

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, January 29, 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
- GRETA J. DICUS, Member of the Commission
- NILS J. DIAZ, Member of the Commission
- EDGAR McGAFFIGAN, JR., Member of the Commission

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STAFF AND PRESENTERS SEATED AT THE COMMISSION TABLE:

- JOHN C. HOYLE, Secretary
- KAREN D. CYR, General Counsel
- HUGH THOMPSON, JR., Acting EDO
- CARL PAPERIELLO, Director, NMSS
- HUBERT MILLER, Region I Administrator
- LUIS REYS, Region II Administrator
- BILL BEACH, Region III Administrator
- JOE CALLAN, Region IV Administrator

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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 recent NRC senior management review of performance at operating reactors and fuel facilities. The senior management meetings are conducted semi-annually to ensure that the NRC is properly focusing its resources on facilities that need -- that most

need regulatory attention based on safety performance and on issues of greatest safety significance.

The Commission would be interested in hearing about steps taken to improve the quality of discussions at the meeting and to enhance the consistency of decisions and if you were able to make progress in these areas.

I understand that copies of the slide presentation are available at the entrance to the meeting room and unless the commissioners have any comments, Mr. Thompson, please proceed.

MR. THOMPSON: Thank you, Chairman Jackson, Commissioners.

With me at the table this morning are Carl Paperiello, who is the director of NMSS; Frank Miraglia, who is the acting director of NRR; Hub Miller, who is the Region

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I regional administrator; Luis Reyes, who is the regional administrator for Region II; Bill Beach, who is the regional administrator for Region III; and Joe Callan who is the regional administrator for Region IV and will soon be the EDO, and I know he looks forward to that day. Certainly I do.

[Laughter.]

MR. THOMPSON: As you know, the senior management meeting was initiated in 1986 in response to the loss of the feedwater event at Davis-Bessie, which occurred in June of 1985. This meeting was the twenty-second such senior management meeting.

Over the past 10 years, the senior management meeting process and the analysis used in support of the meetings and our decisions has evolved.

In response to the Commission staff requirement memorandum following the June 1996 briefing on operating reactors and fuel cycle facilities, the staff continued to look at further changes that could be made to improve the basis for judging whether a plant should be based on the watch list.

For this meeting, several new initiatives were adopted to strengthen the scrutability of the senior management meeting process, to improve the quality of the discussions and to enhance the consistency and the clarity

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of the decisions. These steps included placing an increase emphasis on the staff's current assessment of plant safety performance as opposed to licensee plans and projections, modifying the format for the discussion of plant background information focusing on the most significant safety performance issues. Using information summaries or slides is what we used to identify the strongest reasons for and against increased agency attention, particularly for those plants that were being discussed, not those that were on the watch list which we used our watch removal format.

Improving the quality and completeness of the record in the senior management meeting discussions so that others who look at the meetings and result of the meetings in the past would be able to understand better what the basis for our decisions were. And, finally, placing increased emphasis on obtaining and integrating the views of each senior manager at the meeting.

We early on recognized the importance that we each bring to the senior management meeting, our experience from other regions, our experience from headquarters, and we encouraged full and open discussion by everyone present to present what information they had and to also challenge on

the slides the arguments for increased attention as well as those for not taking increased senior management attention.

I must admit the success in the latter part about

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having open discussions kind of exceeded my expectations and, in fact, at this particular meeting we only focused on the operating reactor events and did not have an opportunity to discuss any of the material on fuel cycle facilities and, in fact, we continued the meeting one more day in the afternoon on a Friday after the two-day meeting we had in Region IV.

CHAIRMAN JACKSON: What are your plans relative to materials licensing and fuel cycle facilities?

MR. THOMPSON: We have not made any specific plans. We did ask Carl at the meeting whether or not he had any unique facilities that needed discussions. He indicated at that time there were none but Carl and I have discussed the need to see whether or not we needed a different format.

Obviously, the true focus of these meetings have been on operating reactor and we have had some fuel cycle facility -- fuel cycle facilities in the past that we have discussed and Carl knows that he is able to identify and bring those up. He is also looking at some other approaches to look at those.

But I think we will turn to Carl another day, if we can, to give us some suggestions on what processes that we need to do, unless you have anything you want to add today?

DR. PAPERIELLO: Other than the fact we have

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initiated a formal process within NMSS to do plant performance reviews, just as we do on the reactor side for fuel cycles, and we are expanding that to include vendors of dry cast storage systems. So we are -- I think we are behind the curve with respect to NRR but we are looking at doing systematic performance reviews.

Frankly, I did it for very selfish reasons, so I could have a view of a particular facility without, you know, coming out of the blue. So we have initiated a formal process for doing that and if a facility looks like the kind of facilities we discuss here, then it would be brought to your attention.

CHAIRMAN JACKSON: Okay, when do you expect to begin to implement that?

DR. PAPERIELLO: Well, the plant performance reviews for fuel cycle we are already implementing and for vendors of dry cast, we are reviewing that this year.

CHAIRMAN JACKSON: Okay, Commissioner Dicus?

COMMISSIONER DICUS: Yes, I just wanted to add, based on the Chairman's comment, to pursue and actively pursue reviews of these type facilities and plants in a very timely fashion.

CHAIRMAN JACKSON: And in a consistent fashion.

DR. PAPERIELLO: Yes, and we do that -- you know, we try to keep the Commission, obviously, informed on

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particular issues. We have the site decommissioning problem plants and cleanup activity. So we will continue to look at ways to improve that aspect.

This senior management meeting resulted in the addition of five stations to the NRC watch list as Category 2 facilities. Also, two facilities received trending letters.

Before I turn the meeting over to Frank Miraglia and the regional administrators, I would like to highlight a few points. First, because a plant is listed on the watch list does not mean that it is unsafe to operate. If we conclude that a plant cannot safely operate, we will issue orders to shut the plant down in order to ensure adequate protection of the public health and safety. A senior management meeting is not such a forum that would do that.

Our objective in placing a plant on the watch list in Category 2 is to identify those plants that have had or are having weaknesses that warrant increased NRC attention from both headquarters and the regional offices.

Second, it is apparent that the number of stations on the watch list has increased. I believe that this is due in part to the recent refocus of NRC's attention to the engineering design area. As you know, this area had not been a major focus of NRC's inspection activities since the early '90s and weaknesses in this area contribute directly

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to the addition of two stations to the watch list.

Third, I mentioned earlier that we are trying to enhance the consistency of the decisions made at the senior management meeting. This led to our decision to place Salem on the watch list as a Category 2 facility.

Let me be clear. Salem's overall safety performance has not declined since the June 1996 meeting. We believe Salem's efforts to improve its performance are correctly targeted and the NRC is satisfied with their overall approach.

This action was taken because Salem was not placed on the watch list at an earlier senior management meeting when, in hind sight, overall safety performance clearly warranted such action.

This was the most difficult decision made at this senior management meeting because delay in our action could cause an unintended disruption of the ongoing improvement efforts at both plants. The basis for placing our action has been articulated in our letters to the Public Service Electric and Gas and in our press release, both of which include our support of the current restart efforts at Salem.

Hub Miller will address this station in more detail in his remarks.

Finally, Bill Beach will discuss in detail the performance of Commonwealth Edison and its Dresden, Lasalle

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and Zion facilities. Commonwealth Edison is implementing a number of initiatives ensuring the ability to perform independent self-assessment to find their own problems, which is commendable.

However, I would like to mention now that because the longstanding performance problems at Commonwealth Edison facilities, which is over the past ten years, four of the six Commonwealth stations have received trending letters or have been on the watch list. I have signed a request-for-information letter, pursuant to 10CFR50.54(f) that requires Commonwealth Edison to provide information that will allow the NRC to determine what actions, if any, should be taken to assure that it can safely operate its six nuclear stations simultaneously while sustaining performance.

It is in the best interests of both the NRC and Commonwealth Edison that history does not repeat itself anymore and we are committed to work with Commonwealth to address this issue head on.

I will now ask Frank Miraglia to begin the formal presentation.

MR. MIRAGLIA: Thank you, Hugh.

Good morning, Madam Chairman, Commissioners.

As has been covered, the senior management meeting has two principal objectives as it relates to nuclear power .

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plant performance. The first is to identify problem performance and adverse trends before they realize themselves in actual safety events.

And as noted by the Chairman, we are overseeing reactor safety. An integrated review is conducted of plant safety performance at these meetings by considering the objective information, such as the plant specific inspection results, operating experience, probabilistic risk insights, systematic assessment of licensee performance, performance indicators and enforcement history.

Special attention is given to licensees' self-assessments and the effectiveness of corrective actions taken for problems identified by licensees.

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

We also discuss plant inspection activities, NRC management oversight and resources for individual plants discussed.

I will summarize the overall results of this recent senior management meeting, after which the regional administrators will discuss facilities that have been categorized as needing agency-wide attention or where we have taken action as a result of the senior management

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meeting.

May I have Slide 2, please.

Category 1 is a list of those plants that are removed from the NRC Watch List. No plants were removed from the list during the January, 1997 senior management meeting.

Slide 3.

COMMISSIONER ROGERS: Excuse me, just before you leave that, the Staff sent up to the Commission in May a SECY 96-093. It described a couple of techniques or tools that would be used at the senior management meeting.

One of them was the Plant Performance Evaluation Template. The other one was the Watch List Removal Matrix.

I wonder if you could say anything about how you used those in any of your decisions.

MR. MIRAGLIA: Yes. With respect to the latter, the removal matrix, that was used for the plants that had already been designated as Watch List plants to determine whether there was sufficient progress to have them removed from the list and such matrices were used for Dresden, Indian Point.

COMMISSIONER ROGERS: So it was used?

MR. MIRAGLIA: Yes. We have also used it in a unique way for Salem in the context of, as Mr. Thompson has explained, in hindsight Salem perhaps should have been on

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the list earlier and, given that, we said in the decision to put Salem on the list we should look at those attributes to determine whether sufficient progress had been made such that they would have been removed from the list.

The result of that evaluation was we couldn't conclude that they met that Watch Removal List criteria.

In terms of the former, in terms of the template, those elements are looked at. In the discussion of the plants the performance indicators, the events at the plants --

COMMISSIONER ROGERS: Well, I know the template does involve a lot of things that you have looked at in the past.

MR. MIRAGLIA: Yes.

COMMISSIONER ROGERS: Let me ask another question, whether you used it in a systematic way.

MR. MIRAGLIA: I think what we tried to do in terms of the Plant Issue Matrix is try to integrate those kinds of things and bring those higher points from the screening meeting to be discussed in the meeting.

We are still working on that matrix, need more time to get that into a more systematic process.

The removal matrix we had been using for a longer time and it has more discipline and more consistency. We did attempt to use it but I don't think it had the degree of .

formality where we are.

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CHAIRMAN JACKSON: Mr. Thompson, did you have a follow-on comment?

MR. THOMPSON: No. I think Frank covered that.

MR. MIRAGLIA: With respect to the Category 2 facility, that's Slide 3, the Category 2 facilities are those whose operation is closely monitored by the NRC. These facilities include Indian Point, Maine Yankee, Salem I and II, Crystal River, Dresden II and III, Lasalle I and II, and Zion I and II.

Indian Point III and Dresden II and III were previously designated as Category 2 sites.

The four additional sites -- Maine Yankee, Salem I and II, Crystal River, Lasalle, and Zion, were added, and it was special circumstances with respect to Salem's addition as discussed by Mr. Thompson.

Slide 4.

COMMISSIONER DICUS: I have a couple of questions on the slide before you go forward, and I am trying to understand why the Category 2 list has essentially more than doubled, because I think that is a very critical point.

I may have to go back to some opening statements that Mr. Thompson made in trying to understand this a little clearer.

I think you indicated in your opening statement

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that in this particular senior management meeting you did change or modify how you looked at the plants or the format that you used.

Could you clarify that statement?

MR. THOMPSON: Yes. We had as part of the effort to improve the senior management process -- we hired an independent consultant who looked at the process, interviewed many of the senior management that had participated in the process, interviewed some of the industry, and looked -- and identified and made some suggested changes that we should consider.

The one that we were able to look at in the timeframe that we had available, the criticism was that the previous senior management meeting had to some extent been dominated by the regional administrators, not because of inappropriate aspects -- because they are the ones

responsible for the plant -- but because they had such a detailed knowledge and their knowledge was almost overpowering everybody else's knowledge at the meetings.

So what we elected to do was have that detailed knowledge to put the arguments both for increased agency attention as well as not having increased agency attention.

That is, have the individual who knows the most present the argument on both sides of the issues. I think that was the key element or the key critical element that we did in

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addition to having all the managers who then had experience, had similar experience with similar plants, who may have even had experience with those plants challenge the regional administrators on those issues, on his articulation, and did they withstand the scrutiny that the senior managers brought to those issues, and that in essence led to, as I said earlier, a much more vigorous discussion on the plants that we had and in essence was one of the changes.

I think just the information was better. I think the reasons I articulated here with our new focus of the design engineering aspects as well as the decision we made with respect to Salem with respect to consistency and scrutability, understandability of the approach contributed to the addition of three of those new facilities.

Zion and Lasalle, obviously you'll hear the specifics with those later on.

COMMISSIONER DICUS: Okay. Then the report you're referring to is the Arthur Andersen consultant?

MR. THOMPSON: That's correct.

COMMISSIONER DICUS: I guess I was under the impression from a conversation that you and I had had a few days ago that the Arthur Andersen report really had not been used, or any part of it. So I'm hearing now that a part of it, perhaps, was used or was a guidance.

MR. THOMPSON: The Arthur Andersen recommendations

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were not used. We looked at the comments or the conclusion of the Arthur Andersen study as it relates to the regional administrators having the predominant knowledge that was available and the approach outlined by Arthur Andersen was not used, the information in the Arthur Andersen report was not used in making any decisions.

What we did elect to do is to have the regional administrators articulate both sides of the arguments that we would have to make a decision on, which was not part of the Arthur Andersen recommendation. That was one that we looked at the Arthur Andersen, noting that we could improve our decision-making process by providing the broadest amount of information to the senior managers there and that was the change that we made. It had a slight nexus, but it was not using the approach recommended by the Arthur Andersen approach.

COMMISSIONER DICUS: Right. Just a quick comment and I'll move on.

I'm in the process still of reading and studying the Arthur Andersen report which seems to have some value, but I think if we're going to use this report or we're going to perhaps change the way plants are evaluated, that probably is a -- I see that as a policy decision that the Commission needs to make and then give the directive.

MR. THOMPSON: Absolutely. We still used our

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category criteria for making our decisions and what we tried

to elicit was the best information that we could have amongst all the senior managers in having a full and frank dialogue in reaching those decisions.

It was the full and frank dialogue and exchange of information that we had that was improving the process we had in place. We've always had the ability to articulate the views of the directors of NRR, other people there, Office Enforcement, Office Investigation, whoever was there.

This just was a mechanism which facilitated that exchange of information that we've had in the past.

COMMISSIONER DIAZ: Madam Chairman?

CHAIRMAN JACKSON: Go ahead.

MR. CALLAN: Let me just make the quick comment.

As a practical matter, Commissioner, we had the Arthur Andersen report only a few weeks before the senior management meeting. The regional administrators and regional staff had pretty much put together the briefing sheets. We were in a position where we really, as a practical matter, couldn't implement the Arthur Andersen -- even if we had wanted to, so we elected to make some adjustments as Hugh Thompson mentioned, that were doable in a very short period of time, very modest in terms of structure, modest adjustments.

CHAIRMAN JACKSON: But you did not use the Arthur

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Andersen performance indicators in making your judgments, is that what you're telling us?

MR. THOMPSON: That is it. We did not use them.

In fairness, the slides were put up there simply as a matter of observation, but they were not used by any one judgment, no one used the Arthur Andersen slides because I think we also said that information, that technology for those slides was premature, had not been fully evaluated, had not received peer review and we have had previous experience with trying to use performance indicators that had not been ripe and had not been thoroughly evaluated and reviewed. So we did not use that.

The real benefit from the Arthur Andersen we were able to implement was to ensure that all participants felt free to comment, to discuss, to provide their inputs into the meeting as well as to request the regional administrators to really present both sides of an argument that we could then have the ability to reflect on as we made the decision based on the criteria that we presently had.

CHAIRMAN JACKSON: Commissioner Diaz?

COMMISSIONER DIAZ: Yes. Going back to your statement that in this senior management meeting, there was significant discussion and challenge to the regional administrators and I think that was a wonderful process, if you look at the position of the regional administrators say

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before the discussion and the challenges, was any of the decisions changed or the discussion just supported the decision of the regional administrators?

CHAIRMAN JACKSON: Perhaps there's a way we could address that question. Are we going to hear from each of the regional administrators?

MR. THOMPSON: We will hear from them, yes.

CHAIRMAN JACKSON: Well, perhaps each one of them could speak to that.

COMMISSIONER DIAZ: No, I think this is a generic process and the question is very clear. The regional administrators, each one has a position documented because they know the plants better. You discussed them, challenged

them. Was, in any one case, that position changed by your discussion?

MR. THOMPSON: The position is not articulated up front, Commissioner Diaz. What is done, in the cases, we discussed the plant, discussed performance issues, and we hear all of the plants as an aggregate set, reflect over the evening, and then we come back the next day and say, based on what we've heard, where are we with respect to the categorization of these facilities.

What was done in this case is exactly what was done in most of the other senior management -- in fact, all of the senior management meetings that I've attended where . 21 the facts are presented and the difference, in this case, is the regional administrators say, here is issues based upon the performance in the last six months that would indicate or warrant increased agency attention or indicate adverse performance that we need to consider, action within the content, here's the facts that would argue and so both sides of the issues were presented in that way.

So if any of the issues changed is a difficult question to answer because it wasn't presented that way. Those decisions were made the following day.

COMMISSIONER DIAZ: Then I would defer to Madam Chairman's comment which seems to be very appropriate that then the regional administrators might illustrate how effective the process is, if it's actually helped them, changed their decision, or the fact that they already are so much more knowledgeable than anybody else, they were able to maintain and support the position they have taken prior to the meeting.

CHAIRMAN JACKSON: I think that's what we can do as we go through.

MR. THOMPSON: Frank has some more things.

MR. MIRAGLIA: With respect to Category III facilities, Slide 4, Category III facilities are the last to shutdown and require Commission authorization to operate, that the staff monitors closely.

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Millstone I, II and III remain in Category II. Subsequent to the last meeting, the Commission meeting on the senior management meeting results, those plants were categorized as Category III plants.

As the Commission is aware, we have a meeting tomorrow on Millstone at 10:00 a.m. Northeast Utilities will be here to give status. Dr. Travers and the SPO staff will also be giving a staff presentation and we won't be discussing the Millstone units in any detail with respect to the rest of the senior management meeting and we'll handle that tomorrow. Slide 5, please.

The following plants requiring trending letters were identified at the senior management meeting and that was Clinton and Point Beach I and II. Slide 6.

Hope Creek was issued a letter. At this recent meeting the senior managers concluded that the licensee had reversed the adverse performance trend at Hope Creek. Such a letter will be sent indicating that.

Slide 7 has already been covered by Mr. Thompson.

There were no priority material issues identified. In fact, there was no real discussion of material facilities at that.

Hub Miller will discuss Indian Point III, Maine Yankee, Salem and Hope Creek, Luis Reyes will discuss

Crystal River and Bill Beach will discuss Dresden, Lasalle,

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Zion, Clinton and Point Beach.

At this point I'll turn the discussion over to Hub Miller for --

COMMISSIONER ROGERS: Just before we move off, I have one question, just a general question on our policy with respect to trending letters.

Once a trending letter is issued and there has not been a correction of adverse trend letter issued, there could be some period of time there. Several SM meetings could take place, so is it clear that that initial trending letter still is in effect in a certain sense?

In other words, until we issue a correction, an acknowledgement of a correction of adverse trends, we don't issue anything each time we have a senior management meeting if a plant has received a trending letter and hasn't received a correction of adverse trend letter, is that the process?

MR. MIRAGLIA: That's what the process is and then with respect to the results of that, the results of the last meeting where Hope Creek didn't receive a letter the regional administrator would indicate that Hope Creek was discussed and that no action was taken, and that's the judgment that the trend hasn't been abated, so that is the process and the policy, and that is articulated within the context of the draft management directives and some of those

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that are out right now, sir.

COMMISSIONER ROGERS: It does seem to me that there is a little gap there in a certain sense that when we issue a trending letter and then the licensee takes some corrective action but it isn't enough to cause us to issue a correction of adverse trend letter.

There is nothing on the record that indicates some acknowledgement at least out of the senior management meeting. Now maybe it isn't necessary but it does look to me like there's a sort of disconnect until we reconnect with the issuance of a correction of adverse trend.

MR. MIRAGLIA: We, in fact I think early on, we were using the process where we tried to issue something at the end of each meeting and many times it's -- the period wasn't soon enough.

COMMISSIONER ROGERS: Yes. I am not questioning your decision. I am just questioning the process that simply leaves it unaddressed.

There was a senior management meeting, the letter came out --

MR. MIRAGLIA: We will be re-examining the senior management process I think as we all know, and certainly I think that would be one element that we would --

COMMISSIONER ROGERS: Well, I would suggest you take a look at that.

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MR. MIRAGLIA: We certainly will.

COMMISSIONER ROGERS: Because it does seem to me there's a little bit of a gap in the process.

MR. MIRAGLIA: We'll address that and have a recommendation to the Commission on that.

CHAIRMAN JACKSON: Commissioner?

COMMISSIONER McGAFFIGAN: I am going to ask, are you going to mention the superior performer letters at any point, the little bit of good news that comes out of this? Could you also explain the process to me whereby you decide

who gets a superior performer letter?

MR. MIRAGLIA: Yes. The management directive indicates what is the criteria for consideration for superior performance, the management directive paper that Commissioner Rogers referred to, and it's essentially what's the performance evaluation in terms of SALP being Category 1 in the major SALP areas not having significant enforcement actions for a period of time, and if it meets that criteria the judgment is that it is a candidate for receiving such recognition.

The policy has been changed over time with the Commission and the current policy is that plants, since the last senior management meeting, that meet that criteria are discussed, saying that it meets the criteria and such a letter should be sent, and that is sent subsequent to the

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management meeting. It is usually a two-week period.

CHAIRMAN JACKSON: I think the Commission would like you to say who got such letters this time.

COMMISSIONER MCGAFFIGAN: Is it fair to --

MR. MIRAGLIA: Yes. It was Harris facility and Turkey Point facility that received such recognition -- will receive. They have not been notified yet -- but the policy would be such notification would be two weeks subsequent to this meeting.

The previous guidance from the Commission was to focus --

COMMISSIONER MCGAFFIGAN: I'm sorry --

MR. MIRAGLIA: -- on this, but we can revisit that issue also.

COMMISSIONER MCGAFFIGAN: We'll revisit that too.

CHAIRMAN JACKSON: Please go on.

MR. THOMPSON: Mr. Miller?

MR. MILLER: Let me first of all address the question -- I went into this meeting with an open mind. I had no hard held view.

The modifications that were talked about were characterized as modest and simple, but while they were modest and simple, I think it was a significant improvement in terms of having before all of the senior managers those arguments that are most compelling for taking increased

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action and those arguments that are most compelling for not.

So my job as regional administrator was to, knowing what I know about the plants, was to feel responsible for assuring that the facts are known to all of the senior managers, and also do a good job of presenting arguments on both sides, and I think it did facilitate discussion.

As you said, the discussions were longer than normal, so to answer your question I had no hard view before the meeting and I honestly looked for the discussion to draw conclusions and I am happy, very happy, with the process.

I think it did provide what we are all looking for, which is greater consistency plant to plant, meeting to meeting, and great scrutability of our results.

With that, let me first talk about Indian Point III.

Indian Point III was first placed on the Watch List as a Category 2 plant in June of 1993. At that time the plant was shut down to deal with a number of technical and staff performance issues.

Governed by a confirmatory action letter, the New

York Power Authority conducted an outage lasting about two years.

Following restart in June of 1995, the plant operated for only a short period of time before equipment . 28 problems and some significant personnel errors again caused the Power Authority to shut the unit down for an extended outage.

The outage lasted about six months.

Over the period from June, 1993 to early 1996, numerous management changes were made at both corporate and site levels as the licensee attempted to address performance problems.

Since starting up in April, 1996, the plant has operated at power nearly continuously. During this time the senior management team has been relatively stable and has provided strong oversight of plant evolutions and major maintenance activities.

A generally conservative approach to plant operations has been taken. Improvements noted in the last senior management meeting, communications and the conduct of control room activities have continued. Overall, the number and significance of personnel errors at the station has declined but some human performance problems remain, particularly in the area of work control.

Work control errors, for example, led to inoperability of an auxiliary feedwater pump on one occasion and a plant transient on another.

Maintenance activities generally have been performed well and corrective maintenance backlogs reduced . 29

significantly over the past six months. While overall improvement in plant material condition has been observed, equipment problems continue to challenge operations. These problems, the majority of which originated in the balance of plant, resulted in a number of plant transient shutdowns and power reductions.

Emergent work continued to hamper progress in reducing engineering backlogs which have been large and making needed improvements in areas such as safety evaluations, operability determinations, set point control and updating and validating design basis documents.

Recently, efforts have been made to better understand and prioritize outstanding engineering work. Steps have been taken to refocus attention on problem areas administration resources have been added, but it is too early to judge results in the engineering area.

Currently, the plant is in a forced outage to repair feedwater heater tube links. The station is using this outage to address a number of equipment issues such as replacement of leaking pressurizer power operated relief valves that have been longstanding operator work-arounds.

The power authority is developing plans to address many of the remaining equipment issues in their refueling outage scheduled to begin in a couple of months. Determining whether the station has made necessary lasting . 30

improvements will require an additional period of monitoring. This includes at least assessment of the outage scope and its preparations. It also includes the monitoring of operations and work control during some portion of the refueling outage. The last time the plant was refueled was in 1992 with the extended outages.

In conclusion, after considering the evaluation

factors for removal of a plant from the watch list, senior managers concluded that Indian Point 3 should remain on the watch list as a Category 2 facility; that is, a plant warranting increased attention from both headquarters and regional offices.

CHAIRMAN JACKSON: Did you, in fact, use the watch list removal factors in helping making your determination?

MR. MILLER: Yes, ma'am. That was developed before the meeting and that was also the subject of great discussion in the meeting, very definitely.

CHAIRMAN JACKSON: Any questions?

[No response.]

MR. MILLER: Next, I will talk about Maine Yankee. This was the first time that Maine Yankee was discussed at a senior management meeting. Over the past year, a number of significant deficiencies at the facility came to light. Agency understanding of these deficiencies was developed largely by an independent assessment team

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which conducted a review during the latter half of 1996.

Strengths were noted in some aspects of operations, such as handling of routine and transient operating conditions and shift turnovers. The independent team found station staff to be knowledgeable.

As the independent review was initiated in response to problems which had come to light regarding use of computer codes, the broad spectrum of analytical codes used at the facilities were examined and the team found a mixed picture. Frequently used codes were excellent but weaknesses were found in others.

More broadly, the independent assessment team discovered a number of significant design issues. The capability of several safety systems was called into question, particularly for operational power levels above 2440 megawatts thermal.

Coupled with requests about design margins on some systems were significant weaknesses in the testing of plant equipment and material condition deficiencies. These problems revealed broader weaknesses in the area of engineering support, which is provided by the combination of Maine Yankee and Yankee Atomic Electric Company staffs.

More fundamentally, the independent team determined that the weaknesses and deficiencies that exist appeared to relate to two root causes: Economic pressures

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to contain costs and poor problem identification as a result of complacency and a lack of a questioning attitude.

Since completion of the independent safety assessment, additional examples of design issues have been identified by Maine Yankee in following up on the independent safety team findings. Configuration problems have been identified. Failure to provide adequate cable separation on several systems, for example, were found in December, resulting in a shutdown of the facility. An NRC confirmatory action letter was issued at that time, stipulating actions required prior to startup.

Maine Yankee has developed a plan and initiated steps to correct the problems. These include committing additional funds and hiring of new staff, principally in engineering, maintenance and radiological controls. An agreement is under development with Entergy Corporation to obtain outside management expertise in operation of the facility. This plan is the plan that was submitted on

December 10 and the company will be meeting with the Commission on February 4, which is next week, to review the plan.

Much remains to be done, however. The senior managers determined that increased agency attention is needed to monitor improvement efforts. As a consequence, Maine Yankee has been designated as a Category 2 watch list facility.

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CHAIRMAN JACKSON: I have a question for you.

If Maine Yankee had previously been viewed as a good performer and, in a certain sense, you've essentially said that the recent focused inspection, and particularly the independent safety assessment, were the things that uncovered problems that suggested that this plant warranted increased agency attention.

What does this say in terms of the ability in the normal course of things to uncover these problems or, put another way, what assurances do we have that we are not missing them somewhere else and is it suggesting any renormalizations in our regular inspection program that needs to exist because it seems that most of what you considered within the context of the factors that would make you designate it a Category 2 plant were uncovered in a special way. So if you could speak to that?

MR. MILLER: Two things. It perhaps is oversimplifying it to say that it was design alone that caused this categorization. It was really a combination of things. It was the coupling of a lack of the questioning attitude and the design issues that caused the senior managers to make this judgment.

But, as you know, we are looking at -- and others might speak to this -- at ways to be able to take deeper

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looks at design and in fact we've assembled resources through a contractor to permit the staff to do more what are called vertical slice inspections, which get you into the details of design, design function.

We are limited as to how many of those we can do, honestly, but we are on a course of performing these inspections virtually at all plants in a sequence that is informed by risk and other things that we know about plants, picking targets that are most vulnerable first, and we are proceeding to do that.

Frank, do you want to --

MR. MIRAGLIA: Yes, I would like to address it perhaps in a broader context. In terms of Maine Yankee specifically, as the Commission is well aware, there was the concern raised by the allegations that there were concerns relative to Maine Yankee's performance developing that led to the audit. In a concurrent time frame, the issues that were growing from Millstone, Haddam Neck, et cetera, experience were ongoing and we were looking at and identified concerns in the design area.

We had been looking at ways of enhancing our inspection program to do vertical slice and to incorporate more of the SSFI type, safety system function inspection, to look into the design area. We have taken steps on that.

As Hub indicated, subsequent to the senior

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management meeting last June, we have engaged architectural engineering services to do those vertical slice inspections, to probe in that type of area. In addition, we have issued, because of the design weaknesses that have been identified

in several of the facilities, we have issued a 50.54(f) letter to all the utilities other than the Northeast Utilities, since they were already under a 50.54(f) letter, to explain and to state the bases why design control and configuration management of the plant is being maintained, what programs do they have and how do they have confidence that they have those kinds of issues.

The special inspection team, the special inspection team, grew out of concerns from the allegations and that focus and we've incorporated in that inspection team that vertical slice element, so I think we are building off of the experience we have gained not only through Maine Yankee but at other facilities and the program is being redirected in that kind of area and we are gaining information to say how can we use our resources most effectively and use the 50.54(f) responses on design control and focus the appropriate level of inspection on facilities using that kind of information.

So I think the program is being redirected.

CHAIRMAN JACKSON: Mr. Callan?

MR. CALLAN: Chairman, I just did want to mention

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one important insight that came out of the Maine Yankee experience that is being addressed. I think the Commission will shortly be getting a Commission paper describing Phase II of our lessons learned.

But one of the important lessons learned from Maine Yankee is the need to more closely couple the inspection process with the licensing process. That is in addition to the design and the engineering issues that were previously discussed.

MR. MIRAGLIA: The scope of the issues that were considering improvements are even broader as Mr. Callan was articulating. Those that we have actually taken and implemented to date, there are further improvements that are being looked at and the Commission will be hearing those in the future.

CHAIRMAN JACKSON: Are there any questions?

[No response.]

MR. MILLER: Okay, Salem.

Hugh has already mentioned that the action taken here was not a reflection of current performance but more a different perspective on previous decisions made on the facility.

Since Salem was first discussed during senior management meetings in 1990 and 1991, after a period of some improvement, performance problems surfaced again leading to

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discussion of the plant at the June 1994 senior management meeting.

The event that best illustrated these problems involved a significant plant transient which occurred in April 1994. The event which was initiated by sea grass intrusion on cooling systems resulted in a reactor trip, safety injection and failure of numerous plant components which significantly complicated operator response. The transient revealed numerous equipment problems and operator work-arounds.

The licensee was required to review the event and actions being taken to address underlying problems directly with the Commission in a meeting held in July 1994.

Continuing performance problems led senior managers to conclude in the January 1995 senior management

meeting that agency concerns needed to be brought directly to the Board of Directors of Public Service Gas and Electric in a meeting. This occurred in March of 1995.

Subsequently, additional equipment operability problems led to technical specification required shutdown of Units 1 and 2 in April and May of 1995 respectively. Given the breadth of both the human performance and equipment problems that were coming to light at this time, the licensee expanded significantly the scope of its improvement efforts. Extensive senior management changes were made in

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the summer of 1995.

Following decisions by new management to initiate retraining of station staff and to undertake major refurbishment of plant equipment in an extended outage, an NRC confirmatory action letter was issued in June 1995 establishing actions required before restart of the units.

In monitoring activities at the site since that time, since the shutdown, we have observed the current management team that the licensee has assembled to be a strong one. There have been changes but the team has been relatively stable and in place for most of the outage.

A much lower problem reporting threshold has been established and management has been aggressive in addressing root causes. Significant staffing changes have been made. Operations and maintenance staffs have now completed extensive training and requalification programs to both reinforce fundamental skills and establish higher safety standards. Steps have been taken to strengthen station self-assessment, corrective action and work control processes.

As a result, the number and significance of personnel errors have declined. Operators have demonstrated improved ownership of the plant and conservative decisionmaking.

The outage scope has been extensive for both

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plants. Numerous components have been refurbished or replaced with more reliable equipment in both safety-related and balance-of-plant systems. More than 400 modifications have been made.

These include major modifications or upgrades to diesel generators, servicewater and component cooling water systems and the control room. A digital feedwater control system is being installed and approximately 800 Hagen instrument modules used in various control and protection functions are being replaced. This effort is significant because these Hagen modules were the source of numerous operator work-arounds before the shutdown. Steam generators are being replaced on Unit 1.

A comprehensive pre-startup test program is under way on Unit 2 to assure repair work has been effective. Engineering organizations are providing stronger support on equipment and design issues as evidenced by completion of a recent licensing basis conformance review.

The senior managers thoroughly discussed current activities at Salem and the basis for past senior management meeting decisions. The conclusion was that the scope and depth of the problems that existed at Salem prior to the dual unit outage, prior to management changes made largely in 1995, warranted categorizing it as a Category 2 facility indicating need for increased NRC attention. Past decisions

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regarding Salem's status were influenced by current licensee

management's recognition of problems and efforts being made to address them.

As a practical matter, however, given the extent of these problems and the scope of activities, the agency increased its attention to Salem to a level commensurate with that given a plant in a Category 2 status. As a consequence, senior managers reviewed Salem performance using the category 2 evaluation -- the evaluation factors for removal of a plant from the watch list.

Managers concluded, notwithstanding significant steps being taken and results achieved to date, Salem would not be removed from Category 2 status if it had been previously categorized as such. A key consideration in the watch list removal evaluation factors is assessment of plant and integrated station performance at power, which is yet to occur.

The licensee is nearing the end of its outage on Unit 2. Startup is now scheduled to occur sometime in the next couple of months. As explained in the January 2 staff paper submitted to the Commission on Salem restart activities, the staff has completed or will complete extensive inspections in the design, engineering and testing areas before restart. Consistent with guidelines contained in NRC Manual Chapter 0350 governing agencywide activities

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and special plant restart situations like Salem, an independent readiness assessment team will conduct a final review of operational readiness before restart of the unit is authorized.

In summary, decision was made to recognize Salem should have been placed on the watch list previously and that it would not have been removed at this point. As such, Salem is being classified as a Category 2 facility.

Again, as we mentioned at the beginning, this is not intended to suggest that we are dissatisfied with the approach being taken or to imply that the improvements that are being taken are incorrectly targeted.

CHAIRMAN JACKSON: Questions?

[No response.]

MR. MILLER: Hope Creek.

The Hope Creek generating station was first discussed at the January 1996 senior management meeting. At that meeting, senior managers reviewed a number of events that revealed declining performance at the station. A decision was made to send a letter advising Public Service Electric and Gas of the negative trend and requesting a meeting of top level officials to discuss NRC concerns.

Steps taken by licensee management since that meeting to address both human performance and equipment issues have resulted in overall improvement in plant

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operations. Management has consistently exhibited a conservative approach to decisionmaking. Progress has been made in communicating higher performance and lowering significantly the threshold for identification of problems.

Numerous staffing changes and an extensive training and requalification initiative have led to improved control and plant activities by operators and this is significant because the negative trend discussed in the January 1996 letter is most notably evidenced by several significant events that -- where operators failed to properly control plant evolutions.

Overall personnel error rates have declined

significantly. The station is well along in addressing previously identified problems with technical specification and surveillance procedure discrepancies. Overall material condition of the plant is good as illustrated by improved plant operating performance.

This improvement stemmed, to a large degree, to work accomplished during an extended outage completed in early 1996. Maintenance and engineering backlogs, which are somewhat large, constitute a continuing challenge to the station but they are well understood and prioritized.

Continuing attention is also needed to improve operator staffing levels which were reduced somewhat during the station's operator requalification initiatives.

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In summary, senior managers determined that Public Service Electric and Gas has arrested the decline in performance at Hope Creek station. The company has been so notified in our letter summarizing senior management meeting decisions.

CHAIRMAN JACKSON: Questions?

[No response.]

MR. THOMPSON: We will go to Luis Reyes of Region

II.

CHAIRMAN JACKSON: You don't plan to say anything about Millstone because we're having a separate meeting; is that the point?

MR. THOMPSON: That's correct, Madam Chairman.

CHAIRMAN JACKSON: All right.

Any questions? If not --

MR. REYES: Madam Chairman, Commissioners, I will be addressing the senior managers meeting review of Crystal River.

Crystal is a single BLW 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 discussed at this senior management meeting involve Florida Power Corporation mishandling of several design issues, improper interpretation of NRC regulations and weaknesses in operator

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performance, corrective actions and management oversight.

As a result of the licensee's performance, a series of bimonthly management meetings were conducted between the regional administrator and the senior managers from the region and FPC's chief nuclear officer and key Crystal River site managers. These meetings were conducted to review the licensee's progress in implementing corrective actions.

Overall performance at the facility has continued to decline from the previous assessment period, as documented in the most recent SALP issued on November 25, 1996. Several level three violations were issued since the last senior managers' meeting which included significant civil penalties.

Modifications made to the plant during the April 1996 refueling outage created on review a safety question regarding emergency diesel generator loading and introduced additional failure modes in the emergency feedwater system.

The significant issues, engineering reviews and modifications required resulted in the licensee's decision to shut down Crystal River in September of 1996 and to maintain the unit in shutdown for an extended period of time to ensure safety system operability and to increase design margins. This action was taken as a recognition by the

licensee that Crystal River may have operated outside its

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design basis and that other systems could also be impacted by the recent engineering issues.

The licensee has submitted to the NRC a management corrective action plan which is being implemented and contains thorough corrective actions to resolve the issues that led to the unit's shutdown. The NRC has established a startup panel, part of the Manual Chapter 0350 review process.

The issues at Crystal River warrant increased NRC attention from both headquarters and the region and therefore the senior managers have classified Crystal River as a Category 2 plant.

CHAIRMAN JACKSON: Questions about that?

MR. REYES: I still need to address Commissioner Diaz's question about the senior managers' meeting.

I guess, in terms of the process, I have participated in previous senior managers' meetings in a different capacity and the particular enhancements that we made to this senior managers' meeting, the one in January, where the regional administrator presented both the negative and positive, I thought it was very useful. It led to a better discussion among the senior managers' meeting and understanding of the facts presented by all the people around the table.

When I prepared for the meeting, I had a range of

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options that I thought would come out of it. I wasn't sure exactly. I didn't have a decision made ahead of time.

It was interesting because, on the second day, all the senior managers were discussing the same range of options regarding Crystal River and we talk about no action, which was not an option. We felt that performance required an action by the agency and we discussed clearly that it was not a Category 3 plant. So the range was between a declining performance letter and the Category 2. And we all, in consensus, agreed it was a Category 2 plant and I agreed with that decision.

CHAIRMAN JACKSON: Thank you.

Any other questions?

[No response.]

CHAIRMAN JACKSON: Okay, who's next?

MR. THOMPSON: Mr. Beach from Region III.

MR. BEACH: Good morning, Chairman, Commissioners.

Before discussing Lasalle, Zion and Dresden, let me provide you a brief overview of the Commonwealth Edison system and the basis for a 50.54(f) letter.

Since the June 1996 senior management meeting, Commonwealth Edison has reacted to significant performance issues at all six of its nuclear sites.

The Byron station's performance has been very good to superior with one exception that involved the discovery

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that inadequate surveillance procedures and corrective actions to servicewater system degradation resulted in the ultimate heat sink being inoperable on several occasions.

Braidwood has struggled with material condition and configuration control problems but now appears to be getting well after increased management focus in those areas.

Quad Cities effectively resolved some longstanding engineering issues and is currently sustaining improvement.

The management team has stayed focused on achieving the improvement initiatives started in 1994.

Although Dresden has not yet demonstrated the ability to sustain power operation of both units, the station, like Quad Cities, has shown improvement over the past six months and the station's weaknesses are better defined after the NRC's independent safety inspection.

At Zion, there has been some decline in performance over the past six months. A trend of personnel errors, operational events and the poor quality of routine work and engineering activities continue, despite management's efforts to improve.

At Lasalle, both units have been shut down since September due to emergent hardware issues, to address performance issues manifested in a risk-significant servicewater event and to address problems highlighted in

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the most recent systematic assessment of licensee performance.

To meet these challenges, Commonwealth Edison is taking some noteworthy actions. During this same period, Commonwealth Edison has significantly increased its allocation of resources to address its systemwide performance problems. In addition, more significant changes were made at senior management levels to provide better and more focused oversight and guidance to the nuclear sites. Five of six vice presidents have now come from outside of the Commonwealth system and five of the six plant managers or general managers, as the case may be, have also come from outside the system. More managers at less senior positions are continuously being recruited and brought into the system.

In addition, using a team of industry peers and INPO representatives, Commonwealth performed an independent safety assessment at Lasalle and Zion. This was a particularly noteworthy effort aimed at determining why previous performance initiatives were not successful at these two facilities.

The licensees' effort found similar performance problems at each plant. Self-assessment attributed the principal reasons for the problems to be due to, in essence, weak management processes and a lack of management

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involvement. Comprehensive plans to address these findings are being developed and will be presented at public exits at each of the facilities in February.

In response to the findings of the NRC's independent safety inspection at Dresden and other recent NRC inspections, and the self-assessments at Lasalle and Zion, Commonwealth Edison has directed that each site initiate actions to improve the quality, maintenance and accessibility of design information.

A confirmatory action letter was issued in November outlining the extensive action Commonwealth Edison is taking or will take to address the engineering deficiencies. Commonwealth Edison essentially has brought in a number of new managers with a philosophy to focus on safety, identify issues, resolve them and fix the plants while opening communications with the NRC.

Commonwealth Edison appears to be putting a number of issues on the table and is aggressively seeking change. Although Commonwealth Edison has made a number of management changes, has implemented a number of significant initiatives to improve its performance, most of these initiatives are

not yet implemented at Lasalle and Zion.

The following discussions regarding Dresden, Lasalle and Zion will show significant challenges remain at these stations. Improvements at Dresden must continue and

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substantial improvement must be affected at Lasalle and Zion. These needed safety performance improvements must be achieved without negative effects at the other nuclear units. Thus, the senior managers concluded that the acting executive director for operations send a letter, pursuant to 10CFR50.54(f) to the chief executive officer of Commonwealth Edison requesting information why the NRC should have confidence that the licensee can operate its nuclear stations while sustaining performance at each site.

CHAIRMAN JACKSON: Place this into some context for me, Mr. Beach. Is this an unprecedented action?

MR. BEACH: I guess being relatively new to the region, from my perspective, I would say yes, it is, but --

MR. MIRAGLIA: In terms of an action coming from the seniors, yes, it is, in terms of previous senior meetings.

CHAIRMAN JACKSON: And have we begun any discussion with the licensee as to what kind of information we would expect them to provide to assist us in making the judgment that's inherent in the 50.54 letter?

MR. MIRAGLIA: The letter is a request for information and identifies the need for them to do that and the letter indicates we're prepared to enter into dialogue.

CHAIRMAN JACKSON: And they have to respond within what, 60 days?

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MR. THOMPSON: That's what the letter is. Obviously, we have the ability to extend that time if it's needed, if it's warranted and for just cause.

CHAIRMAN JACKSON: Why don't you continue? Did you have a question?

COMMISSIONER DIAZ: Yes. I have a question.

Would you comment on how significant is the issue of poor relationships between the management and the unions at these plants and how you might think it affects the performance of the entire plant personnel?

MR. BEACH: That's a difficult question because I think it varies at each of the sites. I think the extent of the problems, obviously, for example, Braidwood and Byron have some problems, but they're able to manage it. I think Lasalle and Zion probably have the most significant problems, but whether that has really had an impact on the ability to manage or not, I really can't comment.

COMMISSIONER DIAZ: But is it a problem? Is the union-management interaction a problem at the plants?

MR. BEACH: At Lasalle, I think there is evidence that there is a problem there.

COMMISSIONER DIAZ: Thank you.

CHAIRMAN JACKSON: Do you consider, and perhaps you can address this in your more detailed comments about each plant, do you consider that the decline and performance

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at Zion since 1993 is attributable to a corporate shift in attention away from that facility as it's focused on other facilities?

MR. BEACH: I don't really think so. I think it probably plays a part in it but I don't think it's the major cause.

CHAIRMAN JACKSON: All right. Why don't you go on?

MR. BEACH: Let me begin with Lasalle. Lasalle was given a trending letter in January of 1994 due to concerns about poor radiological work practices, declining material condition, declining personnel performance, and NRC staff concerns about the licensee's ability to pursue and resolve root causes for these issues.

By January 1995, the licensee's initiatives were found to be effective in arresting these adverse trends and a letter was sent urging the continuation of improvement initiatives.

However, the licensee's performance since the last senior management meeting in June 1996 has declined. In the first two months following the last senior management meeting, licensee performance was considered at least adequate.

While some progress was made in identifying and correcting material condition deficiencies, improvements in

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plant hardware material condition were slow. Maintenance and engineering backlogs remained high. Emergent work and rework limited the licensee's ability in implementing the station's material condition improvement plan.

In June, holes were bored in the safety-related service water pump room floors for the purpose of injecting a sealant material to eliminate water seepage. The service water system serves, by design, as the ultimate heat sink at Lasalle.

Since the work control process was circumvented, the work was performed as a minor maintenance activity on a service work request. As a result, no engineering evaluations to determine the impact on operation of the facility were performed and the work was performed without sufficient reviews, procedures or oversight.

A large quantity of expandable foam sealant was injected into the safety-related service water tunnel. Since the foam sealant expands considerably when it comes in contact with water, the injections caused two service water plant transients that significantly challenged the operating crew.

The event revealed previously unidentified material condition problems and disclosed significant engineering weaknesses in support to plant operations. Escalated enforcement action was issued on January 24th of

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this year that resulted in a proposed \$650,000 civil penalty.

Two months after the service water event, the NRC's systematic assessment of licensee performance was conducted. Category III ratings were assigned in all functional areas with the exception of plant support. The ratings reflected, to a large extent, the lessons of the service water event, with the clear finding that the event confirmed fundamental programmatic weaknesses and management weaknesses that extended throughout the organization.

To address these issues, a new management team was put in place at Lasalle. A new site vice president and a new engineering manager are now in place and 13 of 18 of its top managers will be from outside the commonwealth system.

Senior corporate management has decided to maintain both units shutdown indefinitely until the recent human performance and hardware deficiencies have been resolved. The new management team appears to understand the

scope and significance of its problems and has developed a detailed restart action plan and a plan to affect long-term performance improvements in all organizational areas.

The licensee's management changes in its commitment to significant improvement initiatives, including engineering, indicate that actions, when implemented, may correct many of the longstanding performance issues that exist.

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Reviews of the results of the recent systematic assessment of licensee performance, the preliminary results of the licensee's self-assessment, the Lasalle service water event, and the instances of the failure to use the engineering design change process to properly control plant modifications do, in fact, reveal significant insights into performance at the Lasalle station.

These insights reflect the licensee's inability to demonstrate progress in previous improvement initiatives in the plant's material condition and to improve work planning and maintenance processes which were not fully effective.

Given the scope and significance of these problems, the senior managers concluded that the Lasalle station warrants increased NRC attention and recommended that Lasalle be placed on the NRC's watch list as a Category II facility.

CHAIRMAN JACKSON: Any questions?

[No response.]

MR. BEACH: Zion was on the NRC's watch list as a Category II facility from January 1991 until January 1993 when it was removed from the list based on improved performance.

Efforts to improve material condition, upgrade operator performance, and efficiently plan and execute work have not been fully successful. Zion has been discussed at the last two senior management meetings and it appears performance has declined since the June 1996 senior management meeting.

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During the last senior management meeting cycle, there was some progress in improving control room standards and communications. Operator workarounds have significantly decreased. There has been measured improvement in problem identification.

However, several operational errors and unplanned configuration changes occurred. Operators changed equipment configuration status without following procedures. On several occasions, these errors resulted in inadvertent technical specification limiting conditions for operation entries. Corrective actions were either ineffective or untimely and as a result, the NRC issued a \$50,000 civil penalty in August 1996.

In response to these errors, there were constant management campaigns to improve and several brief stand downs. These stand downs were positive efforts to change performance. Employees were asked why they should be allowed to work at the station. However, despite these efforts, similar problems still occur.

While Zion Station has taken steps to address the number of significant material condition problems, including implementation of a 12-week rolling maintenance schedule, equipment problems continue to adversely affect plant operation. The maintenance backlog remains high which has

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been compounded by the inability of maintenance personnel to do work correctly the first time.

Recent inspections in the area of engineering identified significant deficiencies in the overall execution of engineering activities. An engineering and technical support inspection identified examples of an ineffective 50.59 safety evaluation process, weaknesses in the in-service inspection program, examples of inadequate modification, closeout and post-modification testing, and the lack of control and understanding of the technical specification interpretation process.

These findings, when combined with examples of inadequate resolution of recurring equipment deficiencies and poor procedure adherence in quality, reflect an overall weakness in engineering support to the station. Escalating enforcement action is pending for the significant deficiencies in the overall execution of engineering activities.

Zion Station continues to have one of the highest source terms among PWRs in this country. Although there has been some progress in source term reduction and ALARA planning, these improvements were diminished by inadequate

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procedure in radiation work permit adherence as well as weaknesses in the control of radioactive material.

To address these issues a new management team is in place. The licensee is developing a station operations performance plan and is relying on a new management team to assure effective implementation of the plan.

These changes and these kind of actions combined with significant improvement initiatives in operations and engineering when fully implemented may ultimately change Zion Station's performance.

To date, however, previous initiatives have not been fully successful. Although Zion has not experienced a significant event like Lasalle, reviews of the licensee's self-assessments and NRC inspection reports show the absence of significant progress in improving the material condition of the plant, continued work process problems and the failure to stem the human error rate.

Given these problems, the senior managers concluded that Zion warrants increased NRC attention and recommended that Zion be placed on the NRC watch list as a Category 2 facility.

CHAIRMAN JACKSON: Questions?

[No response.]

MR. BEACH: Dresden was first placed on the NRC Watch List in June, 1987, and removed in December, 1988, and

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again placed on the Watch List in January, 1992.

Significant contributors to the decision to place Dresden on the Watch List a second time included weaknesses in procedure, quality, and adherence, communications, execution of management expectations, plant material condition, supervision and control of work activities, work performance, and engineering and licensing support.

Since the last senior management meeting the conduct of operations in the performance of control room operators continued to be good as a result of management initiatives that included reinforcing standards and expectations to the operations staff.

In addition, Unit II has operated well since its restart in August. Operators have demonstrated a questioning attitude and will facilitate a prompt

identification of potential problems.

Some conservative decisions included the manual scram of Unit II last May following a feedwater transient and the decision to shut down Unit III and maintain Unit II in a shutdown while performing a complete overhaul of the 4 kV circuit breakers was also conservative.

Outside the control room several operator errors occurred which indicated that the rigor and attention to detail seen in the control room has not yet been consistently implemented in the other areas of the plant.

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During the last six months significant improvement was made in the material condition of the plant and the knowledge, skills and abilities of maintenance personnel.

However, emergent work activities continued to hamper the ability to conduct planned work, thereby adversely affecting the ability to reduce work backlogs.

Longstanding programmatic problems with the inservice test program and surveillance testing continued to result in the failure to detect all degraded systems and components.

There was improved performance in the area of engineering support to the station, particularly associated with system engineering, however emergent issues in the large engineering backlog has also diverted the focus of the engineering organization of significant longstanding problems and was an impediment to quality engineering products.

Furthermore, significant weaknesses were identified by the NRC independent safety inspection team in the area of design control.

The senior managers discussed the safety performance of Dresden in light of the above discussion and used the senior management meeting Watch List removal evaluation factors. The senior managers discussed the insights from the Dresden independent safety inspection

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which found that while overall safety performance had improved, the pace of improvement was slow and varied.

Significant improvement was evident in the area of operator performance, although Dresden has yet to sustain power operation of both units for an extended period of time.

The significant reduction in personnel exposure and contamination events was noted and some improvements were observed in the maintenance process and in the material condition of the plant.

However, Dresden continues to be challenged by the high level of emergent work and the large maintenance backlog.

Since significant challenges to continued improvement at Dresden remain, the senior managers concluded that Dresden Station warrants increased NRC attention and that Dresden remain on the NRC's Watch List as a Category 2 facility.

CHAIRMAN JACKSON: Any questions?

COMMISSIONER MCGAFFIGAN: Could I ask one question? You're just finished with comment?

CHAIRMAN JACKSON: No, he's not done with comment, actually. There's a trending letter, right -- I'm sorry.

You are finished with comment, right.

COMMISSIONER MCGAFFIGAN: This goes back to our

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question that Commissioner Rogers asked at the very beginning about the Hope Creek, where we sent a trending letter and now we are sending a letter saying everything's okay.

In the case of Quad Cities, they got trending letters on several occasions in the past and they are outlined in the 5054(f) letter.

Have we ever sent a letter of the sort that we are sending at Hope Creed to them? We did that at one of the meetings last year.

MR. MIRAGLIA: Yes. We can go back and get the exact date, but there is an exact date where we -- it's about two years ago.

COMMISSIONER MCGAFFIGAN: Are there any plants -- this is maybe one I should have asked at the time -- are there any plants at the moment that have gotten trending letters in the past that we haven't closed out?

MR. MIRAGLIA: The answer is no.

COMMISSIONER MCGAFFIGAN: Okay.

CHAIRMAN JACKSON: Thank you.

MR. THOMPSON: I understand that is correct.

CHAIRMAN JACKSON: Any other questions?

[No response.]

CHAIRMAN JACKSON: Do you have one more to talk about?

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MR. BEACH: Two more.

CHAIRMAN JACKSON: I see. Okay.

MR. BEACH: Let me answer your, Commissioner Diaz's, question about the senior management meeting process earlier.

I really had no preconceived decisions as to what would go on the Watch List or what would not go on the Watch List. I did have very strong feelings that whatever happened to Lasalle should happen to Zion because of the measurable performance difference between Zion and Lasalle and Dresden -- whatever that may be -- because if you visit the plants there is a significant difference between Zion and Lasalle and Dresden, although all three would be considered Watch List plants.

Using the theory that it is harder to get off the Watch List than it is to get on, and that we have to be skeptical, I think clearly if you take away the service water event, the performance of the two facilities is very close.

COMMISSIONER DIAZ: Thank you.

CHAIRMAN JACKSON: Okay.

MR. BEACH: Point Beach -- Point Beach Nuclear Plant was discussed for the first time at the senior management meeting because of the plant's performance decline since the systematic assessment of licensee

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performance that was issue in April, 1996.

Weaknesses in operation, engineering and maintenance led to a number of violations involving inattentiveness to duty by control room operators and ineffective surveillance testing.

A significant enforcement action was issued in early December with a proposed civil penalty in the amount of \$325,000.

The primary cause of these issues appears to be a focus on keeping the units operating in an environment that did not encourage problem identification or questioning attitudes.

To address these problems early in the period, the facility provided NRC with a substantial improvement plan. However, NRC continued to find significant new issues that the licensee had not identified.

Little was being done by the licensee in the way of performing self or independent assessments of plant activities to fully bound the performance issues that were being identified.

Because of this, the NRC performed an operational safety team inspection to better define current performance and assess the licensee's corrective actions. The OSTI findings confirmed earlier NRC findings that corrective action efforts to date were not broad in scope to

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appropriately assess the extent the extent of the problems identified.

In early December the licensee appointed a new Chief Nuclear Officer and on December 12, 1996 the licensee issued a letter containing commitments that will be completed prior to restart of Unit II from its current outage.

The NRC issued a confirmatory action letter confirming these commitments. The commitments provided in the December 12th letter included reviewing a broad range of procedure and work activities.

Significant licensee actions included realigning engineering into a system engineering concept to better focus on plant system status and performance, committing to move corporate engineering to the plant site, realigning senior plant and corporate management and committing to add additions plant staff, up to 40 FTE, from outside Point Beach.

The licensee is starting to show encouraging signs as well in the way of acknowledging its performance weaknesses. Since the appointment of the new Chief Nuclear Officer, the licensee has started to demonstrate the ability to deal with its own problems and take actions needed to correct its problems.

There has been a positive trend in the licensee's identification of issues in the past weeks.

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A number of condition reports are being generated and there's a significant increase in the number of 10CFR50.72 issues being reported to the NRC.

Early intervention by the NRC through its inspection program and aggressive licensee actions may arrest this decline. However, since a number of actions are still needed, the senior managers recommended that the Acting Executive Director for Operations send a trending letter to Wisconsin Electric informing the Chief Executive Officer of the agencies concerned regarding the decline in operational safety performance at Point Beach Station.

CHAIRMAN JACKSON: Any questions?

[No response.]

MR. BEACH: Clinton Power Station was discussed at the senior management meeting for the first time since 1991 due to an overall decline in plant performance during the past year.

The evidence of the decline was clearly demonstrated in September 1996 when a sequence of events associated with a reactor recirc pump seal failure revealed significant deficiencies at the facility. The deficiencies included problems with procedural adequacy and adherence,

lack of rigor in conducting operations, and weak engineering support to operations.

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In addition, the deficiencies included lapses in safety focus where managers and staff were not fully knowledgeable of their basic responsibilities and where it appears plant management placed too much emphasis on keeping the plant on-line.

Many of the issues identified as a result of the September 5th event appear to violate NRC requirements and an enforcement conference is planned for early February.

It appears that a practice had developed where procedures were not always followed at the sight. By procedure, if the intent of a procedure were satisfied, a procedure change was not required. This may have contributed to the procedural adherence problems demonstrated by the reactor recirculation pump seal failure event and other examples identified where operators work around procedure deficiencies rather than fix them.

While initially slow in assessing the September 5th event, the licensee has implemented a number of management changes including a new plant manager and a new assistant plant manager of operations. The licensee has devoted significant resources and management attention to identifying and addressing problems.

The new managers are encouraging a much lower threshold for the initiation of condition reports, encouraging the staff to improve the quality of procedures,

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and to stop work activities when problems are encountered, and encouraging additional conservatism in the scheduling and performance of work. Conservative decisions have been made even though they had a negative impact on the outage schedule.

Clinton is currently shutdown and confirmatory action letters were issued to the licensee in September 1996 and January 1997 to document the staff's understanding of the actions that the licensee would take prior to restart in response to the September 1996 recirculation pump seal failure event.

The recent management and operating crew changes at Clinton, the licensee initiatives aimed at instilling conservative decisionmaking and the actions to resolve a number of procedure and material condition issues will hopefully arrest the decline in performance.

However, because of the concern about the licensee's reduced emphasis on safe operation during the reactor recirculation seal failure event and the number of examples of problems with procedural adequacy and adherence, senior managers recommended that the acting executive director for operations send a trending letter to Illinois Power Company informing the chief executive officer of the agencies concerned regarding the decline in operational safety performance at the Clinton power station.

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CHAIRMAN JACKSON: Any questions?

MR. THOMPSON: That concludes are prepared discussions on the plants and we'd be pleased to respond to any Commissioner questions.

CHAIRMAN JACKSON: I think Mr. Callan had something?

MR. CALLAN: I would like an opportunity to respond to Commissioner Diaz's question.

In my view, one of the more striking aspects of

these changes was to make the assessment or decision-making process much more difficult, in some cases agonizing, a reflection of that difficulty that came from arguing both sides of the equation was that we had budgeted about a hour on the second day to go through the plants we had discussed and to come to closure. We ended up taking the full six hours of the second day which precluded talking about materials, as we mentioned earlier. So that reflects the type of discussion that was, I think, prompted by the way the material was presented.

COMMISSIONER DIAZ: Thank you.

CHAIRMAN JACKSON: Okay. Is there anything else?

MR. THOMPSON: I think we now have completed our presentation and are pleased to respond to any questions that you may have.

CHAIRMAN JACKSON: Commissioner Rogers?

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COMMISSIONER ROGERS: I think the most obvious question that comes out of where we are right now is really what is the significance of what appears to be an abrupt change in the status of a plant, either that it was not even discussed at one meeting and at the next meeting, got a trending letter, or didn't have a trending letter and abruptly wound up on the watch list.

It's a question of what are we to make of that? Does this indicate that there's abrupt deterioration at these plants over a six-month period that is suggested by such action, or is this an indication of a different way of looking at the plants from the way we looked at them before, or the third one is, of course, inattention on the NRC's part.

I think it's important that you comment on that, whether the new way of evaluating plants in a more systematic way has led to a quicker decision than in the past or whether it's just a very mixed bag so that some plants have started to slip rapidly and it's appropriate to take them from not even being discussed to a watch list status, which I guess has happened in one case, or not being discussed at all and then going on getting a trending letter at the next senior management meeting.

In other words, one would expect some kind of a continuous process going on rather than an abrupt process at

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most plants but that may not be the case. However, our judgments seem to be being made here somewhat in a stepwise fashion.

It could be the new way of reviewing plants and it might be an indication of something else happening out there in the world that's taking place more rapidly. I know we've touched on the question of resources or attempting to keep plants running, whether we're seeing some evidence of a shift in safety culture at plants.

In other words, I'd like to just understand whether we should read anything into these actions or whether we simply are in a transition period between one way of looking at plants and another way of looking at plants and that it will all sort out and stabilize the next time around.

CHAIRMAN JACKSON: Now let's give you a chance to answer.

MR. MIRAGLIA: I'll try to respond from the context of the overall program.

I think it would be a misperception to say it's a

new process. The process has been an evolving process over time. The Commission has directed, the Chairman has directed over the last two years that we should look for more ways of using objective evidence, making the process more transparent. So the processes have changed. I think

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they are evolutionary-type changes and I don't think the presentation mechanism was an abrupt change that resulted in what you have characterized as a perceived perception in the step change for facilities.

I think it does indicate that we need to closely look at trending letter versus category issues, categorization issues. That's an issue that may have to be looked at to say is there a sharper distinction. I think each of the regional administrators, in their presentation, indicated there was some agonizing or some balancing in terms of those.

In terms of why each plant wound up where they did, I think they were addressed by each regional administrator and they could reiterate it. For example, in the Crystal River case, it was an engineering modification that was made in the spring, that was subsequently found at a later date that said that facility operated outside its design and licensing basis for a period of time.

I think that was a telling kind of thing and that goes to Mr. Thompson's observation that the issues of design are getting a little bit more focused and our program hadn't been focusing on that, and we're trying to redirect this. We responded to the Chairman earlier.

In terms of the Clinton, there was a significant shift from the previous assessment period in terms of the

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significance of the recirculation seal.

So I think each of those, there's an answer for and I think it's a range of the topics that you identified in your question, but I don't see it as a very stepwise difference in how we're doing things. I think it was a modest change that we made to the process and I think the process has been evolving with time. We'll have to look at that again in terms of the outcome.

COMMISSIONER ROGERS: But if you look at your results, it looks like --

MR. THOMPSON: Yes, the perception could be that and I think if you look at each of the issues, Salem was a retrospective look as we've explained. I think Bill addressed the differences between Zion, Lasalle and Dresden given the relative performance of those kinds of facilities.

MR. MILLER: Maine Yankee, I don't think it was a decline. I think that we just got insight that we had not gotten before, a combination of an important allegation that panned out and a deep vertical slice, a 22-member team for 3 or 4 months. That's a level of scrutiny that permitted us to uncover things we previously hadn't done.

We're going back, of course, looking at that, trying to learn lessons from it, but some of it has to do with resources. It goes back to the question we had before from the Chairman about design and how we look at design.

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COMMISSIONER DIAZ: If you look at --

CHAIRMAN JACKSON: Excuse me. Commissioner Dicus?

COMMISSIONER DICUS: We have to take turns.

CHAIRMAN JACKSON: That's right. Otherwise, it gets out of hand.

COMMISSIONER DICUS: This follows up a little bit,

I think, on Commissioner Rogers' question, together with a comment the Chairman made earlier about occasionally we appear to miss something.

When plants go on the watch list, and these plants, I was prone to go back and look at the most recent SALP ratings for the plants. For the most part -- some exceptions -- but for the most part, there seems to be little correlation.

I recognize that a SALP evaluation looks at certain things, is done a certain way. It may be a very subjective sort of evaluation and this senior management meeting evaluation is done differently.

Given that, and given the apparent, for the most part, lack of correlation between them -- I guess I'm directing this question to anyone that wants to answer it but probably to Mr. Thompson. Feel free to jump in anyway.

Do you think we still need these two separate kinds of evaluations?

MR. THOMPSON: I certainly think this is a process

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we need to look at. My specific responsibilities for the reactor area are fairly new although I was involved in a previous life.

My understanding, and I think Frank will probably be able to articulate it better, there is more linkage than is kind of apparent as the way we do the processing in preparations for the senior management meeting as well as the SALP process itself. So I want to ask Frank to address the linkage and how that should be -- it may not be obvious to the public how we do our communications both internally and with the licensee on that.

MR. MIRAGLIA: In terms of the perception relative to the SALP, and one of the management directives that we've made public is we've tried to articulate how those pieces fit together, the SALP is nominally a backward or a retrospective look.

Some of those span a long period of time and within the context of the process, it is to look at the last six months. Some of the SALPs that you see that are information or input are dated in terms of the period of performance that we are looking at.

For one of Bill's plants, he talked -- I believe it was Point Beach, the SALP looked relatively good and it was from backwards and it was the performance in the next period that we wouldn't see in terms of an evaluation of

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SALP to the conclusion in that SALP period.

We have a continuum of inspection processes and evaluation and we have a number of performance assessment type tools and this was raised, I believe, in one of the SRMs in a broad sense that came out of our briefing on SALP, which is how do these pieces go together and we make them more effective and more efficient.

They all have a role and a use and I think we are in an evolving kind of process with respect to the performance assessments. We have a plant performance review that looks at the inspection results between region and headquarters and says, what are we doing for the next six months? And so we have various performance assessment tools that covered various periods of time.

At the screening meetings, prior to the senior management meeting, one of the goals is to say where were we with respect to the last SALP and the last performance

review, what has occurred in that period of time and the focus is on the six months preceding the meeting. So there is some time lag and some time differences and it does raise -- give rise to the questions and perceptions as to what is the SALP telling you? You have to look at what was the SALP and what was the period of the SALP and what performance period are we talking about and they are a little bit different.

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We have tried to integrate and show how they are interrelated and integrated and that's something that we will be looking at in response to some of the SRMs for the Commission's response.

CHAIRMAN JACKSON: Mr. Callan?

MR. CALLAN: I was just going to make two points. One was whispered to me by Luis. I'll give him credit.

[Laughter.]

MR. REYES: Which one?

[Laughter.]

MR. CALLAN: The SALP process as Hugh, as several people mentioned earlier, actually the inspection process has not in the past -- in recent years anyway, focused on engineering and licensee basis issues. Hence, SALPs conducted during that same time period would also not reflect a focus in those areas and, as we've said earlier, problems in those areas were major themes in some of the plants we discussed. So one would expect, therefore, some degree of disconnect between SALP and the discussion plants today in that arena.

The second point I make is just to reinforce something that Frank Miraglia had just said and that is to really put a SALP report today in its proper context, you have to look at the SALP report and every six months after that, and the timing is intended to be coincident with the

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senior management meeting process, so they are integrated, the region does a six-month update of that SALP and it's a fairly rigorous process involving, in some cases, significant shifts of inspection resources as a result. And then each licensee is sent a letter after that six-month review.

What we don't do is revise the SALP scores but a discerning reader can certainly detect a change, evolutionary change or even an abrupt change in perspective. So you would have to look at -- if you think of those six-month assessments as supplements to the SALP, you would have to look at the SALP and its subsequent supplements to capture where the agency is on a given licensee. The output of that product.

MR. MIRAGLIA: The output of that product, as Mr. Callan is indicating, is where the inspection effort is going to be in the next six months or more and that's a signal to where we think we have concerns or perhaps not enough information to make a judgment and that's a signal to the utility and the public. It's done in a public kind of way, as to where our focus is shifting.

But with respect to engineering, I think SALP does cover engineering. However, the focus in the past has been on operational support to engineering and this design aspect is a new element that, as I indicated to the Chairman, we

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are looking at ways of enhancing that, so the design aspect --

CHAIRMAN JACKSON: With the right balance, so you

don't lose the focus.

MR. MIRAGLIA: We have to have operational safety focus as well, so this is an issue that we are looking at, we've taken modest steps and we are looking for further improvements in that area as well.

MR. CALLAN: And I would just say, finally, your point, Commissioner, is fundamentally valid. There are frequently, maybe one could say too frequently there is a disconnect between the SALP assessment, even when updated, and the results of the senior management meeting and I think Hub Miller did a good job of describing how that can come about and there are several examples of the staff developing insights based upon events, transients.

CHAIRMAN JACKSON: Commissioner Diaz?

COMMISSIONER DIAZ: Thank you.

I have some thoughts I want to bounce around a little bit.

First I would like to commend the staff for the efforts in organizing, documenting and orchestrating the senior management meeting. Obviously, a tremendous amount of work has gone into it. The decisions that were made have significant impact on the licensees and should be some

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indicators of both how the industry and how the NRC discharge their responsibilities.

And yet the Commission is ultimately responsible for the decisions that the staff makes. In reviewing all this latest information I still have the opinion that the sequence of correlative processes leading to the decisions made by the senior management meeting are not transparent to the Commission and much less to the public.

In particular, it appears that licensee events drive the process and drive the decisionmaking rather than a more balance, holistic approach. Obviously, the staff must have, and I am sure they did have, weigh the safety significance and risk implications of every major component of the evaluation and consider the enforcement actions and other truths that are available to them from the regulatory process.

I am pleased to hear that this effort, having improved the quality of the meeting and having resulted in significant improvement, that I am sure will be apparent to us shortly. Yet it is not apparent to me how these are all integrated in the decisionmaking process and how they correlate with a few decisions, maybe three, made at these meetings, especially those plants that have never been on a watch list or received a trending letter.

Specifically, I have concerns how Maine Yankee,

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Zion and Crystal River were placed directly on the watch list when, a short time ago, they were considered good performers and, when one looks beyond an event, we find aggressive correction and remedial reaction programs that the staff have praised. A trending letter might be more consistent with the way we have acted in comparable situations.

I am also concerned with the large number of plants placed on the watch list. Again, echoing my fellow commissioners, it appears that both the licensee and the NRC are not doing enough to discern early and in a programmatically correct manner the trends that lead to questionable performance. It is our duty to provide early trending. It is our duty to provide guidance to the

licensees, to avoid the situations that have led to this what I call massive placing of plants on the watch list.

I would encourage my fellow commissioners to expeditiously establish additional guidance for the staff on the issue of our processes for evaluations of licensee performance leading to the senior management meeting decisions and the Commission input after those decisions are made.

I urge the staff to assist us in transforming this entire program to a fully accountable, fully transparent process, clear to the public and the licensee.

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Thank you, Madam Chairman.

CHAIRMAN JACKSON: Any comments?

Commissioner McGaffigan.

COMMISSIONER MCGAFFIGAN: I didn't have a prepared speech but --

COMMISSIONER DIAZ: Good.

[Laughter.]

COMMISSIONER MCGAFFIGAN: One of the questions on the senior management -- we have all been referring to this Arthur Andersen study. Is that going to be released or has it been released to the public?

MR. THOMPSON: It will be placed in the public document room today.

COMMISSIONER MCGAFFIGAN: Because I think that is very important.

My question goes to something that Commissioner Dicus asked at the very outset. You all read that report. The heart of the report, I'll tell the public and you can read it, is that the process hasn't worked well in the past, that there were problems with it and the solution is suggested. The solution has to do with using our own performance indicators and a decision matrix, which -- the performance indicators aren't perfect, the decision matrix isn't perfect but it might be a major improvement if we can perfect it and I know the staff is going to come back and

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tell us in February some initial thoughts, in March some further thoughts on that.

But it strikes me that you are all human and the thrust of this report is that we probably have missed things in the past, that there are plants that we probably should have taken action on earlier, we let people off lists quicker than they should have been. In one of the examples, we indicate the performance got even worse and we never discussed them again.

Did that -- maybe I shouldn't ask the question but it has to have affected you as you sit there knowing that this is going to be a public document, knowing that you are going to have to deal with is this model the correct model or something close to it better and more objective than what we've done in the past?

So if I had a prepared statement, it would be something along the lines of that I -- there may have been a renormalization at this point, it may have nothing to do with whether the industry has been performing better or worse in the last several months, although I think in each case the staff has good reasons, but it may well reflect the general criticism and then I commend the staff and the Commission that was here for asking for this report. It reflects that we may not have been perfect in the past, we have to renormalize and move forward. Like Commissioner

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Diaz, I think I won't ask for answers, I just want to make that comment.

CHAIRMAN JACKSON: What I would like to do is thank the staff for an informative briefing and for honesty.

The Commission is interested in the results from the 10CFR50.54(f) letter to Commonwealth Edison. I understand that the licensee's response is due in 60 days, so I'm going to be scheduling or asking that there be a Commission briefing scheduled soon after you've had time to evaluate the information and to determine what actions, if any, need to be taken as a consequence.

We'll also be asking Commonwealth Edison to also participate in that briefing, to speak to their response, and so we'll schedule that meeting as appropriate relative to being able to have that kind of information on the table.

In general, I found the results of this senior management meeting to be encouraging. With regard to improving decisionmaking by basing them on performance, demonstrated safety performance.

I believe that the processes used and the results, while not perfect, as everyone has indicated, are credible. You have laid out your reasons in each case. But as has been identified, room for improvement does remain in finalizing and using objective, meaningful performance indicators, recognizing the leading indicators that identify

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where cost-cutting measures, for instance, may impact safe operation, and in monitoring our licensee actions to ensure that safety performance problems have actually been corrected.

I think with the transitions which are rapidly occurring in the electric utility industry, it is imperative that NRC be timely, be fair, be objective and as accurate as we can be, it's still an imperfect process, in evaluating plant performance to ensure the continued safety of operating commercial reactors.

I think that a challenge has been laid before you relative to helping not only the Commission, but the public understand the linkages between the various evaluative mechanisms that we use and how one plays into the other.

I think you also have a challenge to explain that the senior management meeting results are meant to focus attention as opposed to being a regulatory decision. The 50.54(f) letter is a regulatory action.

To this end, then, the Commission plans to closely monitor the staff's progress in this area and Commission meetings have been scheduled in the near future to discuss the status of improvements in the Operating Reactor Oversight Program as well as the status of the analysis of the plant watch list indicators. I think that will be a robust discussion and I think that those meetings are the

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appropriate places to take up the broader-based policy implications as opposed to here.

Unless there are any further closing comments or speeches, we are adjourned.

[Whereupon, at 12:00 p.m., the briefing was concluded.]