 that we had done at other plants before, and what you have  
11 to do to recover these type plants.

12 Our capacity factor for the first time in ages is  
13 meeting our goal. I'm not proud of that, it's so far out,  
14 but we are now over 50 percent for the month of June; first  
15 time we've been there in several years.

16 Despite rules, we are not going to fall in the  
17 trap of comparing ourselves to ourselves. It's a fatal  
18 mistake. We are going to measure, and we have done that, of  
19 where we have to go, and I'm going to show you that.

20 This is what we talked about a little bit, about  
21 the delta X before, and I would like to just show you  
22 briefly, using one widely-used indicator, the INPO  
23 performance index, if I could get that slide.

24 We have set stretch goals for the year 1999, 2000  
25 and 2001, towards our goal of achieving top quartile

1 performance which, incidentally, today, with this index is  
2 91.1 for the top quartile in the nuclear industry.

3 It is a two-year rolling index. You have to roll  
4 these numbers off. We are going to be negatively affected  
5 over the next year to year and a half as we roll these off,  
6 such things as the shutdowns on Quad Cities. That all  
7 counts. You can't get that off until two years, the long  
8 shutdowns on LaSalle.

9 But we are implementing specific plans to close  
10 these gaps, and this is different than what we had before.  
11 We actually have these deltas for all nine indicators on the  
12 index, and what we have to do to close these gaps. And it  
13 is a great deal of work.

14 We have got a vision. We are sharing that with  
15 the work force. I'm going to talk to you in just a minute  
16 about how I am personally doing that. We are making it  
17 absolutely crystal clear that we must have no events. You  
18 cannot operate a nuclear program successfully and have  
19 significant events, or even minor events; can't have any  
20 programmatic breakdowns. And the programs that perform  
21 well, they put these base programs in as a matter of  
22 routine, and then they track the index on top of that.  
23 That's how a good nuclear program operates. So we can't  
24 have that.

25 We've got to have effective work control schedule

1 execution. We are not good in that. We still have a long  
2 way to go there. We've got to have good outages, and then  
3 we have got to bring these plants back, and they have got to  
4 run, breaker to breaker, and not have an immediate shutdown.

5 We have got to have excellent material condition.  
6 We are behind the curve. We've got a lot of work to do. I  
7 even think we have more discovery. But at least we are  
8 getting the message now down. That is important. We will  
9 work on that and we will complete anything that's needed to  
10 put these plants on either the primary side or the secondary  
11 side in top flight condition.

12 We are going to put these engineering programs in  
13 place that David talked about. We have got to focus on  
14 support. We've done an inadequate job there. And we've got  
15 to have the right management and the right management  
16 oversight.

17 I'd like to have the last slide.

18 This is two dates there, performance results and  
19 statements. August 1, 1998, December 31. We have actually  
20 drawn pictures, they are in your handout. These have been  
21 distributed to our work force. We have those also for each  
22 site has a picture. These are what the SRIs will develop.  
23 I have been to three of our sites, I am going to another  
24 site tomorrow. I interact with the employees. We actually  
25 grade ourselves, and there is quite a gradient on what we

1 think is reality and what the worker sees. Goes back to  
2 Commissioner Diaz' question. So we are focusing on this, we  
3 are not going to lose sight, we are going to measure  
4 ourselves by what's in these two pictures that we've got.  
5 They are very tangible results. And we are not going to  
6 lose sight.

7 We are seeing some improvement. We are bringing  
8 about some focus on results, but we are not nearly where we  
9 need to be.

10 This concludes our formal presentation. I look  
11 forward to coming back in the next six months and telling  
12 you what results, and now we'll be happy to answer any  
13 questions.

14 CHAIRMAN JACKSON: Thank you very much.  
15 Commissioner Dicus? Commissioner Diaz?

16 COMMISSIONER DIAZ: Yes, I just have maybe more a  
17 comment. I was pleased when you stated that you are now  
18 making sure that Commonwealth is working to your standards  
19 and not NRC standards. I have seen those standards are  
20 higher than NRC standards. And I think that's quite  
21 appropriate.

22 In looking at your presentation and, you know,  
23 this enormous amount of activities and issues, eventually  
24 when you come back, I'd like to see you focus on the issue  
25 of safety and how we actually, you know, interact with you

1 on that issue. I think you are taking a very broad view and  
2 that is kind of hard for us to see all of the details of  
3 your management. And like you said, many of those things  
4 are yours.

5 I am particularly interested in how it all relates  
6 to ensuring adequate protection of health and safety.

7 MR. KINGSLEY: Right. And I got that message very  
8 clearly from the Chairman, too. One of the action items  
9 that I took here is our risk-based allocation of resources  
10 and what we focus on.

11 COMMISSIONER DIAZ: Okay.

12 MR. KINGSLEY: I might add, though, that one of  
13 the problems I found -- I saw this in spades at Tennessee  
14 Valley Authority -- there was one set of standards for what  
15 we will call reactor safety on the primary side, and there  
16 was a second set of standards for the rest of the equipment,  
17 and that is a guaranteed failure mechanism. So we are  
18 correcting that where we focus on the entire plant. Because  
19 a lot of the triggering events come out of the balance of  
20 plant. But we will certainly address that.

21 CHAIRMAN JACKSON: Thank you. Commissioner  
22 McGaffigan?

23 COMMISSIONER MCGAFFIGAN: In looking at the  
24 performance and results charts that you haven't put up --  
25 and I thank you for not doing so, because I think the print

1 would be too small -- but we do have them, a couple of the  
2 goals you have for December 31 is Quad Cities has reversed  
3 its declining performance trend. You believe you have  
4 stabilized and you are working towards reversing the trend,  
5 or you have reversed it, but you are hoping to reverse the  
6 arrow by then.

7 MR. KINGSLEY: Right.

8 COMMISSIONER McGAFFIGAN: One at the end is  
9 addressed and warrants removal from the watch list, and one  
10 -- as you know, the Commission doesn't do the watch list,  
11 the Staff does. But when they last testified to us, they  
12 said at their last meeting, that was a real close call. And  
13 the negative is the scrams in the last --

14 MR. KINGSLEY: That's right.

15 COMMISSIONER McGAFFIGAN: But your operation  
16 performance has been, continues to be very strong. Do you  
17 want to make a case for, as you said here, for removal when  
18 they meet in a few weeks, or do you want to make a case for  
19 it by the end of the year? Because this implies that you  
20 may not believe you have the case today. And I just wanted  
21 to clarify.

22 MR. KINGSLEY: Well, we are not in here to make a  
23 case. I think that's the Staff's job to do that. We are  
24 looking at this program from a programmatic standpoint. I  
25 think what the Chairman had very clearly sent to us, that we



1 have to make the programmatic improvements. We are seeing a  
2 great deal of improvement. I fully support what Mr. Perry  
3 said, that the improvements made at the Dresden plant have  
4 not eroded. However, there is additional work to do at the  
5 Dresden unit. The scrams, we have some human performance  
6 issues, and so we have additional work to do.

7 I do not think the Dresden plant is a broken plant  
8 or -- but we still have work to do with that. So we are  
9 looking at this kind of overall, successfully restart and  
10 show that we can do a LaSalle again; show that we can  
11 successfully reverse this trend. We have made a number of  
12 improvements at Quad Cities, but we have a ways to go there  
13 also. It doesn't meet my expectations. And we have to do  
14 all of these, Commissioner.

15 CHAIRMAN JACKSON: Thank you very much. And I  
16 thank you for the candidness of your presentation. And as  
17 you know, I always look for the results. I always tell  
18 everybody, I like everybody, but in the end, the question is  
19 always results. And let's hope you left someone good behind  
20 when you left New Jersey.

21 [Laughter.]

22 CHAIRMAN JACKSON: We will now hear from the  
23 Staff. Thank you.

24 We'll wait two minutes for the Commissioner to  
25 return, but you can talk slowly until the Commissioner

1 returns.

2 [Laughter.]

3 MR. CALLAN: We'll begin with introductions,  
4 Chairman. I think Commissioner Diaz knows us all, so he  
5 won't miss much.

6 Joined at the table with me, to my right, Carl  
7 Paperiello, who is the acting regional administrator, Region  
8 III, and to my left, Sam Collins, the director of the Office  
9 of NRR, and to his left is Stu Richards, who is the project  
10 director in NRR, and he manages the project management  
11 effort for all of the Commonwealth sites, and to Carl  
12 Paperiello's right is Mark Dapas, who is a deputy director  
13 of the Division of Reactor Projects.

14 The presence of both Stu Richards and Mark Dapas  
15 is important this afternoon because they are both key  
16 managers on the CEPOP, this Commonwealth Edison Performance  
17 Oversight Program, is it?

18 CHAIRMAN JACKSON: Panel.

19 MR. CALLAN: Panel. Panel. Which has been the  
20 main vehicle for the NRC's oversight of Commonwealth  
21 corporate activity since the conception of the CEPOP in June  
22 of 1997.

23 The staff's presentation was originally intended  
24 to be relatively brief. We'll try to make it even briefer  
25 and take into account the earlier presentation and look for

1 areas of efficiency as we go through our presentation.

2 Carl?

3 MR. PAPERIELLO: Yes. Thank you.

4 CHAIRMAN JACKSON: We're the source of the  
5 inefficiency, by the way.

6 MR. PAPERIELLO: Madam Chairman, Commissioners,  
7 I'll present to you today the staff's actions to assess  
8 Commonwealth's performance, particularly changes in  
9 performance as a result of the programs that were outlined  
10 today.

11 Could I have the first slide?

12 The next two slides show the chronology. You've  
13 seen this in last year's November presentation. It has been  
14 updated. Since our last meeting, we have had additional  
15 oversight panel meetings with Commonwealth Edison's  
16 management, and Commonwealth Edison has broadened its  
17 improvement program over those actions outlined in their  
18 March 28th, 1997 response to the 5054(f) letter. That new  
19 program is the strategic reform initiatives, which were  
20 presented to us in letters dated January 5th of '98 and  
21 February 17th of '98.

22 Also in this period, they announced the shutdown  
23 of Zion.

24 Can I have the next slide? Next slide. Another  
25 slide.

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1           This viewgraph just shows you the fact that the  
2   5054(f) commitments have been replaced and incorporated into  
3   the strategic reform initiative, and they believe that the  
4   effectiveness of the original 5054 commitments have been  
5   somewhat limited, and they have not halted cyclic  
6   performance.

7           Commonwealth's position is that the original  
8   commitments focused on discrete work activities rather than  
9   the broad fundamental processes, effective measures and  
10   results which are necessary to drive improvement.

11          CHAIRMAN JACKSON: Let me ask you a couple  
12   questions, if I may.

13          MR. PAPERIELLO: Yes.

14          CHAIRMAN JACKSON: You know, both the original  
15   commitments from the 5054(f) letter and the new SRIs were  
16   obviously established by the licensee.

17          MR. PAPERIELLO: Right.

18          CHAIRMAN JACKSON: And the staff was not -- it was  
19   not intended for the staff to "approve" them necessarily.

20          MR. PAPERIELLO: Right.

21          CHAIRMAN JACKSON: After a review, though, of the  
22   original commitments, the staff did report to the Commission  
23   that the actions, if completed, appeared to offer reasonable  
24   assurance -- there are those words again -- that cyclic  
25   performance would be arrested, and now we have, you know,

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1 the licensee under new management. The new management team  
2 is revising its own assessment of those.

3 MR. PAPERIELLO: Right.

4 CHAIRMAN JACKSON: Do you still believe that the  
5 actions as originally committed to would have been effective  
6 and what would you say about the performance indicators, and  
7 then what is your then assessment of the potential  
8 effectiveness of the revised SRI commitments and whether you  
9 -- tell us whether you believe the problems with the  
10 original performance indicators have been addressed.

11 MR. CALLAN: Chairman, embedded in your question,  
12 I think, is the answer, and the answer is that yes, I think  
13 the staff still stands by the notion that the original  
14 indicators provided adequate assurance of, over time,  
15 dampening out the cyclic performance, but as Oliver Kingsley  
16 pointed out in his -- I think it was January 5th letter that  
17 conveyed his new scheme for consolidating the various  
18 indicators and adding additional ones as a result of his own  
19 personal root cause assessment, that those original  
20 indicators would not take Commonwealth Edison to where he  
21 thought it needed to go, to the level of performance that he  
22 thought was necessary, which, you know, playing off the  
23 discussion just towards the end of the earlier presentation,  
24 and I think, Commissioner Diaz, you brought this out, that  
25 their standards necessarily should be higher than ours. I

1 think that's the difference between the two sets of  
2 indicators.

3 CHAIRMAN JACKSON: Okay. And what is the staff's  
4 -- because I'm flipping through the viewgraphs and they  
5 really talk more process and --

6 MR. PAPERIELLO: Yes.

7 CHAIRMAN JACKSON: -- amount of time you have put  
8 in. You know, what is the staff's current assessment of  
9 Commonwealth Edison's effort to date to address the cyclic  
10 performance? You have this oversight panel that exists, and  
11 is that assessment supported by the events and inspection  
12 findings or interactions with the licensee over the past six  
13 months? To me, that is the bottom line, and the rest of it  
14 is just process.

15 MR. CALLAN: Chairman, you're asking for an  
16 assessment of our -- I would like to beg your indulgence for  
17 a minute, because as I think Commissioner McGaffigan  
18 mentioned, in about two or three weeks, we're going to have  
19 the next semi-annual senior management meeting, which --

20 CHAIRMAN JACKSON: So you would rather --

21 MR. CALLAN: Which is a roll-up for six months.  
22 We could give you -- I could ask the CEPOP members here to  
23 give you their view, but that's not the NRC management view.

24 CHAIRMAN JACKSON: Okay. Well, let me ask you the  
25 question a different way, and I'll indulge you to this

1 extent. Do the present SRIs encompass the known weaknesses  
2 and inconsistencies demonstrated by plant events and  
3 inspection findings?

4 MR. PAPERIELLO: Yes.

5 CHAIRMAN JACKSON: Okay. Do the performance  
6 indicators provide insight? Are they effective in saying --  
7 giving you some insight into the effectiveness of the SRIs  
8 as they are worked off?

9 MR. PAPERIELLO: Yes, I believe so. But I would  
10 like to at some point qualify that. I would rather respond  
11 to your question then.

12 CHAIRMAN JACKSON: All right. You can proceed.

13 MR. PAPERIELLO: Okay. Could I have the next  
14 slide?

15 This is process. This is the region's action  
16 plan. But I want to add to this based a lot on what I've  
17 heard today, and you'll have to bear with me because I've  
18 only been in the region for five weeks, so --

19 CHAIRMAN JACKSON: That's long enough.

20 MR. PAPERIELLO: I know. I know. That's the  
21 reason why I have this.

22 We are developing an inspection plan that  
23 addresses the SRI. As of right now, there is one in the  
24 book, an outline of one, but it isn't where I want it, which  
25 would have a chart showing resource loading and the like.

1 That is being developed to address the critical aspects of  
2 the SRI initiatives.

3 We are going to -- as part of that, we're going to  
4 do corporate benchmarking of selected SRIs. And what do I  
5 mean by that? I am not going to second guess licensee  
6 management and their procedures for putting the SRI in  
7 place. I am going to, I call it kicking the tires, making  
8 sure there is something there, and if there are processes  
9 which are going to involve, say, first-line supervisors,  
10 which there are, as part of our routine inspection program  
11 when we look at maintenance, we're going to see that these  
12 actions are actually being undertaken by first-line  
13 supervisors.

14 To make sure what is presented to us is actually  
15 implemented in the field, we will be integrating the  
16 inspection plan into the routine resident and regional  
17 activities. This is where it is going to try to avoid  
18 layering additional work activities on top of the ongoing  
19 inspection activities.

20 CHAIRMAN JACKSON: Well, let me ask you this  
21 question, does your core inspection program, and what you  
22 would inspect against, allow you to assess the effectiveness  
23 of the SRIs relative to our concerns?

24 DR. PAPERIELLO: I believe it does a great deal of  
25 it, but some of it -- some of it, you would like to make



1 additions. For example, if I am doing routine inspection  
2 maintenance, I have to remind the inspector that there are  
3 certain things that are supposed to happen under the SRI and  
4 the inspector needs to be reminded to check to see if these  
5 things are happening. That's --

6 CHAIRMAN JACKSON: Okay.

7 COMMISSIONER DIAZ: Obviously, this will require  
8 additional resources and oversight. Is that -- those  
9 resources, you know, on a level that are commensurate to  
10 what the safety issues are, or how are we determining the  
11 amount of additional resources that we are going to put on  
12 oversight?

13 MR. DAPAS: Similar to our approach with the  
14 5054(f) commitments, when we developed an inspection plan to  
15 look at that. With the strategic reforms initiatives, we  
16 tried to address as many of those action plans within the  
17 context of our ongoing routine inspection activities. If we  
18 were going to be doing an engineering and technical support  
19 inspection at a particular plant, we would try and  
20 incorporate a look at some of the action plan items that are  
21 carved out in the specific or strategic reform initiatives.

22 As an example, in the area of material condition,  
23 there is a specific action plan that talks about implement  
24 an effective work control process. We would expect the  
25 resident staffs, when they are observing a maintenance

1 activity, to be able to evaluate the work control process as  
2 part of their routine inspection effort associated with that  
3 module.

4 So we tried to, to the extent we could, define  
5 strategic reform initiative action plans that would be --  
6 provide us a representative example of effective  
7 implementation. In other words, by looking at those, we  
8 would be able to determine to some extent whether the  
9 licensee was in fact implementing that strategic reform  
10 initiative and then use the inspection process that  
11 currently exists, without having to build in a lot of  
12 additional resources to accomplish that.

13 MR. COLLINS: Commissioner Diaz, I think this goes  
14 back to the point, earlier discussion between you and Joe  
15 having to do with the tiered aspects of the program. Many  
16 attributes of this program are not in our regulatory  
17 purview, although they are on our radar screen, so to speak,  
18 because they are on the initiative list from the SRIs.

19 Discussion between Carl and Carl's staff in the  
20 program office have centered on allowing the licensee to  
21 take self-initiatives to verify completeness and  
22 effectiveness of many of these higher tier activities. Our  
23 level of involvement would be to be cognizant of those  
24 activities, and perhaps have a monitoring aspect of them,  
25 but not a direct involvement.

1 DR. PAPERIELLO: That's exactly right.

2 MR. COLLINS: Given our regulatory mandate. We  
3 are looking more at the fundamental aspects, which would be  
4 core inspection program and any supplemental aspects that  
5 would come from the review of the inspection program through  
6 Mark's efforts as branch chief to role them into the lower  
7 --

8 COMMISSIONER DIAZ: Okay. Good clarification.  
9 Thank you.

10 CHAIRMAN JACKSON: Commissioner.

11 COMMISSIONER DICUS: Yes. These activities that  
12 you are discussion now here on this page, are they part of  
13 the CEPOP, or they are the CEPOP, or is the CEPOP activities  
14 above and beyond these activities? I am not sure I am clear  
15 on --

16 DR. PAPERIELLO: The CEPOP, of which I chair, has  
17 oversight to see that the program gets to where it is  
18 supposed to be, in other words, make sure the activities are  
19 done, the assessments are done, and we have to present to  
20 you, at least in my view, a conclusion. In other words,  
21 this problems has been solved or not solved.

22 Let me give you -- again, this is a five-week  
23 assessment. There's legacy problems at the Commonwealth  
24 plants. Material condition as a result of design problems,  
25 some of them original design problems that didn't -- that

1 most plants generally fix. They have fixes some, but they  
2 have more than they ought to have. And degraded condition  
3 problems that were not adequately -- things that weren't  
4 adequately maintained.

5           You combine that with engineer resources which  
6 have traditionally been strained, maintenance resources  
7 which have been strained, and, in fact, in our discussions,  
8 work control processes that were weak, and personnel  
9 performance expectations that were weak, all of which we  
10 have heard today, that's the problem. The SRI is a  
11 broad-based attempt to fix the problem.

12           We will look -- I don't want to abuse the word  
13 superficially, but I am not going to create new inspections  
14 to see whether or not they wrote the procedures right, we  
15 are going to look at results. And we are going to look to  
16 see that they have assessed the program. But is the program  
17 in place?

18           Then we are going to look at performance  
19 indicators, two types of performance indicators. There's --  
20 the SRI is an output, not an outcome. An outcome of the SRI  
21 are two types of performance indicators. I kind of break  
22 them. There's output performance indicators. Maintenance  
23 backlog, things like overdue preventive maintenance,  
24 operator work-arounds, these are performance indicators.  
25 There's a lot of them that they have developed, and a lot of

1 other utilities have developed. But they are kind of  
2 output. They are not safety in themselves, but somehow  
3 people believe that reducing these things, or controlling  
4 these things will lead to safety.

5 Then you have performance indicators which are  
6 your outcome indicators, which are more related to safety,  
7 things that we generally have used and the industry has  
8 used, things like SCRAMS, station dose, capacity factors  
9 which reflect on the liability not only of the safety  
10 equipment but the balance of plant, and safety system  
11 functions.

12 The problem is the outcome performance indicators  
13 are probably going to need more real time at these plants,  
14 because we are going to have to upgrade the material  
15 condition. You are going to have to change the worker  
16 expectation, and that's going to take longer. But they are  
17 the things that we are going to know and they are going to  
18 know they are getting where they want to be, when the  
19 outcome performance indicators look where they -- you know,  
20 place where they ought to be, in the upper quartile, which  
21 is their goal.

22 The other -- fourth piece of this thing is we got  
23 to follow events. Because sometimes events reveal things  
24 that, for example, the SRI didn't address. For example, the  
25 issue of the SCRAMS addressed, and revealing the fact that

1 they had left the SCRAM reduction program some years ago.  
2 That was not originally picked up on the SRI. So events,  
3 you have to look at events to see whether there is either  
4 ineffectiveness in the SRI or, in fact, something was  
5 missed.

6 So I see that as the four pieces of the program  
7 that we are going to be implementing to tell you that, in  
8 fact, this thing has been successful.

9 COMMISSIONER DIAZ: Why didn't we pick it up, that  
10 they have not followed -- dropped out of SCRAM.

11 CHAIRMAN JACKSON: That they had dropped out of  
12 the SCRAM reduction?

13 DR. PAPERIELLO: I don't know. I don't know.

14 MR. CALLAN: Let me address that. First of the  
15 BWR Owners Group SCRAM reduction program was not a  
16 regulatory program. It was an industry initiative.

17 CHAIRMAN JACKSON: However, the root of the  
18 maintenance rule had to do with things like initiating  
19 events, balance of plant.

20 MR. CALLAN: Right.

21 CHAIRMAN JACKSON: All of these things that  
22 undergird SCRAM reduction, so let's not forget it.

23 MR. CALLAN: That's the answer. No, that's the  
24 answer. Right. So we didn't follow up explicitly on the  
25 SCRAM reduction program. We have the maintenance rule,

1 that's our vehicle for looking at these sorts of things.

2 MR. COLLINS: When the Dresden review was done in  
3 the fall of '96, we focused primarily on material condition  
4 and material improvement program as the mechanism to reduce  
5 the challenges imposed by SCRAMs.

6 MR. RICHARDS: Before we move on, Commissioner  
7 Dicus, if I could add, you asked the question, how did the  
8 CEPOP contribute to this? And as a CEPOP member, I would  
9 like to respond to that. As a CEPOP member I worked with  
10 Mark DePaugh to put together the plan to follow-up on the  
11 SRIs. I might mention that NRR management above me had a  
12 role to play in that also, whereas, normally, the region  
13 plans their inspections without our involvement.

14 So, in this case, the CEPOP as a panel is somewhat  
15 involved in defining how we are going to go forward. Mr.  
16 Paperiello talked about fleshing out, and, of course, the  
17 regional staff has that for a responsibility. But that  
18 CEPOP as a group played an important role --

19 DR. PAPERIELLO: Right.

20 MR. RICHARDS: -- in defining these things.

21 CHAIRMAN JACKSON: What is the regulatory status  
22 of the 5054(f) letter?

23 MR. COLLINS: My understanding, although maybe  
24 perhaps Karen could help me in a legal sense, is that the  
25 5054(f) letter, once responded to, is satisfied.

1 MS. CYR: That is correct.

2 CHAIRMAN JACKSON: I mean are there -- but what I  
3 am trying to say is, are there broad actions relative to  
4 commitments made in response to the 5054(f) letter, and  
5 where do they stand?

6 MR. RICHARDS: I think that their response was  
7 basically -- now, as it stands, was the January and February  
8 letters from Mr. Kingsley, who said that the SRIs are now  
9 the reply to the 5054(f) request from us.

10 CHAIRMAN JACKSON: So let me make sure I  
11 understand something. We send the letter saying tell us why  
12 we ought to have confidence that blah, blah, blah is true.  
13 So they write back and say, well, this is what we are going  
14 to do. And we say, well, if you do them, that will give us  
15 confidence. And so then that is the end of it, we don't  
16 look at if they do them, that's what you are telling me.

17 MR. RICHARDS: Well, I think the staff started to  
18 follow-up on the 1997 commitments. And then when ComEd  
19 management basically changed their process, we are now  
20 setting off to follow what they do in the SRI arena. But we  
21 are going to follow their efforts.

22 COMMISSIONER McGAFFIGAN: Could I ask, you know,  
23 you are describing a process that is unique to ComEd here  
24 with this CEPOP panel. We also have lots of other  
25 processes, the plant issues matrix, maybe too many



1 processes. The PPR, et cetera. Did they get -- I have  
2 gotten a massive number of PIM letters, or the letter  
3 reports that go to the licensees. Did Commonwealth Edison  
4 get their five letters for their five stations? And does  
5 their plant issues matrix capture -- it doesn't capture some  
6 of the corporate stuff, but does the plant issues matrix  
7 capture the information, some of the information relevant to  
8 following these various initiatives as well? I am basically  
9 asking how our standard processes are interacting with this  
10 extraordinary process, the oversight panel?

11 MR. COLLINS: The intent would be, and perhaps  
12 Mark can address this specifically, but program-wise the  
13 findings from the followup will be contained in the PIM to  
14 the extent they're captured by our inspection reports and by  
15 our routine processes. That would also include meeting  
16 reports, for example, and CEPOP findings that are picked up  
17 as a result of regional reviews. Those are incorporated  
18 into the message that's sent to the licensee on the  
19 quarterly, semiannual basis, taken into consideration during  
20 our current assessment process, which is SALP. And they  
21 were in fact reviewed during the most recent senior  
22 management meeting screening meeting. The PIMs are provided  
23 by the region as part of the input for that plant  
24 assessment.

25 COMMISSIONER McGAFFIGAN: Can I follow up? Do we

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1 change our inspection program more frequently for the ComEd  
2 plant? A typical plant will get this letter, as I  
3 understand it, every six months that says in light of what,  
4 you know, the issues that have come up, here is what we're  
5 going to do in the way of inspection in the coming six  
6 months, and there may be deltas from what we might have  
7 previously planned. It sounds like there's a more --  
8 there's a closer feedback --

9 MR. COLLINS: More dynamic process.

10 COMMISSIONER McGAFFIGAN: More dynamic process in  
11 the case of the ComEd plants where they're, at least some of  
12 them, where inspection resources get changed on a more  
13 frequent basis. And I just want to understand that.

14 MR. COLLINS: Sure.

15 MR. DAPAS: One of the things that we've  
16 implemented, and this was following the first Commission  
17 meeting, was an integrated PPR for Commonwealth Edison.  
18 Following our discussion on each individual Commonwealth  
19 Edison plant as part of the PPR process, the involved branch  
20 chiefs, regional management, and NRR management discussed  
21 ComEd as an integrated entity, and that's something that we  
22 implemented following the first Commission meeting.

23 Also, if you -- the CEPOP documents and meeting  
24 minutes, the discussion they have, and that is another forum  
25 to discuss ComEd as far as their integrated performance.

1 And if you look at -- a copy was provided, the CEPOP  
2 charter -- the type of things that we discuss in the CEPOP  
3 forum is translation of lessons learned from one site to the  
4 other, like in the case of the maintenance rule with Quad  
5 Cities or Appendix G. That's one of the things that we look  
6 at. We look at allegations, at collectively across the  
7 board to identify any trends across the site. So I think  
8 collectively the existing process, the PPR process, is used,  
9 and the CEPOP is meant to be an adjunct where you're  
10 providing an integrated focus over ComEd as far as an  
11 assessment.

12 COMMISSIONER McGAFFIGAN: One final point I was  
13 going to make, I was going to compliment the EDO for not  
14 having the chart he used in November that thoroughly  
15 confused us with the colors and --

16 CHAIRMAN JACKSON: Maybe that's why he doesn't  
17 have --

18 MR. CALLAN: We substituted that with a table.  
19 You'll see it --

20 CHAIRMAN JACKSON: Oh. Thoroughly confusing,  
21 right?

22 MR. PAPERIELLO: May I have the next slide,  
23 please?

24 COMMISSIONER DIAZ: Wait. One last thing, please.  
25 As we look at outcome indicators, and since we

1 really like to do a lot of root causes, how do we correlate  
2 the outcomes with root causes that might enhance our  
3 capability on real safety issues to relate and to lack of  
4 performance of following the owners' groups or some other  
5 standard that obviously could have enhanced the situation?  
6 I mean, obviously we don't look at numbers only. I mean, we  
7 do a lot more than that.

8 MR. PAPERIELLO: Right.

9 COMMISSIONER DIAZ: So what is the coupling? How  
10 do we couple these things so that they will be coupled?

11 MR. PAPERIELLO: It was clear I think both to us  
12 and Commonwealth with the number of SCRAMs that occurred at  
13 Dresden that there had to be something -- it was telling us  
14 something. I know from my viewpoint when we looked at it,  
15 you could look at -- some issues were legacy, clearly legacy  
16 issues. Some issues were more recent vintage, the  
17 modification on the transformer that resulted in a SCRAM and  
18 a design error there. We clearly -- we brought it to their  
19 attention. They saw it and we saw it.

20 They went and looked into it. They did the work  
21 of identifying the underlying root causes. It wasn't the  
22 NRC who found that they had been operating at half SCRAM for  
23 a longer period of time per month on the average than a  
24 typical plant. So it was clear looking at it there was a  
25 problem.

1           We could see some of the problems. It was given  
2 to them to look at, and they identified more of the  
3 underlying root causes behind, because SCRAMS would go into  
4 an outcome indicator. And I see the events, underlying  
5 causes of the events telling you, relating that back to the  
6 issues that are addressed in the SRI or not being addressed  
7 in the SRI as problems that have to be fixed.

8           COMMISSIONER DIAZ: Okay.

9           MR. PAPERIELLO: We could slide very quickly  
10 through the next slide. This slide's here because the  
11 Commission asked us at the last meeting, and that is how  
12 much of the 5054-F commitments we had inspected. These are  
13 the numbers. We had looked at about 36 percent of them, of  
14 which 29 percent were closed and 7 percent were unable to be  
15 closed. Usually they were processes ongoing.

16           Next slide.

17           The last slide just addresses the issue of  
18 resources, just to point out to everybody we have expended  
19 considerable resources above the baseline budget at  
20 Commonwealth facilities. A year ago, a little over a year  
21 ago Region III estimated that approximately 11-1/2 FTE above  
22 the base program would be expended. In fact, about 16 FTE  
23 were expended. I would attribute part of that to the  
24 Appendix R restart issues at Quad Cities which we did not  
25 know about back in May of '97.

1           There were some -- I asked the staff to question  
2 why did Braidwood get higher than baseline resources,  
3 because they were obviously a facility that had run rather  
4 well, and I'm told that the additional inspection effort  
5 were mainly attributed to an architect-engineering  
6 inspection and a special inspection of a reactor trip. And  
7 the AE inspection was chosen to focus at one of the  
8 better-performing Commonwealth Edison facilities.

9           And that is -- what we expect in the future, the  
10 scheduled inspection activities should result in a better  
11 approach to the baseline figures, particularly at the  
12 better-performing sites. There will be probably some -- and  
13 I don't know, although -- do we know how much resources we  
14 expect to expend over the next year above baseline?

15           MR. DAPAS: No. I don't know.

16           MR. PAPERIELLO: Well, I will know in about the  
17 next 30 days, because I'm interested in having a Gant chart  
18 of all of the resources, you know, of the program that we're  
19 going to be implementing that was outlined and the staff  
20 gave me a few weeks ago but not in that form, and I'd like  
21 to have the resource loading and who --

22           CHAIRMAN JACKSON: If I take out what you just  
23 said about Quad Cities and Braidwood, were the additional  
24 inspection efforts required only because of the 5054-F  
25 letter, or were they in response to plant events --

1 MR. PAPERIELLO: There were a lot of events --

2 CHAIRMAN JACKSON: And plant-specific functions?

3 MR. PAPERIELLO: There were plant-specific issues.  
4 For example, LaSalle. We have a 350 restart panel, and the  
5 inspection activities involved that. Obviously Dresden got  
6 effort because of each of the SCRAMs got somewhat additional  
7 inspection resources. But it wasn't solely due to the  
8 5054-F.

9 CHAIRMAN JACKSON: Would the performance  
10 indicators or have the performance indicators been of any  
11 assistance in focusing the inspection effort on  
12 risk-significant areas of plant operation of  
13 risk-significant systems?

14 MR. PAPERIELLO: I'm going to ask Mark to --

15 MR. DAPAS: What we've done with the performance  
16 indicators is through the CEPOP meeting ComEd would come in  
17 and discuss with the performance of the plant based on the  
18 information that was being provided with the performance  
19 indicators, and that was with the decline of performance  
20 with Quad Cities and we looked at Appendix R and the  
21 maintenance rule, we commented that that was an area where  
22 the performance indicators would not have identified the  
23 decline in performance.

24 So we have not used the performance indicators per  
25 se that ComEd uses to drive our inspection planning. What

1 we've used is the existing processes when you go through the  
2 PPR and you determine where do we need to allocate  
3 resources, and in the case of Quad Cities in our discussions  
4 during the PPR process we recognized the need to devote some  
5 resources to some other areas. And as Carl indicated, a  
6 large percentage of like Quad Cities was due to Appendix R,  
7 which was a known issue. It wasn't something that was  
8 derived from the performance indicators.

9 So in summary we don't use the performance  
10 indicators provided by ComEd as the basis for determining  
11 how we should allocate the inspection resources. We use the  
12 already in place assessment processes that we have as part  
13 of the routine inspection program.

14 CHAIRMAN JACKSON: Okay. Sam?

15 MR. COLLINS: Chairman, your question also focused  
16 not only on inspection but on the risk insights. We would  
17 rely on the existing processes, once we identify an area to  
18 prioritize systems or components or processes within that  
19 area based on risk, and we do that by what's already written  
20 into the inspection programs, which requires us to go back  
21 and look at systems based on existing IPEs, PRAs. Also,  
22 using the SRAs in the region or the SRAs in headquarters to  
23 focus those. The architect-engineer inspection would have  
24 done that. System selections or walkdowns would do that,  
25 for example. So it's inherent in our process, and it would



1 also come up as a result of the focus within the areas  
2 themselves.

3 CHAIRMAN JACKSON: Okay.

4 COMMISSIONER DIAZ: Would you say that the cyclic  
5 performance had something to do with the additional, you  
6 know, inspection hours, or how would what's being reflected  
7 in here? Is it 10 percent, 20 percent, 50 percent of the  
8 additional?

9 MR. PAPERIELLO: I think it is objective. I would  
10 focus on one performance indicator, one that is more of  
11 interest to the industry rather than us, but one that I  
12 think reflects reliability -- and I've emphasized  
13 reliability in equipment, procedures, and staff -- and that  
14 is capacity factor. This capacity factor has tended to be  
15 below. And it has been used by WANO. It's an industry  
16 performance factor. But it is, you know, it does reflect  
17 the reliability, and as Mr. Kingsley said, a lot of the  
18 problems are not on the safety systems but on the balance of  
19 plant parts that cause the, you know, unreliability. So --

20 MR. COLLINS: I think the answer to your question  
21 is yes, that we look at individual plant performance as  
22 articulated in the last Commission briefing and as indicated  
23 in a question from Commissioner McGaffigan, Dresden was  
24 looked at not only as Dresden itself but as a part of  
25 Commonwealth, and of course in the staff's confidence in

1 Dresden's continued improvement was taken in light of the  
2 overall Commonwealth cyclic performance. We didn't have a  
3 large margin of confidence in Dresden continued performance  
4 until we addressed Commonwealth's cyclic performance. What  
5 you're seeing here with numbers is a reflection of part of  
6 the inspection effort that continues, from plants being on  
7 the watch list as category II facilities.

8 MR. DAPAS: I just was going to add with this  
9 original 11.5 FTE, which was an estimate that we provided  
10 the Commission in June of last year upon your request in an  
11 SRM, it consisted of a number of things. We looked at and  
12 projected enforcement actions that we would have to staff  
13 and review, the allegation program and an expected number of  
14 allegations that we would receive in that area. Startup  
15 coverage for the Zion and LaSalle plants. And then  
16 specialist inspections like engineering and technical  
17 support, architect-engineering inspections, operational  
18 safety team inspections, et cetera. And that was our --  
19 what we projected as far as FTE utilization. And over the  
20 last year we've ended up expending 16 FTE as we indicated  
21 for the inspection effort alone, and that includes things  
22 like contractor support for the Appendix R inspection and  
23 contractor support for the AE inspection.

24 And as you know or may be aware, at Quad Cities we  
25 had an extensive inspection in Appendix R. We went to the

1 site one week, the licensee wasn't ready, came back for an  
2 additional inspection effort. We did not anticipate the  
3 need for that comprehensive an inspection. We knew we were  
4 going to do a substantive inspection. We were going to, you  
5 know, implement a substantive inspection at Quad Cities, but  
6 we didn't know that we would have to go back to the site a  
7 second time.

8 So that projection was based on, you know, our  
9 guess looking forward, of course, and we've actually  
10 expended, as we've indicated, 16 FTE on inspection alone,  
11 and that 11.5 FTE also included management oversight  
12 resources with Senior Executive Service providing oversight  
13 managers at, you know, LaSalle and Zion at the time, and the  
14 work of the branch chiefs. So in the number we gave you as  
15 to where we are to date, that didn't include management  
16 effort.

17 CHAIRMAN JACKSON: Okay. Commissioner Dicus?  
18 McGaffigan?

19 Well, I would like to thank the officers of  
20 Commonwealth Edison for briefing the Commission regarding  
21 the effectiveness of their ongoing activities to improve the  
22 safety performance at their nuclear facility.

23 I also would like to thank the NRC staff for  
24 giving us their succinct, more to be revealed later,  
25 assessment of those activities.

1           Now, a year and a half, as I've said, has passed  
2 since the NRC was compelled to address company-wide cyclic  
3 performance at Commonwealth Edison, and the information  
4 presented here today indicates that we're not quite in a  
5 position to declare victory yet, but I do believe that the  
6 company's presentation demonstrates that the need for change  
7 has been fully recognized, and this is a critical step.

8           Based on today's presentation, you know, one could  
9 say that the company's corrective actions appear to offer a  
10 reasonable chance for success; however, I recall saying  
11 nearly the same thing after our last meeting in November,  
12 and the company has felt compelled to make substantive  
13 changes to its plan since that time.

14           We have done a lot of talk today about outputs and  
15 outcomes, we do a lot of talking about that around here  
16 these days, and so results are the key, and success then  
17 will be achieved when the fundamental causes for the cyclic  
18 performance are understood and have been addressed with  
19 effective and sustained corrective actions.

20           The desired outcome, and Mr. Kingsley has said it  
21 himself, is to see the superficial short-term changes of the  
22 past replaced with real sustainable improvements, and as I  
23 mentioned, this is a long-term issue that is just beginning  
24 to be addressed.

25           So unless my colleagues have any further comments,

1 we're adjourned.

2 [Whereupon, at 12:50 p.m., the meeting was  
3 adjourned.]

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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: MEETING WITH COMMONWEALTH EDISON --  
PUBLIC MEETING

PLACE OF MEETING: Rockville, Maryland

DATE OF MEETING: Tuesday, June 30, 1998

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: Rosalia J. Gershon

Reporter: Mark Mahoney



# **NRC STAFF'S ASSESSMENT OF COMMONWEALTH EDISON'S PERFORMANCE**

**Carl J. Paperiello  
Region III  
June 30, 1998**

VIEWGRAPH 1

# CHRONOLOGY

- NRC issued 50.54(f) letter 01/27/97
- ComEd issued response 03/28/97
- Commission meeting 04/25/97
- NRC issued response to ComEd 05/27/97
- NRC established ComEd performance oversight panel 06/03/97
- Commenced oversight panel meetings with ComEd 06/03/97  
(Conducted 8 oversight panel meetings)
- Commission meeting 11/04/97
- ComEd issued Strategic Reform Initiatives 01/05/98
- ComEd announced permanent shutdown of Zion 01/15/98



## **CHRONOLOGY (cont.)**

- **ComEd issued revised Strategic Reform Initiatives letter integrating 50.54(f) commitments** **02/17/98**
- **Restart of Quad Cities following an extended shutdown:**
  - Unit 2** **05/23/98**
  - Unit 1** **05/30/98**

# COMED STRATEGIC REFORM INITIATIVES

Strategic Reform Initiative		Number of Original 10 CFR 50.54(f) Commitments Replaced
<b>*NGG-1:</b>	<b>Strengthen Performance Monitoring and Management</b>	<b>50</b>
<b>NGG-2:</b>	<b>Upgrade Operations Department Leadership Role in Ensuring Excellent Plant Operations</b>	<b>16</b>
<b>NGG-3:</b>	<b>Ensure Excellence in Plant Material Condition</b>	<b>29</b>
<b>NGG-4:</b>	<b>Align and Integrate Resources</b>	<b>20</b>
<b>NGG-5:</b>	<b>Assess Organizational Accountability and Revise Structure</b>	<b>11</b>
<b>NGG-6:</b>	<b>Revise Business Management Process</b>	<b>42</b>
<b>NGG-7:</b>	<b>Strengthen Regulatory Compliance Processes</b>	<b>None</b>
<b>NGG-8:</b>	<b>Prioritize and Enhance Execution of Engineering Improvements</b>	<b>43</b>
<b>NGG-9:</b>	<b>Enhance Management Development</b>	<b>5</b>
<b>NGG-10:</b>	<b>Enhance Communications</b>	<b>13</b>
<b>NGG-11:</b>	<b>Enhance Employee Alignment and Involvement</b>	<b>8</b>
<b>NGG-12:</b>	<b>Reinforce Training Programs for Improved Performance</b>	<b>11</b>
<b>NGG-13:</b>	<b>Strengthen Nuclear Safety Oversight</b>	<b>93</b>

\* Nuclear Generation Group

**Total 341**

# **REGIONAL ACTION**

- **Developing inspection plan to review selected actions associated with the Strategic Reform Initiatives**
- **Performing corporate bench marking review of selected Strategic Reform Initiatives**
- **Integrating inspection plan into routine resident and regional activities**
- **Expect to complete inspection activities in 6 to 9 months consistent with Strategic Reform Initiatives completion schedule and licensee verification activities**

# **INSPECTION OF ORIGINAL 341 50.54(F) COMMITMENTS**

**The staff planned on inspecting 169 of the original 341 commitments which represented 381 total inspection verifications at selected sites and corporate headquarters.**

**At the time of the issuance of the Strategic Reform Initiatives (SRIs) in January 1998, the staff had:**

- **Inspected 139 items (36%) of 381 total verifications**
- **Of the 139 items inspected, 112 (29%) were closed and 27 (7%) were unable to be closed.**

# COMED INSPECTION ACTIVITIES

- Significant inspection resources were expended in oversight of ComEd (6/01/97 - 6/01/98):

<u>Plant</u>	<u>Actual Hrs</u>	<u>Baseline Hrs*</u>	<u>Delta</u>
Quad Cities	7800	3780	4020
Dresden	6000	3780	2220
LaSalle	5700	3780	1920
Braidwood	5600	3780	1820
Zion	4200	3780	420
Byron	4000	3780	220

\* For FY 97, the national average for a dual unit non-watch list plant was 3780 inspection-hours.

# **COMED INSPECTION ACTIVITIES**

**(Backup Slide)**

- **Region III estimated in May 1997 that approximately 11.5 FTE would be used in augmented oversight (9.5 FTE for augmented inspection and 2.0 FTE for management oversight).**
- **To date over 16.0 FTE have been expended for augmented inspections.**

# **COMED PLANT STATUS**

**(Backup slide)**

## **Braidwood**

- **Good overall performance since last commission briefing.**

## **Byron**

- **Unit 1 had all four steam generators replaced and returned to power with few equipment and personnel problems.**
- **Unit 2 conducted a scheduled 38 day outage in 37 days. The plant startup was conducted very well with few equipment and personnel problems.**

# **COMED PLANT STATUS (cont.)**

**(Backup slide)**

## **Dresden**

- **Both units have been operating at full power, intermittently. Unit 2 completed the refueling outage in a record (for Dresden) of 41 days, about half of recent previous outages.**
- **Both units have operated reasonably well recently, with the exception of 6 (5 auto, 1 manual) scrams in 6 months, most recent was 6/20/98.**

## **LaSalle**

- **Both units have remained shut down since September 1996 while the licensee implements extensive performance improvement initiatives. The licensee currently projects an early August 1998, Unit 1 restart with Unit 2 restarting approximately 6 months later.**



# **COMED PLANT STATUS(cont.)**

**(Backup slide)**

## **Quad Cities**

- **Unit 2 returned to power operations on May 26, 1998, following a 8 month shutdown and Unit 1 returned to power operations on June 2, 1998, after a 5 month shutdown.**
- **Compensatory actions (largely fire watches) for Appendix R fire protection have to be maintained in order for the plants to operate.**



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# **NUCLEAR GENERATION GROUP PERFORMANCE STATUS MEETING**

**JUNE 30, 1998**

# **OPENING REMARKS**

**John W. Rowe**  
**Chief Executive Officer**

# **REBUILDING SUPERIOR NUCLEAR OPERATIONS**

- **Resources: Adequacy and Allocation**
- **High Program Standards**
- **Intense Oversight**
- **Accountability**

# **THE NUCLEAR GENERATION GROUP**

**Oliver D. Kingsley, Jr.**

**Chief Nuclear Officer and President, NGG**

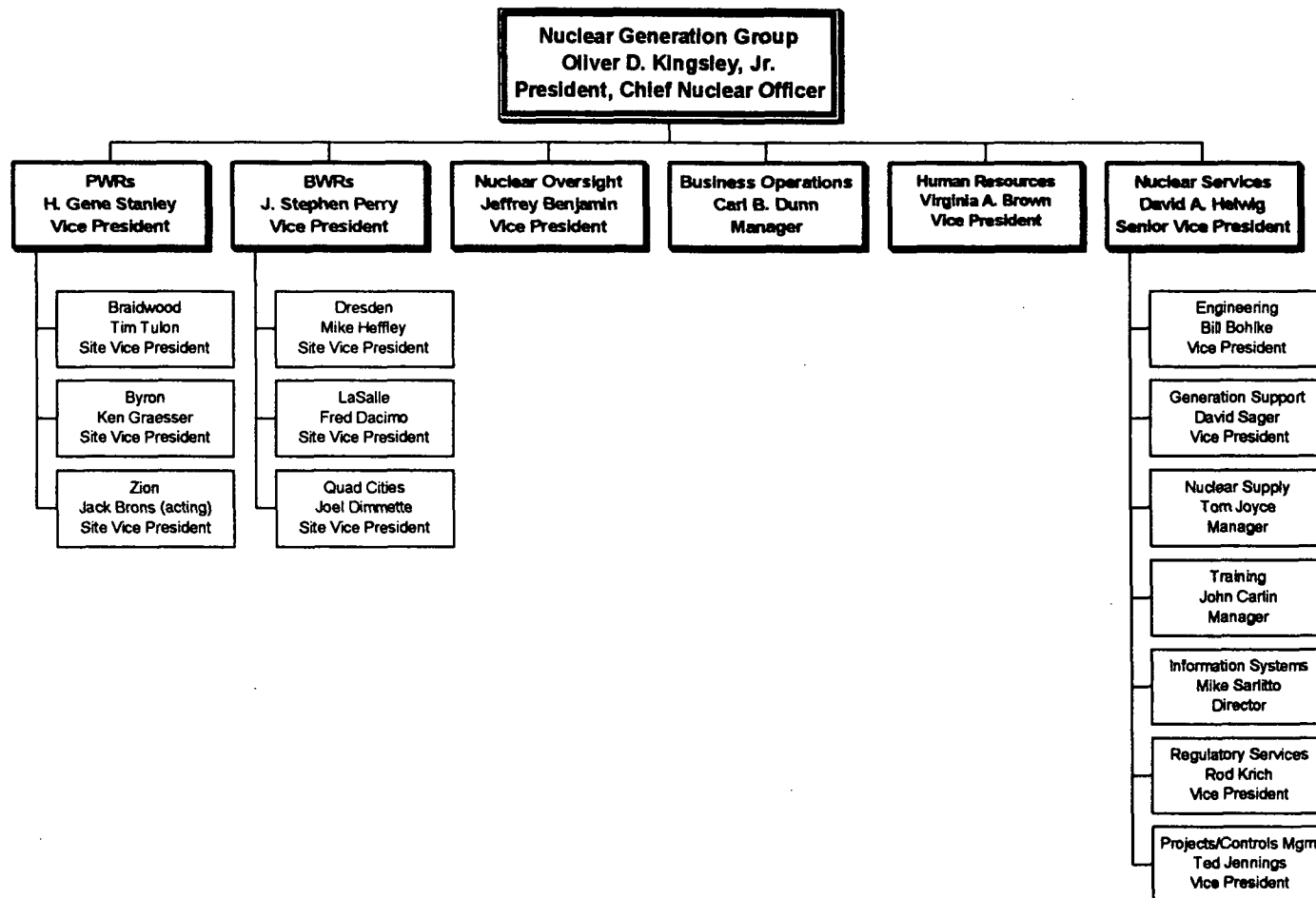
## **KEY OBJECTIVES FOR 1998**

- **Right Management Team**
- **No Significant Events**
- **No Programmatic Breakdowns**
- **Fundamentals in Place**
- **Culture Shift**
- **Arrest Cyclic Performance**

## **AGENDA**

- **Opening Remarks** **J.W. Rowe**
- **The Nuclear Generation Group** **O.D. Kingsley, Jr.**
- **NGG Performance**
  - **Focus on Performance and Results** **O.D. Kingsley, Jr.**
  - **Basic Processes and Fundamentals** **D.R. Helwig**
  - **Roles and Responsibilities** **D.R. Helwig**
  - **Oversight** **J. Benjamin**
- **BWR Performance** **J.S. Perry**
- **PWR Performance** **H.G. Stanley**
- **Closing Remarks** **O.D. Kingsley, Jr.**

# THE NGG ORGANIZATION



# PERFORMANCE INDICATOR TABLE

## SUMMARY OF COMED NUCLEAR GENERATION GROUP PERFORMANCE YEAR-TO-DATE THROUGH MAY 1998

	Braidwood	Byron	Dresden	Quad Cities	LaSalle	NGG 1998 Year-To- Date <sup>(3)</sup>	NGG 1997 Year-End <sup>(2)</sup>
Automatic Scrams While Critical	1	0	4 <sup>(4)</sup>	2 <sup>(4)</sup>	0 <sup>(1)</sup>	7 <sup>(4)</sup>	2
Safety System Actuations	0	0	0	0	0 <sup>(1)</sup>	0	5
Collective Radiation Exposure	5.3	134.9	153.5	112.3	84	P-70 B-117	P-115 B-237
Capacity Factor	97.8%	59.6%	70.2%	0.1%	0 <sup>(1)</sup>	47.3 %	49.2%
Forced/ Unplanned Outages	2.9%	10.9%	12.1%	98.2%	100%	42.9%	41.1%
Safety System Performance	0.0020	0.0032	0.0084	0.0060	0.0029	0.0045	0.0047
ISAR	.18	.27	0	.11	0	0.16	0.20

(1) Data does not provide meaningful comparison to industry performance while the site is in an extended shutdown.

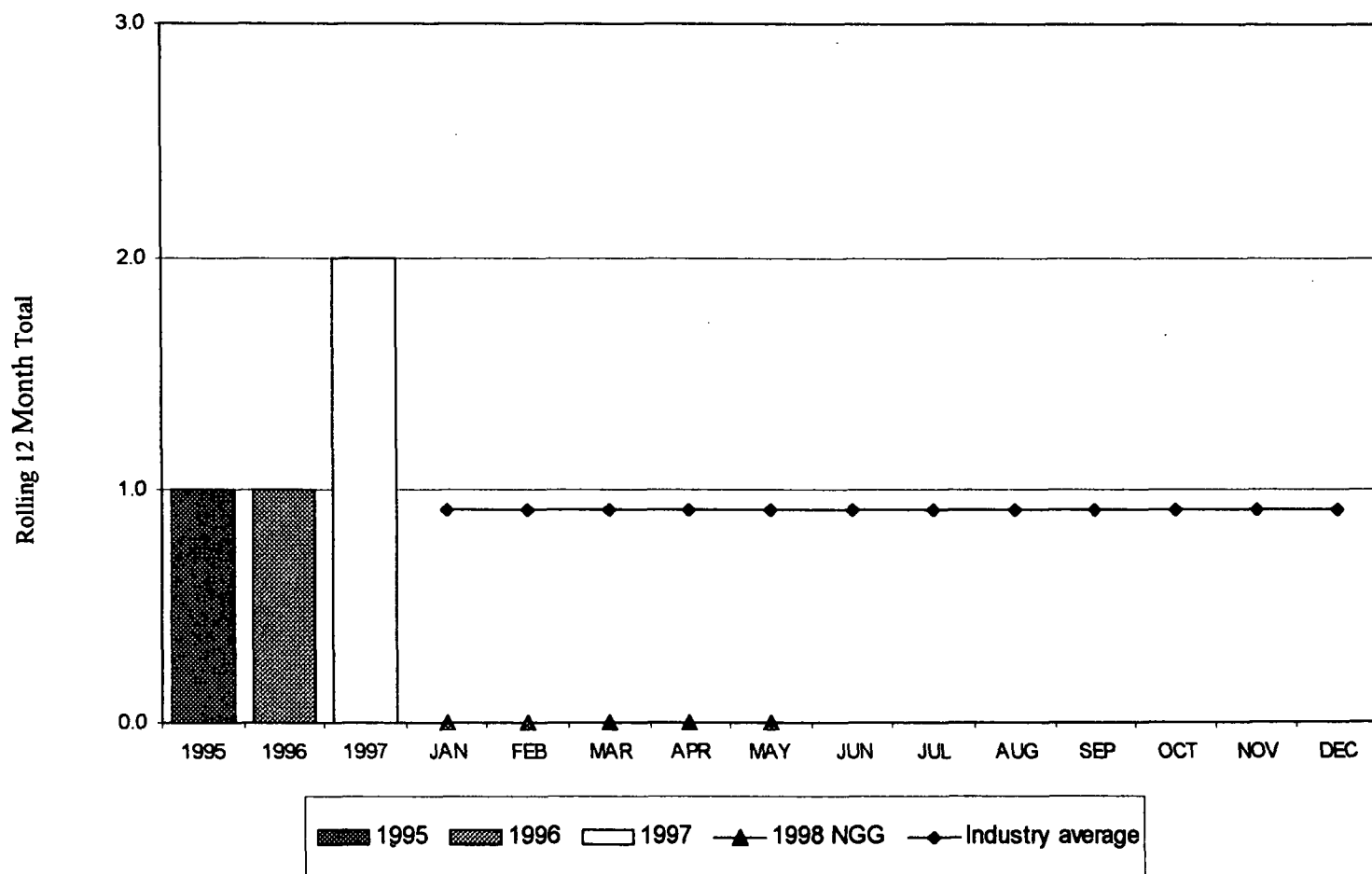
(2) NGG 1997 Year-End includes Zion Station.

(3) Includes LaSalle Station for all calculations and Zion Station for ISAR.

(4) Includes scram data through June 28, 1998



## SIGNIFICANT EVENTS (NRC)



## **ROOT CAUSES OF CYCLIC PERFORMANCE**

- **Lack of Focus on Performance and Results**
- **Failure to Institutionalize Basic Processes and Fundamentals**
- **Ill-Defined Roles and Responsibilities**
- **Inadequate Oversight**

# **STRATEGIC REFORM INITIATIVES (SRIs)**

- **NGG-1: Strengthen Performance Monitoring and Management**
- **NGG-2: Upgrade Operations Department Leadership Role**
- **NGG-3: Ensure Excellence in Material Condition**
- **NGG-4: Align and Integrate Resources**
- **NGG-5: Assess Organizational Accountability and Revise Structure**
- **NGG-6: Revise Business Management Process**

# **STRATEGIC REFORM INITIATIVES (SRIs)**

- **NGG-7: Strengthen Regulatory Compliance Process**
- **NGG-8: Prioritize/Enhance Execution of Engineering Improvements**
- **NGG-9: Enhance Management Development**
- **NGG-10: Enhance Communications**
- **NGG-11: Enhance Employee Alignment/  
Involvement**
- **NGG-12: Reinforce Training Programs**
- **NGG-13: Strengthen Nuclear Safety Oversight**

# **FOCUS ON PERFORMANCE AND RESULTS**

## **Actions Taken**

- **Goal Setting**
- **Comprehensive, Integrated Measures**
- **Management Processes**
- **Accountability/Rewards**
- **Tightening Performance Standards**
- **Critical/Challenging Investigations**

## **Results**

- **Meeting Performance Goals**
- **Executing SRIs**
- **Material Condition Improvements**
- **Improvements Identified and Underway**

# **BASIC PROCESSES & ROLES AND RESPONSIBILITIES**

**David R. Helwig**  
**Senior Vice President Nuclear Services**

# **BASIC PROCESSES AND FUNDAMENTALS**

## **Actions Taken**

- **Critical Evolutions**
- **Planning and Scheduling (i.e., Work Management)**
- **Operations Standards**
- **Prioritization of Work**
- **Generic Implications**

## **Results**

- **Successful Completion of Challenging Evolutions**
- **Outages**
- **LaSalle Recovery Progress**
- **Work Productivity**
- **Quad Cities Restart/ Issue Resolution**

# **QUAD CITIES STATION APPENDIX R**

- **ROOT CAUSES**
  - **Weak Original Approach To Compliance**
  - **Procedures Not Well Implemented or Maintained**
  - **Inadequate Management Oversight**
  - **Failure to Recognize and Take Broader Corrective Actions**



# **QUAD CITIES STATION APPENDIX R**

- **CORRECTIVE ACTIONS TAKEN**
  - **41 Modifications Installed**
  - **Safe Shutdown Analysis Upgraded**
  - **Safe Shutdown Procedures Revised and Enhanced**
  - **Operators Trained**
  - **Fire Risk Reduced Substantially**

# **QUAD CITIES STATION APPENDIX R**

- **ENHANCEMENT PLAN**
  - **Perform Analyses to Determine Available Time**
  - **Assess Vulnerability & Coping Capability for Each Fire Area**
  - **Identify Improvement Opportunities**
  - **Assess Risk Reduction Potential**
  - **Implement Optimal Set of Improvements**

# ROLES AND RESPONSIBILITIES

## Actions Taken

- **Support Organization Roles and Focus**
  - **Governance**
  - **Strategy**
  - **Oversight**
- **Standard Site Organization**
- **Alignment**
- **Staffing**

## Results

- **Responsible for Support Functions (i.e., Supply, IS)**
- **Program Reviews**
- **Resolution of Technical Issues**
- **Common Processes and Procedures**

# **OVERSIGHT**

**Jeffrey Benjamin**  
**Vice President Nuclear Oversight**

# OVERSIGHT

## Actions Taken

- Increased Management Involvement
- Strengthened Independent Oversight
- Integration of Support Function
- Improved Analysis/Report
- Enhanced Review Boards

## Results

- Focus on Lower Level Performance Issues
- Effective Oversight of Quad Cities/LaSalle Restarts
- Nuclear Oversight Products
- Integrated Monthly Performance Reviews

# **BWR PERFORMANCE**

**J. Stephen Perry**  
**BWR Vice President**

# **DRESDEN STATION OVERVIEW**

- **Much Improvement Over Last 2-3 Years**
- **Important Issues Remain To Be Addressed**

# **DRESDEN STATION ACCOMPLISHMENTS**

- **High Level of Operations Professionalism**
- **Improved Engineering Support of Operations**
- **Improved Work Management**
- **Significant Reduction in Personnel Exposure**
- **Resolution of Long-Standing Material Condition Issues**



# **DRESDEN STATION CHALLENGES**

- **Configuration Control**
- **Quality of Engineering Products**
- **Continued Material Condition Improvement**
- **Fire Protection Administrative Programs**
- **Performance Marred By Recent Scrams**
  - **Not Indicative of a Decline in Overall Performance**

# **DRESDEN STATION RECENT SCRAMS**

- **Root Causes**
  - **Ineffective Utilization of Industry Experience**
  - **Tolerance of Half-Scram Conditions**
  - **Material Condition Issues**
- **Corrective Actions**
  - **Implement Applicable Industry Lessons Learned**
  - **Reduce Time in Half-Scram Conditions**
  - **Material Condition Improvements**

# **QUAD CITIES STATION OVERVIEW**

- **Implemented Actions to Arrest Declining Performance**
- **Significant Work Accomplished During Shutdown**
- **Increased Sensitivity to Regulatory Compliance**
- **Restart Review Board Identified Issues for Continued Attention**
  - **Close Corporate Management Attention and Oversight Will Be Maintained**

# **QUAD CITIES STATION ACCOMPLISHMENTS**

- **Operator Performance -- Tech Spec Surveillances and Plant Restart**
- **Strengthened Work Management and Engineering Support**
- **Stabilized and Strengthened Nuclear Oversight**
- **Significant Work Completed During Shutdown**
  - **Appendix R**
  - **Other Improvements**

# **QUAD CITIES STATION CHALLENGES**

- **Reinforce Operations Fundamentals**
  - **Continuation of On-Shift Control Room Monitoring**
- **Implement Fire Protection Program Improvements**
- **Material Condition**
- **Strengthen Engineering Programs**
- **Improve Work Scheduling/Work Processes**
- **Focus on Radiation Exposure -- Source Reduction and Exposure Management**
- **Upcoming Fall Outage**

# **LASALLE STATION OVERVIEW**

- **Steady Progress Toward Restart**
- **Substantial Improvements During Shutdown**
- **Integrated, Resource-Loaded Schedule**
  - **Expanded Scope of Original Restart Plan To Ensure Program and Process Improvement**
- **Restart Assessments Underway**

# **LASALLE STATION ACCOMPLISHMENTS**

- **Material Condition Improvements**
- **Program and Process Improvements**
  - **ISI, IST**
  - **Maintenance Rule**
  - **>3900 Annunciator Procedures and > 830 Operating Procedures Revised**
  - **High Intensity Training**
- **Significant Expansion of Restart Program**
  - **Two- and Five-Year Corrective Action Lookbacks**

# **LASALLE STATION CHALLENGES**

- **Challenges for Restart Readiness**
  - **Human Performance**
  - **Operations Leadership**
  - **Transition to Operating Mode**
- **Unit 2 Interface and Restart**



# **PWR PERFORMANCE**

**H. Gene Stanley**  
**PWR Vice President**

## **BYRON STATION**

- **Overview: Steady Performance**
  - **Unit 1 Steam Generator Replacement Outage**
  - **Unit 2 Refuel Outage**
- **Accomplishments:**
  - **Operations Leadership**
  - **Reduction in Engineering Backlog**
  - **Radiation Exposure and FME Controls**
  - **Reduction in Fire Protection Impairments**
- **Challenges:**
  - **Implementation of Improved Tech Specs**
  - **Design Control and Maintenance Re-Work**

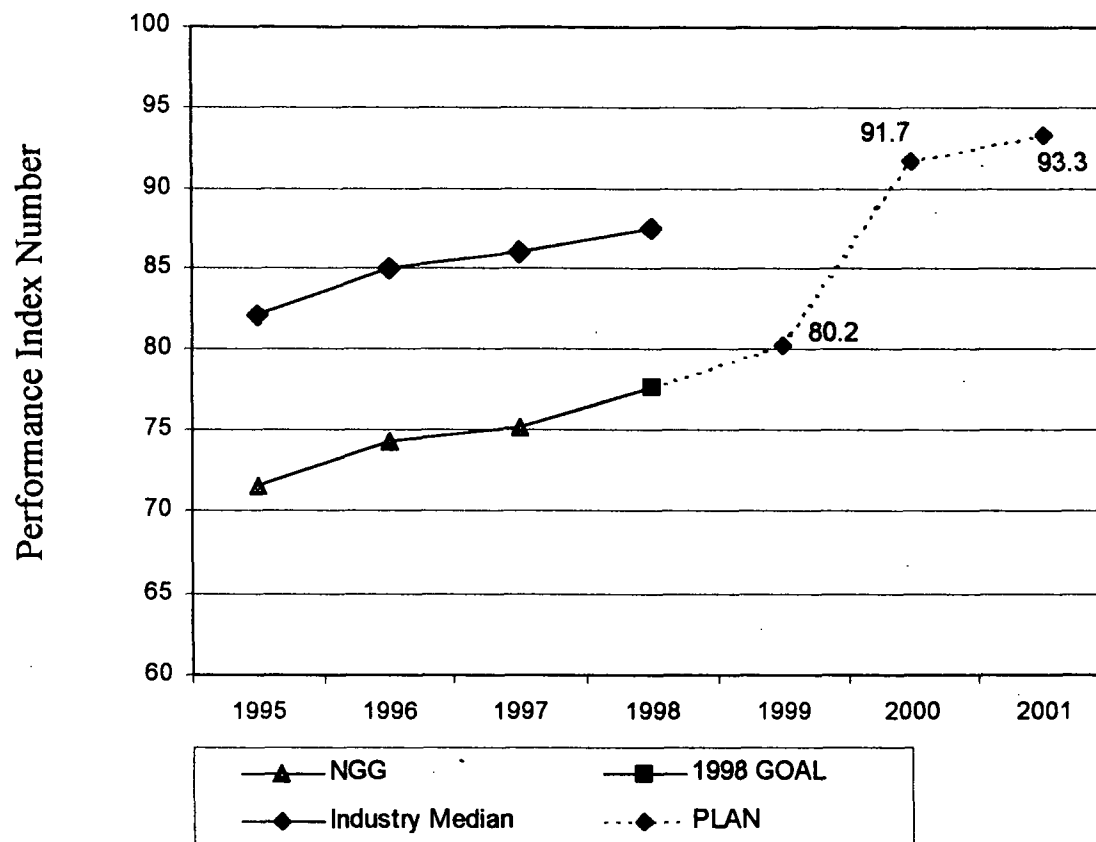
## **BRAIDWOOD STATION**

- **Overview: Strong Operational Performance**
- **Accomplishments:**
  - **Continued Strong Safety Focus**
  - **Increasing Operations Leadership**
  - **Decreased Maintenance Backlogs and Improved Work Execution**
- **Challenges:**
  - **Configuration Control**
  - **Administrative Procedure Adherence**
  - **Work Planning and Execution**

# **CLOSING REMARKS**

**Oliver D. Kingsley, Jr.**  
**Chief Nuclear Officer and President, NGG**

# INPO PERFORMANCE INDEX



# **PERFORMANCE/RESULTS STATEMENTS**

- **August 1, 1998**
- **December 31, 1998**

# NGG -- August 1, 1998

- Quad Cities on line
- LaSalle 1 restart work is complete, in start-up testing
- Organization is aligned, with clearly defined roles and accountabilities
- Critical/sensitive evolutions are controlled
- Programs and processes that support material condition are in place (system health indicators, work control planning and scheduling, on-line maintenance)
- There is a one-year material condition plan
- Backlogs are being reduced
- Contractors are at the right level, and serving in the right roles
- Peer group and other improvement initiatives are prioritized, focused, and integrated into operational plans; they drive standardized best practices
- Succession candidates are identified for key leadership positions, and development activities are underway
- The Byron 2 refueling ran  $\leq 40$  days
- Synchronous condensers are in place at Zion
- Zion Decommissioning Organization is functioning
- Lessons learned are routinely shared across sites
- No training programs are on probation
- Unnecessary training has been eliminated
- Standard engineering programs are in place in priority areas (IST, ISI, Maintenance Rule, Appendix R, etc.) including improved engineering work control
- Operations is in charge of the plant
- Employees understand NGG's direction and goals, and communications are primarily face-to-face
- Routine management meetings are being held to review performance, track results, validate plans, assess improvements and share information
- Integrated monthly performance reports are issued and used to manage for results and accountability
- INPO resources are used for help in restart assessment and functional area assistance
- Rigorous self-assessment and line management use of an effective Corrective Action Program is a way of life
- Tech specs are properly implemented
- There are no repeat events
- Work gets done as scheduled
- Plans get implemented
- Problems are identified and corrected

# NGG - December 31, 1998

- LaSalle Unit 1 is on line, LaSalle 2 is nearing restart
- Braidwood replaced its steam generators in 78 days
- The 1999 NGG Business Plan is developed, integrating all activities and reflecting NGG priorities and resources
- The 3-year material condition plan has been developed to drive resource allocation
- Byron 1 is in day 296 of continuous run
- Quad Cities 1 completes a 40 day refueling
- NGG closes the year with
  - max 24.4 mills/kWh production cost
  - at least 57.2% capacity factor
  - at least 49.1 MMWh net generation
  - max \$871 million in O&M spending
  - max \$237 million capital spending
  - INPO Performance Index of at least 77.6
- The organization is demonstrably committed to continuous improvement
- The overall NGG SALP average is 2.0
- Proper configuration control is maintained
- Human performance is good
- Quad Cities has reversed its declining performance trend
- A performance-centered maintenance program is in place at all sites
- Site management is driving accountability for performance through core operating values
- The regulatory compliance strategy is in place to ensure successful response and build credibility
- Human Resource processes are aligned to support NGG achievement of results
- Employees have a clear line of sight to how their jobs enable NGG to achieve its goals, and are actively engaged in improvement initiatives
- Managers are held accountable for employee communication
- All NGG training is focused on top priorities, and all training is integrated into site schedules
- There have been no significant events or regulatory breakdowns this year.
- Due to site and overall NGG performance, Dresden warrants removal from the watch list