UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
***
BRIEFING ON OPERATING REACTORS AND FUEL FACILITIES
***
PUBLIC MEETING
***

Nuclear Regulatory Commission
Commission Hearing Room
11555 Rockville Pike
Rockville, Maryland

Wednesday, June 25, 1997

The Commission met in open session, pursuant to notice, at 10:00 a.m., the Honorable SHIRLEY A. JACKSON, Chairman of the Commission, presiding.

COMMISSIONERS PRESENT:
SHIRLEY A. JACKSON, Chairman of the Commission
KENNETH C. ROGERS, Member of the Commission
EDWARD McGAFFIGAN, JR., Member of the Commission
NILS J. DIAZ, Member of the Commission

STAFF AND PRESENTERS SEATED AT COMMISSION TABLE:
STEPHEN BURNS, Deputy General Counsel
JOHN C. HOYLE, Secretary
BILL BEACH, Region III Administrator
HUBERT MILLER, Region I Administrator
SAMUEL COLLINS, Director, NRR
JOSEPH CALLAN, EDO
DR. CARL PAPERIELLO, Director, NMSS
LUIS REYES, Region II Administrator
ELLIS MERSCHOFF, Region IV Administrator

P R O C E E D I N G S

[10:00 a.m.]

CHAIRMAN JACKSON: Good morning, ladies and gentlemen. I am pleased to have the headquarters staff and the regional administrators here this morning to brief the Commission on the results of the 23rd senior management meeting.

The senior management meetings provide a forum for NRC's senior managers to assess nuclear power reactor and fuel facility operational safety performance, and ensure

that the NRC is properly focusing its resources on facilities that need the most regulatory attention based on safety performance and on issues of greatest safety concern.

The senior management meeting process has evolved over the past 10 years. The Commission would be interested in hearing about the actions taken to improve the quality of discussions and to enhance the consistency of decisions during the most recent senior management meeting. I understand that copies of the slide presentation are available at the entrances to the meeting room, and unless my fellow Commissioners have any comments, Mr. Callan, please proceed.

MR. CALLAN: Thank you, Chairman. Good morning. Good morning, Chairman Jackson, Commissioners.

With me this morning are the office directors for

both NRR and NMSS, Sam Collins, to my right, and Carl Paperiello, to my left, and the four regional administrators: Hub Miller, of Region I; Luis Reyes, Region II; Bill Beach, Region III; and Ellis Merschoff, of Region IV.

Chairman, our primary purpose here of course is to brief you on the results of the senior management meeting that was held two weeks ago, on June 10 and 11, in Region I. We do intend largely through Sam Collins' opening remarks to expand on the subjects that you touched on in your comments, to talk about enhancements made to the process to make the process more scrutable and consistent and robust.

The two days, June 10 and 11, were devoted almost entirely to discussing plant performance. That in itself is a substantial change from previous senior management meetings where essentially only the first day was devoted to plant performance discussions. Also we used for the first time the newly issued management directive 8.14, which covers the senior management meeting process. This management directive provides guidance in the preparation and conduct of the senior management meeting, and the guidance is intended to make the process more consistent and scrutable and therefore more credible.

I'd like to note in particular the expansive use that we made of the nuclear powerplant performance

evaluation templates that was provided in the management directive, and also the use of the so-called pro/con charts that were first introduced last January, and we discussed them briefly with the Commission following the January senior management meeting.

The pro/con charts were used as a tool to focus attention of the senior managers on the pertinent performance issues that spoke to reasons for increasing and also decreasing the agency level of attention. The primary purpose of the pro/con charts was to and is to reduce excessive influence of the regional administrators in the evaluative process.

One final item I would like to mention before I turn the meeting over to Sam Collins for a more detailed discussion of process changes is that this was the first senior management meeting attended by the chief information officer, Tony Galante, and the chief financial officer, Jesse Funches, who, together with me, comprise the executive council. Further, and very significantly, it was the first senior management meeting participated in by the agency's allocation coordinator, Ed Baker, who in a couple instances provided very pivotal information.

This concludes my opening remarks, and before I turn the meeting over to Sam Collins, I'd like to note that when Sam completes along with the regional administrators a

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discussion of the operating reactor status, Carl Paperiello will discuss a brief overview of our process for evaluating fuel cycle facilities.

And with that, Sam Collins.

MR. COLLINS: Good morning, Chairman, Commissioners.

Before I start into the preplanned remarks, I would like to acknowledge as Joe mentioned that the process is controlled by management directive 8.14, which provides for this Commission meeting as we brief the Members of the Commission on the results of the process. The process itself starts with inspection, and I guess we all know that's what we do as an agency, the inspection results formulate the plant performance reviews. The plant performance reviews feed into the SALP process, and we also have the senior management meeting process to assess performance.

All of those are being looked at in an integrated way as a result of Commission prompting, and that's detailed in the paper that's currently in front of the Commission for review. That SECY paper is dated June 6, and the staff is awaiting the Commission review and directive on that paper to integrate and review those processes in an aggregate way.

The process as it exists today and as was used for the meeting conducted and hosted by Region I is using the

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management directive which is dated in March. This management directive is also used in the draft form for the January meeting. This is the second such meeting that we have used management directive 8.14. And the process is improving, but we have a ways to go. As indicated, as a result of lessons learned from the senior management meeting that was conducted, we are taking those comments as a critique of the plan as it's currently provided for in the management directive, and we will build those lessons learned in and plan to brief the Commission or the assistants on those improvements in the future.

I will talk more about the specific changes in the processes as I detail the meeting itself.

As you are well aware, the management directive indicates that the process itself has two principal objectives as it relates to nuclear powerplant performance. The first is to identify potential problems in performance and adverse trends before they become actual safety events, and, secondly, to utilize agency resources in overseeing operating reactor safety.

An integrated review of plant performance is conducted using objective information such as plant-specific inspection results, operating experience, probabilistic risk insight, systematic assessment of licensee performance, performance indicators, and enforcement history. All of

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that data is provided for the screening meetings and is subsequently provided for specific plants discussed at the senior management meeting. Special attention is given to the effectiveness of licensee self-assessments and the effectiveness of corrective actions taken for problems identified by licensees. Again, the focus on that initiative is a result of past reviews and critiques of our

process.

Our objective at the senior management meeting process is to identify facilities whose performance requires agencywide close monitoring and oversight. That's the departure from the SALP process to the senior management meeting process. The SALP process focuses primarily on the allocation of region resources. We also discuss planned inspection activities, NRC management oversight and allocation of resources for individual plant discussed, and at times formulate initiatives based on agencywide reviews. And we have one such initiative as a result of this most recent senior management meeting.

Before presenting the results of the June senior management meeting I'd like to briefly review some of those changes that Joe mentioned to the senior management meeting process that have been recently implemented in an attempt to make the process more effective and more scrutable.

In the April screening meeting in which plants

discussed in the May meeting were identified, we conducted that meeting with wider participation by the Agency managers including the Directors of the Office of Investigation, the Office of Enforcement and AEOD, in addition to myself and the Regional Administrators of the regions themselves.

As the Chair of the meeting, I solicited inputs from all the participating managers regarding plant performance to ensure that all pertinent insights were considered in the process.

Our threshold for selecting discussion plants was either the Director of NRR, the Regional Administrator, OE -- Office of Enforcement -- or AEOD Directors could designate a plant for Senior Management Meeting discussion.

As soon as a plant was identified as warranting discussion the plant was placed on the candidate for discussion at the Senior Management Meeting list, and we moved on. That is a departure from the past.

Any plant taken to the Senior Management Meeting would be considered eligible to be given Agency action, which is a trending letter or a Watch List, so there was an assumption that as a criteria for a plant moving onto Senior Management Meeting discussions there was a sponsor for that plant to discuss the reasons why that plant prompted further agency review.

The Arthur Andersen trend charts and the AEOD

economic data were available at the screening meetings and they were discussed at the screening meetings but they were not used in selecting discussion plants.

At the January, 1997 Senior Management Meeting the Senior Managers instituted the use of charts to display arguments for either, one, increasing or decreasing, as appropriate, the level of Agency attention given to a plant, and two, maintaining the current level of Agency attention.

These charts have become known as the Pro/Con List.

We have a number of lessons learned from the Senior Management Meeting having to do with the Pro/Con List. It is a little more difficult perhaps than we anticipated using that Pro/Con List. We'll build those lessons in at the next meeting.

For the June, 1997 Senior Management Meeting we enhanced the Pro/Con charts with clearer guidance on how to prepare them and we aligned the charts with Senior Management Meeting nuclear power plant performance

evaluation templates from the Management Directive 814.

Those templates are described in detail in 814. There are criteria for using them and there are different areas to be reviewed.

As at the screening meetings, an active exchange of views was attained at the Senior Management Meeting --

"active" is probably a word that would characterize the discussions -- through direct solicitation of opinions from the meeting participants, also from the experience of Regional Administrators and Office Directors with the plants themselves.

As you know, we have Regional Administrators who have experience in more than one region and therefore we think we obtained a very good balance of performance, not only between the regions but given experience with the plants discussed at different points in time.

Finally, we made an attempt to enhance the meeting's minutes and associated documentation to more fully capture the nature of plant performance discussions and the process for making Watch List determinations.

As noted, the minutes for the plants that are discussed here today at the Commission briefing will be released to the public.

For future Senior Management Meeting we plan to continue incorporating changes to the process as lessons learned become available for the implementation of the process. These changes will include those that result from the efforts AEOD is leading in this area, and I know there has been one Commission meeting recently on AEOD efforts in that area and there's more planned for the future.

I will summarize the overall results of the Senior

Management Meeting, after which the Regional Administrators will discuss the facilities we have categorized as needing agency-wide attention.

CHAIRMAN JACKSON: Mr. Collins, before you do that, let me just ask you two general questions.

MR. COLLINS: Yes.

CHAIRMAN JACKSON: To what extent was risk factored into the decision-making?

MR. COLLINS: We were provided the background behind risk for the screening meetings and the Senior Management Meeting.

We have a matrix that shows the IPE core damage frequency information for the plants and at the screening meetings as we discussed specific events that were brought to light by the Regional Administrators or inspection findings that revealed vulnerabilities as a result of routine inspections or the AE inspections we used the risk matrix here that is a result from the IPEs to determine the sensitivity for risk in those areas.

At the Senior Management Meeting we discussed risk in the overall context of is the plant an outlier and specific areas of concern.

CHAIRMAN JACKSON: I think Commissioner McGaffigan has a question.

COMMISSIONER McGAFFIGAN: I would like to follow

up on the Chairman's question.

I noted in the book that you had all this information about core damage frequency and large early release frequency and all that, and I would like to explore

just how relevant is it?

If a plant has -- because we have heard in other meetings we have a variation in quality of these calculations that have been done -- if a plant is at ten to the minus six core damage frequency as opposed to one that is at ten to the minus four, does that influence your decision-making as to, well, it's got two orders of magnitude, we can be a little lighter on them, or not?

I mean what do these tables the discussion for each plant as to what its IPE and IPEEE mean, what effect does that have on any decision-making -- because I do worry when it is in tabular form.

There is no little asterisk that says, oh, by the way, the part of the Agency that worried about the quality of the IPEs has deemed this one not as good as that one.

MR. MILLER: I can think of several of several occasions where we discussed events and problems with maintenance where the discussion centered around problems on a system that had safety consequence, and so that kind of discussion enters into --

COMMISSIONER McGAFFIGAN: So on the system, but

the overall grade for the plant, does that matter?

MR. CALLAN: Hub Miller made the point that I was going to make. That is exactly right.

We don't typically -- in fact, I can't think of an instance where we change our perspective on a plant because of an overall high or low core melt frequency, but if for example a station blackout or loss of offsite power is a major contributor to risk and the plant has systemic problems over the years maintaining offsite power or the status of their emergency diesel generators, those kinds of insights do come up from time to time.

As Sam said, and the Chairman noticed this in her remarks, her comments after sitting through the first day, we don't do it in a systematic way and we need to improve how we do that, but we do do that.

CHAIRMAN JACKSON: The second question is to what extent or how is your decision-making influenced either by the presence of new Managers or by licensee commitments?

MR. COLLINS: We are sensitive to the issue of the unproven and we will acknowledge licensees' initiatives in the area of programs, in the area of management effectiveness.

As far as the categorization of a plant, we would use the results of those initiatives, so given the example where a plant has instituted programmatic changes or

organizational changes, that would be acknowledged but that would not be given a large amount of weight as far as its effectiveness until it's been measured by the inspection program.

I think the minutes would reflect that.

MR. CALLAN: Let me expand on that briefly because there is an example of a plant we'll discuss where we don't -- the staff, the Senior Managers are not recommending a change in status but we did form collectively a new perspective because of the licensee's absence of making substantial management changes or programmatic changes and that influence the way we came out, but as Sam said, we went to great lengths to base any decision to change an action or status on demonstrated performance.

CHAIRMAN JACKSON: Commissioner Rogers?

COMMISSIONER ROGERS: Yes. I just wondered to

what extent did the content of the screening committee deliberations, how did that get transmitted to the senior managers at the senior management meeting itself? In other words, did you start de novo with this list of plants that came out of the screening committee or were there observations at the screening meetings that could be carried over into the senior management meeting itself?

MR. COLLINS: Yes. I think there are multiple factors there. One is the majority of the senior managers

at the position of the office directors were at the screening meetings.

The second is that the minutes of the screening meetings are published.

The third is that the benefit of the screening meeting is taken into consideration in the preparation for the senior management meeting. And I noticed the books that Commissioner McGaffigan brought in, those books are the -- some of the preparation that's done for the senior management meeting and they contain the background information from the screening meetings.

MR. REYES: If I could add to that, in our presentation and discussion, we started with a little bit of a flash back on the reasons why the plant was brought forward to a senior management meeting using the minutes of the pre-screening and the recollection of the people who were there as a base discussion, and then we started the discussion.

MR. CALLAN: There were three attendees at the senior management meeting, at least three active participants -- myself and two of my deputies, Hugh Thompson, the deputy for regulatory programs, and Ed Jordan, deputy for regulatory effectiveness -- who were not participants in the screening meeting. So our first involvement was at the senior management meeting, and so we

did not have that experience as a way of background.

Frequently, I would say -- I was going to say from time to time, but frequently we asked questions relative to the screening meeting discussions, and in a couple of cases, quite frankly, we questioned the judgment of the screening meeting as to why plants were passed through and challenged, why are we talking about this plant, for example, and we had a discussion of why the screening meeting made the judgment they made, which I thought was a very healthy discussion.

COMMISSIONER McGAFFIGAN: Could I just clarify? You've mentioned now that the minutes of the screening meetings are, I guess, in public document rooms. The minutes of the senior management meeting are going to be in a public -- you said they're public. I'm trying to understand just how much is public.

CHAIRMAN JACKSON: What is in them?

COMMISSIONER McGAFFIGAN: What is in these public minutes?

MR. COLLINS: What I meant to convey -- perhaps I didn't do it clearly -- is that the minutes of the senior management meeting, not the screening meeting, but the minutes of the senior management meeting for those plants that are discussed here at the Commission meeting will be placed in the PDR.

COMMISSIONER McGAFFIGAN: But not the discussion

plants? Not the discussion plants?

MR. COLLINS: Correct.
CHAIRMAN JACKSON: I had a question in terms of do you see any impact of the maintenance rule in identifying maintenance, preventable failures, and is that folded into your discussion at all?
MR. CALLAN: Chairman, off the top of my head, the only instance where I thought the maintenance rule -- where I can recollect the maintenance rule played a role was when we encounter weaknesses in the licensee's implementation of it or in maybe cases where they did a particularly good job in implementing them. But I can't recall any instance where the outcomes were discussed relative to the maintenance rule.
MR. REYES: In the pro and con charts, you will see that statement, and it could be pro or con depending on what the findings were of the team inspection. So it was using the dialogue, depending whether the findings were positive or negative.
MR. CALLAN: Programmatic findings.
MR. REYES: Programmatic findings.
MR. CALLAN: Which wasn't your question. I suppose that with the enhanced indicators, that would be manifest.
CHAIRMAN JACKSON: Okay.

MR. COLLINS: Okay. At this time, I would like to summarize the overall results of the recent senior management meeting, after which the regional administrators will discuss the facilities that we have categorized as needing agency-wide attention or where we have taken action as a result of the senior management meeting process.
Slide one, please.
Category 1 is for plants that are removed from the NRC watch list. Indian Point 3 was placed in Category 1 during the June senior management meeting. As a result of being categorized Category 1, that plant will be discussed for the next two senior management meetings in order to discern that the improving trend continues.
Slide two indicates Category 2 facilities. Category 2 facilities are those plants whose operation is closely monitored by the NRC. These facilities are Maine Yankee, Salem 1 and 2, Crystal River, Dresden 2 and 3, LaSalle 1 and 2, and Zion 1 and 2. There were no additions to the Category 2 list at the June senior management meeting.
Slide 3 indicates Category 3 facilities. Those are plants that are shut down and require Commission authorization to operate and that the staff monitors closely.
Millstone 1, 2 and 3 remain in Category 3. As the

Commission is aware, the next quarterly meeting on Millstone will be held on August 6th. Because Millstone's status will be reviewed at that meeting, we did not plan to discuss the Millstone units in detail today.
Slide 4, no plants requiring trending letters were identified at the June senior management meeting.
CHAIRMAN JACKSON: Now, was there not a plant that had a trending letter? Two that had --
MR. COLLINS: There are two plants that had trending letters.
CHAIRMAN JACKSON: Right. And you're going to discuss those specifically?
MR. COLLINS: Yes, I will.

CHAIRMAN JACKSON: Okay.

MR. COLLINS: As Slide 5 indicates, at the previous meeting in January 1997, Clinton and Point Beach 1 and 2 were issued trending letters. At the meeting we just completed, the senior managers determined that the performance information for these plants did not indicate that the adverse performance trends have been arrested, nor did it indicate that the performance has continued to deteriorate to the point that the plants should be placed on the watch list. However, the status of Point Beach 1 and 2 and Clinton are different, and Mr. Beach will discuss those during the presentation today.

MR. CALLAN: Excuse me. Chairman, this is the instance that I referred to earlier where you asked the question to what extent did the senior managers take into account management changes and programmatic changes, and I think the distinctions the staff made -- the senior managers made between these two plants relied less on actual performance, which we're not able to measure much at this point, but more on derivative changes issues, specifically the changes that we're seeing in management oversight and the changes we're seeing in licensee programs. Those distinctions caused us to take separate perspectives on each facility.

CHAIRMAN JACKSON: Commissioner McGaffigan?

COMMISSIONER McGAFFIGAN: I'm going to raise a procedural issue with regard to these two plants that I guess Commissioner Rogers was here for the history of. But as I understand it, looking at the past, when a plant was in a trending letter category, it continued to get a trending letter until such time as it got a correction of adverse trend letter, and that was a way to communicate with the licensee.

We're still going to communicate with the licensee because you're going to discuss them in the minutes of the meeting with regard to these two plants that are going to be put available to the public. It would strike me that -- I'm

not trying to go through history, but I -- why we don't also do a letter to them summarizing -- it's all the same materials -- when they remain on the trending list chart or they're not getting a new trending letter, but they're -- they aren't getting a correction of adverse trend letter either, whether we should be sending them a letter of some sort. I guess the Commission made a decision at some point not to continue to send trending letters. We did it to Quad Cities and a couple other plants, is my recollection.

Would there be an advantage in giving folks a six-month update as to how we think they're doing? I guess we're going to.

MR. CALLAN: Well, first of all, Commissioner, had we not decided that the Clinton station was deserving of a diagnostic evaluation, we would not have discussed Clinton, and then if we had not discussed Clinton, we would not have discussed Point Beach.

We agonized quite a bit on whether -- how to do this, and we felt that if we raised the issue of Clinton needing a diagnostic, then that forced the question of Point Beach. So we felt it necessary to discuss Point Beach only in the context of why Clinton --

COMMISSIONER McGAFFIGAN: Is getting a diagnostic and they're not.

MR. CALLAN: -- is getting a diagnostic and Point

Beach isn't. And so that's the context of that. But all that discussion was forced by the decision for the diagnostic team inspection.

In response to the larger question about just the strategy, as you correctly said, we've done it both ways, and I think we all have preferences on which way is the best. Perhaps it's appropriate to raise that to the Commission for a decision.

MR. COLLINS: We have that item, specifically the issuance of a trending letter, under evaluation in the long-term assessment process. So we have picked up that.

COMMISSIONER ROGERS: I think there is an issue, and it's really sort of the one that Commissioner McGaffigan has touched on. My memory may be faulty, so I don't want to say what I did in the past and what I didn't do in the past, but what he said seemed to remind me of my own thoughts at the time that to not send them any indication, even though technically a trending letter should express something about a trend, but if the trend is, you know, flat, that there's no change, then you might make the argument that there's no change and therefore no letter is required.

But I'm always uncomfortable about leaving a gap, you know, that it -- what's the difference between our coming to a conclusion that there hasn't been a sufficient change to say that the trend, the adverse trend has been

corrected but doing nothing? I think that there is an importance to establishing a record that the plant was looked at, it wasn't found worthy to be taken off its previous status. It hadn't gone up or down, but we're aware of that.

I'm always a little uncomfortable when you have a gap there in the situation, and I think it's always better to try to have a continuous thread of attention; even though it was discussed, that nevertheless there is a documentation that says we sent them a letter and we said, you're not going off because you didn't do a good enough job and you didn't go down to really get into trouble, but we're still watching you, you know? I feel more comfortable with that.

MR. COLLINS: I acknowledge that. I think by way of background, it's important to acknowledge that we do communicate performance to licensees because we have all those other forums outside of the senior management meeting, and the fact the plant was discussed is communicated to the licensees, if not in a letter form, the regional administrators take that initiative. But it is not documented in the specific instance as required by the management directive.

MR. CALLAN: But I think for the record, it's important to say that since the trending letter concept was initiated, which I think occurred in 1992, one of the

over-arching concerns has always been avoiding creating a de facto category, a trending category.

A trending letter plant is not a category. They are not in a category. They're being told that they're trending. If they don't arrest the trend, they will end up in a Category 1, 2 -- 2 or 3 watch list.

The concern I imagine is the sending of letters every six months may contribute to a misconception that they are in fact in a trending category.

COMMISSIONER ROGERS: I think that was in fact the

reason why --

MR. CALLAN: Yes.

COMMISSIONER ROGERS: -- the Commission took that position, but I still felt a little uncomfortable about it.

CHAIRMAN JACKSON: You didn't want to create a de facto Watch List.

COMMISSIONER ROGERS: Exactly.

CHAIRMAN JACKSON: Go on.

MR. COLLINS: As indicated in Joe's remarks regarding Clinton, the Senior Managers concluded that although the licensee has initiated short-term corrective action needed for restart there was little evidence that these measures will lead to lasting improvements.

Therefore, a diagnostic evaluation will be conducted to more accurately assess the reason for Clinton's

performance decline.

In the case of Point Beach the Senior Managers concluded that the actions taken reflect a comprehensive improvement plan.

As I noted earlier, that is the departure between those two trending plants.

COMMISSIONER McGAFFIGAN: Could I ask, on Clinton, it's a diagnostic evaluation or an independent safety assessment?

MR. COLLINS: That's correct.

COMMISSIONER McGAFFIGAN: And we did that at Cooper?

MR. COLLINS: We did the --

COMMISSIONER McGAFFIGAN: Was that a successful effort at Cooper?

MR. CALLAN: It was quite successful. In fact, Ellis Merschoff, who is now Regional Administrator in Region IV, was the team leader of the NRC's side of that, but one of the biggest benefits from that approach is in our estimation we obtain better buy-in from the plant staff and from the utility.

Ellis, do you have --

MR. MERSCHOFF: Yes, sir. That was considered a real success, both by the licensee and the NRC.

Briefly, it consisted of a large team of peers

from the industry, about 20 people, spending four weeks at the site doing a very broad and deep review of the safety performance at Cooper, and that effort was overseen at the planning, implementation, and post-implementation phases by a much smaller NRC team.

Both reports were released to the public and resulted in improvement at Cooper.

COMMISSIONER ROGERS: And you are comfortable that that is being sustained?

MR. MERSCHOFF: The Cooper improvement? Yes, sir.

MR. COLLINS: The reason, Commissioner, we mentioned the diagnostic is that is the formal Agency tool.

Any departure from that would require of course initiatives by the industry. That doesn't preclude them being used, as Mr. Beach will indicate in his remarks.

CHAIRMAN JACKSON: You had more?

COMMISSIONER McGAFFIGAN: Well, I am going to get on thin ice and --

CHAIRMAN JACKSON: It's okay.

COMMISSIONER McGAFFIGAN: -- and I want the folks to tell me if -- Cooper, of course, got highlighted in the

GAO report we just got, and their criticism was that they were discussed every Senior Management Meeting from 1991 until January, and I don't know what it is fair to say about Cooper, if anything, at this point, given the criticism that

we have just received with regard to, you know, GAO's view that we perhaps should have had them on the Watch List at some point during that six-year period.

So for whatever --

MR. CALLAN: I think you can only speculate, Commissioner, how Cooper would have been handled had there not been the trending letter concept introduced at about the time that Cooper's performance was starting to be manifested by, you know, in tangible ways, and so -- but that is a case where I mean we are probably asking the question because the fact that Cooper was discussed is now public information in a GAO report and I don't know whether it is fair to get public information this time whether Cooper -- because presumably we gave them permission or whether it is fair to say whether they were discussed this time and if they weren't discussed or if they were discussed how that decision was made. Is that fair?

CHAIRMAN JACKSON: You can ask whatever you'd like.

MR. COLLINS: Well, I think you are entering into a matter of the bounds of the management directive.

The management directive can be changed. There are a number of plants I think historically that are discussed and updated at the screening meetings.

There is a basis, the minutes of the screening

meeting, which provide the reasons and a decision-making process which moves the plant on and which does not move a plant on.

If I understand your question correctly, I think there's perhaps a policy issue that Staff can formulate and provide a perspective on, and that would be if a plant is brought up in a forum such as the GAO report then as part of the response to the GAO report, would we indicate that the information of why or why not the plant has reached a threshold historically or where it is now.

I think that is a matter of responding to what is on our plate rather than a matter of specific policy in the management directive.

COMMISSIONER McGAFFIGAN: I will take that answer.

MR. CALLAN: I think just to summarize, I think in the context of the issue before us, which is is a diagnostic evaluation an appropriate regulatory tool for Clinton, I think the record shows at least to our satisfaction that the independent safety -- what was the official title of it?

MR. MERSCHOFF: It was called an SET, Safety Evaluation Team.

MR. CALLAN: The independent industry effort was a success at Cooper and it is that success that we would hope to build on.

COMMISSIONER McGAFFIGAN: Our friends at GAO

didn't seem to give us much credit for it.

CHAIRMAN JACKSON: Why don't we go on?

MR. COLLINS: At this time I would like to just review that Hub Miller, the Region I Regional Administrator, will discuss Indian Point III, Maine Yankee, and Salem.

Luis Reyes, Region II Regional Administrator, will discuss Crystal River, and Bill Beach, the Region III

Regional Administrator, will discuss Dresden, LaSalle, and Zion.

That concludes my opening remarks.

I will turn the discussion over to Hub Miller at this point if there's no more questions on the process.

CHAIRMAN JACKSON: There may be but we will get you later.

MR. COLLINS: Fair enough.

MR. MILLER: Good morning, Chairman, Commissioners.

Indian Point III was first placed on the Watch List as a Category II plant in June of 1993. This action was taken in light of the significant plant equipment and staff performance issues that existed at that time.

Over the next three years, the New York Power Authority took steps to improve performance, with mixed results.

Numerous management changes were made and an

outage lasting about two years was conducted.

However, performance following startup in June of 1995 was still poor.

Several significant operator errors and equipment problems caused the Power Authority to undertake another extended outage.

This outage was completed in April of 1996.

While the plant operated nearly continuously and human performance trends were positive after this outage, that is through 1996 and into this year, a number of equipment problems leading to power reductions and a number of work control errors occurred.

Progress in the engineering area was slow in responding to these problems.

From this, Senior Managers concluded in the January meeting that improvement efforts were still insufficient in some areas.

We determined an additional period of increased monitoring was necessary.

Performance since the last Senior Management Meeting has been good. Operator performance continued to improve, particularly with respect to problem identification, formality, and conduct of control room activities.

A conservative approach to plant operations has

been taken. The number and significance of personnel errors have declined. The station has demonstrated that through effective control of plant evolutions and field activities during two outages this year that significant progress has been made in eliminating work control errors.

Early in the year, Management made a decision to extend a forced outage to address a number of important equipment problems which had been burdening operators. Equipment performed will in subsequent plant operations, indicating that maintenance and modifications completed in that outage were effective.

Plant support activities such as radiological protection have continued to be strong.

Quality Assurance and other oversight organizations have been making positive contributions.

Systems engineers are more involved in plant operations but substantial effort must continue to reduce engineering backlogs and complete long-term improvement

plans in such areas as design basis documentation and set point control. This work has appropriately prioritized and additional resources have been dedicated to it.

The backlog of engineering work had an impact on planning for the current refueling outage requiring continuing close licensing management oversight of these activities.

In summary, the NRC's inspection program and other oversight activities have determined that licensee management has substantially corrected the weaknesses and underlying root causes that led to previous performance problems at Indian Point III.

Management has established high standards of performance, implemented improved self-assessment and corrective action programs and upgraded the material condition of the plant to enhance equipment reliability.

Therefore, the facility has been removed from the Watch List.

It has been classified as a Category I plant and, as Sam mentioned earlier, this is the designation for plants which have been removed from the Watch List but which will be discussed in the next two Senior Management Meetings to assure performance improvements are sustained.

CHAIRMAN JACKSON: Commissioner Rogers?

COMMISSIONER ROGERS: No.

CHAIRMAN JACKSON: Did you make use of performance indicator data from the last six performance -- the P.I. data seemed to end with the fourth quarter of 1996.

MR. MILLER: Yes. The performance indicators that we track from the NRC are lagging, but we did look at the indicators that we have that aren't in the formal, you know, document that's published by AEOD. Very definitely, we

looked at those things that, you know, include safety system actuations, vents and that sort of thing that are -- that will be ultimately reflected in the performance indicators when they are published.

CHAIRMAN JACKSON: And you are satisfied with those?

MR. MILLER: Yes, the judgment that they have --

CHAIRMAN JACKSON: Are we giving more weight to the more recent data; that is, the last six months?

MR. MILLER: I think it's a collective thing, Chairman. I think it goes back to the period that really started after the outage that ended at the beginning of 1996, and we saw improvement over the period of last year and into this year.

At the last senior management meeting, there was a lot of discussion about the improvement, and while we saw improvement last time, we saw those nagging problems in those isolated areas that I mentioned, were control, field activities, and then the impact that a number of equipment problems had on the plant, power reductions and the like, and so we identified in the last meeting, you know, what we needed to be looking at this period to make a judgment, and it has been our judgment that they have made sufficient progress.

CHAIRMAN JACKSON: Now, maybe this would require

evaluation, refinement and potential use of something like the Arthur Andersen algorithm, but is it possible perhaps graphically to depict data to show more clearly the change in performance from one senior management meeting to the

next, say for this particular licensee relative to some of the categories you've discussed and others?

MR. MILLER: I think some of the indicators can be tracked, and personnel errors is one. This licensee does a pretty good job of tracking personnel errors at a low threshold and also putting personnel errors in context, you know, number of activities, number of hours, and the like. So we are aware of the indicators that they tracked that we don't keep from the NRC side, but some of them can be depicted graphically.

CHAIRMAN JACKSON: Well, I think it would be helpful, when you've laid out the various categories that you discussed that gave you the reasons for removing them, and it derives from the matrix that you use to actually have the supporting data presented in a form where it's easy to see that there has been a change.

Why don't you go on.

MR. MILLER: Let me next discuss Maine Yankee.

Maine Yankee was first discussed at the senior management meeting in January 1997. A number of significant deficiencies had come to light, largely as a result of an

independent safety assessment team which conducted a review during the latter half of 1996.

In December of last year, the plant was shut down when Maine Yankee discovered cable separation problems in several safety related systems. Since the last senior management meeting, Maine Yankee remained shut down to address this problem and other numerous plant equipment and human performance problems.

Under a management services agreement with Entergy Nuclear, Incorporated, a new management team was formed at the site. Comprehensive assessments were undertaken to determine the full extent and root causes of problems that may exist. This included follow up on the issues previously identified by the integrated safety assessment team.

Performance improvement plans were expanded considerably by the new management teams. These plans identified both near-term actions to be completed before plant restart and needed long-term improvements.

New corrective action and self-assessment processes were instituted, and while a significant lowering of the problem reporting threshold was observed, implementation has been somewhat inconsistent in the start-up phase of these programs.

Management has established higher performance standards and has taken a more conservative approach to

analysis of problems and decisionmaking. A decision was made to enter the planned 1997 refueling outage about nine months early to expedite the equipment problem discovery process. Some progress was made in repairing degraded plant equipment during the outage.

Plans for plant modifications necessary to address a number of significant design vulnerabilities were in various stages of development when a decision was made recently by the board of directors to reduce outage activities. The board took this action in concert with a decision to reexamine the plant future.

Personnel performance is still inconsistent, as evidenced by errors made during recent defueling operations, and so continued management attention is needed to reinforce new performance standards.

Significant additional work must be completed before plant restart. The senior managers determined continued increased agency attention is needed to monitor improvement efforts. As a consequence, Maine Yankee continues to be designated a Category 2 facility.

CHAIRMAN JACKSON: Sometimes plants get into trouble because they're too insular or too inward-looking. Is there industry guidance available on what are the characteristics of a good self-assessment program?

MR. COLLINS: I think there are a number of

initiatives in those areas. I would have to ask the staff as far as the specific reg guides we have available in that area. We do spend a lot of time in the inspection program looking at the corrective action program. I think there are certainly industry initiatives as far as INPO and other entities are concerned.

I would be hesitant to say that we have a template, if you will, that we're looking at. We look at the attributes, the results of each individual program. There are a number of specific attributes as far as tracking and priority and timeliness and measuring the effectiveness of corrective action programs which we review in the subjective form as far as results are concerned, and I think that's about as far as we go.

CHAIRMAN JACKSON: Commissioner Rogers.

COMMISSIONER ROGERS: Well, you know, it would seem to me that this is a time when -- I'm not sure what NRC can do about it, but a time when the morale of the staff at that place is probably getting pretty low, and a time when if it is going to continue, what happens now has to be done with just as much care and attention to detail as normally. It's a time when I think it's important to watch very carefully that somehow or other, nothing is allowed to slip that might very well be called upon later if the decision is to continue that plant.

So there's a period here of great sensitivity, I would think, to the safety culture at the plant and the commitment of the folks that are working there to not allow something to degrade to a point -- and unobserved so that at a later time, if the decision is to start up, that you're not caught with a whole collection of imperfect systems that start to tell you that.

MR. MILLER: We have been very sensitive to that, and there is the issue that you're talking about of making sure that the work that's done now doesn't slip to the point where things -- you know, that errors are made and they're hard to detect happen at this point, and if they want to resume operations later, you will have a difficult time picking that up.

But the other concern is something that we saw at Haddam Neck, honestly, last year, after a decision was made there, and there was an impact, I think, of the decision at that plant and there was a significant event that occurred. So in the defueling operations that I've talked about recently, we had a heightened level of monitoring of those activities to assure that the natural impact that occurs on morale did not, you know, work back to the actual operations of the plant, and I'm happy to say they've defueled the reactor now and they did those evolutions.

There were some errors that I talked about. The

new management team I thought did a good job of reacting to

those sharply to avoid them from turning into something that was wider.

CHAIRMAN JACKSON: Commissioner Diaz?

COMMISSIONER DIAZ: I have no questions.

CHAIRMAN JACKSON: Commissioner McGaffigan?

Why don't you go on.

MR. MILLER: Salem. Salem was first discussed during senior management meetings in 1990 and 1991. Performance problems surfaced again, leading to discussion of the plant at the June 1994 meeting.

As most notably shown by a complicated reactor trip, safety injection and plant transient in April of 1994, significant operator performance, equipment reliability, and corrective action problems existed at the plant.

Initial efforts to address these problems were not successful and eventually both units were shut down in mid 1995 and they have remained shut down since that time.

While in the last senior management meetings, senior managers noted progress was being made by Public Service Electric & Gas in correcting problems, we concluded Salem should be designated a Category 2 watch list facility. This was appropriate since significant increased agency monitoring of Salem was actually occurring in light of the pervasive, longstanding nature of the problems that were

being addressed by the licensee.

Since the January meeting, Public Service continued to make progressing in addressing both equipment and human performance issues that led to the dual unit shutdown. The outage on unit 2, which has resulted in extensive refurbishment and modification of both safety related and balance of plant systems, is nearing completion. We'll be meeting this afternoon on that project.

Efforts to address operator workarounds have been effective. Public Service is well along in completing a comprehensive pre-start up test program intended to assure repair work has been effective. The unit 2 steam generator replacement project is proceeding well.

Station management has continued to strengthen corrective action programs. Thresholds for problem reporting is low and root cause assessments are usually strong. Self-assessment activities are effective and management has normally taken appropriate action as problems are brought to light.

Plant operators continue to exhibit a strong sense of plant ownership and conservative decisionmaking. The plant is in the early stages of implementing an improved station-wide planning and scheduling process. The number and significance of personnel errors have declined. This stems in part from extensive retraining and requalification

programs conducted during the outage for operators and maintenance technicians to both reinforce fundamental skills and establish higher safety standards.

The engineering staff also has received significant additional training. The magnitude of engineering efforts to support the dual unit outage has been large. Engineering performance has generally been good.

Following up on NRC inspection findings, Public Service conducted an extensive FSAR and licensing basis verification effort.

While a strong management team has been in place for most of the dual unit outage, effective operation of the

facility at power has yet to be demonstrated. For this reason, the senior managers concluded that continued increased attention to Salem activities is necessary. As a consequence, Salem will remain a Category 2 facility.

CHAIRMAN JACKSON: How long a period of full power operation would we require?

MR. MILLER: I don't think that there's anything in our guidance on that. It will be a judgment call ultimately.

CHAIRMAN JACKSON: Okay.

MR. CALLAN: The guidance, Chairman, in the removal matrix of management directive 8.14 talks about the period of sustained operation with acceptable performance,

and that has been as short as one senior management meeting cycle if there's an opportunity for a licensee to perform -- to operate and perform during that period.

In the case of Indian Point 3, which was briefed earlier, there were some fits and starts. We never -- it took us, what, two or three senior management cycles before we were able as a group to have a consensus that we had seen a period of sustained performance. So that would be the other end of the spectrum.

CHAIRMAN JACKSON: We are going devote a full Commission meeting to this plant this afternoon. We don't need to spend that much time, but I do want to offer the Commissioners an opportunity.

Okay, why don't you go on then.

MR. COLLINS: That completes the remarks of Mr. Miller.

At this time I would like for Luis Reyes to discuss Region II plants.

MR. REYES: Good morning, Chairman Jackson and Commissioners. I will be briefing you on Crystal River.

Crystal River 3 is a single Babcock & Wilcox unit operated by Florida Power Corporation. Declining performance at Crystal River was first discussed during the June 1996 senior management meeting. Performance concerns at Crystal River 3 discussed involve Florida Power

Corporation's mishandling of several design issues, improper interpretations of NRC regulation, and weaknesses in operator performance, corrective actions, and management oversight.

Crystal River was classified as a Category 2 plant after the January 1997 senior management meeting. Since the January 1997 senior managers' meeting, Crystal River has a new management team that has been effective in resolving the engineering and human performance issues previously identified. A comprehensive recovery plan which includes milestones and measurements of accomplishments has been implemented.

The unit was shut down in September of 1996 and continues in a shutdown condition. Efforts to complete the extent of condition review, system modifications, and improvements in the material conditions inside containment continue, and will require extensive licensee and NRC attention prior to the unit startup.

The final resolution of these issues warrant continued increased NRC attention from both headquarters and the region, and therefore the senior managers decided that Crystal River 3 should remain a Category 2 plant.

I'll be glad to answer any questions on Crystal River.

CHAIRMAN JACKSON: Commissioner Rogers.

COMMISSIONER ROGERS: No.

CHAIRMAN JACKSON: Commissioner Diaz.

COMMISSIONER DIAZ: No.

CHAIRMAN JACKSON: Commissioner McGaffigan.

COMMISSIONER McGAFFIGAN: No.

Thank you.

MR. COLLINS: At this time I would ask Bill Beach, the Regional Administrator of Region III, to discuss Dresden, LaSalle, and Zion facilities.

MR. BEACH: Good morning, Chairman, Commissioners.

Before discussing the plants at this last meeting in January and at our April meeting with Commonwealth Edison, we told the Commission we would keep you informed regarding the actions Commonwealth Edison was taking and we were taking in response to the NRC's 10 CFR 50.54(f) letter requesting information as to why the NRC should have confidence that Commonwealth Edison Company can operate all six of its nuclear stations while sustaining performance improvements at each one.

I'm going to take just a minute and go over what we've done in the last couple of months since that last meeting. Commonwealth Edison since that last meeting has continued to take actions to strengthen its corporate oversight of the six nuclear stations. Most notably Commonwealth Edison has put into place peer groups and

implemented a performance indicator program. The purpose of the peer groups is to enhance communications and share insights among the six stations, find consistent solutions to common problems, and most importantly, improve performance through a consistent process and program across the nuclear division.

Twenty-five performance indicators have been selected to drive improvement efforts. Seven are typical indicators that we use. The remaining 18 are targeted for specific areas such as workarounds, out-of-service errors, temporary alterations, percent rework, corrective actions, and percent floor space contaminated, to name a few. Corporate audits are also being conducted to ensure performance indicators are not being managed.

In addition to these monitoring and assessment functions, the oversight functions are also being strengthened. Although it is early in the implementation phase, indications are there is the potential for identifying noted differences in plant performance and trends that deviate from average industry performance. Some worthwhile insights have already been obtained in the area of work control.

Since we last met, our staff has formed a performance oversight panel to provide an integrated NRC assessment of Commonwealth Edison's nuclear safety

performance, particularly focusing on sustained performance improvements at each site and the effectiveness of the corporate oversight initiatives. The panel is chaired by myself, includes senior managers and staff from the Office of Nuclear Reactor Regulation, the region, and other offices as appropriate. The panel plans to meet with Commonwealth Edison Company once every six to eight weeks to discuss the status of performance improvement initiatives. These meetings also provide the opportunity to discuss any

inconsistencies between findings from the NRC's inspection program and the Commonwealth Edison Company corporate oversight program. These meetings have been and will be open to the public, and the meeting minutes and handouts will be docketed.

Now regarding the plant discussions, I'll go directly to Dresden, unless you have questions.

CHAIRMAN JACKSON: I just had one general question. For Com Ed's plants, to what extent was overall corporate performance included in your evaluation of individual plant performance?

MR. BEACH: I think particularly with Dresden that will come up.

CHAIRMAN JACKSON: Did you want to make a comment, Mr. Callan?

MR. CALLAN: I think we ought to discuss this

after we finish Dresden, because it did play an important role.

CHAIRMAN JACKSON: Okay. No problem.

MR. BEACH: Dresden was first placed on the NRC watch list as a Category 2 facility in June of 1987, and removed from the watch list in December of 1988. Dresden was again placed on the watch list in January of 1992, where it still remains, although over the past six months overall performance has continued to improve.

The NRC conducted an independent safety inspection in the fall of 1996 that concluded that safety performance had significantly improved in plant operations, while the level of improvement in engineering had not resulted in fully effective problem identification and resolution. A confirmatory action letter was issued in November of 1996 to confirm the actions Dresden is taking to address the engineering deficiencies identified during the independent safety inspection. Our assessment of the station's corrective action under the confirmatory action letter is still in process.

In April of this year to complete the independent safety inspection a maintenance inspection was performed utilizing personnel from the Office of Nuclear Reactor Regulation, Region IV, and Region III during the Unit 3 refueling outage. The results of the inspection were

consistent with other NRC inspections that confirm that progress in improving maintenance continues to be made. The radiological protection program was noted to be improving with much more work being performed with a lower station dose. However, some problems were identified in the planning and coordinating of work, and in surveillance testing, an area where the routine inspection program is identifying some problems with procedural adequacy and procedural adherence.

In the area of operations, recent reactor startups and day-to-day operational activities have been performed well. The number of operator errors has been consistently declining. Overall performance in this area continues to be strong. Unit 2 operated for 223 days until it shut down on April 10. The recent Unit 3 outage has shown Dresden's ability to accomplish a large amount of work in a planned, systematic manner. Significant improvements in the material condition of the plant were made by addressing and resolving some longstanding issues such as the cleaning of the reactor bottom head drain, repairing the reactor vessel shroud, and upgrading the station air compressors. The number of

operator workarounds and maintenance backlogs are decreasing, as is the total number of corrective-action items.

However, notwithstanding these improvements, the

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plan is still being challenged by emergent equipment deficiencies. Four Unit 2 shutdowns occurred between April 10 and May 24 because of material-condition and/or work-control problems.

With the exception of some surveillance testing weaknesses, there was improved performance in the area of engineering support to the station. Greater engineering involvement in resolving material condition deficiencies resulted in some equipment performance improvements. However, emergent issues in the large engineering backlog continue to challenge the engineering organization. Design control process improvement initiatives and the aggressive actions the station has taken to address the findings of the independent safety inspection adds to the significant engineering workload. A design engineering assurance group was established to provide oversight and guidance for engineering activities, with the ultimate goal of improving the quality of engineering activities.

In summary, the senior managers concluded there has been substantial improvement in the area of operations, and that the most recent outage on Unit 3 was well executed and improved the material condition of the unit. However, there are significant challenges in the engineering area, where a number of design weaknesses still exist.

The senior managers were most concerned about the

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potential for continued operational challenges because of emergent equipment deficiencies, as evidenced by the four Unit 2 shutdowns that occurred between April 10 and May 24. Further, the senior managers also discussed the need to consider Dresden's performance in light of the Commonwealth Edison corporate performance plan. Given the cyclical history of performance at Dresden, performance improvements at Dresden need to be assessed with the understanding that they will not be impacted by a corporate focus on the other plants.

The Senior Management discussed extensively removing Dresden from the Watch List. Given the observed performance improvements, the Senior Managers concluded that on balance because of Dresden Station's performance history it was prudent to retain Dresden on the Watch List as a Category II facility.

CHAIRMAN JACKSON: So what is the next step for Dresden?

MR. BEACH: I am optimistic that if this outage was as we think it is and it did in fact improve material condition to the extent that we think it did, and Unit 2 performs well, which has been proven, that there should be a period of sustained performance over the next six months to consider taking Dresden off the Watch List in the next Senior Management Meeting.

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CHAIRMAN JACKSON: Any comments?

MR. COLLINS: I think I would just elaborate slightly on Bill's comments.

This is a situation where we use a removal matrix. Certain areas in a removal matrix were weighted based on the history of the plant. They are currently as we hear, unless

it's changed in the last couple hours, in a period of dual unit operation.

They have performed a successful outage, we believe, but because of the history of the plant, there's at least two factors that the Senior Managers were sensitive to.

One is the emergent work issue and a sustained period of operation would provide for a proof period, if you will, for the reliability of equipment.

The second is the continued corporate support and stability at the station which Senior Managers believe is necessary in order to continue with the improving trend.

CHAIRMAN JACKSON: Thank you. Commissioner Rogers.

COMMISSIONER ROGERS: Where did you pick up design weaknesses? What systems evidenced these kinds of problems? Is this a configuration control problem from the past or was this, are these design weaknesses from the very beginning of the plant's history?

MR. BEACH: It is probably a combination of all of the above, Commissioner.

The initiation was the independent safety inspection that was led by Sam, and the licensee has initiated a number of actions in response to the ISI and those actions include going back looking at original calculations, looking at design basis documents, and also looking at big configuration control problems.

They are finding a number of issues.

Historically at the station -- I am not sure of the timing -- Hub might know better than I do -- but I think it wasn't until two to three years ago that they were able to get the design basis documents because they were retained at the architect engineer, so essentially what they are doing is a very extensive review of all of those things, with using sampling, conducting audits of the calculations, conducting the audits of contractors who are reviewing the calculations, and they are finding some problems as well in the review of the audits of the calculations, so it is a pretty extensive effort in a lot of areas.

COMMISSIONER ROGERS: What about the material condition problems? What is the nature of those?

What kinds of systems are involved there?

MR. BEACH: One problem was -- I can discuss all of them. One was a Gerlin circuit breaker issue that was

identified as Quad Cities.

At Dresden it had been put on an action request, which is a first tier document leading to a work request.

The system engineer did not understand the significance of that and cancelled the action request and therefore when the problem was found at Quad Cities it necessitated a shutdown at Dresden as well.

One of the problems was a tachometer on the NG set was oscillating, and the reason it was oscillating is because a set screw was improperly set, and that was a maintenance issue because of a procedural problem that didn't specifically specify how the set screw should be set.

MR. CALLAN: Excuse me. I want to clarify something, and correct me if I am wrong, Bill.

The engineering arguments were not compelling in the Senior Management discussions about Dresden. They were not focused on.

We asked ourselves the tough question -- if

Dresden were not a Commonwealth plant, and if you just looked at Dresden's performance objectively, would there be a basis for removing them from the Watch List?

My sense is that the answer was close. It was a close call. My sense is that the Staff would have opted to keep them on the Watch List largely because of the operational problems during that one-month period, the

shutdowns and the operational challenges, not the engineering issues.

When you superimpose on that though the history, as Sam mentioned, the history and the corporate issues, then the decision became less agonizing. That is how I would characterize it, but the engineering concerns were not compelling.

We typically would not weigh old design issues heavily in deciding whether a plant should go on or go off the Watch List. The Agency policy, as you know, is to encourage licensees to ferret out old design issues and our enforcement policy essentially rewards that type of behavior.

MR. COLLINS: I think the difference there, Commissioner, is twofold. One is that the engineering issues, while not unique to Dresden, they were Commonwealth engineering issues.

The confirmatory action letter and the corrective actions that Bill mentions are corporate-wide. They are not unique to Dresden.

The second point would be in response to your question. The material condition of the plant is good to very good, but the emergent work or the work practices is what manifests itself in the operational challenges to the plants, but the condition of the equipment itself is

typically very good with the exception of an in-leakage issue they have in some of the rooms as far as groundwater is concerned.

CHAIRMAN JACKSON: Commissioner Diaz would raise a question.

COMMISSIONER DIAZ: Excuse me, in what sense did it manifest some weakness or some problem?

MR. COLLINS: It is a challenge to the operators.

The issue that Bill raised with the two examples of work practices or work control manifested themselves in either shutdowns to the plant to correct, or in event response to the operators.

The operators themselves performed well. It is the emergent work as the result of past practices or current work control that is continuing to challenge the plant.

Is that a fair reading, Bill?

MR. BEACH: Yes.

COMMISSIONER DIAZ: You mean that the work that now needs to be done in any industry to maintain the industry functional, do you think that creates a new challenge to them, is that what you are saying?

MR. COLLINS: No. There is a distinction, I believe, with Dresden. You draw the correlation to any plant. Dresden is not any plant --

COMMISSIONER DIAZ: No, but any plant needs work.

MR. COLLINS: Well, no. Not the type of work I believe that Dresden has warranted in the past because of the accumulation of issues over years and the preponderance

of equipment issues --
COMMISSIONER DIAZ: The type of work rather than that it is an emergent work, so some new work has some special significance, is that what it is?
MR. COLLINS: Well, I am characterizing new work and emergent work as the same.
COMMISSIONER DIAZ: Right, but the work is some of special quality. It is not just standard work that happens in any plant --
MR. COLLINS: Unexpected work.
COMMISSIONER DIAZ: Unexpected work?
MR. COLLINS: Yes.
CHAIRMAN JACKSON: With unexpected consequence?
MR. COLLINS: Yes, and of course where we cross that line into a regulatory concern is where it results in an event or a transient or a challenge to the operators.
CHAIRMAN JACKSON: Is that the kind of -- then that's the kind of emergent work outcome you are focusing on?
MR. COLLINS: Yes, and that is the type of area we believe we need to see improvement --
CHAIRMAN JACKSON: Okay.

MR. COLLINS: -- on a sustained basis in order to support the removal matrix.
CHAIRMAN JACKSON: Okay. Any further questions? Mr. McGaffigan?
COMMISSIONER McGAFFIGAN: No.
MR. BEACH: We'll move to LaSalle.
CHAIRMAN JACKSON: Let me ask you one question about Dresden.
There was a recent inspection report, 97-007 -- Double 07 --
[Laughter.]
CHAIRMAN JACKSON: -- were the findings from that inspection report included in your assessment, do you know?
MR. BEACH: Could you just tell me what -- some characterization of the report?
CHAIRMAN JACKSON: It's all right. I'll talk to you about it. It's a lot of different things that showed up in that report.
MR. BEACH: Okay.
CHAIRMAN JACKSON: Write it down though.
MR. BEACH: Yes, ma'am. Which one was that?
CHAIRMAN JACKSON: 007.
MR. BEACH: 96?
CHAIRMAN JACKSON: 97-007.
MR. CALLAN: Now all the RAs are going to come

into this briefing with all their inspection report numbers tabulated.
MR. BEACH: Normally I have that, Joe.
Okay, LaSalle.
LaSalle was placed on the Watch List following the January, 1997 Senior Management Meeting.
A June, 1996 risk significant event involving the injection of large quantities of expandable foam sealant into the safety-related service water tunnel reflected that work controls had broken down, revealed previously unidentified material condition problems, and disclosed significant engineering weaknesses in support of plant operations.
After the significance of the problems at LaSalle Station were recognized, Commonwealth Edison Company shut

down both units in September of 1996. The units currently remain shut down while the LaSalle Station implements a comprehensive restart action plan to address a variety of human performance deficiencies and hardware problems.

Management has set clear goals at the station and is engaging the workforce.

In this regard, Management is implementing high standards to deal with licensed and non-licensed operator performance issues.

A major aspect of the restart plan is focused on

the upgrade of training and operating department standards.

Critical simulator evaluations of operator performance during high intensity training identified several generic operator weaknesses, particularly in the implementation of abnormal operating procedures.

The licensee has suspended some licensed reactor operators and senior reactor operators from licensed duties pending remediation training.

Positive results in limited areas are evident for some LaSalle improvement initiatives implemented during the current extended plant shutdown. Lately, efforts to approach work in a more systematic controlled manner reflect a plant management emphasis on a conservative operating philosophy focused on plant safety.

The licensee is actively identifying and seeking resolution to plant material condition problems. Functional system reviews are particularly noteworthy, and have resulted in the identification of a number of design issues. The licensee is undertaking the review of 48 systems using predominantly expertise. More significant actions to address engineering performance has included enhanced training and formation of an engineering assurance group similar to Dresden.

Challenges though remain in a number of areas. There are still some examples of an inconsistent

implementation of the design change process. There are still some problems with radiation worker practices, and although decreasing, there is still a large amount of contaminated areas. Backlogs are high and are increasing because of the issues identified as a result of the system functional reviews. Over 200 modifications are scheduled to be completed prior to the restart of the units. Although a number of problems are being identified, the corrective-action program improvements for effective problem resolution have not yet been tested in a high-work-activity environment.

In summary, the senior managers recognize the extensive improvement initiative referenced in LaSalle's restart plan. However, convincing evidence that overall safety performance is improving is not yet apparent. Given that performance improvements have been limited and that both units remain in a shutdown condition, the senior managers concluded that LaSalle County station should remain on the watch list as a Category 2 facility.

CHAIRMAN JACKSON: Commissioner Rogers?

COMMISSIONER ROGERS: No.

CHAIRMAN JACKSON: Commissioner Diaz?

COMMISSIONER DIAZ: I have no questions.

CHAIRMAN JACKSON: Commissioner McGaffigan?

COMMISSIONER McGAFFIGAN: No.

CHAIRMAN JACKSON: Please go on.

MR. BEACH: Zion. The Zion nuclear power station was placed on the NRC watch list for the second time following the January 1997 senior management meeting. It is now apparent that the licensee was unable to maintain its course of improvement after being removed from the NRC watch list as a Category 2 facility in January of 1993. Over the past 6 months some significant operational issues have occurred. An augmented inspection team dispatched to review a February 17 event identified significant human performance deficiencies involving both the operating crew and licensee management at the station. Of particular concern was the breakdown in command and control by operation supervision, inadequate communications between all levels of the operations department, the failure of management to preplan the shutdown evolution, and licensed-operator knowledge and training deficiencies that were manifested during this event.

A March 1997 reactor vessel voiding event also demonstrated the previously identified operational and corrective-action program weaknesses were not effectively addressed. The licensee in response to this event clearly developed an intensive improvement plan. This plan included an assessment of each licensed and nonlicensed operator to determine if the individuals possessed the qualifications

and attributes that licensee management considered necessary to operate the plant safely. Based on the results of this assessment process, the licensee selected a core group of operators for an enhanced training program. This group is now focused on the restart of Unit 2.

Performance in the area of maintenance showed limited improvement over the last six months. Maintenance backlogs are high, and a number of equipment problems occurred in the period, several of which were related to the emergency diesel generators. A failure of a system auxiliary transformer caused a loss of offsite power where there were a number of work coordination problems associated with the transformer repair and electrical bus restoration activities.

Some limited improvement was noted in engineering over the period. While the engineering organization identified several design issues, testing deficiencies, and configuration control discrepancies, engineering personnel did not always recognize and appropriately evaluate degraded equipment conditions. The licensee is now performing restart system affirmation reviews to assess system readiness in preparation for the restart of Unit 2.

Problems continue to be evidenced in radiation protection, although improvement was observed. Access to safety-related equipment is improving because of ongoing

efforts to reduce the extensive amount of contaminated areas.

The senior managers recognize the improvement initiatives referenced in Zion's restart plan and the efforts to enhance operator training and operator performance. Improvement plans to address corrective action weaknesses were also recognized. The senior managers did note that the number of allegations filed at the plant have increased substantially. However, senior managers concluded that because of the continued human performance problems, particularly in operations, the recurrence of equipment

problems due to the failure to implement fully effective corrective actions, and questions about the current work environment, Zion should remain on the watch list as a Category 2 facility.

CHAIRMAN JACKSON: Commissioner Rogers?

COMMISSIONER ROGERS: No.

CHAIRMAN JACKSON: Commissioner Diaz?

COMMISSIONER DIAZ: No.

CHAIRMAN JACKSON: Commissioner McGaffigan.

COMMISSIONER McGAFFIGAN: No.

CHAIRMAN JACKSON: My only question is are we tracking into a situation with Zion that looks like the history of Dresden, you know, on again, off again, on again?

MR. BEACH: No.

CHAIRMAN JACKSON: History is not repeating itself?

MR. BEACH: No, ma'am. They have to develop -- it's early to tell still, but the training, while maybe not as aggressive as LaSalle, is over and above, quite above the regulatory requirements. There are a number of material-conditions issues, but they're working those. The backlogs are high. The problems are being identified. If the operability assessment process improves, then degraded equipment will get appropriately identified, and that's been a historic problem in the past, where those things just lingered.

And I think if you go back to Dresden, some of the concerns that still involve the emergent equipment is that if the problems get to the right level of management, they are always appropriately addressed. It's the ones that don't get into the system. And I think Zion, a root cause of perhaps a number of Zion's problems is there are a lot of problems that haven't been identified and gotten into the corrective action process.

MR. COLLINS: Chairman, I would agree with everything Bill said. In addition to that, I believe given Zion's unique status as far as plant in a corporate sense we do need to be very sensitive to the support for Zion as well as the retention of qualified managers, operators, the types

of people that it takes not only to improve plant performance but to sustain that improvement. And the senior management meeting process with the removal matrix will be a good measure of that.

To the extent the senior managers are satisfied that that removal matrix is complete, I believe there is -- perhaps those sensitivities will be taken into consideration in that process. But the dynamics for Zion are different than the dynamics for other plants, and we'll have to take that into consideration in any removal decision.

CHAIRMAN JACKSON: But also I'm concerned about the what I'll call passing the watch list token around that you spoke fairly positively relative to Dresden earlier --

MR. COLLINS: Um-hum.

CHAIRMAN JACKSON: And if it's just a question of passing the token to the next plant, then, you know, that has to do with this overall corporate performance issue.

MR. COLLINS: Right.

CHAIRMAN JACKSON: Any other comments?

Commissioners?

Good.

MR. COLLINS: Chairman, that concludes the

discussion of the plants at the senior management meeting. At this time I would turn the agenda back over to Joe Callan.

MR. CALLAN: Chairman, as I noted at the outset, at this time I'm going to turn the meeting over to Carl Paperiello, the director of the Office of Nuclear Materials Safety and Safeguards, to discuss the assessment process for fuel cycle facilities.

Carl.

CHAIRMAN JACKSON: Let me just ask you up front, Dr. Paperiello, I'm interested in your describing for the Commission what the threshold is for discussing fuel cycle facilities and the highest-risk materials licensees?

MR. PAPERIELLO: Okay. Good morning, Chairman and Commissioners.

Fuel facilities were briefly discussed at the senior management meeting. Although there were no prior screening meetings in this area, no concerns were raised by the regional administrators with respect to any fuel facility that warranted extensive discussion.

Last year I initiated a program to conduct periodic licensee performance reviews of fuel cycle facilities. This program is described in manual chapter 2604 issued in August of last year. Its objective was to establish a simple and streamlined process by which NRC management and staff would review a fuel cycle facility licensee's performance in protecting public health and safety and ensure consistency of the review process from one

facility to another and among different regions.

As part of the process, a teleconference between the headquarters staff and a regional staff is conducted. The regional administrator and I both participate in this teleconference. We jointly review licensee performance. If there were serious problems warranting NRC-wide attention, we would bring them to the senior management meeting.

I would note that the NMSS process is very streamlined. Issues are presented as bullets. In fact, the total write-ups are about only three to four pages long, although there will be attachments.

There has been no increase in staffing in this area.

Results are presented to the licensee at a public meeting and the inspection program is modified to reflect findings. We have reviewed five of the eight major fuel facilities since we began the program last year. One review is in progress and the last two will be completed by November.

The review cycle is normally two years.

Now in answer to the Chairman's question, I have not written a threshold down. In my own mind, a threshold would be problems which are long and intractable and the office does not appear to be able to solve, in which case I would believe and the Regional Administrator would believe

we would bring it to the EDO that this is a topic that needs to be discussed at the Senior Management Meeting or facility because we need to put more Agency-wide resources on it.

But this question hasn't been presented to me before, so I obviously haven't written down an answer. In my own mind, that would be, you know, what the threshold would be.

For the gaseous diffusion plants, the process will

be different. By law we have to submit an annual report to Congress. We are currently developing a procedure to prepare this report.

In order to minimize resource expenditures, this procedure is being designed not only to prepare the report to meet the legal requirements but also achieve the goal, in one activity, of the plant performance review and any Senior Management screening.

Lastly, the process is being extended. In fact, my staff sent me this morning a manual chapter for independent spent fuel storage installation performance reviews.

Based upon my discussions at the Senior Management Meetings for the last two years, if a facility warranted extensive discussion at the Senior Management Meeting, it would most likely be a vendor of dry cask -- and this is not writing anything down -- I certainly will consider it after

you raising the question -- but where I have had problems that did warrant Agency-wide discussion in my program for the last two years, it's actually been in dry cask storage.

We are going to have a formal process to review the performance of all Part 72 specific licensees and certificate holders and applicants, and that will essentially be a screening review that can be brought to the Senior Management Meeting.

CHAIRMAN JACKSON: Commissioner Rogers.

COMMISSIONER ROGERS: Well, it is really not necessarily a problem with a plant, but I know the fuel cycle at some of the fuel fabricators have been concerned about how to use risk assessment in analyzing their plants, a concern that they don't necessarily have the kind of data available that one would normally include in a probabilistic risk assessment, but they have other ways of assessing risk and categorizing risk and I wonder if there is anything you might be able to say as to where we stand with respect to the acceptance of a form of risk assessment that is not necessarily a PRA for a fuel cycle facility.

DR. PAPERIELLO: Well, you know we proposed and we have discussed with the industry the use of integrated safety assessment, which is a more qualitative method, and obviously we have reached no final conclusion on that.

The fact of the matter is that if I take a look at

the reviews that we have already done of the five fuel facilities, I don't find issues that really -- let me give you an example.

We are only getting right now an average of one to two reported events per year per facility. It is just not a -- the fact of the matter is fuel facility performance in my view is not all that bad. You know, there is nothing really to --

CHAIRMAN JACKSON: And all of your Managers support that?

DR. PAPERIELLO: I would say so.

MR. REYES: Let me add, since Region II has five of the major fuel facilities, I happen to agree with Carl, and I think the new process is a good process to take a hard look without spending a lot of resources, and we do discuss before the Senior Management Meeting if in fact we have concerns with any facility.

CHAIRMAN JACKSON: Good. Commissioner Diaz.

COMMISSIONER DIAZ: Just a matter of "agree." Do

you agree that they are all not that bad, or do you agree that they are good?

[Laughter.]

MR. REYES: I will only speak to the ones in Region II.

I think they are good, and I think we have seen in

the last few years improvements in all of them.

DR. PAPERIELLO: I have deliberately planned this procedure not to try to hand out SALP numbers that people intend to abuse.

MR. CALLAN: I want to clarify something, Carl.

We have been getting a relatively large number of event reports from the gaseous diffusion plants.

DR. PAPERIELLO: I understand. I want it clear. When I was thinking of fuel I was thinking of the LEU and HEU.

The gaseous diffusion plants are different, and a lot of it is just the emergent issues they are finding after certification, but I would reflect even on the gaseous diffusion plants whereas we have had a number of problems and we have had a number of violations, I think the transition of our regulatory regime has been relatively smooth.

There are not really earth-shaking problem. I mean they are big plants. There's 4,000 people who are employed there, but I think it has been a success.

CHAIRMAN JACKSON: Okay. Let me just go down the line. Commissioner Rogers.

COMMISSIONER ROGERS: Nothing more.

CHAIRMAN JACKSON: Commissioner Diaz.

COMMISSIONER DIAZ: Is this the final --

CHAIRMAN JACKSON: This is your final.

COMMISSIONER DIAZ: Ah.

[Laughter.]

CHAIRMAN JACKSON: Your big chance.

COMMISSIONER DIAZ: I just have some general comments.

I think we recognize that the Staff has tried to improve the processes by which they arrive at these important decisions in the Senior Management Meeting characterizing the plants and placing Agency-wide resources on those plants, Category II's and III's.

I am still a little bit concerned, especially in this meeting, over the Commission understanding of the transparency of the process.

For example, we talk about the removal matrix. It is -- I am not sure I understand all I don't know about the removal matrix, and that's a lot -- so it means that, you know, I really think that that is a part of the process that needs to be clarified because it is a very important part of the process.

I think it might be as important as the insertion matrix, which we are still working on.

I had a particular comment on the importance of events in the decision-making. I was trying to listen to the words and I noticed that essentially every time an

example was touched on, every issue, every event, every imperfect action is addressed as reflecting directly on some weakness of the organization, and that might very well be true.

It could actually be that everything that happens

is a weakness somehow.

It also seems like we have been able now to increase the detail of analysis in which a screw, a loose screw in a tachometer becomes an issue and I think, you know, that might be very well how good we are, but I am amazed at the fact that I haven't one time referred that any of these issues could -- there is a possibility -- that they could be a random event, that they just happened because they actually -- screws do get loose and things and people are not perfect, and I think we should be aware of the difference.

There is an important difference that the Staff at the level of detail they are working needs to be aware of, and that there are random events, and we need to know the difference.

Those are the other events that have root causes and we can jump on them and we could follow through, but from my viewpoint, the difference is very important.

Thank you, Madam Chairman.

CHAIRMAN JACKSON: Commissioner McGaffigan.

COMMISSIONER McGAFFIGAN: I have got two questions.

One, we never did come back to Clinton and Point Beach, and I was trying to figure out whether you intended to say anything more about your -- what happened at the meeting with regard to those two plants and we just missed it, or whether it was just at the outset what you said was all that you were going to say.

MR. COLLINS: My remarks were meant to draw the distinction between the two plants, both categorized as trending plants, one acknowledged to be making improvements which have all the indicators of being long-term, the other not.

COMMISSIONER McGAFFIGAN: And in terms of what is going to be released, I mean I am looking at the minutes of the meeting that are in this book.

I don't know whether the first 30 pages deal with the plants up to -- that have already been discussed, plus Millstone, and then Point Beach and Clinton are the next two.

Do those pages get released, through pages -- whatever it is -- 35 or some variation of this?

MR. COLLINS: The minutes from the Senior Management Meeting have in fact been provided to the Commission officers. Those minutes for the plants will be

screened through the process like we do any information that is released to the public and they will be released for the plants that were discussed here including Clinton and Point Beach.

COMMISSIONER McGAFFIGAN: So these minutes in some form will be released?

MR. COLLINS: I am not sure what you are looking for but the minutes from the Senior Management Meeting, yes.

COMMISSIONER McGAFFIGAN: The other issue I want to raise is, and I did it in January as well, is the superior performance recognition, which we don't do now, I have learned. We do if we do any in a couple weeks.

It strikes me, looking more at this book than this book, this is sort of an afterthought of the Senior Management Meeting process as it is currently done. It is a

bookkeeping thing and the threshold for superior performance is a very, very high threshold.

We clearly have a bunch of superior performers, as I said, in January and there are a very limited number that get recognized, so the question maybe is a policy question we have to deal with and is do we continue this process of superior performers, which you spend close to zero time on, entirely done by the book, or do we -- if we are going to do it, do we do it right and have some real consideration of it and real time spent on it, or do we just drop it, knowing

that it is -- that the SALP process or some other process is the mechanism we use to recognize superior performers?

Any thoughts you have I would take, but I also realize I am probably raising a policy question --

CHAIRMAN JACKSON: You are.

COMMISSIONER McGAFFIGAN: -- that we have to deal with.

CHAIRMAN JACKSON: Besides one wants to be careful that one is not in the position of recognizing the superior airline whose plane crashes the next day.

[Laughter.]

COMMISSIONER McGAFFIGAN: But we would be equally embarrassed if we gave somebody a straight SALP 1 and there was a problem the next day, so my bias is to try to do it well but I understand neither industry nor the Staff has a great deal of interest in doing it well -- industry because of the fear that you recognize 14 plants as superior performers and the next time you recognize 13 -- that 14th plant has financial consequences on Wall Street and the upside of being recognized as a superior performer is not as good as the downside of being dropped from the superior performer list, so that might argue for just dropping the whole concept, but I just throw this out as something we are going to have to struggle with and perhaps you all could advise us on.

CHAIRMAN JACKSON: I would like to thank the Staff for an informative briefing.

The results and the decision-making that you have indicated appear to be more focused on demonstrated safety performance, and so I belief the Staff should be commended for moving along that line.

The Commission itself has issued guidance in several recent Staff requirements memoranda that's directed toward improving the credibility, scrutability, and consistency of the Senior Management Meeting process, and I realize that the process will continue to evolve over the next several months.

I believe you have made progress; however, I also believe there continue to be areas for improvement in the staff's evaluation and preparation leading to the meeting and its results, and in particular added focus needs to be given to the quality of the information provided in the senior management meeting background papers in the watch list removal matrix and as well as the information matrix, the so-called pro/con charts, as well as the use of performance indicators on a consistent basis, especially risk informed performance indicators and other risk insights.

Let me reiterate the point is for the NRC to be timely, to be fair, objective, and as accurate as possible

in evaluating plant performance, and I believe that a

challenge has been laid before you relative to helping the Commission and the public to understand the linkages between the various evaluative mechanisms that we use and their usefulness and how one plays into the other.

I'm optimistic that with the recent Commission and continuing Commission direction and the current staff initiatives that have begun, that that will pave a path toward improvement, not only in our reactor performance assessment process, but for all of the facilities for which we have regulatory oversight. So the Commission will continue to closely monitor the staff's performance in this area and to provide guidance as appropriate.

Also, an additional challenge that does not merit or require the same degree of resources that will need to be addressed in the future is determining, particularly if there are more such facilities that come under our oversight, the appropriate threshold for discussing fuel cycle facilities and higher risk material licensees.

On the one hand, given the operational history that you've already outlined, you know, there's no issue, and given the number of such facilities, there is no issue, but down the line, one does not want to have things that an individual -- ad hoc individual judgment, but rather have the same fairness attached to them, consistency in

scrutability that we are trying to continuously improve in reactor space.

With that, we are adjourned.

[Whereupon, at 11:49 p.m., the public meeting was concluded]