Official Transcript of Proceedings ACRST-3162

NUCLEAR REGULATORY COMMISSION

ORIGINAL

PROCESS USING ADAMS
TEMPLATE: ACRS/ACNW-005

Title: ADVISORY COMMITTEE ON REACTOR SAFEGUARDS - PLANT OPERATIONS SUBCOMMITTEE MEETING

Docket Number: (NOT APPLICABLE)

Location: ROCKVILLE, MARYLAND

Date: MONDAY, JULY 9, 2001

Work Order No.: NRC-311 Pages 1-147

NEAL R. GROSS AND CO., INC.
Court Reporters and Transcribers
1323 Rhode Island Avenue, N.W.
Washington, D.C. 20005
(202) 234-4433

TR04

UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

ADVISORY COMMITTEE ON REACTOR SAFEGUARDS

(ACRS)

PLANT OPERATIONS SUBCOMMITTEE

Monday,

July 9, 2001

Rockville, Maryland

The Subcommittee met at the Nuclear Regulatory Commission, Two White Flint North, Room T2B3, 11545 Rockville Pile, at 9:30 a.m., John D. Sieber, Chairman, presiding.

COMMITTEE MEMBERS:

JOHN D. SIEBER	Subcommittee Chairman
GEORGE APOSTOLAKIS	ACRS Chairman
MARIO V. BONACA	
F. PETER FORD	
THOMAS S. KRESS	
GRAHAM M. LEITCH	
STEPHEN ROSEN	
WILLIAM J. SHACK	
ROBERT E. UHRIG	
GRAHAM B. WALLIS	

A-G-E-N-D-A

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

9:31 a.m.

CHAIRMAN SIEBER: Good morning. The meeting will now come to order.

This is a meeting of the ACRS Subcommittee on Plant Operations. I'm John Sieber, Chairman of the Subcommittee.

ACRS members in attendance are Dr. George Apostolakis, Dr. Mario Bonaca, Dr. Peter Ford, Dr. Thomas Kress, Mr. Graham Leitch, Mr. Stephen Rosen, Dr. William Shack, Dr. Graham Wallis and Dr. Robert Uhrig.

The purpose of this meeting is to discuss the reactor oversight process, which today will include the action matrix.

We had our last Subcommittee meeting with the staff on the oversight process on May 9, 2001. At that time we discussed the significance determination process, performance indicators and some crosscutting issues. The Committee will follow up with a summary of the reactor oversight process at the September ACRS meeting.

Ms. Maggalean W. Weston is the cognizant ACRS staff engineer for this meeting.

The rules for participation in today's

meeting have been announced as part of the notice of this meeting published in the *Federal Register* on June 27, 2001.

A transcript of the meeting is being kept and will be made available as stated in the *Federal Register* notice.

It is requested that speakers use one of the microphones, identify themselves and speak with sufficient clarity and volume so that they may be readily heard.

We have received no written comments from members of the public regarding today's meeting.

So now we'll proceed with the meeting, and I'd like to introduce Mike Johnson of NRR who'll introduce the topic and the presenters.

Mike?

MR. JOHNSON: Good morning. My name is Michael Johnson from the Inspection Program branch, and I'm joined by Bob Pascarelli. Bob is the branch's person who has lead responsibility for the assessment process. And, in fact, the major part of that, as you well know, is the action matrix, and so Bob is going to be doing the majority of the presentation.

I'm joined at the table by Mark Satorius, who is the chief of the -- the Performance Assessment

section in the Special Program branch.

We're also joined by Chris Nolan from the Office of Enforcement. You may remember the last time we were here talking there were topics that related to the Office of Enforcement and the enforcement role in the assessment process, and so we asked for a representative to be along to assist us in case those topics came up.

By way of introduction, let me just say that as was pointed out, this really is a continuation in a number of topics that we've had with the ACRS spanning way back from the early days in development up through a status update last year and continuing. We today hope to provide just a brief overview of the assessment process and then we really are going to spend most of our time focusing on the action matrix. And then finally, if you're interested, we'll talk a little bit about the lessons learned from the first year of initial implementation.

I did look at the agenda, and I note that you've allotted time going through 11:30. I'll be honest with you, I'm hard pressed to figure out we're going to talk about the action matrix between now -- to fill that full block of time. But if we finish early, I trust that'll be the right thing to do.

Again, as we've pointed out, this is really the third in a series of these recent meetings that we've had. We spent quite a bit of time last meeting talking about, running through examples of the significance determination process and the performance indicators. And we talked about crosscutting issues and thresholds, and all those things. And I hope we've been able to answer your questions on those areas because, I'll tell you, I didn't bring those folks along. You'll see a different cast of folks. I've got the assessment folks in the room today. So, if there are more question, in depth discussion that you want to do on that, we'll have to entertain it at our next gathering.

We're getting ready for -- I understand that there is a full committee meeting that we'll be participating in just briefly in September in support of your letter writing on the ROP in response to see the SRM that you have from the Commission.

Let me just by way of status tell you that we've completed, as you're well aware, the first year of initial implementation. We've completed now the end of cycle meetings where the regions review the performance of all of the plants within their regions. We've completed the agency action review meeting where

we discuss the performance of those plants that were in the multiple repetitive degraded cornerstone column of the action matrix, and we'll show you in a minute.

And we also talked about DC Cook. DC Cook was in a special status this year. You may remember that when we entered the ROP, we didn't do it with DC Cook, because DC Cook was under the inspection manual chapter 0350 process. That was, they were in an extended shutdown and we held them out of the ROP to allow them to be able to finish up those activities under the LD50 process. They've now transitioned into the reactor oversight process, and we discussed them at the Agency Action Review Meeting.

The Agency Action Review Meeting does a couple of other things that we may, I guess, talk about a little bit -- or will we?

MR. PASCARELLI: We don't have it on the--

MR. JOHNSON: We don't have it, so I'll tell you now.

The Agency Action Review Meeting also talks about we've developed a trending program. We look at the overall trends of the industry on an annual basis and we provide those at the Agency Action Review Meeting and talk about what actions we have planned or we've already implemented in response to

those trends.

And also as an ongoing part of the Agency Action Review Meeting, a continuing part of these meetings is to go forward, we'll talk about the self-assessment activities that we've had and results of that self-assessment. And we did that at this most recent Agency Action Review Meeting. In fact, on the preparation for this meeting I hope we sent over a copy of that Commission paper that documents for you the lessons learned.

So, that's what I would say in way of background, and I'll turn it over to Bob to provide an overview and a discussion of the assessment process in the action matrix.

MR. LEITCH: Just before you start, a quick question about that trend report that you were referring to. I noticed that some of that, some of those trends related to information previously collected by AEOD or since then, I guess, RES. And I'm just wondering is that part of the trend report? I know it's not exactly this part of the presentation, but that trend report are those previous AEOD trends going to disappear in lieu of the new performance indicators?

MR. JOHNSON: That's a good question. We

actually in terms of this trending process will use those old, the ex-AEOD indicators. And they actually form that long term trend that we're looking for. So we're transitioning. We're keeping those, we're adding on the ROP PIs, we'll add them on as we get more experienced with them. But, no, we're not going to lose that information in terms of providing trends for the industry.

MR. LEITCH: But there's some subtle differences, though, between the two trends. I guess what you would see as perhaps a bump in the data explained by the fact that the data is now within a slightly different. Is that what you would expect to see?

MR. JOHNSON: Yes, that's right. For example, there's a difference --

MR. LEITCH: However, I think the scrams, for example, are pretty eager in one case.

MR. JOHNSON: Yes.

MR. LEITCH: And per 7000 atoms in another case.

MR. JOHNSON: Yes. Tom, do you -- it just so happens I do have a trends person in the room.

Tom, would you come to the microphone and talk a little bit, a couple of minutes, about the

transition from the old AEOD through the trends program?

MR. BOYCE: Hi. This is Tom Boyce of the Inspection Program branch.

To flush Mike's answer, we're going to use the AEOD PIs as like a baseline for several years until we can establish that enough data in the new ROP PIs that we think we could then transition away from the AEOD PIs.

There are subtle differences, at least as far as the scrams PI.

One is per hour. The AEOD PIs are per year. In other words, you had 3.5 scrams per plant per year. The ROP PIs do it per 7000 hours, that's a rate. In that case, in a couple of years once we have established the overlap, we would probably go with the per 7000 hours as a rate. The reason is is because the plant specific PIs are done as a rate. So in order for people to mentally make that jump from plant specific to industry level, we wanted to have commonality. So in that particular indicator, we'd probably go with the rate.

The difference for those -- it isn't much of a difference. Plants with their current availability are running about 90 percent, meaning 90

percent critical. And so you're only looking at a 10 percent difference between the AEOD PIs and the ROP PIs.

So, I guess the short answer is we're going to retain the AEOD PIs until we've got enough confidence and enough data in the ROP PIs.

MR. LEITCH: So five years out into the future you might see the old data,you know, historically and then sort of a new curve where the ROP PIs come in and maybe there'd be some overlap between the two?

MR. BOYCE: As far as that specific indicator, we would probably go back and adjust the AEOD data to take out that 10 percent difference.

MR. LEITCH: Okay.

MR. BOYCE: Because the data is still valid data, it's just the difference is critical hours versus shutdown hours and the denominator. So in that case we'd probably just pull the shutdown hours of the denominator of the AEOD PIs and be able to retain the long term view of how scrams have changed over the last decade.

MR. LEITCH: Okay. Thank you.

MR. JOHNSON: Okay. Bob?

MR. PASCARELLI: Thanks, Mike. Again, as

Mike mentioned, by name is Bob Pascarelli. I work in the Inspection Program branch, and I'm going to run you through the rest of the presentation on the assessment program.

The first bullet here is fairly obvious, but part of the assessment -- the assessment process is part of the ROP. And I have a couple of slides that I'll show in a moment, and that'll show you integration of the assessment program with the other programs within the ROP.

A big plus in this program is that you've improved the consistency and predictability of the agency actions based on overall licensee performance. And we do that by way of the action matrix.

DR. APOSTOLAKIS: It's interesting that we keep using the word "improve." Would you say it is consistent now or are we just improving the consistency? It's very cautious the way you stated.

MR. PASCARELLI: The objective truly was to -- I'm not sure this was your question. But the objective truly was to improve the consistency and predictability. We really did want to improve.

DR. APOSTOLAKIS: Without claiming that you are now completely predictable and consistent, right?

MR. PASCARELLI: Oh, yes. Yes, our goal was to make progress.

DR. APOSTOLAKIS: I think that's fine, but it's very impressive of how cautious you are.

MR. PASCARELLI: Okay. Good.

DR. APOSTOLAKIS: I do agree, actually.

MR. PASCARELLI: Our guidance for the assessment program is in Inspection Manual Chapter 0305. We do have some other guidance which is Management Directive 8.14 which deals with the Agency Action Review Meeting, which Mike just talked about, which has replaced the old senior management meeting.

Deviations from the action matrix. As we've said here, our actions are more predictable and more objective, so therefore we expect very few deviations from the action matrix. And in one of the SRMs from the Commission of the staff they had said that we should get preapproval for any deviations from the EDO if we were going to do that.

DR. APOSTOLAKIS: Now what exactly does the word "deviations" mean here?

MR. PASCARELLI: It means a deviation from the action matrix.

DR. APOSTOLAKIS: Yes, but I mean in real terms what would that be?

MR. PASCARELLI: In real terms it would be something like if we wanted to either increase or decrease the level of supplemental inspection for a plant that was -- for a plant that was not consistent with the action matrix. For example, the plant was in degraded cornerstone column of the action matrix, that calls for a 95002 inspection. If we wanted to do more or less than that, use another procedure, then we would request a deviation.

If, for example, we wanted to take additional regulatory actions that are listed in the multiple/repetitive degraded cornerstone column of the action matrix, and in any other column, say in the degraded cornerstone column, then we'd have to get Commission approval -- excuse me, EDO approval for that.

DR. APOSTOLAKIS: I understand that once you've entered the action matrix you may decide that you want to do something, not what the matrix predicts or dictates. But there is another possibility or may be there's a possibility, it may be a possibility -- is it possible that you will find you will have findings such that it will not be obvious where you enter the matrix, or is that a nonsensical question? I mean, the matrix says, you know, if you have one

white or two greens or yellows and so on, is it possible or is it complete that way or is it possible--

MR. PASCARELLI: It is --

DR. APOSTOLAKIS: It is complete?

MR. JOHNSON: You mean is there some input that would not have been --

DR. APOSTOLAKIS: Predicted or it's not obvious where you go to enter the matrix? Have you found that situation?

MR. JOHNSON: We've not. We've not found that. And, I mean I don't know. I hadn't -- without having thought about it a lot, I'm not -- I wouldn't rule it out totally, although I mean we really do envision that if it's important to look at, we look at it. If it's important to be able to judge its significance, we can through either the SDP or through the PIs, and those are the entering arguments. And having said that there is one exception, and that exception is -- there are a couple of exceptions, really.

One is things that we deal with in terms of traditional enforcement, and so we talk about how you handle traditional enforcement items. And the way that we handle those is you figure out where you are

in the action matrix and then you look at the range of actions and then that enforcement can help you make decisions about whether you go towards the high end of the range of actions in the column or to the low end.

And the other thing that we've been struggling with is these things that are called no color findings. And we talked about no color findings a little bit last time. And no color findings are things that are more than minor, but you can't run through an SDP and so how do you treat them. And right now we're documenting those actually as no color findings and we're working to a resolution to be able to treat all of those things in the process and in our resolution that we're planning to move forward with respect to those no color findings. Again, that specific subset of things that are more than minor but they don't have an SDP for.

Actually, I should also say and that don't get treatment under the traditional enforcement program. We're going to call those things, we believe -- we're going to make those things green and treat them as green issues.

DR. APOSTOLAKIS: But let's say, as I remember the threshold between green and white in the unplanned scrams was three. So let's say now that

consistently, you know, for the last several years you find that that indicator is two every year. So it doesn't quite make it to white, but it's a 2; it's just below the threshold. Would that lead to anything or say no it's green?

MR. JOHNSON: It's green, it's in the licensee response band.

It's interesting you would ask that. I was just sharing with my guys this morning in email that we had about a plant that actually has something that is exactly three, three scrams for 7000 critical hours. And the question is --

DR. APOSTOLAKIS: Three is in green?

MR. JOHNSON: And three is green. It's greater than three scrams for 7000 critical hours.

DR. APOSTOLAKIS: Oh, I see what you're saying.

MR. JOHNSON: So that's plant in the licensing response band. Now, you know, we'll see what happens.

DR. APOSTOLAKIS: What if you have four, five performance indicators all at the threshold? It's still green?

MR. JOHNSON: Just under the threshold, but right at the right threshold?

DR. APOSTOLAKIS: Yes, I mean they're just green. Barely make it.

MR. JOHNSON: They're in the licensee response band.

DR. APOSTOLAKIS: Huh. That's very interesting. That's what objectivity does to you, right? Consistency.

DR. SHACK: Isn't there some thought to look at this notion of concurrent deficient -- you know, at least we heard something about that in the risk informed matrix that people sort of realize that, you know, pushing one is one thing but having a whole slue of multiple not quite but not so good --

MR. JOHNSON: Yes, there is. There is. And I guess a couple of things come to mind. One is if we have a plant that is just along the threshold for multiple indicators and manages that way, I mean I actually believe that that's an example of a plant that's not going to be just along the thresholds. That plant is eventually going to end up in another columns of the action matrix.

In fact, the example I'm talking about is an example of a plant that's not in the licensee response band. They actually are in the licensing response band with respect to that indicator, but

they've got some other problems in some other areas that would tell you that there are more pervasive things going on that are reflecting other indicators that are crossing thresholds.

So, the concept that you would have a plant that was truly marginal in all of the areas is one that you won't be truly marginal for very long.

We have had a number of discussions in the area of the SDP with respect to what -- let's suppose you have an issue that is a green -- let's suppose you have an issue that by itself is a green or perhaps by itself is a white and then you have a second issue that is by itself a white. And if you look at those issues in a point of time, the combination of those issues would be a yellow or a red. So you should be somewhere else in the action matrix.

And we've actually had some discussions about how we ought to treat those concurrent issues with respect to the reactor oversight process. And we're actually revising the guidance to address that particular concern. And where we're going is to say that if there is some nexus, if there is some underlying performance issue that results in those particular -- that you can link those two issues together, then we should treat the combined risk

associated with those in the action matrix and the actions that we go over. If there isn't that nexus, then we ought to treat them as independent issues and allow the action matrix to roll up and decide what actions we take.

So that's sort of how we're dealing with it, but it's not to address the green issues in the green band. You know, from early on we decided that the licensee's performance in the green band, no matter what shade of green it is, but it's in the licensee response band, it truly is in the licensee response band.

DR. KRESS: What makes you think that there has to be a nexus between them? For example, if we viewed them as some increment in, say, SDP, just as a way to view them, it doesn't matter whether they're independent or not. If you have two of them, you've got twice as much change in SDP whether there's a nexus or not. And so it seems like there ought to be some consideration of multiple ones independent of whether there's a nexus.

MR. JOHNSON: Well, and that's what the action matrix does is the action matrix says if you have -- without regard to consideration of whether there's some nexus; if you have two on a cornerstone,

you know, it's more significant in one --

DR. KRESS: Oh, you already do that?

MR. JOHNSON: Right, we do that in the action matrix. Right.

DR. BONACA: I just was wondering, you know, since you are looking for consistency and predictability, are you are comparing, you know, when you look at degraded performance what you get from different regions just to get a sense in percent whether or not your process is really as consistent and predictable as you would like it to be? I mean, we'd expect to have same performance in the 44 regions?

MR. JOHNSON: Yes, that's another good question. With respect to the assessment process, it really is easy to do that kind of look and there really is a high degree of consistency. But if you think about it, we've made it easy. We've taken out-- under the old senior management meeting it was this regional meeting where the judgment had to happen with respect to the performance of the plants and so you could get a situation where when you boil it all down from one plant and one region and you boil it all down for another plant in another region, even though the plants may be similar, you would get a different

assessment result.

Well, right now we have with this process, we have objective thresholds for PIs. We've got an SDP or a structured process to develop and determine the significance of individual issues. And all the assessment process does is look at -- you know, in the action matrix as you'll see simply just looks at what's there and then assigns actions that need to be taken and a deviation from those actions are.

And Bob talked about a couple. But for example if the action matrix says that the RA attends the annual performance meeting, what we really mean is the RA attends the annual performance meeting. A deviation would be the division director attending or a branch chief conducting the annual performance meeting rather than the regional administrator.

So, it's an easier task now to get consistency, because we've build objectivity into other parts of the program.

DR. BONACA: But you have still inspections and so you have judgment coming in. I mean, I would expect that if you found that all plants in the regulatory response column were in region 2, I mean you would have some -- you know, that would tell you something, maybe. I don't know what it would tell

you, but something we would want to know what it's telling you. And so you would want to see on a region basis if in fact the process is automatically, I mean by itself coming up with indications of consistency and probability, and you have an opportunity because you have different regions so you can look at it that way.

MR. JOHNSON: Yes. And the second part of what I should have said in my answer was to talk about the fact that now the inputs, particularly this input with respect to the inspection program, is where you find opportunity for variations between the regions. And, yes, we are looking at that.

DR. SHACK: And that's one of the criticisms you have here, you don't have adequate basis for determining that significance.

MR. JOHNSON: Right.

DR. SHACK: And that seemed to be a fairly strong feeling from internally and externally.

But there is a significance determination process associated with the inspection, right? And that process --

MR. JOHNSON: Oh, yes, absolutely.

DR. SHACK: But that documentation by itself isn't transparent in a sense?

MR. JOHNSON: Yes. In fact, the criticism that we get is -- the major criticism with respect to the inspection issues and how the SDP, the significant determination process works isn't that people don't think we end up at the right spot. There's general agreement that we end up with the right spot at the end of the date with respect to the significance call. But the criticisms are that it takes us a long time to get there; that the tools that we use to get there are, in some inspectors' perspective, difficult to use, not easy to use. In fact, we haven't done all that many of them, so we're still dealing with the people in putting through some of these issues.

And then there's the criticism that external stakeholders, some external stakeholders have raised -- and I'm thinking about the state of New Jersey, for example, who said -- who have said to us "You know, we do this SDP. We then meet with the licensee to discuss to get any additional insights. And then we end up changing our view based on the input that we have from the licensee. At the same time there's not a lot on the docket or there's not enough on the docket to explain the initial rational, to explain the final decision. And so it's this business that we're sort of doing things behind closed

doors with respect to interactions of licensees on determining the significance of issues." That is a criticism that we've been working on.

DR. SHACK: You're doing this level three exchange kind of thing --

MR. JOHNSON: Right. Right.

Now, I ought to point out those meetings are public, but having said that, I mean we have made I think great strides in terms of trying to be open with respect to providing the documentation. We've strengthened the requirements for documentation. And we've monitor -- and we monitor -- we sample reports and audit, for example, whether we believe from a headquarter's perspective the regions are doing a job with respect to documenting the basis for the significance determination and inspection reports. And based on those audits we recognize we need to do a better job. Okay?

DR. APOSTOLAKIS: So do you have any doubts now that we'll the time until 11:30?

MR. JOHNSON: I'm losing them.

MR. PASCARELLI: Okay. The next slide is the first of two slides that I want to show on the assessment process.

Before I start on this slide right here,

this slide reflects -- well, it reflects an assessment cycle of four quarters. And right now we're currently in the process of an assessment cycle with three quarters because we're in a transition cycle.

One of the things that we have with respect to the ROP, is we really have three different types of years. Of course, you have the calendar year, you've got the fiscal year, you've got the ROP year; all of which start on different time frames. So what we've done -- and more importantly what we've done, the reason we've done this is more to more evenly distribute the workload amongst the regions. And we're in the process of transitioning right now, but when all is said and done, we'll have the ROP assessment cycle will be lined up with the calendar year. So that will begin on January 1st will be the third ROP cycle will begin then.

And going on to this slide, as you can see, we've got two inputs into the assessment process; the first being the ongoing inspection results, which have a final color and have gone through the SDP in combination with the PIs, which are submittal quarterly by licensees.

And then --

DR. SHACK: Just a question.

MR. PASCARELLI: Yes.

DR. SHACK: What is the time frame in coming to that SDP resolution? What are we typically looking at here?

MR. JOHNSON: Actually, Chris, you probably have those numbers at your fingertips better than I do.

MR. NOLAN: I'm Chris Nolan, Enforcement Specialists with the Office of Enforcement.

Right now with our greater than green findings we're trending, you know, the average time limits of those. And if you use the exit date of the inspection as the start date for our assessment period, the average time is similar between 90 and 100 days for all cases. So, that's the short answer.

MR. PASCARELLI: Okay. And the inspection results and the PIs, they are combined in the action matrix independent of any nexus between the issues, they're combined in the action matrix. And as a result of that, we have certain review meetings and certain correspondence that goes along with that.

During the first and third ROP quarters of the annual assessment cycle we do quarterly meeting. And if any assessment inputs or any thresholds are tripped by PIs or inspection findings, we send out an

assessment follow up letter. Again, a majority of plants have not been getting these quarterly letters.

Half way through the cycle we do the mid-cycle review. And we sent out a mid-cycle letter within 3 weeks of the end of the meetings. And that has an inspection plan which overlaps with the next assessment letter that every plant will get, such that the licensee will always have a current inspection plan.

And, again, every year we do an end cycle review. And also in concert with the end of cycle review, we do an end of cycle summary meeting in which senior agency management talks with senior regional management. And they talk about the performance of certain plants. And the criteria was basically it had to be in the greater cornerstone column of the action matrix or to the right or they had to have this substantive crosscutting issues, ongoing substantive crosscutting issues concern by the regions and we discussed that if they met that criteria.

And, again, just like the mid-cycle review, we send out a letter with an inspection plan that will overlap with the mid-cycle review, the next mid-cycle review.

And every year every plant gets a public

meeting in the vicinity of the site with the licensee. And we have varying levels of public participation in this meeting, but each plant gets a public meeting. And right now the regions have been conducting them, and they are probably close to finishing all the plants.

And then of course, as Mike had talked about, we have Agency Action Review Meeting and then we have a Commission brief on the Agency Action Review Meeting. And this year we have a brief not only in the Agency Action Review Meeting but on the ROP on the 19th and 20th of July.

DR. SHACK: And when do the website results get updated? That's right after the SDP is done?

MR. JOHNSON: The website gets updated -- and I'm looking around for my IT guy whose going to yell at me if I get this wrong.

We update the website -- licensees report their PIs three weeks after the end of the quarter. And I'm told that by the second Thursday following that time, we update the website with the PI result. At that time we also update, do the regular update of any of the inspection findings that have occurred since the last time we did the update.

Now, with respect to a SDP result that happens between the quarter, do we do that at the same time, Ron? We do that at the same time. We make the update at the time that it occurs.

RON: Anytime a threshold is crossed, we update the website.

MR. JOHNSON: Okay. Ron is not on a microphone. So the answer is that we do the update anytime a threshold -- any time we get that final result, we won't wait for the end of quarter, we'll do it real time.

MR. PASCARELLI: Right. What happens is the regions notifies our branch, they go in and they update the PIM, and then we rerun the web page such that it'll show that color on the web page. And also we update the action matrix summary to reflect any changes in that plant's performance, whether it moves a column or not, as necessary.

Moving on to the next slide, again as you can see if you look down here, this is a little more detailed than the previous slide. But, again as you can see, we start with inspection findings and PIs again. And combine them again in the action matrix to determine overall licensee performance. And then we have two thing that come out of that; agency response

and communications.

And I want to throw this slide up here.

DR. APOSTOLAKIS: We have four inputs into the SDP, right? The risk informed baseline inspections are what is done routinely, correct?

MR. PASCARELLI: Right.

DR. APOSTOLAKIS: And these are done how often again? Every quarter?

MR. PASCARELLI: How often are the baseline inspection procedures done?

DR. APOSTOLAKIS: Yes, that is continuous?

MR. PASCARELLI: They're done continuously.

DR. APOSTOLAKIS: Continuously. Then I understand that you can have supplemental inspections if you find something?

MR. PASCARELLI: Yes.

DR. APOSTOLAKIS: And then if something big happens, you have a response. The generic safety inspections, where did they come from?

MR. PASCARELLI: The generic safety inspections are things that we inspect. They typically have a temporary instruction number associated with them. We don't do it all that often, it turns out, but when we do them they are to give the agency some

generic look at some performance issue or some potential issue. It could be like a maintenance rule inspection. We did that with a TI. It was the Y2K, we had a TI for Y2K, for example.

DR. APOSTOLAKIS: Oh, I see.

MR. PASCARELLI: Those kinds of inspections. It turns out we don't do a lot of them. We haven't recently done a lot of those kind of inspections. But where we did and they result in performance issues, those would get fed into the action matrix.

DR. APOSTOLAKIS: Now all these are input to the assessment process and there is some output, there are assessment reports and so on. Why isn't there a feedback loop that says from the assessment process, going all the way back down to these -- not far, but maybe the risk informed baseline inspection box and says because everything has been so rosy the last X years, we are not going to do this and this and that in the next cycle. Would that be a reasonable thing to do?

Because one of the things that we got from the stakeholders is that the amount of inspections in some of the plants is higher. I mean, the number of hours, higher than before because these were good

performers and my understanding is that in the past good performance would get less inspections, whereas the new scheme doesn't allow that. And I wonder why it does not.

MR. JOHNSON: Okay. Let me --

DR. APOSTOLAKIS: Is it too soon? I mean, you guys had too many things to deal with and you just didn't think about it, or --

MR. JOHNSON: Oh, no, we thought it.

DR. APOSTOLAKIS: Oh, you thought about it?

MR. JOHNSON: Actually, there is another process that is not on this viewgraph that is a major part of what it is we do, and it's the self-assessment process. And part of that self-assessment process has metrics. And, for example, we look at how well the inspection program is performing, how well various aspects of the assessment program is performing, the SDP. And it's through that kind of program, that self-assessment activity, that we go back and make adjustments to the inspection procedures.

For example, one of the areas that we got feedback on based on internal stakeholders' input and external stakeholders' input, based on our look at the hours that were being charged, for example, and the

results that were being found is the maintenance rule inspection that we had a part of the baseline. And we're making some significant changes to the maintenance rule inspection procedure.

In turns out what we do now is actually -- at least the programmatic pieces of that, are not risk informed. We looked more at licensee implementation on the maintenance than maintenance effectiveness. And so we're revising that procedure to sharpen up its focus and to, in fact, adjust the hours to what we think are more appropriate.

And so there is, separate from this there is this self-assessment of the ROP process that is ongoing that informs the various areas.

DR. APOSTOLAKIS: Have you reduced the number of inspections anywhere yet because they are good performance? Because we haven't heard any like that.

MR. JOHNSON: We are making adjustments to the program, like the maintenance rule inspections, based on the kinds of insights that I described. And we're doing that in other areas, too.

The second part of your question deals with the fact that we have a baseline for everybody.

DR. APOSTOLAKIS: Yes.

MR. JOHNSON: And the good performers who now get more than they used to get and are we trying to do more with, I guess, returning to the old way and--

DR. APOSTOLAKIS: In other words, you do have an extra box that says supplemental inspections for people who are not doing very well in the baseline inspections. Why isn't there another box that says reduced inspections?

MR. JOHNSON: Supplemental reductions.

DR. APOSTOLAKIS: Or supplemental reduction, yes.

MR. JOHNSON: The program as it's designed is --

DR. APOSTOLAKIS: And then it will be really performance based, will it not?

MR. JOHNSON: Yes. The underlying concept was with respect to licensing response band, we're going to allow licensees to respond to management within that response band. We're not going to do more in that response band, but we're certainly going to do what is necessary with respect to the baseline, with respect to the PIs that we choose to get the appropriate insights.

Now, we've had some talk about, you know,

if you were going to look at crosscutting issues, for example, well crosscutting issues may be a way to where you have a plant that is in the green band that has a super PI&R program to find some additional reductions. We've not developed that idea. Right now what we have a baseline and one size fits all, and that's in the near term --

DR. APOSTOLAKIS: Well, that's something to think about, maybe perhaps for the future.

MS. WESTON: Mike, I assume that this additional information you're talking about is in the SECY paper that the members have?

MR. JOHNSON: Yes. Yes.

MS. WESTON: Okay. Just wanted them to know.

MR. LEITCH: Is the baseline inspection primarily the resident inspection? Inspection by the residents?

MR. JOHNSON: There is inspection by the residents that makes up a large percentage of the baseline, but there is also a region based inspection.

MR. LEITCH: That are part of the baseline program?

MR. JOHNSON: As a part of the baseline. Some of in the operation procedures that the residents

do, but also the specialist areas; the health physics and emergency preparedness, you know, physical protection, those are region based inspections largely.

MR. LEITCH: Now, what about inspection of the licensee's corrective action program, is that a baseline inspection?

MR. JOHNSON: That is also a baseline inspection. And the regions can choose how they staff it. The current program, the program that we implemented during the first year had an annual PI&R team inspection. They were typically made up of resident inspectors or region based inspectors. But we tried to get away from folks who are at the site doing that team inspection for that site.

And we're making some adjustments in that procedure to make it more effective also. And there'll be a slight reduction in the number hours. But, yes, it really is sort of a mixture of inspectors region based and resident inspectors.

DR. APOSTOLAKIS: Now, again, and maybe I'm missing something, but something the box enforcement be after the assessment process? You will enforce something without assessing the significance of the findings?

MR. JOHNSON: We actually talked maybe a year and a half ago about where to put that box. And then we stopped showing this graph -- this chart, and I'd sort of forgotten what we talked about, to be honest. But Chris will help I'm sure.

You know, we certainly do the significance and we don't take enforcement until we determine the significance.

DR. APOSTOLAKIS: What is that?

MR. JOHNSON: I apologize. We don't do enforcement until after we've decided the significance of an issue.

DR. APOSTOLAKIS: Excuse me, what did you say? You don't --

MR. JOHNSON: We do not do enforcement until we determine the significance of the issue. And so, for example --

DR. APOSTOLAKIS: But then you don't go to the action matrix?

MR. JOHNSON: And those issues do go to the action matrix, it's just that you may end up taking enforcement even though you have an issue that, for example -- suppose you have an issue that is subject to traditional enforcement. Let's suppose you have an issue where a willful violation, and that

willful violation also results in something that has some real impact on the plant that you can run through the SDP and assign a color to. Well, that issue in terms of the impact to the plant would go through the assessment process and you'd treat that in terms of figuring out what actions you would take. But also you would end up also taking some actions, traditional enforcement action, with respect to that issue.

And so -- and that was sort of the discussion, was do we put this enforcement in the assessment process, do we make it as an agency response? It certainly, however, doesn't happen until you determine the significance of the issue.

Chris, do you have anything to add to that? Did I set --

DR. APOSTOLAKIS: I must say it's not very clear to me why the --

DR. SHACK: Yes, it certainly seems like it ought to be in the agency response box.

DR. APOSTOLAKIS: Which is -- which is -- what is it? Sure. Yes. Yes. It seems to me, yes, that's where it belongs.

MR. JOHNSON: Sure, it could be there. And it certainly is an agency response.

DR. APOSTOLAKIS: But this way, you know--

okay. Go ahead.

MR. NOLAN: Why don't I just elaborate on what Enforcement's view of the situation is, is when we get an issue at a plant there's two things that we need to determine. And the first thing is what is the significance of the issue, and that's what the SDP process does. That tells us how important that issue was to the performance of the plant and the protection of the health and safety of -- the second thing is whether or not a violation of regulatory requirements occurred.

And so when we go through the process, those are the two things that we determine. We give it a color; green, white, yellow or red and then we determine whether or not a regulation has been violated. And then we'll give an NCV if it's green or an NOV if it's greater than green.

The role of the NOV is ensuring that the licensees take corrective action and restore compliance.

The role of the colors communicating what the significance is.

Assessment occurs after those two things have been completed. Because what assessment does is it's what is the agency's reaction to that finding

after it's been fully characterized. And so you may be confusing significance with assessment. We characterize the significance before we take an enforcement action. Assessment is what follow up inspections and what follow out interactions between the NRC and the licensee occur as a result.

DR. APOSTOLAKIS: And I thought the whole point of the action matrix was to inject rationality into the agency response, which includes enforcement?

MR. JOHNSON: Yes, it does. And Chris reminds me of a point that I maybe have forgotten; and that is, you know, the assessment process is looking at the overall performance of the plant over that four quarter rolling period.

The enforcement process is focused on each individual issues.

So you may have an issue that we determine the significance of, it's an entering argument to the assessment process. We'll take enforcement on it by some rules that we've established, some traditional enforcement or either enforcement, you know, because we've been able to assign a color and so it's an NCV or it's a violation. But in terms of taking -- what the assessment process does is it looks at that issue, but it also looks at all of the other issues that are

ongoing at the same time.

And so that's the difference.

George, to be honest, I could see this box being as a part of the agency response and I could do it that way also.

DR. APOSTOLAKIS: I would be much happier if you did that because it would show that, yes, everything is done in a rational way.

MR. JOHNSON: Yes.

DR. APOSTOLAKIS: And also, of course, if you actually did it that way, too, not just moving the box.

CHAIRMAN SIEBER: I guess I see it a little bit differently though, because all the inputs to significance determination process and the performance indicators relate to the plant and its risk to the public. You could have enforceable things like whistleblower issues that would never show up through significance determinations in terms of CDF and LERF or performance indicators. So you need to have an additional place where you can do enforcement outside of the action matrix as I see it.

DR. APOSTOLAKIS: But then what you're saying, Jack, is that I don't even need to go through the SDP for those things, right?

CHAIRMAN SIEBER: Well, if you --

DR. APOSTOLAKIS: That's what you're saying?

CHAIRMAN SIEBER: If you go through the SDP for a whistleblower thing, how do you evaluate that?

DR. BONACA: We have a number of expect violations which have no significance.

DR. APOSTOLAKIS: No, the whole point of the matrix is to make the agency's response commensurate with the significance.

DR. BONACA: I agree.

DR. APOSTOLAKIS: And the other thing is, you see, I guess you don't take any enforcement actions if the performance indicators are funny. You see, the arrow doesn't include those.

MR. JOHNSON: That's right. That's right. There's no enforcement you would take if you had scrams, 3.1 scrams.

DR. BONACA: But I think that I was trying to say is that there is a need still for compliance. For example, you could have a number of cases in each violated aspect and it is not significant. Well, and what I'm saying if you saw a trend, for example, and you have four events like that, then that would -- if

you do not have enforcement --

DR. APOSTOLAKIS: Well, no, I didn't say don't have it.

DR. BONACA: No, I'm saying --

DR. APOSTOLAKIS: I said put it somewhere else.

DR. BONACA: Yes.

DR. APOSTOLAKIS: There's a difference.

DR. BONACA: There's still a need to adherence to whatever the requirements may be, even if some of them turn out to be --

DR. APOSTOLAKIS: And that can be a proper response under the box agency response. Because you're still evaluate the safety significance of these violations. I mean, you're not going to shut them down, for example, if it's not very significant.

MR. JOHNSON: Right. We have a process. We actually have this laid out I think fairly well in a couple of places. One is NO 610 STAR, which is the documentation direction guidance for our inspectors. But also the enforcement policy, they're written to be in conjunction -- to work in conjunction with each other.

But the process is if an inspector has a finding and that finding can be -- can -- may or may

not be a violation of some regulatory requirement, you know, you enter those 062 STAR which has -- one set of questions called the group -- and we refer to them as the group 1 questions. And that helps us answer whether the issue is more than minor. If you the issue is more than minor, then you advance. If it's not, then we don't even document it even if it's a violation of regulatory requirement.

If it's more than minor, then we ask ourselves -- we've got some questions that basically are intended to help us get to the fact that whether there's an SDP to address it. If there's an SDP, you ought to run it through that SDP and figure out its significance and colorize it. And then we've got rules with how you deal with it if it's actually also a violation of some regulatory requirement so it fits.

If it's not, it's greater than minor and if you can't run it through an SDP, then we look -- there are a third group of questions which are some exceptions. And that's where, you know, I started off early on in the talk I talked about these no color findings. And we find out that you get some issues like that where perhaps you had someone who didn't follow a procedure, so it's greater than minor, but actually didn't have any impact. The equipment still

worked. The tests, you know, the post-maintenance test was conducted and the equipment worked fine or something. So you got this group three question that's out there that's a violation of regulatory requirement and what do you do with it? And so that's the no color findings.

But actually I guess the point I'm trying to make is that we treat all of these issues, regardless of whether they are a violation of some regulatory requirements or not, through this process and they bounce out at various points. And where they end up really depends on whether you've been able to colorize them and take them into the assessment process or whether in fact they were subject to some traditional enforcement, perhaps, but they didn't have an impact that would have gotten you to a point where you would have had some result that would have been greater than green, for example. You'd still end up taking enforcement on those items. That's the placement.

We simply use this as a presentation tool. And we use it a management directive -- a draft management directive that we have written at the high level to try to explain the process. We really do, though, we treat this as an action, a response like we

treat those other --

MR. ROSEN: George, what's come up here is interesting to me, because we're talking about things that effect safety at the plant but don't show up in CDF or LERF, and that's because it's not in the PRA. And to me, you know, some of the things that were mentioned here like whistleblower issues or tech spec violations, and things like that go into the safety culture at the plant, and they certainly effect the safety. But that's not in the PRA, so it's not CDF or LERF, so it doesn't show up in the significance determination process.

So you need to have a vehicle to reflect that, because that's really important to the safety of the plant because it builds into the safety culture.

DR. APOSTOLAKIS: And I agree.

DR. KRESS: But I think George's point was why does the arrow for that come out of the significant determination box.

DR. APOSTOLAKIS: Yes. What you just said argues for the arrow being removed.

DR. KRESS: Yes.

DR. APOSTOLAKIS: And going somewhere else.

MR. LEITCH: Well, isn't it true that this

chart is accurate but perhaps not complete? Aren't there other ways to get to the box that says enforcement that are not depicted on this chart?

MR. JOHNSON: Yes.

DR. APOSTOLAKIS: Yes. It seems to me that all the -- I mean, the box that says agency response should have all the responses from the agency. And what leads to that may be different things. Like cultural issues, SDP results, PI results. But right now it's not clear to me why this arrow from the SDP to the enforcement box is meaningful. I mean, from the discussion I would move enforcement under agency response, and then I would make sure that maybe some of the arrows from the four boxes at the bottom go directly to the agency response. I don't know. They don't go through the assessment process. I don't know.

MR. JOHNSON: No. Well, actually --

DR. APOSTOLAKIS: Although actually theoretically all of them should go through the assessment process.

MR. JOHNSON: Yes. Yes.

DR. APOSTOLAKIS: Because that's the whole point of the revised oversight process.

MR. JOHNSON: Right. That's right.

DR. APOSTOLAKIS: To --

MR. JOHNSON: So what you don't want is our inputs, you know, other things that we're considering in this agency response that are outside of the assessment process that have, in fact --

DR. APOSTOLAKIS: That's right.

MR. JOHNSON: -- having gone through some look at the threshold for significance as an input to the assessment process.

DR. APOSTOLAKIS: So maybe some of them don't go through the SDP?

MR. JOHNSON: Well --

DR. APOSTOLAKIS: I mean, cultural issues.

MR. JOHNSON: Well, let me talk about cultural issues. I was actually hoping we would get further along in the presentation before we had to talk about safety culture or safety conscious work environment.

But you'll remember, because we've talked about this in previous discussions with ACRS, that the way we treat the crosscutting issues is that the evidence that a plant has problems with respect to their crosscutting issues is that they will reflect themselves in issues, individual issues that end up, you know, crossing thresholds or in significance that is greater than green as an input to the assessment

process.

DR. APOSTOLAKIS: And this is what the ACRS has done many times in untested hypotheses.

MR. JOHNSON: Right. So -- oh, yes.

DR. APOSTOLAKIS: You remember those words?

MR. JOHNSON: But it's that -- and so it's the collection of issues that end up in the assessment process, we believe, that points to a problem with respect to these things that are crosscutting issues. And so that's why you don't see an arrow that says crosscutting issues here. The crosscutting issues are reflected here, not up here.

DR. APOSTOLAKIS: I understand.

MR. JOHNSON: Okay.

DR. APOSTOLAKIS: Time to move on, perhaps?

MR. JOHNSON: Okay. Good.

MR. PASCARELLI: Moving on out of the assessment process into the agency response block, we have management conference, which consists of a few different things, that being regulatory performance meetings. And the regulatory performance meetings are talked about in the action matrix, which we'll get to in a few minutes, but basically it consists of a

discussion with the licensee after the supplemental inspection procedure has been completed and ensure that the licensee and the agency has a calm understanding of the causes of that performance deficiency. And that may or may not be a public meeting based upon overall licensee performance. And we talk about that in special chapter 0305.

Also again we talked about before as we have an annual public meeting at every plant, regardless of licensee performance. We just changed the level of regional manager that conducts that meeting or chairs that meeting based again, upon overall licensee performance. And I'll show that in the action matrix when we get to that.

NRC inspections, you see there's a feedback loop again to supplemental inspections. And additional regulatory actions, which as you'll see in the action matrix, consists of things that are for plants that are in the multiple/repetitive degraded cornerstone.

On the other side coming out of the action matrix, as you can see, we've got a communications block. And we have press releases. And, you know, press releases announce regulatory conferences. For example, if we have an issue that's going to be --

that would preliminarily be determined to be greater than green, we will ask the licensee if they want to hold a regulatory conference. And we'll do that by a choice letter, what we call a choice letter. And we'll have a press release announcing that regulatory conference if the licensee chooses to have that.

And the rest of the communications are only to show -- you threw out the web page, and I know you've all seen this before, but I want to show you where the different links are that show how you can get this other information.

Throw this up here. Don't want to go too high here. You can see it at the top. That's our link from the action matrix summary, it links right on to here. And what'll it say is the most current performance plan, this is the column that they're in.

Thanks for the finger, Mike. Right at the top.

That will show that, and we'll update that at least every quarter. And, you know, as we have inspection findings that come in and finalize if they change the column, we'll update the action matrix summary and this will automatically update.

DR. APOSTOLAKIS: Is any other industry doing this?

MR. JOHNSON: In terms of performance on the external web, for example?

DR. APOSTOLAKIS: I mean, if I go to the FAA website, am I going to find out what the 757s of United Airlines are doing so I would know what flights to take? Are we unique in this way publishing everything? Does anybody know whether any other industry is doing this? It's incredible. Anyway, let's go on.

MR. JOHNSON: I don't know.

MR. PASCARELLI: As you can see, you know, we've got performance indicators and if you click on the performance indicators, you know, you click on it, you can see the graph that shows where they are for the last year, and any comments that the licensee had in reporting those performance indicators.

Again, underneath most significant inspection findings, and that's the key word is "most significant," because underneath some of these they may have green findings underneath there or here, but it's that most significant inspection finding for that quarter and that cornerstone.

DR. APOSTOLAKIS: See this is another thing now. I mean, this is a well thought out process and so on. And then we have things like green means

one thing for performance indicators and another for the inspection. Why? Why don't we use another color, like you do here? And say no findings is grey and green means something else, right?

Because it does mean different things, doesn't it?

MR. JOHNSON: Well, it's basically --

DR. APOSTOLAKIS: For performance indicator it means that you are fine. But for the other, for the inspections --

DR. BONACA: It's not as good.

DR. APOSTOLAKIS: It's not as good, exactly. It's not as good. Yes. If you find nothing, then they say no finding. They don't say green. Green means that they find something, but it was not bad. Green was not important. Not important. And why should one color mean two different things in the same process? Change it. Make any difference?

MR. JOHNSON: Well, we have -- actually we have -- we have periodic meetings, counterpart meetings with the regional division directors that are from the division of reactor safety and the division of reactor projects. And interestingly enough one of the topics that we had for our last meeting with them was exactly this issue, George. It was to talk about

how we define each of the colors. Because there is something going -- different going on with respect to a green PI then perhaps with respect to a green inspection finding in that green is as good as you get with respect to performance indicators.

In other words, if you have zero scrams per 7000 critical hours, you have -- you're not going to get any better than a green. Now if you have a green inspection finding, that's the evidence of an issue, even though it may be a very low risk significance that we expect the licensee to put in a corrective action program and to do something with.

And so it's trying to explain that difference in sort of a common way that is the challenge. And we continue to work on it.

DR. APOSTOLAKIS: But it does take you to the same entry of the action matrix.

MR. JOHNSON: It takes you to the same entry in the action matrix.

DR. APOSTOLAKIS: And that shouldn't be right.

MR. JOHNSON: Basically they all end up -- but they're all in the licensing response band, and that's what we're trying to figure out. Whether a licensee has zero scrams for 7000 critical hours or

three scrams for 7000 critical hours, whether we have one green or ten greens, or 15 greens, they're still in the licensing response band. That's what the action matrix is built on.

DR. APOSTOLAKIS: So you don't think that we should try to find a different color?

MR. JOHNSON: Right.

DR. APOSTOLAKIS: You do have a different color, Mike. Look at this slide.

MR. JOHNSON: We actually have four colors. One is grey.

DR. APOSTOLAKIS: Then why don't you don't use grey then?

MR. JOHNSON: And the grey color simply reflects that we went out and did inspection and we didn't have any findings.

DR. APOSTOLAKIS: I understand about it. The action matrix doesn't allow for grays.

MR. JOHNSON: Well, grey is licensee response band. That means we looked --

DR. APOSTOLAKIS: It doesn't show up on the website.

MR. JOHNSON: We did a risk informed look and we didn't find anything.

MR. PASCARELLI: And I would categorize

anything that we do as grey. That just happens to be the color that we chose because we had to choose a color to show on the web page here.

DR. APOSTOLAKIS: But you didn't use green, see, that's the thing. It's what you didn't do that's important.

MR. JOHNSON: You're saying that we could make those green --

DR. APOSTOLAKIS: Or you could use grey and call it grey.

MR. JOHNSON: Okay. I understand. We are thinking about this.

DR. APOSTOLAKIS: What really makes -- I mean, what the wrinkle is is to see whether the action matrix is really different -- would have different inputs.

MR. JOHNSON: The action matrix I think would be the same, you know. Regardless of whether you're talking about an inspection, the situation where you did a risk informed inspection and didn't find anything --

DR. APOSTOLAKIS: Ah, but if your action matrix included an item there that said reduce the number of inspection next time, then the grey would make a difference.

MR. JOHNSON: Ah, okay. I understand.

DR. APOSTOLAKIS: The grey would make a difference.

MR. JOHNSON: I understand.

DR. APOSTOLAKIS: But right now the action matrix can only make things worse, so grey doesn't matter.

CHAIRMAN SIEBER: Well, I guess this is why in the objective they said improved consistency as opposed to achieved consistency.

MR. ROSEN: You could have a category of gold for reduced inspections.

DR. APOSTOLAKIS: Yes, instead of grey it would be gold.

I don't see why it shouldn't be. I mean, I really think you ought to have something like that as part of the action. I mean, that's truly performance based then, right?

CHAIRMAN SIEBER: Well, if it gets too complex, then it becomes harder for the public to understand what's going on.

DR. APOSTOLAKIS: Well, the public's already complaining anyway. I saw some people complain that the communications is not understandable.

MR. PASCARELLI: We did quite a bit of complaints about no color findings, and that's one of the reasons that we took some actions in addressing no color findings is the public just didn't know what it meant.

DR. APOSTOLAKIS: So what color are you going to use for no color findings?

MR. PASCARELLI: Invisible.

MR. JOHNSON: Green. George, green. We're looking at -- that was my earlier discussion to say that we actually -- if you think about what a green is with respect to a finding, a green is simply a finding that the licensee ought to do something with. It's in the licensee response band. So if it's more than minor but it's not a white finding and we're going to document it, that's something that meets the definition of being in the licensee response band. So we think we ought to call those green.

Now, we've gotten a fairly wide consensus view from inside the agency that that's the right thing to do. We in our next NRC industry working group meeting we're going to talk about that with the industry and get their perspective it. We talked about it a little bit at the external workshop.

The reason why this issue might be an

issue of interest to the industry is, as you know, plants don't just care about -- licensees don't just care about the number of whites, they also care about the number of greens. And there is a perspective that says that even though we're not doing anything with the action matrix with respect to greens, the more greens you have the worse it is. And so there really is an effort on the part of some licensees to even have not just zero whites, but to have zero greens.

DR. APOSTOLAKIS: This licensee here is not doing very well when it comes to mitigating systems, right? It's all green. Four boxes of green.

See, that's the thing. It's not doing well.

MR. JOHNSON: That plant's doing fine. That plant is in the licensee response band with respect to mitigating systems.

DR. APOSTOLAKIS: I know.

MR. JOHNSON: Which is as good as you get with respect to --

DR. APOSTOLAKIS: But if I look at the picture now, you know, I'm wondering why they have four greens and they're mitigating and everywhere else they have grays. See, that's the problem with this.

MR. PASCARELLI: Part of the reason is the

majority of our inspection is in the mitigating systems area, so there's more of an opportunity to look.

So if you look at plants, unaware of any plant, the majority of their inspection findings would be in mitigating systems in most cases.

MR. JOHNSON: Okay.

MR. PASCARELLI: Okay. And we also wanted to show here -- I can't see it that well with the glare here. But assessment reports with inspection plans, as you'll see right here, starting being the ROP, the first quarter of the ROP was second quarter 2000. And for plants that had thresholds that were tripped, you'd see an assessment fall off underneath here.

Third quarter 2000 is where we did the mid-cycle review and every plant would have an assessment letter there.

Fourth quarter is like just second quarter, again. You'd have a fall off letter if thresholds were crossed. And for every plant in first quarter 2001, which is our most current assessment of licensee performance for all plants, you'd have the annual assessment letter.

And there's another way here to get to the

inspectional report. You can click on inspectional reports, you'll have the inspection report numbers just listed in numerical order. That's one way to get there.

If, for example, another way to get there if you're interested in what was this finding, say this white finding right here, you click on this and it would show up. And basically what would be there would be the PIM entry, somewhat mildly modified PIM entry. And we discuss he issue at the bottom that would have the inspection report associated with that finding, and you'd click right on there. So if you wanted to get right to this issue, the inspection report, it was captured and you could do that this way.

Again, PI summary, that's just a summary. It's a matrix of forms indicators in plants, the most current color that they have on those performance indicators.

Inspection finding summary is the same thing, except it's inspection findings.

The action matrix summary is a listing of the column that plants are in, whatever action matrix column they're in referenced to each plant.

And plant assessment results, I'm not sure

what that goes to. The top page, the front page, the opening page which lists -- so you can go back from here and click back and you'd be where you could look to another plant, for example.

Okay. Moving on the action matrix, which we've talked about several times, but here it is. As you can see, you start over here. We have a name for each one of these calls. As you can see, we got the licensee response call, which means that they have no greater than green anywhere performance indicators or inspection results.

Regulatory response calls, which is that they have one or two assessment inputs. When I assessment inputs, I mean PIs for inspection findings. And if they have two, they can't be in the same cornerstone.

The middle column here is security cornerstone column, and that is if they have two whites or a yellow in any cornerstone or if they have three whites in a strategic performance area. And the only way that three whites in a strategic performance area would come into play would be in a reactor safety area because they have greater than two cornerstones. The other strategic performance areas you'd degrade a cornerstone with two whites. Usually with three

whites you would certainly degrade a cornerstone.

And then over here we have multiple/repetitive degraded cornerstone column, and that's again multiple yellows, a red or greater than 1 degraded cornerstone at the same time, or what we call a repetitive degraded cornerstone, which is where a licensee has a cornerstone that is currently has been degraded for 5 or more quarters and represents more than one singular issue. For example, they have mitigating system, they keep having problems, they're in this column, they have new issues that come in and they overlap, and just carries on and on. If that is for 5 quarters, then they end up in this column, if they're not already there.

The unacceptable performance column is a column we don't have any criteria to get into, but -- so the licensees can't get into that unacceptable performance column by themself. That is a decision making process made by agency management when the plant gets over here to multiple/repetitive degraded cornerstone column in the action matrix, the decision stage.

DR. APOSTOLAKIS: But even in the multiple/repetitive --

MR. PASCARELLI: Yes.

DR. APOSTOLAKIS: -- they must be doing something wrong or the agency's doing something wrong under degraded cornerstone column, right? Because you have to do -- you have to go to that to get to the multiple degraded cornerstone, don't you? How can you go directly to multiple/repetitive degraded cornerstone column without going through the degraded cornerstone column?

MR. PASCARELLI: You could if you had a red finding, like in the example of IP 2, they had other issues, but you go with one single red issue right to from licensee response --

DR. APOSTOLAKIS: Just with one red you do it?

MR. PASCARELLI: One red.

DR. APOSTOLAKIS: But with the whites and the yellows, you probably have to go through the other one first, right?

MR. PASCARELLI: Most -- most likely. Yes.

MR. JOHNSON: Generally if you're talking about whites or yellows, there's sort of a progression that you would expect to see.

DR. APOSTOLAKIS: Yes.

MR. JOHNSON: Although Bob is right, you

could --

MR. PASCARELLI: If the reds and yellows come in the same quarter and they're over here.

DR. APOSTOLAKIS: Now, let's look at the hypothetical situation. Suppose you had a safety monitor that was without any uncertainty state of knowledge or epistemic uncertainly. When it says core damage frequency is three ten to the minus five, everybody believes it. Okay?

If I had that, I wouldn't need this matrix, would I? Because then the moment you find something, you go to the monitor, you run it through and you see what happens to CDF and LERF, or the cornerstone. If you like the cornerstones, you do that, too. It does that, too.

So my actions would depend then on some delta CDF, delta LERF, delta initiating events, I would have a different matrix, would I not?

MR. JOHNSON: Just from a hypothetical standpoint, I mean I think you're right.

You know, the other thing the action matrix does, though, is remember when we had those other cornerstones. We've got physical protection and--

DR. APOSTOLAKIS: Well, reactor safety.

MR. JOHNSON: Yes. So you're talking about reactor safety.

DR. APOSTOLAKIS: Reactor safety.

DR. KRESS: And some of it based upon inspections.

DR. APOSTOLAKIS: No, but the point is now that if that is the case, then given the fact that my PRA is not as perfect as I just described it, I'm beginning to back off from using the results of the safety monitor to take action and I'm going back to something like this. But shouldn't I still want to see, though, some connection between the ultimate risk matrix and the action matrix. In other words, why -- why are two white inputs or one yellow equivalent to one yellow input?

DR. KRESS: This is the whole issue ahead, George, of shouldn't the plant specific values enter into this somewhere. And that's a way you could enter them into it, because you're looking at the actual plant.

DR. APOSTOLAKIS: At the actual plant. But those who look at the degraded cornerstone column, it says in parenthesis "two white inputs or one yellow." So somebody decided that the risk perspective, those two are equivalent.

DR. KRESS: Yes, right. Which is a judgment call, I think.

DR. APOSTOLAKIS: At this point it's completely judgment.

DR. KRESS: Yes.

DR. SHACK: Well, no. The white and yellow thresholds were set on risk.

DR. KRESS: They were intended to be --

DR. APOSTOLAKIS: No, but two -- two whites are equivalent to one yellow?

MR. ROSEN: In every plant?

DR. KRESS: That's the point, and you know--

DR. APOSTOLAKIS: Yes.

DR. KRESS: It ought to be plant specific, yes. That's a course measure.

DR. APOSTOLAKIS: Again, I don't want to criticize this. I mean, you know, I know this has been a major effort to do thing, you know, in a short period of time. But is that something that we want to think about as part of the continual improvement of the process. You know, maybe it's time to visit -- I'm sure this matrix has been debated among more knowledgeable people and they said "Well, this is a reasonable thing to do." But it seems to me that we

are gaining our experience, a lot of the main blocks are in place, we should start thinking about these things. You know, why are these things equivalent and for all plants.

MR. ROSEN: In a plant with a safety monitor where the safety monitor was showing values that were unacceptable to management, they were going down, it would be because many of the mitigating systems were out of service for longer than they were anticipated to be in the PRA or there were more reliability problems with the safety equipment then were in the PRA. And the management of that plant that had a safety monitor would be taking action, and would have been taking action for some time to correct those indicators and they would be showing up in the PIs dramatically and, hence, showing up in this process quite clearly. So, there is a link.

DR. APOSTOLAKIS: Sure there's a link, yes.

MR. JOHNSON: Yes. And, I mean, George, you remember because I know we talked about how we set thresholds and why we decided that one white and two whites and a cornerstone was about -- or two whites and a cornerstone was about equivalent to a yellow. You know, we looked at white as 1E to the minus 6 and

yellow's 1E to minus 5. And, you know, if you have a couple of whites and you assume some value as sort of 5E to the minus 6. We sort of did some rough stuff and tried to figure where those -- how we would group those issues together. And to be honest, I mean I think -- I think actually from using those kinds of high level judgments in a simplistic way, I think we came out at the right spot.

There are some issues that I do worry about, and we've talked about issues like these concurrent performance issues that have some higher result. You know, it turns out if you have a white and the initiating event cornerstone and you have a white in the mitigating system cornerstone, those aren't the same in the action matrix as if you had both of those whites in the mitigating system cornerstone where you might get the same -- you could combine those theoretically from a risk perspective and get the same bottom line number.

And so there's some things like that going on with the action matrix that I do think we ought to look at as we go forward to continue to make sure that we're coming out in the right spot. But I think this really was a good first steps, and there are linkages.

DR. APOSTOLAKIS: Yes, I never doubted

that.

Now, coming to the earlier comment. When you have in the first column licensee response column all assessment inputs --

MR. JOHNSON: Green.

DR. APOSTOLAKIS: The indicator's cornerstone objectives fully met. Objectives fully met. So there should be there instead of saying regulatory performance meaning regulatory actions none, you know, possibly reduction at baseline inspections could be instead of saying none. Because, again, it appears that the whole exercise can only make things worse when, in fact, you should reward good performance. And it's not unusual. I mean, we used to do that.

MR. JOHNSON: Yes. And I do understand your point. You know, the only difficultly that we have is -- well, I mean, there are a couple of difficulties with respect to consistency and being able to look at doing less than a baseline for plants in the licensee response column. And, you know, they're sort of intuitive.

In fact, one of the reasons why we went away from giving positive findings in the spectrum reports was because it was so difficult to try to

factor those in in a consistent way.

It's really difficult for us to come up with ways to talk about doing less for a plant that is in the licensee response column, and that's why we've started out where we are with this notion that we'll do the baseline, we'll do the look at the baseline, we'll look at the performance indicators and we'll make that baseline have the right sides, if you will, so that we don't an excessive sample at someone who is really good. But in general, we want something that can be implemented from a licensing agency.

MR. SATORIUS: Mike, if I could add to that? Mark Satorius, Inspection Program branch.

The idea that we reduced inspections previously for good performers, we never reduced it beyond what was at that time called the core or the core inspection. And the idea of putting together the baseline was similar nature to the old core. In other words, there's a certain amount of basic inspection that has to be performed at every facility irrespective of performance, and that was where we came up with the baseline. Essentially, it was a drawing forward of the core.

We never took away from core, even from good performers in the past.

DR. APOSTOLAKIS: And I think that makes sense, but I guess the input we are getting from some of the licensees and the feedback we're getting is that it's a little more than just the former core. So that's all you need to do --

MR. SATORIUS: And we're looking at that. That's squarely in front of us to take for action.

DR. APOSTOLAKIS: Sure. Sure.

DR. BONACA: Just a question I had was about unacceptable performance. I mean, you said there are no criteria for that or --

MR. JOHNSON: Yes. Actually I was going to --

DR. BONACA: Is it consistent with predictability and consistency or --

MR. JOHNSON: I was going to embellish on Bob's comment a little bit to say that it's not that there are no criteria. What Bob really was saying was there's no automatic way to turn the crank to get you there. In other words, there's a recipe for getting to degraded cornerstone column, and that is two whites and a cornerstone. Well, there's no set number of whites or yellows or reds that will automatically plot you into the unacceptable performance column. The assessment --

DR. BONACA: But you'll have to exceed, I guess, the results that you will have for multiple/repetitive degraded cornerstone by some degree?

MR. JOHNSON: Yes.

DR. BONACA: And I can understand that. And then --

MR. JOHNSON: And, in fact, we worked long and hard with the industry to try to come up with some criteria that would automatically put you in that column. And we agreed. We had hide agreement between us and the stakeholders that it shouldn't happen automatically.

We do have some criteria, some things that we'll rely on in terms of enabling us to make a judgment with respect to whether a plant is unsatisfactory.

Bob, do you have your --

MR. PASCARELLI: Yes, I do. If you want to me read, we've got three criteria here. And this was some criteria that we used --

MS. WESTON: What's the page, Bob?

MR. PASCARELLI: What's that?

MS. WESTON: You have the implementation plan? The package on your desk, yes, you have it.

DR. BONACA: Oh, this big thing?

MS. WESTON: Yes.

DR. BONACA: SECY 01 --

MS. WESTON: Yes.

MR. JOHNSON: This is actually not in the SECY. Bob's actually reading from inspection manual chapter 0305, and it's on page 14 of 0305.

MR. PASCARELLI: And these are examples that we -- these are examples of unacceptable performance that the agency would look at. And we do this on at least a quarterly basis or as new information becomes available when a plane is in the multiple/repetitive degraded cornerstone column of the action matrix, we say the couple we should be looking at is:

Does the licensee deserve to be -- deserve. Should the licensee be put in the unacceptable performance column because their performance is deemed to be unacceptable. And I'll read that criteria here in a second.

And the second thing is should the licensee be put in the inspection manual chapter 0350 process and shut down. And we've got some examples and how that should be done in an 0305 here.

But the criteria for example of examples

of unacceptable performance are as follows:

Multiple significant violations of the facility's license, technical specifications, regulations or orders. Loss of confidence in the licensee's ability to maintain and operate the facility in accordance with the design basis or a patent or failure of licensee management controls to effective address previous significant concerns to prevent their reoccurrence.

And, again, those are somewhat subjective, but that's the starting point for licensee management to start seeing whether this licensee should be put in that column of the action matrix.

MR. JOHNSON: Now the way we got that is we went back and read the Peach Bottom order, for example. If you go back and read some of the orders the agency's issued with respect to plants that have gotten to the -- have pushed us with respect to making a decision about their -- whether they were unacceptable and whether they ought to be shut down, for example; those are the kinds of words that you see in those kinds of orders.

And so we recognize, and the industry I think, and other external stakeholders recognize that if you've got a plant in this column of the action

matrix, we ought to be looking to make sure that they're not in this column of the action matrix and the kind of things that we'll think about are the kinds of things that Bob read to you.

DR. BONACA: I guess what I was going is that you would want to see some progression or some -- so you wouldn't go from the first column, the licensee response column to unacceptable performance. I mean, you would have some exceeding -- you know, those criteria that you hold -- to some degree under multiple/repetitive degraded cornerstone column. And I think it would be appropriate to have some definition that says you have to be beyond that point in a measurable way, otherwise the words you just read there are, again, vague and they allow a lot of latitude to make a decision, you know, that is not objective. And we're talking about objectivity here.

DR. APOSTOLAKIS: I have one comment here. You know, one of the most -- it's just a comment, not criticism.

When one applies traditional decision in all this, it's one of the most difficult parts is if you have multiple attribute decision problem, like you know one attribute is dollars, the other is life lost or injuries. One of the most difficult parts is to do

the sanity check. In other words, when you say a utility point .7 in deaths and .7 in dollars, then you're indifferent within the two. And then you may find out, you know, that your value of life is $3 million or something like that. And then you stop and think is that something I want to say.

This is a very difficult problem in decision analysis, because you're making these equivalence statements. Here you have done all this but it's very down there somewhere because you're saying that a violation in physical security of this type is equivalent to finding unavailability of mitigating system of this volume.

And I wonder whether anyone has really gone deeper than that and say "Well, gee, does this really make sense?" That would be a good thesis, actually, for somebody.

But these are the kinds of things. I mean, you have really --

DR. KRESS: You'd have to have a pretty good PRA, because that's the only common --

DR. APOSTOLAKIS: But for physical security you don't have PRA.

DR. KRESS: I know, that's the problem. So you can't reduce it to the common measurement.

DR. APOSTOLAKIS: No. Exactly. So how would you do that? But that would be really fascinating to see why they consider when -- because I'm sure these guys come from experience and say well gee, we think --

MR. JOHNSON: Yes, that's exactly how we get them, it's based on experience. This feels like the action that we would have taken, should take at this level and this is appropriate.

MR. ROSEN: One of the key difficulties in the process you describe, which is so very difficult, is that it reveals differences in values.

DR. APOSTOLAKIS: Exactly.

MR. ROSEN: Between the regulated community and the regulator.

DR. APOSTOLAKIS: That's exactly right. But even within the regulated community or within the regulator, after you point out that you are really treating this and that as being equivalent, they might say we'll maybe I don't want to do that. And that's a value of an explicit analysis. But I'm not saying you should do it, but it's really at the heart of decision on multiple --

DR. KRESS: If you really wanted to get consistency, you'd have to do something --

DR. APOSTOLAKIS: Exactly. Exactly.

DR. KRESS: It would be a good objective for somebody to be working towards --

DR. APOSTOLAKIS: Yes. Yes.

MR. JOHNSON: And we've actually committed to in our thinking about making sure that at the back end that the actions that we take are -- do appear to be equivalent, for example, based on the level of degradation of performance in these various cornerstones. But it's one that we've done that will take on -- if we look at it in an ongoing basis, you know, sort of without the more rigorous PRA tool, you know, it really is more based on our experience, based on the insights that we're able to gain based -- as we do these supplemental inspections, for example, to enable us to know whether we've engaged at the right point.

The other point I wanted to make is -- and it goes to the point regarding the predictability of the action matrix. You know, we really did want one of the major thrusts of revising the assessment process to be that we improve the predictability of the process. And, you know, we were really sensitive to external stakeholders' licensees who said, you know, I could go from on one hand being a pretty good

performer to on the other hand being a watchlist plant and having to unbury myself from intense public scrutiny and this onerous burden of the regulator, and it's not clear how I got there.

Well, by the time a plant gets to the unacceptable performance column the engagement that has had to have occurred -- in fact, if you think about it before we would issue an order, we're talking about the RA -- first of all, we're -- in almost all cases we're talking about a single red issue, we're talking about a plant that is in the multiple/repetitive degraded cornerstone or, you know, we're talking about plants that are in that area of the action matrix. But we're also talking about us being able to make the case in accordance with the way in which we issue orders and satisfying OGC and so on and so forth, having the involvement of the EDO, having the involvement of the regional administrator, having the buy-in of the Commission with respect to the fact that that plant is unsatisfactory.

Because unlike the old process where we would issue a watchlist -- put a plant on the watchlist, if a plant ends up on the unacceptable performance column we're saying that we're not going to allow that plant to operate. And we've decided

that that plant's performance is so egregious that we're going to orders them down and we're going to make sure that they stay down until they've adjusted those problems.

So, I really do think we've gone a ways, a long ways towards making sure that the process is more predictable now.

You're right, you could actually have theoretic -- I mean, I haven't thought this through, but theoretically you could end up with the kind of situation like we found at Peach Bottom where you thought the plant was in the licensee response column, maybe they were to the far left of the action matrix, but they end up through something that just is so egregious to us as a regulator that we really think that they need to be shut down to address it -- theoretically I suppose you could have that. Although I think in most cases, for a vast majority of cases, you'll have plants progress through the action matrix to get there.

DR. BONACA: Yes, that's the point I wanted to make is that there has to be some progression there or some compatibility, otherwise the whole assumption of predictability in each one of these categories is just, you know, just disappears.

MR. LEITCH: Could you help me through this a little bit, thinking about the Oconee CRDM cracking issue. And I guess what I'm trying to understand in my own mind is this reactor oversight process looking at safety or looking at regulatory performance?

For example, on the Oconee situation, there'd be nothing in the performance indicators that would have given any indication of the cracking issue. I don't know that they violated any regulations. How would that be dealt with the action -- yet, it seems to me that there is safety significance to that issue.

MR. JOHNSON: Let me just say, I don't have a lot of detailed information about the CRDM cracking issue.

MR. LEITCH: Yes.

MR. JOHNSON: But philosophically what the action matrix does and the way the assessment process works is it works -- it really drives towards performance problems. That is, if it is true, if the CRDM cracking issue was something that happened at Oconee that, and there isn't some tie to some performance issues, something that the licensee did or should have known about --

MR. LEITCH: And for this discussion let's

just assume that was the case. I'm not sure whether that is or not.

MR. JOHNSON: If that is the case and we're talking about an issue that doesn't -- that is not going to play out in terms of an action that we would end up engaging at some increased level based on the assessment process, because the assessment process really is focused on performance issues that the licensee has some responsibility -- some ability to impact.

You know, the Diablo Canyon, you know lightening struck Diablo Canyon. If you have some external event that occurs and could end up in a risk result that is significant, you know, on the orders of an issue that would it be a performance issue, would it be a red if there is no performance issue associated with that; we have an event follow up that we'll do based on the CCDP result. We'll go out and we'll look at the issue, we'll make sure that the plant's doing the right thing with respect to dealing with that issue. But in terms of the performance, the assessment result which really look at performance, performance deficiencies, they'll not show up to that extent in the action matrix.

MR. ROSEN: Graham, I'm glad you said it

was a hypothetically risk significant situation at Oconee. I don't think we've concluded that.

MR. LEITCH: No. I'm just using that as an example to try to understand how that would fit into this process. And I guess what I'm hearing is that would not, really. That's something that's handled outside of this process.

DR. BONACA: Going into the significant determination process you do have events. And you could call an event the results of an inspection. I think that certain things happen. So that would be -- so an inspection is done as it should, they're effective in identifying the leakage, so these are all good positive actions. But there is a certain significance to the finding of circumfrential crack and assume that the significance was high, I guess in the assessment process -- that's another question. I mean, safety versus the regulatory focus. The event would go through the assessment process or would it go -- I --

MR. JOHNSON: Well, yes, let me just talk about that, and then I went to come back to this CRDM cracking issue because there's at least one other thing I needed to tell you about that.

If we have an event at a plant, we've got

an inspection procedure 71153 that basically the resident does some immediate follow up and gathers insights with respect to that particular event to enable us to enter management directive 8.3, which is the incident investigation management directive. And basically what that management directive does is it has us at look at where we can to try to determine the CCDP result, and based on some CCDP result we've got actually a scale that says if you're here, you do a special inspection; if you're here, you'll consider an AIT. If you're here, you do an ITT.

So the agency will respond to events based in a risk informed way, and there are also some deterministic criteria, but in a risk informed way we'll respond to events.

Now, when we go out and do that investigation, if we find performance issues then it's the performance issue that ends up in the assessment process in the action matrix that we'll take action to. Because we want to make sure that those performance issues get addressed in the appropriate way. And we may do some supplemental inspection based on thresholds that are crossed.

There is not a hold with respect to our treatment of CRDM. Now, if -- again, admitting up

front, and I don't know the specifics of the Oconee issue --

MR. LEITCH: Yes, I understand. Right.

MR. JOHNSON: Let's suppose the CRDM issue is one that is significant, but there's not a performance issue associated with it. Cracking, you know some other mechanism other than performance. The licensee could not have known about it, would not have known about it.

MR. LEITCH: Yes.

MR. JOHNSON: It won't be treated in the ROP, wouldn't be treated in the assessment process, but is treated in the generic issues process where we look at is there something about this issue that ought to be treated generically from a regulatory perspective?

And so it's just -- again, it's in the process, it's in a process, it's just not in the assessment process because there weren't performance results, performance related aspects.

MR. LEITCH: Now again, assuming -- and we're assuming this just for purposes of example, that there's no performance issues related to this Oconee. So I would look at the web page, for example, and see all green on the performance indicators and see all no

color on the inspection findings.

MR. JOHNSON: You'll look at an inspection report, you'll see a lengthy discussion -- again, in this hypothetical issue. You'll see what we did with respect to trying to determine the significance and you'll see a description that says even though the CCDP result, hypothetical, was here, there were no performance issues associated with that. And with respect to the assessment process here's how we're treating that issue.

And so, yes, you'd be able to figure out how we were handling that issue.

CHAIRMAN SIEBER: And there would be nothing to prevent writing a confirmatory action letter or something like that that would keep you shutdown until you corrected the nonconforming condition

MR. JOHNSON: There would be nothing wrong with us taking -- again, from a generic issue perspective there could be actions that look very much like these actions that we're talking about from the assessment process to deal with these kinds of issues.

CHAIRMAN SIEBER: Right.

MR. JOHNSON: Generic perspectives.

DR. BONACA: Now these are more different,

for example, if you have a plant that does inspections, which are required, finds nothing and then shortly after has to go back in and check and finds other stuff which questions the quality of the previous inspection. Or in that case you would look like, you know, is it an accident or is it an event. Then truly -- but, again, because the focus really is on the regulatory requirement, which is the one of performing inspections which are effective. And rather than purely on the safety issue of the event, which -- okay.

MR. JOHNSON: Good.

MR. LEITCH: I'd like to basically share with you an impression I have and get your reaction to it.

It seems to me that these categories that are not included in the PRA have -- this process is super sensitive to those; that is that it tends to put more emphasis on those cornerstones than reactor safety cornerstone, emergency preparedness, occupational radiation, public radiation, physical protection. And just as you look at the tabulation here, there are 11 issues in those categories and 7 reactor safety.

And I guess I don't know what all those

issues are, but I do happen to know that those occupational radiation safety issues, those 5 issues that are listed there, three of those are at one plant where no doses were exceeded. As I understand it, even the licensee's administrative limits were not exceeded, but what was exceeded was his ALARA goal for a job.

Now, I'm not dismissing that. Don't misunderstand me there. Important issues. But I'm saying in the whole year three of those 18 things in the whole country, three of those 18 are due to exceeding an ALARA goal, or maybe more precisely it's the management of the ALARA program. I'm not trying to minimize that, don't misunderstand me. I'm just trying to say in my mind it seems as though those categories are -- that is this process is super sensitive to those--

DR. BONACA: That's a very good point you're making. Because, I mean, if you look at the significance, you know, safety significance what you're saying is that you're taxing -- I mean, even that you're looking at -- like, you know, three scrams as being in the green and the reason is that the impact on CDF, it's nil. But also not exceeding your ALARA goals it would be in the same band, it seems to

me. If I had to give it a certain significance.

So it may be I would guess for the old fashioned criteria that you're using in the evaluation, like emergency preparedness and occupational radiation safety there is still a very high -- there is very little flexibility while in the other perimeters in reactor safety you do have more flexibility based on CDF insights.

MR. JOHNSON: These are great questions. To be honest, I don't have a good answer that's going to satisfy you.

You know, in part I can claim that -- you know, from a program officer perspective I don't have the details -- hold on just a second, Bob. Let me do this.

I can claim that I don't have the details that would enable me to understand what's going on with respect to the occupational radiation safety and the three or 11 findings that you talked about. Although I do remember in some in depth conversations with, for example, the region and the region actually felt like those findings were reflective of a broad problem with respect to the performance. And so they thought they were very comfortable with it.

MR. LEITCH: And I agree. I'm not to

minimize those. I'm just saying --

MR. JOHNSON: The numbers, when you look at the numbers --

MR. LEITCH: -- when you get a picture of the whole country for a whole year, isn't that disproportionate? For emergency preparedness test, some of the people didn't show up at a drill in five minutes or whatever --

DR. APOSTOLAKIS: Well, this is related to my earlier comment of equivalence.

MR. LEITCH: Sure. Yes. Right.

DR. APOSTOLAKIS: That's what it is.

CHAIRMAN SIEBER: And, in fact, the situation that you're discussing, Graham, has another implication to it because the violation there, as I understood it, was basically a pretty broad based one which for which they wrote three white findings. And that moves you over to degraded cornerstone.

MR. LEITCH: Yes. Yes.

CHAIRMAN SIEBER: Maybe you could do that anyplace you want. and let's say, you know, you have some function in your plant that's pretty run down, let's enough findings until I move you over in the matrix where I want you.

MR. LEITCH: I just want to emphasize I'm

not trying to downplay the importance of that. But what I'm saying is aren't there other important things in the area of reactor safety that perhaps we have missed? Isn't there just an unbalanced situation there? Because in these other categories we don't have a PRA to look at, but if we did, would those things really take on the same significance that apparently they do in this process?

DR. BONACA: I think the problem is that the areas where you have the ability to quantify through CDR or LERF there was a relaxation of the criteria. And we were surprised by that. I mean, we were surprised about, you know, you mean 8 scrams is not a disaster?

DR. APOSTOLAKIS: If you have 8, you're in trouble.

DR. BONACA: I'm only saying that however we all were surprised by the range --

DR. APOSTOLAKIS: Eight is not good.

DR. BONACA: No, it's not good. But it's green. I mean, it's not --

DR. APOSTOLAKIS: Green?

DR. BONACA: I would have thought that -- no, green. I mean, it would be --

DR. APOSTOLAKIS: It's yellow.

DR. BONACA: -- yellow. No -- whatever they were. Whatever.

DR. APOSTOLAKIS: Whatever.

DR. APOSTOLAKIS: But I'm saying there was a significant relaxation, at least from the impression that we had of what it should have been.

DR. APOSTOLAKIS: Yes.

DR. BONACA: But whatever PRA did not help, we stayed with very stiff criteria, particularly in EP and occupational radiation safety. That's my judgment.

MR. JOHNSON: Yes. I mean, I've got to tell you with respect to EP, we're looking at -- we have planning standards and we're looking at real significant planning standards and then those adjust the planning standards as a way to try to separate -- to dilute the significance of findings.

You should know that we're revising the ALARA SDP I think as a result of the external on workshop in a very good way that has us not looking at collective dose, but us look at instances where an ALARA program has resulted in unintended doses and looking at how much of that unintended dose it is -- was received as a way of gauging the significance of findings. So I think we're moving in the right

direction with the ALARA SDP.

I got to tell you that with respect to the emergency preparedness area, you know, when we set the emergency preparedness PIs and we looked at drill participation and drill performance, two different PIs that are linked, we really didn't anticipate that there would be problems or a number of problems with those performance indicators. But we found problems with respect to those performance indicators and they're problems that licensees recognized that exist and licensees have improved their performance in the EP area based on those performance indicators.

And so, we didn't along the PI table, and I'd be interested in -- in fact, I've got a note for myself to take a look at that also when I get back to see how those stack up. But we found some stuff in the EP area that we didn't anticipate.

We have an ANS reliability performance indicator. And to be honest, we didn't anticipate. I think if we would have asked people around the table if they would have anticipated that you'd have a plant with a yellow on that indicator, everyone would have shook their heads no. But we found that to be the case.

And so I mean I hear what you're saying

and I think we do need to make sure that at the end of the day we step back and look at what's there to make sure that there is this equivalency with respect to how we treat issues, but I think specifically with EP, we really have -- area of performance.

DR. APOSTOLAKIS: That brings to my mind something that Professor Wallis keeps bringing up all the time. We don't seem to bring the community at large into these things. I mean, some professor somewhere in America should be able to have a graduate student look at this thing and work on this. Why doesn't this happen? I mean, these guys should be doing these little details and yet it doesn't happen. In other fields it does.

In the regulatory arena it's almost like a closed society. Because these are a lot of little details. I mean, you're talking about the technical community, Graham, all the time, and it seems to this is where a technical community would be helpful by doing certain things to these things. You know, somebody whose expertise is decision analysis, to look at it from that perspective and do that.

But I don't have an answer myself, but I mean it is true that we are really working on an island.

DR. FORD: I have a question. As Graham's point is a very telling one, I think. I can understand how the ROP is improving the effectiveness and the perception of how you do your regulatory process. But there's no way, as I understand it, that you can predict what will happen in the next fuel cycle or the next year, or whatever it might be, due to environmental degradation, time dependent environmental degradation. And that's going to be the big bug-a-boo, I think, in the whole process.

Where in the NRC is this particular aspect being addressed? I guess that it's bringing in a time dependence into the PRA system, which again I understand is not possible.

DR. APOSTOLAKIS: Well, it is possible. Yes, it is possible. It's not being done, but it's possible.

DR. FORD: Well, yes, shouldn't it be in feedback? I mean, you're talking the CRD and hiding things. You're talking about radiation cracking cause for -- and these things will occur.

DR. APOSTOLAKIS: Yes.

DR. FORD: And so as I understand it the way this system works, the first time it occurs then it will be registered in the system. But what happens

if you have ten CRD inhousings occur in your next fuel cycle, or a 100. If you take each cracking as one event, doesn't that completely put your PRA system into complete chaos?

DR. APOSTOLAKIS: Well, they have the baseline inspection. I mean, not everything depends on the PRA.

MR. JOHNSON: Yes. I mean I think it's not that it's not occurring, it's just that I'm telling you about it in the reactor oversight process because the reactor oversight process you know, looks at safety inspections, inspections that check the licensee's conformance with our regulatory requirements and then evaluates the significance. And so what you're suggesting is, again, it almost sounds like one of those generic concerns that we ought to be worried about, that we ought to get out in front of to make sure that either through -- that we readjusted our requirements or we've built the baseline to focus in on those areas on the front end so that on the back end --

DR. FORD: I guess my question arises, I mean people like Bill and myself have been working in this environmental degradation area for decades. As a part of the industry, we recognize it's needed, but

nothing seems to be being done. And I guess that's my frustration.

DR. APOSTOLAKIS: Well, did you go through the SDP?

CHAIRMAN SIEBER: Well, actually this is not -- handling issues like that is not part of the oversight process.

MR. JOHNSON: That's what I was trying to say.

DR. FORD: Jack, should it not be the logical next thing to be covered?

CHAIRMAN SIEBER: I think it's covered a different way already, which is the generic issues.

DR. APOSTOLAKIS: But they have a box generic inspection.

MR. JOHNSON: But that's the back end.

DR. APOSTOLAKIS: That's a different thing.

MR. JOHNSON: That's what happens when you have the generic issue process say we need a temporary instruction to go out and make sure that the licensee is doing it this way for this system, this component.

DR. APOSTOLAKIS: Right.

DR. SHACK: That's part of the license renewal process to look at aging management programs?

MR. JOHNSON: Yes. When we say inspections, I mean there's the NDE inspection that provides those to find the crack. The baseline inspection we're talking about here is not that kind of inspection.

DR. APOSTOLAKIS: That's right. Yes.

MR. JOHNSON: It's looking at the utilities program to do the NDE inspections. It's a different sort of beast.

DR. FORD: Yes, but if I understand you, the way you're talking about is the license renewal aging management programs are in the license renewal process are completely separate from this ROP, and it shouldn't be completely separate as a kind of administrative process. They should all be jelled together.

DR. APOSTOLAKIS: They're two different things, aren't they?

DR. FORD: I know, and I'm questioning whether they should be different things.

DR. APOSTOLAKIS: I think this process assumes that the plant is licensable and then --

DR. FORD: Yes.

DR. APOSTOLAKIS: -- monitors performance.

DR. FORD: It does.

DR. APOSTOLAKIS: The other one, revisits the issue of license. So they are different things.

CHAIRMAN SIEBER: Or design basis --

DR. APOSTOLAKIS: Yes, the whole thing.

CHAIRMAN SIEBER: -- or the ability of the plant physically to meet the design basis.

DR. APOSTOLAKIS: Right. Right.

CHAIRMAN SIEBER: That's different than licensee performance.

DR. FORD: I'm still getting use to all the different aspects of what -- I'm addressing your particular situation. Here an inspector comes along and he gets a green, or a white, or whatever these colors are, yet there's a certain category where it's associated with degradation, time dependent degradation, shouldn't that suddenly come out as a great big red, a temporary red, say hey we'd better resolve this problem or analyze this problem. And if it is a really of one-off situation, okay, you're dealing with it. But if it's beginning of the leader of fleet aspect, that stays a red, a great big blinking red.

DR. BONACA: Well, the example that I was discussing before about, you know, having inspections which are required and the effectiveness of those,

there may be in the judgment that this process will exercise.

DR. APOSTOLAKIS: But that's not part of event response and generic safety inspection.

DR. BONACA: What it will happen, I mean, because what I mean is that because if you find that those inspections were faulty or not that appropriate as done as before, it would come to a review -- corrective action -- you would simply find that you have that problem there. And then would be resulting into an impact on the -- on the grades, wouldn't it?

DR. APOSTOLAKIS: This is not intended to look at generic issues.

MR. JOHNSON: It's not.

DR. APOSTOLAKIS: This is plant specific.

MR. JOHNSON: Yes.

DR. APOSTOLAKIS: Generic issues are handled elsewhere. This is saying why.

DR. KRESS: This might reveal generic issue.

DR. APOSTOLAKIS: That's right, it might lead you to it.

DR. KRESS: In fact, it might lead you to-

-

DR. APOSTOLAKIS: Exactly. That's it

exactly. And vice versa --

MR. JOHNSON: It's also licensee performance. I mean, it's not looking at design basis.

DR. APOSTOLAKIS: Exactly. It's just performance.

MR. JOHNSON: Exactly.

DR. BONACA: It's looking at performance.

DR. APOSTOLAKIS: And I have two issues that I want to raise before we run out of time. This is a good time, Mr. Chairman?

CHAIRMAN SIEBER: Yes.

DR. APOSTOLAKIS: Okay.

CHAIRMAN SIEBER: In fact, maybe you could give me a little bit of estimate of how much more time it will take to finish.

MR. JOHNSON: I don't know. Bob was going to -- I'm assuming that you don't have any additional questions on the action matrix because we have talked about it to quite an extent.

CHAIRMAN SIEBER: Right.

MR. JOHNSON: We were -- I was going to talk about lessons learned with respect to the assessment process, but you can read the slides and we've talked about some of those issues -- 11:35.

MS. WESTON: So close to 12:30.

CHAIRMAN SIEBER: Well, actually, we have--

DR. APOSTOLAKIS: It doesn't say it goes to 12:30.

CHAIRMAN SIEBER: We have this. What does it say?

MS. WESTON: It goes to 12:30.

CHAIRMAN SIEBER: 12:30. That includes our own discussion.

DR. BONACA: I would like to hear about lessons learned.

CHAIRMAN SIEBER: Well, let me suggest this. George, why don't you ask your questions.

DR. APOSTOLAKIS: Okay.

CHAIRMAN SIEBER: And then we'll take a break, because I think I need to pretty soon.

DR. APOSTOLAKIS: Why don't we take the break now.

CHAIRMAN SIEBER: All right. Let's come back at 20 to 12:00.

(Whereupon, at 11:25 a.m. off the record until 11:42 p.m.)

CHAIRMAN SIEBER: I think we'll resume our discussion here. Unfortunately, Dr. Apostolakis hasn't arrived, but I expect him to.

MS. WESTON: He'll be on his way.

CHAIRMAN SIEBER: What I suggest at this point is go on with lessons learned.

MS. WESTON: Yes. Where is Dr. Bonaca, because he's the one who admitted this. And, actually, me because --

CHAIRMAN SIEBER: I guess if you wanted to read more detail about this, we could look at the SECY paper that was handed out.

MS. WESTON: Yes. I was going to say, you have the SECY paper, the implementation results which is what you're going to be using to address the issues that the SRM requires. I gave you also a copy of the SRM that tells you the kinds of things that the Commission wants you to address, and a letter to the Commission in September.

So, between the SRM and that SECY paper, those are the two pieces you'll be using to write your letter. Okay?

He's here and then Bill got lost looking for you.

CHAIRMAN SIEBER: We still have a quorum, so why don't we go on.

MR. PASCARELLI: Okay. All right. I'll actually start improvement area, because I know that's

of most interest to the members here.

The first issue that we -- in these issues here, at least the first two, we took the external lessons learned workshop, discussed it with the public. And we've committed to taking some sort of actions, and I'll talk about that as we go through it.

But the first issue is historical findings. And historical findings are those findings where we went through the SDP and you come out with a certain color. It goes through the action matrix and we treat it right now as any other finding. However, there's a possibility that some of these findings that are historical where the risk still exists and that the licensee may be taking the appropriate corrective action. They may have already even found this issue themselves.

And where we've struggled a little bit with this is that this actually may represent very good licensee performance where they're going after it, they're addressing it, they're collecting it and then we come and inspect it and find it, and it's a white/yellow, etcetera finding.

And one thing we don't want to do with this process is discourage licensees from going out and aggressively finding these types of problems. So

one of the things we're going to be looking at with these historical issues is is there a certain class or category or findings that maybe we could do something different with, that we could somehow account for that. And that's something that we'll be looking forward to doing here in the near future. As a matter of fact, that's a subject of one of our meetings with NEI, it's a public meeting this Thursday.

No color findings. This is something Mike's touched on a little bit, but some of the problems with no color findings was that the public and some of our other stakeholders have found that these no color findings are difficult to understand. They don't fit into the action matrix anywhere by themselves. And they're difficult to understand.

We have betrayed them on the web initially as blue, and people wanted to know does blue mean. And so there's been a lot of questions revolving around no color findings. And the problem is that the existence of these no color findings may actually undermine the process because of the lack of understanding of these issues.

So, we have looked at a couple of different possibilities of what we're going to do with these no color findings, whether we want to modify the

way we handle these issues to make those issues green, artificially green, or whether we want to minimize these number of issues by auditing the findings that we have. And that's something we're still working on.

Dwell time for inspection findings. Right now we have inspection findings stay on the books irregardless of their color; white, yellow, red, they all stay on the books for four quarters from the time in which the finding was found by the inspector, documented inspection report. Run through the SDP process and go back to the time that it was put in the inspection report and we count it four quarters from that.

And early on, the basis for that, why we picked four quarters, was we thought that that would be somewhat consistent with the manner in which PIs stay on the books for licensees, for the majority of performance indicators.

We talked about this at the internal lessons workshop as to whether this was still something that we should look at changing; should we keep it at four quarters, should there be some graded reset for inspection findings. And what we came up was basically the consensus of the participants at the internal workshop was that it's too early to tell. We

don't have enough findings for that, so we might as well keep it as is for now. But that's certainly something that we should look at for the future.

DR. APOSTOLAKIS: Now, in SECY-010114 you have more as areas that require improvement, and why is that not on these things here?

MR. JOHNSON: We just have --

DR. APOSTOLAKIS: Because some of these are not insignificant. Inspectors concerned of the threshold was too high for documenting findings that could be precursors to more significant issues. They were concerned with how crosscutting issues are addressed in the ROP framework. And a significant percentage of internal stakeholders continue to express concern regarding their ROP's ability to provide the proper identification of declining safety performance in a timely manner. These are pretty significant concerns, aren't they?

MR. JOHNSON: Yes. We could talk about, actually, all of those if you'd like. We were simply -- the ones that Bob is talking about are higher level specific to assessment alone. And do you want to talk about those?

DR. APOSTOLAKIS: Did you read the letter on the risk-based performance indicators?

MR. JOHNSON: I just read it this morning.

DR. APOSTOLAKIS: Because in that report they do have some findings that are relevant to the thresholds. So, if you read it this morning, that's fine.

MR. JOHNSON: Right. I did.

DR. APOSTOLAKIS: We don't have to discuss it today. But that report, it seems to me, has a lot of material that would be useful to you.

And speaking of that report, when we come to the summary of results and actions of SECY on page 7 and 8 under performance indicators you are saying that you have immediate actions, long actions and so on. I was struck by the absence of mention of the risk-based performance indicator program. Why is that?

MR. JOHNSON: Again, the way we built this paper was, if you look at each of the attachments we do we do sort of an exhaustive treatment of all of the feedback and the results of our self-assessments. And we put those in the attachments.

And then what we did for the Commission paper was just sort of try to build an executive summary that picks off the ones that either got the most feedback or raised to the highest level based on

the self-assessment process. And so that's what you see in the Commission paper.

And, again, we're not talking about the exhaustive list of these issues. But, I mean, we can talk some more. If you want to do it now or if you want to do it --

DR. APOSTOLAKIS: I mean, I'm trying to understand because I was a little confused when we had the subcommittee meeting on the risk-based performance indicators as to what the attitude of your group of the guys who are actually running the revised oversight process, what that attitude is towards the risk-based performance indicators. And at that time I thought that you would be happier if the whole project went away.

MR. JOHNSON: No, I --

DR. APOSTOLAKIS: Now was that a wrong impression? And why then isn't it mentioned here?

MR. JOHNSON: Yes, it was -- we tried to-- I remember that discussion that we had with the ACRS on risk-based performance indicators. I guess I was sitting at the side table or maybe in the back.

But we tried to explain that our perspective with respect to risk-based performance indicators and plant specific thresholds really is

that we think that we can improve with respect to both of those. We're looking to -- and we talked a lot about the process, we're adding new PIs.

DR. APOSTOLAKIS: Yes.

MR. JOHNSON: And I remember a discussion about, you know, sort of a play off between PIs and baseline inspections, and those kinds of things.

But, no, that is an issue that we're continuing to work on.

DR. APOSTOLAKIS: They have some very interesting and challenging ideas there, especially regarding the issue of multiple PIs being just green, what do you do? You know, do you define them at the train level or the system level to have more meaningful PIs. All these are very challenging and interesting questions that I think should be very relevant to the ROP.

MR. JOHNSON: Right.

DR. APOSTOLAKIS: But some of the results they have already there show very clearly that the use of generic information to come up with the thresholds for green/white is just not a wise thing to do. And you do get complaints from other people who don't understand the mathematics that the thresholds are a bit too high. And yet I don't hear anybody say we're

going to do something about it.

I mean, all your thresholds are delta CDF based except the green/white. And those now have been shown analytically to be on the high side. And form the practical point of view, your own inspectors are saying "Well, gee, these are high."

MR. JOHNSON: With respect to the inspectors, you know, the message -- you've got to take the message that you hear from inspectors and what we wrote in the paper in context a little bit.

You know, and what we really were talking about in the way referring to what the inspectors told us with respect to PIs and thresholds and the ability of the PIs to verify declining trends, you know, we did a survey in 1999 where we asked inspectors do you believe that PIs and the program will be able to identify declining trends. And I don't remember the exact numbers, but I think around 24 percent of the inspectors thought that the PIs and the program would be able to identify declining trends. About 24 percent.

We did survey, this most recent inspector survey, late last year and early this year. In fact, the results are documented in this Commission paper. And that percentage has doubled. Now more than half

of the inspectors believe that the PIs will be able to identify declining trends of performance based on the fact that they've seen PIs cross thresholds, they've gone out and done supplemental inspections and found underlying performance issues.

DR. APOSTOLAKIS: Is the same as saying that they believe that they are leading indicators?

MR. JOHNSON: Yes.

DR. APOSTOLAKIS: Okay.

MR. JOHNSON: So what I'm telling you is that you're right, there's still -- and that's one of the areas that we're continuing to focus on with respect to the staff's acceptance, if you will, or a belief in this whole concept of thresholds being able to do something based on those thresholds.

It's a good news/bad news story. The good news is hey, we've gone up significantly. The bad news is there -- if you call it bad news -- is that we've got a ways to go.

DR. APOSTOLAKIS: Well, to what extent is your group aware of what research is doing on risk-based performance indicators?

MR. JOHNSON: Very much. We're very much aware. In fact, the guy who I asked to come up to talk, Tom Boyce, is my point of contact with research.

He, in fact, is preparing to put the research -- the staff's response to the ACRS on the letter, on your letter, on risk-based performance indicators.

We will be getting a handout on risk-based performance indicators that represents research's recommendations. So we're very tied in.

DR. APOSTOLAKIS: I mean, the original thresholds, I understand you were doing everything under tremendous pressure. This was one of many things that you had to do something about. The action matrix and this -- so, you know, you did what was reasonable at the time.

MR. JOHNSON: Right.

DR. APOSTOLAKIS: But we have pointed out in the past that there may be a problem there. Then this report from research comes out with numbers that shows that, you know, you really have to be very, very careful when you use generic information. Then your own inspectors say well gee the thresholds must be too high. And yet when you talk about actions, you completely ignore all that. And that's what perplexes me.

MR. JOHNSON: Okay.

DR. APOSTOLAKIS: Now, what you're saying is different from what the report says. I am happy to

hear you. But at some point, it seems to me, we have to revisit that. And I don't see why it's such a big deal. In my mind it's not. I mean, we have information and we can do it. Yes, it has to be plant specific.

MR. JOHNSON: Yes.

DR. APOSTOLAKIS: Like everything else is plant specific.

MR. JOHNSON: Yes. I was just going to say, the report really is focused on the results and the implementation and lessons learned from -- you're talking about the external stakeholders and the internal stakeholders and our self-assessment matrix. And so based on that, these are the actions.

And you're right, I was just looking through the attachment and it turns out we don't call out this risk-based performance indicator development, although it's a clearly a development activity that was a major activity for us.

DR. APOSTOLAKIS: Yes, it's a major activity.

MR. JOHNSON: And we'll have to factor it into the change process.

DR. APOSTOLAKIS: Now, one last question, if I may. There is a mention of an NRC staff concern

regarding potential unintended consequences associated with the unplanned power change of PI and there is also a mention of an industry concern with potential unintended consequences with the scram PIs. Would it be worth spending two or three minutes explaining these?

MR. JOHNSON: Sure, I can talk to them.

The industry concern with respect to the scram PIs is one that I think we've talked about in the past.

DR. APOSTOLAKIS: We have discussed in the past. It's this business of manual --

MR. JOHNSON: That's right. That's exactly right. And it's sort of a longstanding industry concern and it was one that came to the forefront when we got ready to begin initial implementation. And we actually worked with the industry to develop a pilot replacement, a couple of pilot replacements for those performance indicators. We had a pilot program where we ran those performance indicators. That pilot program ended in April.

We issued a regulatory issue summary, which is how we communicated that pilot program to the industry. And in that we had five criteria that we were going to look at to evaluate whether we would go

forward with the replacement performance indicators. We've completed that look. And, in fact, in our last meeting with the industry NRC working group we talked about the results of that. And what we found was the data that you got from the replacement scram indicators was about the same data that you can collect from the ones that use the word scram. That's essentially what was different, is the replacements didn't use the word scram. So they talked about going from criticality to subcritical in less than 15 minutes, and some other things. But it collected essentially the same data.

If you look at sort of the initial event data that we had that enabled us to set thresholds initially, it's about the same as was in that initiating events new reg.

If you look at unintended consequences, you know, we've said are these new replacement PIs going to be less subjective subject to unintended consequences as the ones that we have now? We said, you know, the group we thought probably it was a wash. In fact, maybe the replacement PIs are more subject to unintended consequences because -- I mean, I can almost envision a plant being able to say "Well, you know we've gone through 10 minutes and if I go another

5 minutes, then I don't have to take this hit on this performance indicator."

And so it clearly wasn't better with respect to provided less unintended consequences. But where the real difference was is if you look at the complexity of the definition and what we anticipate in terms of the request for clarification with respect to that particular definition, we think that the replacement performance indicators are worse than the initial performance indicators. And so based on that leaving the NRC initial working group meeting we agreed as a group that when you consider the technical merits of going forward with replacements compared to the previous PIs, it makes sense to stay with the current scram PIs, the current PIs that use the word scram as opposed to going forward.

DR. APOSTOLAKIS: So you will include manual scrams?

MR. JOHNSON: And today we include manual and automatic scrams in that.

DR. APOSTOLAKIS: Right.

MR. JOHNSON: So we talk about --

DR. APOSTOLAKIS: It's interesting, you know, I don't know -- we feel that the industry has these concerned, but I don't know what the industry

is. Because there is a course every summer at MIT and there was a panel discussion with distinguished members and representatives of the industry and it was unanimous that there is no problem there.

MR. JOHNSON: Yes.

DR. APOSTOLAKIS: That the operators will not be effected by the fact that, you know, they will do the same in other words.

MR. JOHNSON: Yes, I agree as far as --

DR. APOSTOLAKIS: And I don't understand what concerns the industry's concern.

MR. JOHNSON: -- scrams are concerned, I don't see --

MR. LEITCH: It happens so quickly that the operator, I think, is going to do what he perceives to be the right thing.

DR. APOSTOLAKIS: That was the unanimous opinion of these people.

MR. LEITCH: And in fact for a long time certain plants have -- utilities have rewarded people in terms of scram interjunction and so forth. Compensation programs. And even with those, we saw no difference in operator reaction to a situation.

DR. APOSTOLAKIS: Right.

MR. LEITCH: And that's hitting his

pocketbook directly. But he just, you know, instinctively does the right thing because you're talking about a very short time. And I think it may be a little difference, though, when you're talking about planned power reductions when you can, you know, there's a lot of things you can do there as far as the 72 hours, can you -- you know, can you wait until a weekend and do something.

DR. APOSTOLAKIS: Yes.

MR. LEITCH: There's a lot more chance to think about it. But I don't know that scrams would have any impact at all.

MR. JOHNSON: In fact, it's the unplanned -- the actual concern with the unplanned power changes PI, I know Don Hickman's been before you in previous presentations and has talked about the concerns. And the concerns really were just what you've said. You know, it's you define this period as 72 hours from the onset of the condition. You talk about the power change being 20 percent. And, in fact, we've found instances where licensees have changed their procedures to not go down 22 percent, to go down 19 percent, for example, or go down 10 percent where they've previously gone down 20 percent to avoid taking a hit. And situations where folks have delayed

that power change for more than 72 to avoid taking a hit.

So we know that performance is changing to avoid taking a hit with respect to that PI, and that's some of our concerns with respect to that PI. And, again, we're working with the industry, this NRC industry working group, public meetings to try to develop a replacement. And when we do, we'll have a pilot. We'll have pilot it. We'll have criteria and we'll evaluate it against the criteria and decide where we go.

MR. ROSEN: There is no question that indicators will change behavior. I don't think anybody disputes that. Now your question is whether the behavior you get is appropriate.

MR. JOHNSON: That's right.

MR. ROSEN: And so you can look at the changes in behavior you get and if they seem okay, then there is no issue.

MR. JOHNSON: That's right. Exactly right.

DR. APOSTOLAKIS: Well, even the statement, though, that indicators will change behavior, I mean I thought that was the whole point. You know, that part of the industry felt that the

operator's performance will not be effected by the fact that manual scrams are part of the indicator. And if that's the case, then -- now when you talk about replacement PI -- I'm sorry, you want to --

MR. ROSEN: I should soften that. I should say indicators may change. They don't always change.

DR. APOSTOLAKIS: Then I agree. The replacement indicators now, these are indicators that you and the industry are working together to develop? And that would include, possibly, a risk-based performance indicators or is that a separate issue?

MR. JOHNSON: Well, that is actually a separate. We actually piloted two performance indicators to replace the two scrams. You know, we have a scrams per 7000 critical hours and then a scrams with loss of normal heat removal. And we piloted two replacements to replace each of those. And what I've said that we don't think that those replacements --

DR. APOSTOLAKIS: So it's a more focused--

MR. JOHNSON: That's right. And the unplanned transients one we're looking at a pilot of maybe one or maybe even two as a possible replacement. So we're going to talk about it some more in the

meeting that we have this Thursday with this working group. But, again, we'll decide whether we go for it.

Risk-based PIs are --

DR. APOSTOLAKIS: Now, my last issue is this crosscutting issue business. I mean, I still don't think we're handling it well. But if you ask me for what's the best way, I don't know myself. But it would nice to see that you guys are a little more sensitive to the issue rather than saying, you know, true safety culture will be reflected on hardware so we don't have to do anything.

I mean, first of all, what if there is full safety culture that you will see in the recovery actions during an accident? You're not going to see anything in the hardware that way. It will effect people's decision making processes during an accident. I don't know that you will have an opportunity to see any of that in normal inspections or performance indicators. And to say we're not going to touch this issue because, you know, somehow it's going to manifest itself in hardware is a little disturbing.

And I repeat, it's not just -- safety culture is such a broad term, it includes everything; you know, the corrective action program and so on. And we are probably the only country, nuclear country

in the world that doesn't seem to worry about it. Everybody else, I guess, doesn't understand it and they do worry about it. And we understand it and we say it's not a problem.

MR. JOHNSON: It's not that we don't worry about it.

DR. APOSTOLAKIS: We just don't want to do anything about it.

MR. JOHNSON: In fact, we have -- you know, if you look at the PI&R inspection procedure and the hours that we devote to PI&R, and I was trying to remember if I could come up with a number that would give you a feel for how much inspection we do in that area, and I can't. But I would tell you that the single most inspection that -- the PI&R inspection, the hours associated with that are larger than the hours that we put on any other aspect of the program. We do -- today we set aside 10 percent of our hours in any baseline inspection procedure to look at the PI&R, problem indication and resolution aspect of that sample that is being sampled.

We have a team inspection, 210 hours now going to 240 hours that we do every hour, going to every 2 years. I'm looking at PI&R and one of the things we sample in PI&R is safety conscious work

environment to try to get a feel for what that is.

DR. APOSTOLAKIS: How do you do that? I mean --

MR. JOHNSON: And it's very difficult.

DR. APOSTOLAKIS: I know it's difficult.

MR. JOHNSON: But let me just say that we do it, and make that point and then maybe I can come back to address the other issue or the question that you're raising.

We're adding for the first time 60 hours per hour to allow the regions to do a focus sample to look at specific issues, to dwell down and see why or when the licensee found it and why they didn't find it sooner and, you know, what are recurring issues that indicate that there are some problem.

We spend in the baseline a significant amount of resources and a focused effort looking at PI&Rs a crosscutting issue. But what we do is, and we do this at the direction that we got from the Commission. The Commission told us two things with respect to crosscutting issues, and specifically PI&R. One of the things they said was, and I remember Commissioner Diaz saying this because I briefed him and he's sitting across the table from me. He said that we need to make sure that the industry is clear,

the external stakeholders are clear with respect to the importance that we place on these crosscutting issues and PI&R, specifically. The corrective action programs, talking about corrective action programs are a central part of what -- of a licensee's activities in maintaining safety performance. And almost those exact words.

But the Commission also told us that having said that, before we take action, before we take significant regulatory action that we ought to make sure that those actions are based on in response to -- in response to issues that have cross thresholds in terms of performance indicators, in terms of inspection findings. So the Commission sort of mapped out for us where we stand with respect to our treatment of crosscutting issues. It's don't jump to programmatic unless you can point to issues, but programmatic, problem identification and the resolution is important.

And so what we do today is we talk about in these letters about -- talking about the in-cycle and the mid-cycle letter and the annual performance letter -- we talk about substantial crosscutting issues. I mean, we've raised the issue, we document it, we engage with licensees, if you will. But, again,

it goes back to the -- if you look at the action matrix you don't see a color or a --

DR. APOSTOLAKIS: I understand. So my suspicion all along that the inspection program does worry about things like that has always worried about things like that?

MR. JOHNSON: Yes.

DR. APOSTOLAKIS: But at the same time the official position of the agency is that that's the licensee's responsibility and we really don't want to get involved.

MR. JOHNSON: Well --

DR. APOSTOLAKIS: I mean, I find that a little bit, you know, inconsistent. And I would like to see a better -- I mean, we try. We had a senior fellow look at safety culture. I mean, it's a subject that is not really very well understood. I think that was one of the few conclusions that everybody agreed to.

And so whatever you do now or have been doing for a while, I'm sure is based not on am empirical knowledge rather than a more systematic way.

MR. JOHNSON: And I would add, we haven't declared victory on this issue. I don't want to leave you with that impression.

We have a focus group, an internal focus group that is this crosscutting issues focus group. And one of the things they have on their plate is to try to work internally but also with external stakeholders to develop an objective way to evaluate licensee's PI&R processes; the thinking being if we could find some subjective way, if we can -- for example, and if we can work with industry to do this.

If, for example, the industry -- and we try to do some early exchanges with INPO to have them develop a criteria, if you will, for what is the corrective -- what are the attributes of an adequate corrective action program. You know, if there were some way to, first of all, have that on the front end but also have an objective way either in terms of looking at what's in the population, you know, in a risk informed way and some objective way to measure the program, then we'd have a way to be able to build that into the process, in a structured way build that into the action matrix so that it plays along with PIs and inspection findings to give us direct insights.

And so, I mean, we're continuing to work that.

MR. LEITCH: And the licensees probably all have ways, maybe not a uniform way, but they all

have their own ways of accessing the effect of the corrective action programs. And there is some very significant performance indicators like backlog and age and ratio of self-revealing items to near miss kind of things. And there's some very telling things that can happen --

DR. BONACA: Absolutely.

MR. LEITCH: -- in a correction program.

DR. BONACA: In addition to that we have commented to them about the significance of the examination process that, for example, does not focus at all on repeat events or repeat failures. And so there has been a reluctance, I believe, in considering some elements of crosscutting issues. Again, it still bothers me the idea that every time you have something happen and then you perform a significant determination, in total you neglect the possibility that it has been repeated twice or three times -- that's a typical thing that you look at in a plant because it tells you about the culture of the plant. And yet here you have an opportunity that was missed, in my judgment, because I mean you do perform a significant determination evaluation and then why not proceed under that also repeats as significant.

DR. APOSTOLAKIS: I think it's, you know,

this perception that normally the agency's just talking about in investigating something, regulations are bound to come six months later. And there's a lot of coolness towards investigating these things. But it seems to me there's a lot of room for improvement there.

MR. ROSEN: George, a couple of points, if I may.

First of all, I'm a little bit concerned about what I perceive as your equation of safely culture with PI&R programs. In my view, while PI&R programs are crucial and important parts of the safety culture, it's not the whole story.

MR. JOHNSON: Yes, I didn't mean to lump them together.

With respect to the framework, in terms of the crosscutting issues we talk about performance. We talk about safety conscious work environment. And there's a piece of that that sounds a lot like safety culture. And then we talk about problem identification resolution. So there are three, and they are separate, they have some interplay, but I didn't mean to imply that I was lumping PI&R under safety culture.

MR. ROSEN: Well, PI&R that is the

corrective action program at a plant is an important part of the safety culture. I agree with that. I wanted to make sure that I understood that you were not saying it was all -- the whole piece of the safety culture and many other things effect the plant's safety culture beyond PI&R. And a plant that has a good safety culture, in my view, can go to people in the plant and they understand what's important about what controls risk at the plant, and what they do in their jobs that effects risk. And that's another big piece of the safety culture. You know, that you don't measure now and I think needs to be thought about.

And one other point -- I'm a little bit tangent here -- that is you talked about corrective action programs and thinking about coming up with appropriate guidance for them. Well, I think that exists. I think the INPO performance objectives and criteria, and other INPO documents, give pretty good guidance to corrective action programs in the industry.

MR. JOHNSON: And they do, they give guidance or really principles, but they're not at a level that we would use them -- be attempting to use them in terms of -- I'm thinking criteria in terms of inspection criteria, sort of low level, you know. And

the things in the INPO guidance now are really principles of high level fancy.

You know, let me just make the point to remind us of where we used to be in terms of helping us understand why we haven't gone perhaps as far as you think we ought to go yet. And that is, remember-- remember the criticism that got us onto the reactor oversight process, and it was -- the Commission was talking about the fact that subjectivity, for example, shouldn't be a central part of any process. And the old process which did talk a lot about safety culture, right, remember. We talked about the watchlist and why plants were there, and you could read all kinds of stuff about the safety culture and the licensee's willingness to take on problems, and all of that stuff. It was in that other process that was based on good insights, based on our judgment. But they really were insights based on judgments and you couldn't tie them back in an objective way and so you ended up with plant A and plant B maybe coming at it in a different spot.

In this process what we've tried to do is more objective, and so that's the influence that you're seeing. And what you're telling us is, and in fact the inspectors still feel this way. You know,

some external stakeholders still tell us this; that there's not 100 percent degree comfort with respect to where we are and that we do need to continue to work. But it's in that backdrop where we used to be where I think, you know, I've said in previous ACRS briefing, one of the things that happened was -- I mean, when you look at plants that ended up on the watchlist, the worst performers, there was no arguing that they had problems with safety performance and their safety culture, and you could make broad programmatic statements about problems that they had. The problem was with it from our process perspective was we predicated, and we predicated about 15 out of the last 4 of them, you know, we over predict. Every time we saw one of these things, we extrapolated it into therefore this plant should be -- you know, have massive agency oversight. And, again, only a subset of those ended up playing out.

So the bias of the process is to say there's a presumption that if a plant hasn't cross thresholds, we have to make a compelling case to be able to do more based on some programmatic perspective. Because we really do believe that if a plant has significant programmatic problems, it will be reflected in issues that are cross -- if they don't

have an understanding of risk; they'll have difficulty implementing maintenance work, they don't -- if they don't have a culture that finds problems, we'll-- they're have self-revealing things that end up being significant things.

So, that's sort of the philosophy that is different from where we were. It maybe isn't as far as we need to go, but we continue to work on it.

I think Bob was finished.

CHAIRMAN SIEBER: He has another slide, if you want to deal with.

MR. JOHNSON: Sure. It's the actions, I think.

MR. PASCARELLI: Yes, and this is the actions from the improvement area, which we've already discussed.

CHAIRMAN SIEBER: You're going to deal with the things that you thought you needed to do.

MR. PASCARELLI: Right. And these are the actions that were taken to address those three issues.

CHAIRMAN SIEBER: Okay. So this is it.

We have about 15 -- 13 minutes left. What I'd like to do is, perhaps, go around the room and ask folks for any response or opinion with regard to issues that may still remain in the process.

Dr. Ford?

DR. FORD: I have no comments, except praise for this current, the RSP process, I think it's a good process.

CHAIRMAN SIEBER: Okay. Graham?

MR. LEITCH: Well, I have two that, I guess, have been widely discussed, but one is the confusion that exists between green performance indicators and green inspection findings. I mean, I think that, you know, is a source of some confusion, and I think that's the only problem with it. I don't think it's really a significant issue, but it does I think cause some folks confusion.

I guess the other more significant issue in my mind is this issue that I discussed earlier, that is a balance between reactor safety and the other issues which are not driven by risk assessment. And it seems to me that we have skewed to some extent the importance of those other issues up and the importance of reactor safety issues down. And I guess, you know, by example I would say that the Calloway ALARA thing it seems to take a high significance. And I'm not saying it's not an important issue, but it seems to take on a high significance.

Other reactor safety issues, and I would

think it would be accounting back summer -- back maybe even the San Onofre fire, which I recognize was largely balance of plant, but nonetheless, there was a lot of interesting things going on; operator distraction, I'm sure, and he hears the turbine grinding to a halt with no oil in the bearings, I don't know what things were like in the control room at the time, but I'm sure there were some nuclear safety implications of that. I think they lost some annunciators for a period of time there as well. So it means it seems -- and that winds up with one green finding in Calloway winds up with three white ones. Just worried about equating those things.

CHAIRMAN SIEBER: Okay. Dr. Kress?

DR. KRESS: Well, I guess I would second Graham's issue, and that is the equivalence of the significance of the various findings needs to be looked at a little more.

I like George's comment that the common metric is risk changes. And I wouldn't want to see this reduced to a system where we just look at a PI and the delta risk, percentage change in risk because I think what the system does for you, it gives guidance to the inspector on where to go look for things. So what I would like to do is see a better

tie between the two; where you work towards getting a PRA -- I like the risk informed performance indicators that we heard about where the PRA guides the significance of these things. So I'd like to see more done along that line to keep the matrix, because it is the way you guide the inspection.

I think eventually the matrix is just going to have to be plant specific, you know, in terms of significance of the findings.

CHAIRMAN SIEBER: Well, and significance determination has to be plant specific.

DR. KRESS: Yes, but I think even the matrix is still --

CHAIRMAN SIEBER: That may make the callers plant specific.

DR. KRESS: That's exactly what I had in mind.

And I did like the thought that was expressed that they need to look at not discouraging system -- you often cease from being aggressive in finding your own programs. And I like that thought, so I would encourage you to keep working along those directions.

And I agree with George, I think it's -- we don't really do well with the safety culture issue.

I think that needs to be more up front, dealt with more explicitly than we do.

Let's see if I had any more. I guess that's the major ones I get.

CHAIRMAN SIEBER: Thank you. Steve?

MR. ROSEN: Without repeating some of the good comments that you've already heard, let me just make one about something I heard you say that was a little troubling. The CAP principles that are in the INPO documents are, in fact, intended to provide INPO members with flexibility to implement corrective action programs. They're what must be achieved rather than how to achieve it. And I think that's the right level for it.

So, I worry if you write an inspection manual chapter that starts getting into the hows would have a negative effect on the licensee's performance in their overall CAP. And I think you might want to be careful about that.

MR. JOHNSON: Yes. Let me just -- no, I didn't mean to imply that we would. I was trying to explain that the way that started was we had the idea that if we were going to be able to be look at the corrective action programs in the way that we look at all the other things that we do in the baseline, it

would be nice to have some of the criteria to enable us to do that. And what INPO did, in fact, was to develop these high level principles that are very good, but they're different from what we would have used. And there's no effort to try to link those up.

What the current effort is is to try to say is there some way that we could either through working with the industry to develop those lower level criteria, for example, or is there some way to look at objective results, objective indicators that licensees may be using that could be applied across plants and be able to get closer to enabling us to decide the significance of what is refined.

I mean, I don't want to come across as being negative on the principles. They do what they do very well, it's just that from a baseline -- the issue that we were trying to scratch was what are the criteria that we would use as inspectors to go out and be able to look in a consist way at these programs. And we've clearly recognized that that wasn't it.

DR. KRESS: I did have one other, and that was I really liked George's comment that it would be nice to have somebody very knowledgeable in formal decision making processes to look at the matrix, particularly from the view of how we set thresholds

and what the decision process is going into that. So I think that's a good thought that we should follow up on.

CHAIRMAN SIEBER: Okay. Thank you.

Dr. Apostolakis?

DR. APOSTOLAKIS: I think I've expressed my views already and my colleagues I agree with their comments. I only want to say one thing, though.

That Mike got an award this year from the agency. His performance today confirms that he deserved it.

MR. JOHNSON: Thank you very much.

DR. APOSTOLAKIS: Just for being here and listening to us. He handled all the questions very well. Thank you.

MR. JOHNSON: Thank you.

CHAIRMAN SIEBER: Dr. Bonaca?

DR. BONACA: Yes, I pretty much ascribe to the comments provided already.

Safety culture clearly is an issue, we've talked many times about. And however we get to that, I think it's important that there's more objectivity also in their evaluation. Again, otherwise it remains a obscure process that the NRC retains as its own choice on how to evaluate. I understand you're

looking at it as crosscutting, but I think some more objective review ought to be developed and that should be developed.

And the other point I'd like to make, again, objectivity and persistency seems to be a thrust of the new program. You have to look at performance on a regional, that will tell you something about it. When I look at the data you have right now, I see the same flaw as I saw in the past. All the bad performers are in one region or the problem is applied in a different way. And so you have to look at it, because it keeps -- at the insights. It's interesting.

MR. JOHNSON: Okay.

DR. BONACA: The region's action.

CHAIRMAN SIEBER: Dr. Uhrig?

DR. UHRIG: Just a couple of comments.

The old SALP process had many faults, but there was a tendency within that process to encourage improvement in the operation of the plants. And somehow I feel that the feature that's been lost and if there were any way that this could be brought back in without getting into the problems that led to the demise of the SALP process, which is mainly as I understand it the utilities objected violently to the

Public Service Commissions trying to use these scores as a basis for their earnings.

And I also wondered whether there had been any attempts that you know of to put numerical values on colors like green, yellow, red, etcetera?

MR. JOHNSON: We've not found --

DR. UHRIG: I haven't heard of any, and just wondered. I suspect there's somebody looking at that, but I hope not, because that was fatal to the SALP process.

CHAIRMAN SIEBER: Well, green and red have an accounting connotation also.

MR. JOHNSON: Yes.

CHAIRMAN SIEBER: So maybe there's an application.

Dr. Shack?

DR. SHACK: Very impressed. Again, I would be the most reluctant here about the plant specific nature of some of these things. You know, I like the notion of one action matrix. I'm not sure I like the notion of a 100 action matrixes on a plant specific basis.

I'm also a little concerned that there's this confounding of the performance versus the safety status of the plant, which the safety status sort of

is part of the design basis and the performance. That, you know, some plants are inherently safer than others. You got three trains, you got two trains.

When you go to the risk-based things, I see this notion that you're bringing in more than performance. You're really reflecting in many ways on the design of the plant as well.

CHAIRMAN SIEBER: That's right.

DR. SHACK: And there's something to be said for a process that focuses on performance. How you keep that distinction -- and, you know, I don't think it should it be a hard and fast thing, but I think as you keep pumping for the risk-based PIs and the plant specific nature of this thing, I think that there is this problem that you will be confounding design features of the plant with the performance. And this process is really trying to look at the performance, so I think you may have a potential problem there that you have to at least think about. I'm not sure what the answer is. So I'm not quite charging down the road as fast as Dr. Apostolakis is for the plant specific nature and the risk-based performance indicators.

MR. JOHNSON: Okay.

CHAIRMAN SIEBER: Thank you.

Dr. Wallis?

DR. WALLIS: I agree with my colleagues. And the time being 12:30, I won't repeat what they've already said.

CHAIRMAN SIEBER: Thank you.

MR. LEITCH: Jack, I just had one other comment.

CHAIRMAN SIEBER: Sure.

MR. LEITCH: It's really Dr. Apostolakis' comment, and I thought that perhaps you were going to bring it up.

Some way in the process to reward good performers, I think would be an important aspect. And I think Dr. Uhrig made the same kind of point, that what are we doing to encourage better performance.

DR. BONACA: Well, I think that that's more in my judgment the role of INPO, of the industry. I mean, to some degree -- or the industry in general. I mean, some degree I think regulation has to set what is adequate and has to state that. I mean, in my judgment the implications for judgmental statements being made without a solid basis for perspective of the local communities, the press, and so on and so forth, you know, the implication of that is significant. And so unless there is a true thorough

process to make a distinction and categorization, and I don't know how much that -- resources that would take, I think I would rather see simply a statement of adequacy and the requirements have been met.

MR. LEITCH: Yes.

DR. APOSTOLAKIS: All these greens and grays and so on for each plant, I mean I really would like to know how Boeing and United Airlines are doing with their respect. I think we are unique.

DR. UHRIG: Maybe you wouldn't.

DR. APOSTOLAKIS: We are unique in publishing all these details. I mean, for heaven's sakes, what other industry does this? You know, they go down into the detail that this and that, and significance determination and everything is out there.

DR. KRESS: And the other option is not to publish it?

DR. APOSTOLAKIS: Well, I don't know. But--

DR. KRESS: It doesn't sound like a good option to me.

DR. APOSTOLAKIS: No, no, no. I didn't say that. What I'm saying is that we are doing something that is really very unique.

DR. KRESS: Yes, that's true.

DR. APOSTOLAKIS: Nobody else is doing it.

DR. KRESS: Well, we're sort of a unique agency, I think.

DR. APOSTOLAKIS: Yes.

DR. SHACK: On the cutting edge even if we are over-aged.

DR. KRESS: That's right.

CHAIRMAN SIEBER: Well, I'd like to thank you, Mike, and all the staff for their views and their help today, and also our members for providing me enough information to start writing a letter.

I'm going to start with version 5 on this one so I can achieve a new goal.

With that, the subcommittee meeting is adjourned.

MS. WESTON: Before you go, let me ask you it appears that the copy that we have here is out of order or something. If I can ask you, drop your copy on the chair at my door and I will give you a copy that is copy corrected.

(Whereupon, the subcommittee meeting was adjourned at 12:35 p.m.)

CERTIFICATE

This is to certify that the attached proceedings before the United States Nuclear Regulatory Commission in the matter of:

Name of Proceeding: ACRS PLANT OPERATIONS SUBCOMMITTEE MEETING

Docket Number: (NOT APPLICABLE)

Location: ROCKVILLE, MARYLAND

were held as herein appears, and that this is the original transcript thereof for the file of the United States Nuclear Regulatory Commission taken by me and, thereafter reduced to typewriting by me or under the direction of the court reporting company, and that the transcript is a true and accurate record of the foregoing proceedings.

John Mongoven
Official Reporter
Neal R. Gross & Co., Inc.

ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
PLANT OPERATIONS SUBCOMMITTEE
REACTOR OVERSIGHT PROCESS
ROOM T-2B3, 11545 ROCKVILLE PIKE
ROCKVILLE, MARYLAND
July 9, 2001

-PROPOSED AGENDA-

	SUBJECT	PRESENTER	TIME
I.	Introductory Remarks Subcommittee Chair	J. Sieber	9:30-9:35 a.m.
II.	NRC Staff Presentation ROP Action Matrix	-Mike Johnson, NRR -Mark Satorius -Robert Pascarelli	9:35-11:30 a.m.
III.	General Discussion and Adjournment		11:30-12:30 p.m.

Note: Presentation time should not exceed 50% of the total time allocated for a specific item. Number of copies of presentation materials to be provided to the ACRS - 35.

ACRS CONTACT: Ms Maggalean W. Weston, mww@nrc.gov or (301) 415-3151.

Action Matrix

Inspection Program Branch
July 9, 2001

TOPICS FOR DISCUSSION

- *Background*
- *Overview*
- *Action Matrix*
- *Lessons Learned*

Background

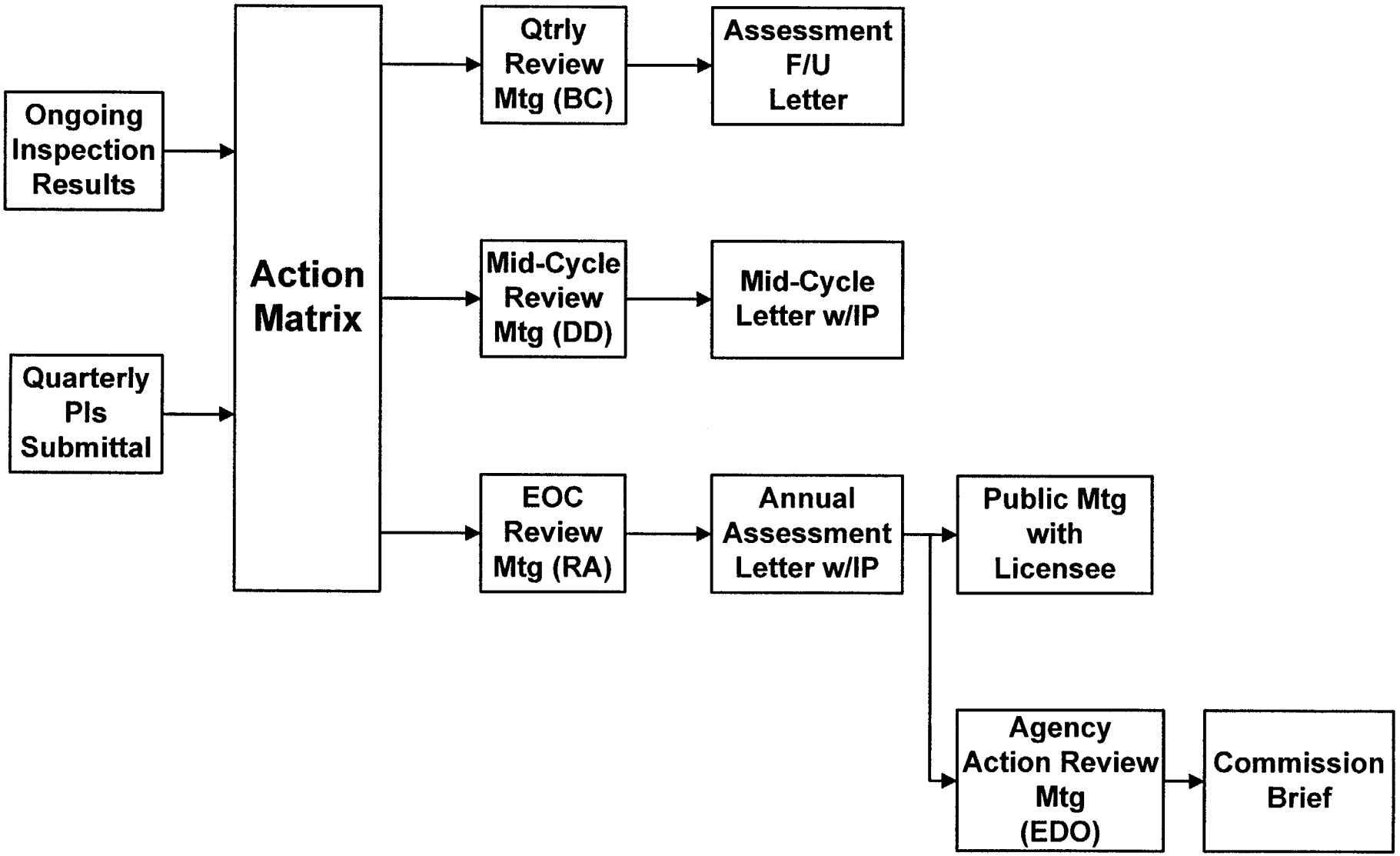
- Continuing series of briefings on ROP
  - 12/00 - ROP status
  - 5/01 - SDP & PIs
  - 9/01 - Full-committee brief & Ltr
- ROP Status
  - Completed first year
  - Completed first AARM
  - Completed SECY

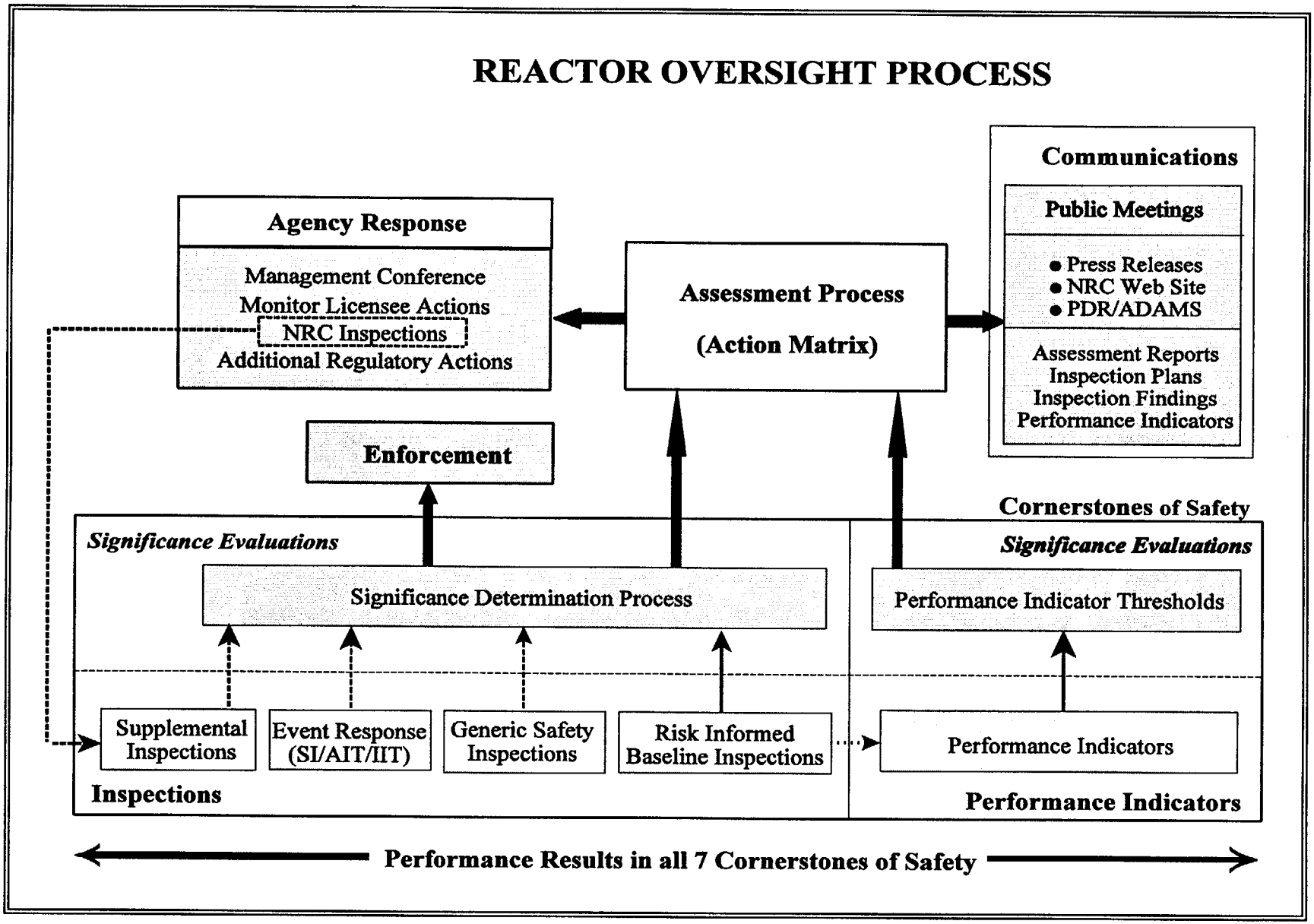
Overview

- Part of assessment process in ROP
- Objective: improve consistency and predictability of decisions, more objective
- Guidance: IMC 0305
- Deviations from the Action Matrix: rare, requires EDO approval

Action Matrix

Assessment Process




REACTOR OVERSIGHT PROCESS
Communications
Public Meetings
• Press Releases
• NRC Web Site
• PDR/ADAMS
Assessment Reports
Inspection Plans
Inspection Findings
Performance Indicators
Agency Response
Management Conference
Monitor Licensee Actions
NRC Inspections
Additional Regulatory Actions
Assessment Process
(Action Matrix)
Enforcement
Cornerstones of Safety
Significance Evaluations
Significance Evaluations
Significance Determination Process
Performance Indicator Thresholds
Supplemental Inspections
Event Response (SI/AIT/IIT)
Generic Safety Inspections
Risk Informed Baseline Inspections
Performance Indicators
Inspections
Performance Indicators
Performance Results in all 7 Cornerstones of Safety

ACTION MATRIX

		Licensee Response Column	Regulatory Response Column	Degraded Cornerstone Column	Multiple/ Repetitive Degraded Cornerstone Column	Unacceptable Performance Column
RESULTS		All Assessment Inputs (Performance Indicators (PIs) and Inspection Findings) Green; Cornerstone Objectives Fully Met	One or Two White Inputs (in different cornerstones) in a Strategic Performance Area; Cornerstone Objectives Fully Met	One Degraded Cornerstone (2 White Inputs or 1 Yellow Input) or any 3 White Inputs in a Strategic Performance Area; Cornerstone Objectives Met with Minimal Reduction in Safety Margin	Repetitive Degraded Cornerstone, Multiple Degraded Cornerstones, Multiple Yellow Inputs, or 1 Red Input; Cornerstone Objectives Met with Longstanding Issues or Significant Reduction in Safety Margin	Overall Unacceptable Performance; Plants Not Permitted to Operate Within this Band, Unacceptable Margin to Safety
RESPONSE	Regulatory Performance Meeting	None	Branch Chief (BC) or Division Director (DD) Meet with Licensee	DD or Regional Administrator (RA) Meet with Licensee	RA (or EDO) Meet with Senior Licensee Management	Commission meeting with Senior Licensee Management
	Licensee Action	Licensee Corrective Action	Licensee root cause evaluation and corrective action with NRC Oversight	Licensee Self Assessment with NRC Oversight	Licensee Performance Improvement Plan with NRC Oversight	
	NRC Inspection	Risk-Informed Baseline Inspection Program	Baseline and supplemental inspection procedure 95001	Baseline and supplemental inspection procedure 95002	Baseline and supplemental inspection procedure 95003	
	Regulatory Actions[1]	None	Supplemental inspection only	Supplemental inspection only	-10 CFR 2.204 DFI -10 CFR 50.54(f) Letter - CAL/Order	Order to Modify, Suspend, or Revoke Licensed Activities
COMMUNICATION	Assessment Letters	BC or DD review/sign assessment report (w/ inspection plan)	DD review/sign assessment report (w/ inspection plan)	RA review/sign assessment report (w/ inspection plan)	RA review/sign assessment report (w/ inspection plan) Commission Informed	
	Annual Public Meeting	SRI or BC Meet with Licensee	BC or DD Meet with Licensee	RA (or designee) Discuss Performance with Licensee	EDO (or Commission) Discuss Performance with Senior Licensee Management	Commission Meeting with Senior Licensee Management
	INCREASING SAFETY SIGNIFICANCE ---------->					

Note 1: The regulatory actions for plants in the Multiple/Repetitive Degraded Cornerstone column are not mandatory agency actions. However, the regional office should consider each of these regulatory actions when significant new information regarding licensee performance becomes available.

Overall Results

Plant Performance Summary

April 2000 to March 2001

Action Matrix Column	Number of units
Licensee Response	67
Regulatory Response	28
Degraded Cornerstone	5
Multiple/Repetitive Degraded Cornerstones	1
Unacceptable Performance	None

Lessons Learned

Lessons Learned:

- **Successes:**
  - NRC actions more predictable
  - Improved objectivity
  - Assessment meetings improve efficiency
- **Improvement Areas:**
  - Historical findings
  - No color findings
  - Dwell time for inspection findings

Lessons Learned:

- **Actions:**
  - Improve guidance regarding treatment of historical issues
  - Evaluate graded reset for inspection findings
  - Develop program modifications to address no color findings

Inspection Results
April 2000 to May 2001

	White	Yellow	Red
Reactor Safety	7	-	1
Emergency Preparedness	4	1	-
Occupational Radiation Safety	5	-	-
Public Radiation Safety	1	-	-
Physical Protection	1	-	-
Other Baseline Procedures	-	-	-
Total Findings of Significance	18	1	1

Performance Indicators
January 2000 to March 2001

Cornerstone	White Threshold Crossed	Yellow Threshold Crossed
Initiating Events	7	-
Mitigating Systems	21	1
Emergency Preparedness	6	1
Barrier Integrity	2	1
Occupational Radiation Safety	1	-
Public Radiation Safety	-	-
Physical Protection	4	1