

ORIGINAL

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

**Title:            BRIEFING ON IMPROVEMENTS TO THE SENIOR  
MANAGEMENT MEETING  
PUBLIC MEETING**

**Location:        Rockville, Maryland**

**Date:            Thursday, April 2, 1998**

**Pages:           1 - 84**

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1 UNITED STATES OF AMERICA  
2 NUCLEAR REGULATORY COMMISSION

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4 BRIEFING ON IMPROVEMENTS TO THE  
5 SENIOR MANAGEMENT MEETING

6 \*\*\*

7 PUBLIC MEETING

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10 Nuclear Regulatory Commission  
11 One White Flint North, Room 1F-16  
12 11555 Rockville Pike  
13 Rockville, Maryland

14  
15 Thursday, April 2, 1998  
16

17 The Commission met in open session, pursuant to  
18 notice, at 2:38 p.m., the Honorable SHIRLEY A. JACKSON,  
19 Chairman of the Commission, presiding.

20 COMMISSIONERS PRESENT:

21 SHIRLEY A. JACKSON, Chairman of the Commission  
22 NILS J. DIAZ, Member of the Commission  
23 EDWARD MCGAFFIGAN, JR., Member of the Commission  
24 GRETA J. DICUS, Member of the Commission  
25

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1 STAFF AND PRESENTERS SEATED AT THE COMMISSION TABLE:

2 JOSEPH CALLAN, EDO

3 SAM COLLINS, NRR

4 R. WILLIAM BORCHARDT, NRR

5 JIM LIEBERMAN, OE

6 ANNETTE VIETTI-COOK, STAFF

7 STEPHEN BURNS, STAFF

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

[2:38 p.m.]

CHAIRMAN JACKSON: Good afternoon.

I would like to welcome the staff to brief the Commission on the integrated review of the NRC assessment process for operating commercial reactors.

The objective of this assessment is to assess accurately the overall safety performance of all U.S. commercial nuclear power plants to verify that they are operating safely and identifying and promptly correcting the underlying safety issues.

The review process also is intended to result in an improved and less resource-intensive integrated assessment process.

The proposed process needs to retain many of the positive attributes of the current assessment processes, which include Plant Performance Reviews, Systematic Assessments of Licensee Performance, and the Senior Management Meeting.

While these processes have served the agency well, there are areas that warrant improvement, including redundancy, use of different assessment criteria, and decision criteria that are not well-defined and clearly understood by the public.

The staff also will provide an overview of what

1 they are doing in the area of management performance and  
2 competency but not in any detail.

3 These initiatives are in partial response to a GAO  
4 report.

5 The discussion of the options will include the key  
6 characteristics, and I understand that copies of the slide  
7 presentation are available and the staff paper on the  
8 integrated review process is available at the entrances to  
9 the meeting room, and so, unless my Commission colleagues  
10 have any introductory comments, Mr. Callan, please proceed.

11 MR. CALLAN: Thank the Chairman. Good afternoon,  
12 Chairman, Commissioners.

13 I think all of us at the table were in the  
14 audience for the previous Commission briefing, and were  
15 wondering who choreographed this, that we would follow, but  
16 I think a lot of provocative points, comments were made on  
17 both sides of the table earlier, and I think our  
18 presentation will address most of them. If not, I think  
19 they should be raised as questions.

20 Chairman, as you mentioned earlier with the ACRS,  
21 this is a work in progress, and so, I guess the question is  
22 why are we having this briefing with a work in progress?  
23 The answer is not because we don't think we're responsive to  
24 the SRMs. I think staff believes that the concept that  
25 we'll be presenting is responsive to the many SRMs that have

1     been issued on the subject, but in so doing, we have  
2     introduced so much innovation, so much substantive change,  
3     that it's our view that it's important to have a Commission  
4     briefing at this point before additional resources are  
5     expended on the project. I think it's important that we get  
6     your feedback.

7             We have not crossed the resource rubicon, so to  
8     speak. We still have recovery time here before the  
9     important milestone dates arrive.

10            One last point I'd like to make is that most of  
11     the innovation, surprisingly, most of the innovative  
12     thinking, surprisingly, came from the grass-roots level,  
13     from regional branch chiefs, ex-senior residents in the  
14     headquarters and in the regions.

15            Ironically -- you know, unfortunately, we don't  
16     have any regional representatives at the table here or in  
17     the audience, but from my experience, ironically, most of  
18     the enthusiastic support for the concept that you'll hear  
19     about comes from the regional personnel who will be -- who  
20     face the daunting task of implementing the concepts.

21            But as you know -- I think most of you know that  
22     the staff is not monolithic in their support of the concept.  
23     The concepts do represent substantial change. It's taken  
24     most of us quite a while to -- a lot of reflection to  
25     reconcile our own personal views on the subject, so I look

1 forward to the discussion.

2 Bill Borchardt will lead the staff's presentation.

3 Bill?

4 MR. BORCHARDT: Good afternoon.

5 During today's brief, I'd like to provide a brief  
6 description of the integrated review activities, of the  
7 current conceptual framework that we've established, and the  
8 future planned activities.

9 Six months ago we started on this project with a  
10 particularly high level of excitement, and it continues, and  
11 we're particularly looking forward to the interaction now  
12 with all of the stakeholders to evaluate potential  
13 improvements that have been identified through this new  
14 process.

15 I'd like to reiterate what Mr. Callan mentioned,  
16 that this is, indeed, just an initial concept developed by a  
17 task force of approximately 15 people from the regional  
18 offices and from a variety of headquarters offices, but  
19 notably, over half of those have extensive in-field  
20 inspection experience.

21 A good percentage of those were former senior  
22 resident inspectors and are currently -- four of them are  
23 currently branch chiefs or higher in the regional  
24 organizations, and one of the requirements that the EDO  
25 placed on us was to make sure that what we came up with had



1 a chance of being implemented.

2 We didn't want something that was so theoretical  
3 but yet unpracticable that it would it would prevent  
4 meaningful implementation.

5 So, with this mix of people that we had on the  
6 task group, we think we've come up with something that's  
7 worthy of some serious consideration although dramatically  
8 different from the way we do business now in a number of  
9 areas.

10 The final proposal that, on our current schedule  
11 would come to the Commission this summer, may be  
12 significantly different from what's before the Commission  
13 today, and this was intentional. We did not want to have  
14 the process at this stage finalized by any stretch of the  
15 imagination.

16 This has been purely an internal -- almost purely  
17 -- we had one public meeting which I'll allude to, but it's  
18 largely an internal staff process up to this point, and we  
19 think now is the right time to engage all the stakeholders  
20 -- the Commission, the public, and the industry -- to get  
21 their input so that we can then refine the details and make  
22 modifications as necessary.

23 The Commission paper that's available at the door  
24 proposes a revised process with the objective to be more  
25 scrutable, more consistently applied, and less redundant.

1           It's not intended by itself, however, to  
2       dramatically change our current regulatory approach,  
3       although it will accommodate every single change to that  
4       regulatory approach as it evolves over time.

5           Slide two, please.

6           The SALP, the Senior Management Meeting, and the  
7       Plant Performance Reviews were each independently created at  
8       various times over the last 20 years. They had a unique  
9       purpose, and they are a unique process. However, they have  
10      resulted in significant overlap, redundancy, and an  
11      opportunity to send mixed messages to licensees and the  
12      public.

13           This review constituted the first wide-scale  
14      integrated review of the NRC's assessment processes. To a  
15      large extent, the requirements that -- the top-level kinds  
16      of objectives that the ACRS mentioned a while ago were  
17      derived during this task group meeting from a list of 74 or  
18      so separate requirements coming out of a variety of Staff  
19      Requirements Memorandum and previous Commission papers.

20           Those 74 line items, requirements that the staff  
21      considered, formed the basis for many of the boundary  
22      conditions and the general criteria that were established  
23      for acceptance criteria on the eventual process, and we have  
24      checked the proposed process against those criteria  
25      throughout the last six months.

1           The proposals, I believe, directly address the  
2 vast majority of those 74 issues, and I believe that it's a  
3 dramatic improvement over the current process.

4           A side benefit of implementing this process or a  
5 process similar to it would be that it will go a long way to  
6 helping us improve the consistency and application of our  
7 current programs, such as inspection and enforcement.

8           Slide three, please.

9           Beginning in September of 1997, with the  
10 assistance of the Los Alamos National Laboratory Human  
11 Factors Group, the task group used the approach shown on  
12 this slide to develop the initial conceptual approach that  
13 will be discussed in the following slides.

14           We held a series of team meetings to identify  
15 objectives and critical attributes. These included the  
16 high-level outputs, the required inputs to make those kinds  
17 of decisions at an agency level, and the success attributes  
18 of any eventual process.

19           The last point on this slide is one I've already  
20 referred to but I think is one of the most important, and  
21 that is that the process that we come up with, whatever the  
22 eventual process is, I think it's absolutely mandatory that  
23 it be able to have a implementation plan and a transition  
24 plan that incorporates the insights from all the  
25 stakeholders and allows a logical progression to this new

1 process from what we have today.

2 CHAIRMAN JACKSON: Let me ask you a quick  
3 question.

4 Are you prepared at this point or do you feel that  
5 it's going to come out of essentially what the last bullet  
6 implies to talk about the extent to which this either does  
7 or should follow this kind of hierarchical kind of structure  
8 that the ACRS talked about in its presentation?

9 MR. BORCHARDT: The Commission paper and the  
10 presentation today don't take that directly on. However,  
11 the task group had done many of the things that the ACRS  
12 suggested, perhaps not to the formality and certainly not  
13 documented to the extent that they would like to see,  
14 although there is a several-hundred page report being  
15 prepared, with the assistance of the contractor, that  
16 documents all the steps and all the elements of the  
17 activity, and I think that that would provide a number of  
18 the answers.

19 One of the points the ACRS raised was the idea of  
20 coming up with five, I think, the number they used, options  
21 to meet the high-level criteria that were established.

22 I would argue that, during the course of those  
23 four meetings, we came up with far more than five possible  
24 options.

25 However, we never took the time to write those

1 down, because it was a very dynamic, evolving process with  
2 those 15 people, always cross-checking against the  
3 high-level criteria, and as the different options were  
4 identified, some elements of them were incorporated into one  
5 option that kept moving forward, and it's this option that  
6 you see presented in the --

7 CHAIRMAN JACKSON: So, are you arguing that these  
8 high-level criteria that you developed early on or were  
9 operating from really were linked to what the goals and  
10 objectives were?

11 MR. BORCHARDT: We started with what are the kinds  
12 of decisions the agency needs to make as it does an  
13 assessment process? What kind of decisions does the  
14 Commission and the staff both need to make, and what  
15 information do we need in order to make that decision?

16 That was the first meeting. That was a week-long  
17 meeting, really, of going through all of those elements and  
18 coming up with the objective that you'll see in the SECY  
19 paper in a couple slides.

20 CHAIRMAN JACKSON: Mr. Collins, were you going to  
21 make a comment?

22 MR. COLLINS: In addition to what Bill has already  
23 indicated, which I agree to, it's important, I believe, to  
24 note that, as articulated in any section of the Commission  
25 paper, there was a strive to start from a point of creating



1 a balance between what exists within the current programs  
2 that we have, which are multiple and somewhat redundant,  
3 that are positive attributes, and what are the negative  
4 attributes, and those were built into the process or avoided  
5 as a result of this process itself being built.

6 The fact that we are dealing with one process  
7 makes perhaps some people uncomfortable given that one size  
8 does not necessarily fit all as far as either regulatory  
9 challenges or even the tools that deal with those  
10 challenges.

11 An attempt by using one process and making it  
12 efficient is that you gradate the approach or you gradate  
13 the agency's response using that one process, and therefore,  
14 you deal, in fact, at different levels or different response  
15 levels based on the data that's achieved using our existing  
16 programs, and therefore, you're able, in effect, to address  
17 multiple areas.

18 Whether it be based solely on routine inspection  
19 findings and a level of attention that's at a regional level  
20 or whether it be the result of an annual aggregated meeting  
21 at the Commission level and result in an order, it's still  
22 the same process that leads you to one result or the other,  
23 but it's a graded approach.

24 CHAIRMAN JACKSON: How does that tie into what  
25 your overall goals are or what our overall goals are as laid

1 out in our strategic plan and objectives, you know, that we  
2 as an agency, from the safety perspective, really have? I  
3 mean is that clear, or is that going to -- to be fleshed out  
4 later, or is that coming in this 100-page paper or  
5 multi-hundred-page paper you're talking about?

6 MR. BORCHARDT: I think it's more clearly  
7 discussed in the more detailed description of the task  
8 group's activities.

9 Slide four shows the --

10 CHAIRMAN JACKSON: Excuse me.

11 COMMISSIONER MCGAFFIGAN: I just want to ask a  
12 question at the outset.

13 You've come up with a plan, and the goal at the  
14 moment appears to be at staff level to perfect it and  
15 whatever, but how open are you to comments to the effect --  
16 why don't you just go back to where we are at the moment and  
17 try to improve it incrementally as opposed to making this  
18 leap?

19 It's conceivable to me, based on the stakeholder  
20 comment I've heard privately, based on the presentations  
21 you've made to the ACRS, the ACRS comments earlier, that you  
22 may have a very small number of people enthusiastically  
23 behind this other than your task force, and so, you may have  
24 to find other alternatives.

25 Are you open to that, or is it take this --

1 MR. BORCHARDT: At this stage, I think we're  
2 largely open to all comments.

3 MR. CALLAN: I was going to say, that's why we're  
4 doing the briefing now and not two months from now, three  
5 months, because we do have recovery time. I mean not a lot,  
6 but -- we don't have much margin, but to the extent we get  
7 substantive comments back from the Commission, there is  
8 time, and that's why this meeting was scheduled.

9 MR. COLLINS: I would add, in answer to your  
10 question, Commissioner McGaffigan, that no matter what  
11 course we embark on -- and as Bill admitted, this is a  
12 fairly radical approach -- it's important, as the ACRS  
13 articulated, that if the staff had a certain set of goals  
14 and assumptions in mind when this approach was formulated, I  
15 believe it would be most efficient, if this staff -- if this  
16 position, rather, were not accepted, for the staff to  
17 understand on what bases should an alternate position be  
18 considered, and is the rationale or the assumptions by which  
19 this position was formed still valid, and therefore, are we  
20 dealing just with a methodology, or are we dealing with a  
21 difference in basic assumptions?

22 CHAIRMAN JACKSON: Moreover, let us not forget  
23 that, in fact, the Commission asked the staff to do this, to  
24 take the integrated review, to look at eliminating  
25 redundancy and overlap, etcetera, etcetera, and so, we have

1 to evaluate what they are proposing, but it's always  
2 important to have a historical perspective.

3 COMMISSIONER MCGAFFIGAN: You could ask for  
4 something, and then, as Mr. Callan has said, you can decide,  
5 well, you know, we asked for a fire protection standard that  
6 the risk-informed performance-based rule --

7 CHAIRMAN JACKSON: Right. I think, at this point,  
8 there isn't unanimity of opinion here. So, I think we'll  
9 just have to hear what he has to say.

10 MR. CALLAN: But at one point in time, I think we  
11 collectively thought something was broken that we had to  
12 fix, and we think that this process does fix and mitigate  
13 the worst vulnerabilities in our previous system.

14 Now, granted, we have enhanced that system, that  
15 process considerably since a year ago, but there's a limit  
16 to how much we can enhance the current process without  
17 somewhat of a paradox shift, and this certainly provides  
18 that.

19 MR. COLLINS: Chairman, I don't think it's good  
20 form to leave any question about the strategic plan  
21 unanswered. So, let me briefly respond to your question  
22 about the nexus between the strategic plan and where we are  
23 here today.

24 There is a direct connection, and it gets very  
25 detailed when you go down into the NRR operating plan, and

1 of course, there's a nexus with AEOD and there's cross-cut  
2 issues that go all the way to regulatory effectiveness.

3 Our mission areas of which we have program  
4 managers assigned would be the inspection, the assessment,  
5 and the licensing area, as far as NRR is concerned. Of  
6 course, there's a cross-cut assessment area with Tim and his  
7 people in AEOD in the evaluation of data.

8 Each of those areas is a major input into the IRAP  
9 as proposed.

10 How that ties in would be comments on licensing  
11 actions, for example. The quality, the timeliness of  
12 licensing actions would end up to be an item in the Plant  
13 Issues Matrix which, by this process, would be considered in  
14 the overall rack-up of licensee performance.

15 Inspection findings are one of the main areas that  
16 the PIM would focus on, and of course, the assessment  
17 process is what we're talking about here today.

18 Each of those roll up into the inspection,  
19 assessment, and licensing program, which are very  
20 fundamental building blocks for the overall program areas,  
21 as well as the performance goals and the strategic plan.

22 The concept would be to have any process which is  
23 defined be able to fit those existing building blocks, and  
24 then, based on the results of the application of those  
25 building blocks to the process, there will be refinements,



1 and it's intended that this process allow those areas to be  
2 very scrutable.

3 Enforcement will be very visible. Any  
4 inconsistencies in inspection and inspection findings will  
5 be very visible, and licensing action quality will become  
6 very visible, because they will be shared and they will be  
7 the basis for assessment.

8 I believe that's, although a not very obvious  
9 attribute of this process, it is, nonetheless, a very  
10 significant attribute.

11 CHAIRMAN JACKSON: Why don't we go on?

12 MR. BORCHARDT: Slide four shows a list of the  
13 task group members. I'll go right to slide five now.

14 CHAIRMAN JACKSON: Well, before you do that, were  
15 there any staff members with risk or PRA experience or  
16 expertise on the team?

17 MR. BORCHARDT: Mike Parker is one of the SRAs in  
18 training from Region III, and Mark Dapas, although a branch  
19 chief now, was previously in the SRA program.

20 CHAIRMAN JACKSON: I note that Research is notably  
21 missing. Is there a reason?

22 MR. CALLAN: Well, to be fair, Research has been  
23 very active in other parts of the SMM enhancements, and this  
24 particular aspect -- keep in mind, you know, this is one  
25 part of an overall process.

1 CHAIRMAN JACKSON: I understand.

2 MR. BORCHARDT: On slide five, through a review of  
3 the relevant SRMs, previous lessons learned types of  
4 reviews, and the personal experience of the individual task  
5 group members, boundary conditions were established for the  
6 assessment review.

7 This listing on page five is only a partial  
8 listing. It's somewhat illustrative.

9 And they reflect, to a large extent, the task  
10 group's vision of the interpretation of those SRMs and what  
11 they meant to the NRC's regulatory responsibility, and so,  
12 the group felt that all plants must be periodically  
13 evaluated, whatever the interval was, that every plant in  
14 the country needed to go through this process, that the  
15 process must maintain a clear focus on assessing licensee  
16 performance against regulatory requirements.

17 COMMISSIONER McGAFFIGAN: Could I ask -- on that  
18 item, because that gets interpreted a couple pages later,  
19 saying the assessment process will not be designed to  
20 distinguish between levels of performance that meet or  
21 exceed,

22 MR. BORCHARDT: Right.

23 COMMISSIONER McGAFFIGAN: I don't know whether the  
24 boundary condition leads to that result or that's an  
25 additional boundary condition in the form of a principle

1 that comes along later, but it's one that gives me  
2 misgiving, and I haven't hidden that at any point in this  
3 process.

4 It sounds like the staff -- if I interpret the  
5 reds, greens, and yellows that are going to come later,  
6 green is a current 2 in SALP space, yellow is probably a  
7 2.5, and red is a 3, but we give up on trying to identify  
8 the 1's, and I have a little bit of misgiving on that. INPO  
9 manages to do it, and you guys are, in this proposal,  
10 basically walking away from it.

11 MR. CALLAN: It gives me some misgivings, also, I  
12 think, a lot of us. Let me just give you two perspectives.

13 One is we're not very good at it, and our  
14 processes don't lend themselves for making that very  
15 difficult agonizing decision, and there are great  
16 consequences for being wrong.

17 If you declare a plant as a good performer, then  
18 our processes have us back off in the inspection effort, so  
19 the consequences for being wrong are great, and we're not  
20 good at it, and our inspection program doesn't develop a  
21 solid basis for making a judgement.

22 COMMISSIONER MCGAFFIGAN: One of the good  
23 consequences, if we're in budget constraint space, is that  
24 we free up some resources at a plant that we think may be  
25 pretty darn good and can utilize those resources someplace

1 else.

2 If we get rid of the one category, effectively,  
3 the top-performing category, and we're going to homogenize  
4 our resources and perhaps mis-apply them because we're  
5 unwilling to make the judgement that somebody's pretty good  
6 -- you all have to tell me whether there are a lot of  
7 instances of people jumping from 1 to 3 space in a very  
8 rapid fashion.

9 MR. CALLAN: There are, and it happens sometimes  
10 when we change senior residents. It does happen.

11 There's resource dimension to this, also. We  
12 spend probably an equal amount of resources agonizing over  
13 whether a plant is an outstanding performer as we do whether  
14 a plant is a poor performer. That decision is often more  
15 difficult than the lower-performance decision, primarily  
16 because we have a lot more data on the lower end than we do  
17 the higher end.

18 But because the consequences of being wrong, if  
19 you make the decision wrong on the high end, is so great, we  
20 have to spend the resources to make it, and sometimes we do  
21 inspection activities to try to parse that decision, whether  
22 a plant is outstanding or good, and is that a good,  
23 reasonable expenditure of resources?

24 COMMISSIONER DIAZ: Let's say that there is a  
25 layer of good, adequate performers, and you say the

1 consequences of being wrong are great. Have there ever been  
2 any consequences of -- you know, I mean major consequences  
3 of being a little wrong in assessing somebody better than  
4 what it is?

5 MR. CALLAN: Yes.

6 COMMISSIONER DIAZ: Which one?

7 MR. CALLAN: Last Thursday or Wednesday, Congress,  
8 in testimony at the Rayburn Building, reminded us of a GAO  
9 report that documented a couple instances where that had  
10 occurred, and from my experience as regional administrator,  
11 I think GAO had highlighted the Cooper experience as an  
12 example of that. It does happen.

13 COMMISSIONER DIAZ: It transitions rapidly from --

14 MR. CALLAN: No, no. The question isn't whether  
15 their performance transitions. The question is, was the  
16 staff wrong in making the judgement that they were a good  
17 performer, and then consequently backing off inspection  
18 effort, and then you build in a self-fulfilling prophecy  
19 syndrome where you assess a plant as being a good performer,  
20 you reduce inspection effort, which perpetuates the notion  
21 that they're a good performer.

22 COMMISSIONER DIAZ: What were the great  
23 consequences apart from being publicly noticed? When you  
24 say great consequences in the context of a nuclear power  
25 plant, I am thinking of great -- is that a partial core



1 melt-down?

2 MR. CALLAN: No. As the GAO noted in the case of  
3 Cooper, the consequences were a shutdown of the plant for  
4 over a year that perhaps could have been avoided had their  
5 declining performance been engaged earlier. That's a  
6 consequence that, had their declining performance been  
7 engaged sooner, that may have been headed off.

8 COMMISSIONER DIAZ: Would you say that the NRC has  
9 the expertise to -- and maintains the regulatory structure  
10 to be able to distinguish between, you know, safety as it  
11 pertains to adequate protection and other issues that might  
12 deteriorate and result in a plant shutdown without any  
13 safety consequences?

14 MR. CALLAN: Well, as you know, Commissioner, our  
15 regulatory regime is directed at identifying declining  
16 performance before it's manifested in situations that would  
17 threaten the health and safety of the public.

18 So, the whole -- I mean the figure of merit is to  
19 engage declining performance at its early stages, before  
20 they're manifested in the way you describe, and sometimes  
21 you engage the declining performance when the declining  
22 performance is manifested as a regulatory problem, the stage  
23 of where it's manifested as a regulatory problem, not as  
24 really a safety problem.

25 But that's the frontier that we try to engage

1 performance problems, and we're not always successful.  
2 Sometimes we miss declining performance, and then that  
3 performance will be manifested in the way you described as a  
4 more safety-significant issue, like a transient of some  
5 sort.

6 MR. COLLINS: Let me just add, against this  
7 backdrop, the fabric that we're dealing in is that this is  
8 truly a policy decision.

9 When the staff got together and came up with the  
10 attributes of the IRAP, as you know -- in fact, we've had  
11 previous discussions -- this process is deeply embedded in  
12 our regulatory processes as providing for inputs into this  
13 area, and it's pretty much limited to that, and the staff  
14 did that intentionally.

15 Any moving up or out, if you will, of our normal  
16 processes, some which would include -- and it's debatable,  
17 but some which would include the application of our programs  
18 to measuring good performance as opposed to regulatory  
19 performance, is looked at as truly a policy decision.

20 I think the input to that policy decision is much  
21 of what we have talked about here today. It drives  
22 inspection resources, it drives the perception of what the  
23 agency's mission is, do we have the attributes to be able to  
24 perform that function consistently?

25 Some of those have been built into the SALP

1 program historically. It's probably arguable about whether  
2 that's done well or not, but clearly, if the staff were  
3 directed to go back and re-address that area as a policy  
4 decision, we have the attributes identified to do that.

5 COMMISSIONER McGAFFIGAN: Could I just try to nail  
6 down this Cooper situation? Were they a straight SALP-1  
7 plant when they got into trouble?

8 MR. CALLAN: Well, at one point in time, Cooper  
9 was more or less a SALP-1 plant. Then their performance  
10 started declining.

11 When it exactly started declining, I'm not sure,  
12 but the regulatory processes -- because they were SALP-1,  
13 the inspection program there was a minimum program, their  
14 performance started declining, and the inspection program  
15 lagged their actual performance, and performance had  
16 declined to the point where it took an outage, as I said, to  
17 remedy the problems.

18 COMMISSIONER McGAFFIGAN: The question I have is,  
19 you know, if we're responsible for every outage, then, you  
20 know, Quad Cities, Indian Point 2 -- and I don't know who  
21 else is in outages at the moment -- there's Fermi, whatever  
22 -- who else is in the outage because of the --

23 MR. COLLINS: We have D.C. Cooke, Clinton Station.

24 COMMISSIONER McGAFFIGAN: Are we supposed to be  
25 able to -- does GAO expect us to be able to be so good that

1 we arrest everything before they ever have to get into an  
2 extended outage to fix anything? Because if that's the  
3 standard, it's impossible.

4 MR. CALLAN: No, I'm sorry, I wasn't trying to  
5 imply that GAO was setting our thresholds, but they simply  
6 documented an episode that occurred, and that's a difficult  
7 question. I lived through the Cooper experience, and I  
8 believe that we were probably one to two SALP periods behind  
9 them, but -- one-and-a-half to three years behind actual  
10 performance.

11 Now --

12 CHAIRMAN JACKSON: Well, I think we have to be a  
13 little careful here. The issue is the following, from my  
14 perspective.

15 You know, what is a regulatory agency's job, and  
16 is it meant to be preventative or is it meant to be  
17 remedial? And the question is one that, you know, it rests  
18 at a fundamental policy level which the Commission has to  
19 make a decision about, but the Commission, for many years --  
20 and it pre-dates any of us -- has always operated from the  
21 point of view that -- and we're working to make the  
22 regulatory requirements as risk-informed as we can make them  
23 but that conformance with them is the presumptive assurance  
24 of adequate protection.

25 Now, if the Commission wants to change the

1 thresholds as to where that is, that's within the  
2 prerogative of the Commission, but given that, then you  
3 cannot ask the staff to wait until there's public health and  
4 safety consequence to take the action.

5 COMMISSIONER MCGAFFIGAN: I'm not arguing that.

6 CHAIRMAN JACKSON: So, then the question we are  
7 really arguing about is where is that threshold relative to  
8 taking action before there's public health and safety  
9 consequence, and so, I think we should not necessarily give  
10 them a hard time based on operating within a regulatory  
11 fabric that has formed the basis of how the agency has  
12 performed and carried out its mission for years.

13 If we want to change it, that is the prerogative  
14 of the Commission to change it, and so, I think that's  
15 really --

16 COMMISSIONER MCGAFFIGAN: Joe warned me that the  
17 staff meeting that was preview to this was a pretty raucous  
18 meeting and maybe the Commission will be, as well, but I'm  
19 not arguing that at all.

20 I'm arguing that we follow our historical  
21 practice, which is to recognize superior performance, and I  
22 would want --

23 CHAIRMAN JACKSON: Right. But I think that's an  
24 argument and an issue in terms of gradation that can be  
25 recommended to the group to bring as an option to the



1 Commission, and then the Commission can decide if, in fact,  
2 it wants that additional gradation.

3 If we want it and want to ensure that the resource  
4 expenditures are put into it, we could make that decision,  
5 and we can tell them to do that. We can tell them to do it  
6 coming out of this meeting. We can tell them to do it as a  
7 consequence of developing votes or an SRM on the paper. But  
8 that's a decision. And all they've said is that they've  
9 stepped out this way. If we want further gradation, we can  
10 ask them to do it. If we want something else, we can ask  
11 them to do it. And so, that may be, in fact, an option that  
12 comes out of --

13 MR. BORCHARDT: If I could try to summarize, to  
14 the best of my recollection, five of the major points that  
15 were discussed, that led us to the conclusion that we did,  
16 that we ought not to try to recognize superior performers,  
17 that responsibility was not viewed by us as being a true  
18 regulatory responsibility.

19 The criteria for establishing excellent or  
20 superior performance does not exist currently. In fact, as  
21 you mentioned, others do it already, and therefore, we  
22 question the need for us to have to do it separately. There  
23 are resource implications in order to do that.

24 This is related, but there's a risk of distraction  
25 from what we thought was the most important job that we had

1 and that was to identify safety problems and to get them  
2 corrected, and for all the time that we spend trying to  
3 differentiate a good performer versus a superior performer,  
4 that's time that we're not looking for what might truly be  
5 significant safety problems, and we didn't want to do  
6 anything to distract ourselves from that.

7 CHAIRMAN JACKSON: Commissioner Diaz.

8 COMMISSIONER DIAZ: Going away from the superior  
9 to normal, I think that, really, what is indispensable --  
10 and maybe it's not coming out -- is that, in this process, I  
11 personally would like to preserve the prerogative that the  
12 staff always had in saying I am going to put fewer resources  
13 in this plant.

14 MR. BORCHARDT: And that still exists.

15 COMMISSIONER DIAZ: And so, you know, that is what  
16 should be clear, because you know, gradations are  
17 gradations, but it is important that we do focus on the  
18 safety issues, and it's important that the staff has the  
19 ability within whatever it is, and the fact is you do that  
20 today. So, it's not like a new issue.

21 What you might want to do is frame it in a little  
22 more structured sense, but from my viewpoint, it is  
23 indispensable that we will be able to focus resources.

24 CHAIRMAN JACKSON: I agree with Commissioner Diaz,  
25 and I think a difficulty has been -- and it's one that --

1     since we all are talking about where we've had discomfort in  
2     what we see to this point, I think what has never been  
3     totally married into this as part of the family is some  
4     senior management review or what the role of that's going to  
5     be and at what point in this process and how that determines  
6     what the agency is going to do.

7             That is, does it mean we apply some additional  
8     regulatory tool, does it mean we change our inspection focus  
9     or inspection intensity, etcetera, and I think what's been  
10    -- the focus has been on the PIM process and how that all  
11    works, and we need to get through this or we never will get  
12    through it, but I think that may be, you know, what the  
13    missing element is, and whether you call it greens and then  
14    deciding, among the greens, what you're going to do or  
15    whether you call it the reds and you decide among the reds  
16    what you're going to do, then I think that's the point that  
17    needs some clarity, as opposed to saying whether you're  
18    going to call them superior, you know, good guys or bad  
19    guys.

20            MR. BORCHARDT: There's a very definite role for  
21    senior management. There's several slides in here that will  
22    get me to that point.

23            CHAIRMAN JACKSON: Okay. So, don't we try to let  
24    him walk through this?

25            MR. BORCHARDT: I'll leave the boundary condition

1 slide. I'd like to reiterate once again the point on the  
2 last bullet there, that the process that we come up with, we  
3 think, needs to be able to accommodate any new tools, and  
4 we've listed a couple there on that slide.

5 COMMISSIONER MCGAFFIGAN: The current process, I  
6 think, can accommodate all of these new tools. I don't want  
7 to sound totally wedded to the status quo, I think it can be  
8 improved, but a lot of these attributes are attributes of  
9 the current process.

10 MR. COLLINS: I agree with that, Commissioner  
11 McGaffigan, but as a later slide will indicate, a change in  
12 one process will cause a redundant change in multiple  
13 processes as a result of the overlap we have now. That does  
14 not mean that a streamlining of the existing processes would  
15 create that same problem, but currently that does exist.

16 MR. BORCHARDT: Slide six, please.

17 The desired attributes of the new process were  
18 established early in the efforts. These were also developed  
19 through a review of the SRMs and the experience with the  
20 current programs, including insights gained through conduct  
21 of the region-based job task analysis and insights gained  
22 from our November public meeting with NEI and UCS.

23 CHAIRMAN JACKSON: How will risk significance be  
24 derived? I mean is it going to come from enforcement  
25 severity level? Is it a template overlay? I mean how is

1 that going to be done?

2 MR. BORCHARDT: Well, I think risk significance is  
3 becoming an increasingly important element of our day-to-day  
4 activities, and right now, it starts with how we choose the  
5 sample of what we look at, how we do our inspections, and  
6 now that we have SRAs in each of the regions, it's becoming  
7 more and more influenced by the SRA's activities, and we're  
8 using those people as a resource.

9 As inspection findings are identified, those same  
10 people -- and we have -- a quarter of the residents  
11 throughout the country have been to the PRA training, and  
12 so, 25 percent of the sites now have residents that have  
13 gone through that training, and that training is continuing.

14 CHAIRMAN JACKSON: All by the end of the year,  
15 right?

16 MR. BORCHARDT: That's right. That's the goal,  
17 and we're on track to meet that. And so, they bring that  
18 knowledge to their every-day activities. When they have an  
19 inspection finding, they use that knowledge and they use the  
20 assistance of the SRAs in the regions --

21 CHAIRMAN JACKSON: Do you use it to determine what  
22 their core inspection modules look like in the first place?

23 MR. BORCHARDT: The core inspection modules are  
24 being revised right now -- in fact, we have drafts with -- I  
25 have an SRA in my branch that has updated and made revisions

1 to all the core inspection procedures, and those are being  
2 revised.

3 There's a new appendix that provides PRA guidance  
4 to the inspectors as part of the inspection program. So,  
5 the information is getting out there, and it's being used.

6 CHAIRMAN JACKSON: So, it's going to have them  
7 focus more.

8 MR. BORCHARDT: On everything they do.

9 CHAIRMAN JACKSON: Okay.

10 MR. BORCHARDT: I think the view of the group was  
11 that we can't use this IRAP to inject from nowhere risk  
12 insights. If it doesn't start at the very bottom and work  
13 its way up and is integral to everything we do, then it's  
14 not going to work.

15 CHAIRMAN JACKSON: Okay.

16 MR. COLLINS: Including enforcement, I might add.

17 COMMISSIONER DIAZ: I've been preempted.

18 MR. COLLINS: I wanted to get that word in first.

19 MR. MARTIN: Can I also jump in here that Research  
20 is actually developing a technique to take the information  
21 in the PIM and, as it's moved into the template for analysis  
22 purposes, that it be risk-informed at that part.

23 The techniques are not finalized yet, but they've  
24 been working on that some time, and we can substantially  
25 enhance the assessment of the overall inspection results

1 with risk insights at that point, given that the information  
2 has been captured, the risk-significant information has been  
3 captured in the inspection process and documented into the  
4 PIM.

5 CHAIRMAN JACKSON: Okay. So, let me make sure I  
6 understand.

7 So, you're arguing that the inspection program  
8 itself is being risk-informed in the way that you just  
9 described, both in terms of what the core inspection  
10 procedures are as well as the actual training of the people  
11 who have to carry them out, and then Sam's side comment said  
12 that, in fact, the enforcement program is also being --  
13 having risk insights --

14 MR. COLLINS: I made that comment looking at Jim  
15 Lieberman, who was nodding his head.

16 CHAIRMAN JACKSON: Then you're saying, finally,  
17 you're developing this additional methodology having to do  
18 with how the PIM entries get migrated from the PIM to the  
19 template.

20 MR. MARTIN: That's correct. Research is doing  
21 that activity.

22 CHAIRMAN JACKSON: Please.

23 COMMISSIONER DIAZ: There is a mathematical  
24 technique, and let me just bring on in and see if I can  
25 understand this.

1           In a risk-informed process, when you make your  
2           assessment, if you really could find something that is a  
3           non-risk-significant item, will its value be close to zero  
4           as far as being considered in your template?

5           MR. BORCHARDT: Yes.

6           COMMISSIONER DIAZ: All right.

7           MR. BORCHARDT: I don't want to make you too  
8           optimistic, because part of the mix is the enforcement  
9           action that was taken in the integrated review activity.

10          COMMISSIONER DIAZ: And my question, will a  
11          resistor be placed in the enforcement category so that it  
12          be, quote, risk informed, the enforcement action?

13          MR. CALLAN: Jim Lieberman just revised one of his  
14          guidance memos.

15          Right, Jim?

16          COMMISSIONER DIAZ: He just put himself at risk.

17          CHAIRMAN JACKSON: No, he didn't, because this is  
18          a kind Commission.

19          MR. LIEBERMAN: Well, risk is -- like in the  
20          inspection process, risk is becoming more a consideration  
21          every day. We have revised guidance out to consider risk.  
22          We're using risk to increase severity levels. We're using  
23          risk to lower severity levels.

24          If a violation has zero safety significance, zero  
25          risk, that should be a minor violation, but when we look at



1 the severity level of the violation, there's three things we  
2 look at. We look at the actual consequences, the potential  
3 consequences, and the regulatory significance.

4 So, some issues may -- for example, involving  
5 integrity, willful violations -- that may take something  
6 which is a very minor risk but because of the integrity  
7 issue, that may raise it.

8 But if the bottom line on the issue is there's no  
9 safety significance, then that should be a minor violation.  
10 I believe that's going to be counted as a zero in the  
11 system.

12 COMMISSIONER DIAZ: Thank you.

13 CHAIRMAN JACKSON: Yes, please.

14 COMMISSIONER MCGAFFIGAN: We were talking about  
15 resources earlier, and we've got -- you know, somebody from  
16 industry watching this discussion would say, well, you know,  
17 what about the tremendous increase in severity level four  
18 violations the last year or two, and we spent a lot of  
19 resources.

20 If we're now, under the new system, going to worry  
21 about whether it's a zero or -- I don't know where the  
22 severity level four gets counted at -- I'm going to  
23 adjudicate and expect higher management attention to all  
24 these severity level fours in order to get them down to zero  
25 if, in the view of the licensee, they have zero risk or

1 safety significance, as they oftentimes say on the pages of  
2 Inside NRC or Nucleonics Week, but you may be creating an  
3 enormous resource burden on yourselves with -- how many  
4 thousand severity level fours are there -- 2,500, 3,000?

5 MR. CALLAN: Over 2,000.

6 COMMISSIONER MCGAFFIGAN: At the moment, those  
7 maybe don't get adjudicated very much. Maybe people take  
8 their lumps and say it was a minor violation but let it go  
9 through. But under this new system, I suspect they're going  
10 to fight it.

11 MR. LIEBERMAN: I'm not aware of the level fours  
12 increasing. The escalated actions have increased. I have  
13 not done the checking to see if the level fours have been  
14 increasing.

15 MR. CALLAN: No, they really haven't. That number  
16 is a little deceiving. If every resident wrote one  
17 violation every six weeks and every region-based inspector  
18 wrote on violation every four months -- I did a  
19 back-of-the-envelope calculation on this -- you'd get that  
20 number.

21 It's not a lot of enforcement activity by the  
22 inspection staff. Our problem isn't too much enforcement as  
23 managers. Our problem is enough in terms of performance of  
24 the staff.

25 MR. COLLINS: Commissioner, I'm not down-playing

1 the significance of your statement, but I look at that as a  
2 positive challenge, because I believe this process, as it's  
3 currently described -- and others could be built to have the  
4 same types of attributes -- will force the staff to look at  
5 consistency, and it will bring to light areas, perhaps,  
6 where we have not had to focus before because they have not  
7 had a major impact on follow-up or follow-through regulatory  
8 actions.

9 To the extent that enforcement and other PIM  
10 entries now become a focal for potential further regulatory  
11 actions, that will force discipline and consistency into  
12 those processes. I look at that as a positive challenge.

13 Potentially, if that's done, we will not be  
14 answering the types of issues that you reference in there.

15 MR. MARTIN: Commissioner, I'd also point out  
16 that, although individually, severity four violations may  
17 not mean a lot, if you see a pattern of those, it may  
18 indicate that there is an underlying problem of management  
19 enforcement of expectations and regard for the regulation,  
20 and that does necessitate us responding, and so, the PIM,  
21 created as we go with inspections, that PIM has to be  
22 assessed periodically to see is there a pattern here which  
23 is not revealed in any individual inspection but by the  
24 whole inspection program, and so, as a person that has to  
25 look at the operational data, we look for the patterns of

1 these, and enforcement is frequently a very good indicator  
2 of a trend that we haven't picked up otherwise.

3 CHAIRMAN JACKSON: Why don't we go on?

4 MR. BORCHARDT: Okay. Slide seven shows the  
5 objective, and I believe if we wrote the objective of what  
6 we are currently doing today, the objective that's written  
7 on this page would be less than we're doing today, largely  
8 because of -- what you don't see here is a recognition of  
9 superior performers, yet it, at the same time, maintains a  
10 focus, I believe, on the poorer performers.

11 The detailed objectives, another one of the things  
12 I think the ACRS was looking for and they hadn't seen before  
13 in this format, is that the process needed to be able to  
14 provide an early warning of declining performance, need to  
15 have some checks and balances with other processes -- that's  
16 both internal NRC and outside the NRC processes -- had to be  
17 timely, effectively communicate the results, and had to  
18 assist the agency in allocating resources.

19 CHAIRMAN JACKSON: Would it be fair to say -- I  
20 mean, for consistency, I mean would you call, for instance,  
21 your first bullet really your goal within this context and  
22 the second bullet is -- you know, really kind of summarizing  
23 your objectives, as opposed to saying overall objective,  
24 detailed objectives, and then you would end up having --  
25 your proposed approach is, in fact, your strategy. Is that

1 a fair statement?

2 MR. BORCHARDT: Yes.

3 CHAIRMAN JACKSON: And do we have a clear  
4 statement on what our safety performance overall goals are  
5 in a set of performance indicators for measuring -- you  
6 know, this is process, but this has to be married in terms  
7 of performance indicators. Have you done some thinking  
8 about that?

9 MR. MARTIN: Chairman, we have, and right now,  
10 we're not ready to draw a bright line that says, you know,  
11 above a certain number, this is unacceptable performance. I  
12 don't know that we're that smart yet.

13 CHAIRMAN JACKSON: Okay.

14 MR. MARTIN: But we are certainly looking for  
15 that, and we recognize that one of the complaints we have  
16 from the industry is there's not a clear articulation of  
17 what is expected here other than compliance. They obviously  
18 know compliance, we understand compliance, and so, they are  
19 concerned that we are criticizing them at a level above  
20 compliance.

21 COMMISSIONER DIAZ: In that overall first  
22 objective, where you said safety performance of all U.S.  
23 nuclear power plants, I think that's a very important  
24 difference from the way we used to do things, because we  
25 used to just quickly narrow it down.

1           One point that I think is important is, even if,  
2   in your algorithm, you are not weighting in what I will call  
3   a good performance on a specific area, I think it's  
4   important that your database keeps that for reference,  
5   because in the case that something comes up in that area,  
6   you then already have the information in the same process,  
7   you don't have to look for it.

8           So, it is not a balancing act, because you know, I  
9   think you know the direction I'm going, but it is a very  
10  important factor.

11          The data comes in and you have it, and I think  
12  that's the value of the Plant Issues Matrix that we already  
13  have being used to some extent -- I don't think to the rigor  
14  that this process would require it to be but that it has  
15  that running database of inspection information.

16          COMMISSIONER DIAZ: And you will keep that.

17          MR. BORCHARDT: Yes.

18          COMMISSIONER DIAZ: And we can see it, and the  
19  licensee will be able to see it. Good. The stakeholders  
20  will be able to see it.

21          MR. BORCHARDT: Everyone.

22          COMMISSIONER DIAZ: Good.

23          CHAIRMAN JACKSON: Go ahead.

24          COMMISSIONER McGAFFIGAN: As I understand it,  
25  though, you're not going to put good information in there.

1 If an inspector walks around the plant and everything is  
2 just perfect, never saw a better plant in their lives, not a  
3 question that they're close to a margin anywhere in their  
4 operations, their maintenance, zero backlog, everybody got  
5 100 on the last plant operator licensing exam, and none of  
6 that is going to go into the Plant Issues Matrix. It will  
7 be a blank page.

8           There will be no issues, so the lack of issues, I  
9 guess, will indicate that it's probably a current 2 -- a  
10 current 1 but, in the new system, green, because there won't  
11 be anything there.

12           MR. BORCHARDT: The difference is it would still  
13 be in the inspection report, I think, documentation of what  
14 the inspectors did, what they looked at.

15           The finding would be that there were no findings,  
16 that everything was acceptable, no problems with performance  
17 identified, and so, therefore the group has suggested that  
18 the absence of negative findings indicates acceptable  
19 performance.

20           But that does not mean that -- very seldom would  
21 you see that situation, where everything's fine and perfect  
22 at the plant.

23           COMMISSIONER McGAFFIGAN: I'm sure that's true.

24           MR. BORCHARDT: The inspector, just as the  
25 inspector has to today, has to balance positive findings

1 versus weaknesses identified and, in coming to the  
2 conclusions and assessments about overall performance within  
3 a given area for that inspection, has to do that evaluation,  
4 and that would still continue.

5 So, I would think, in the inspection report, there  
6 would have to be a basis provided for how that judgement was  
7 made.

8 What we're saying -- what won't be done, however,  
9 thought, is that what now populates inspection reports are  
10 some positive findings. We would not spend the time to try  
11 to grade those positive findings and to counterbalance  
12 within the IRAP process the negative findings with the  
13 positives.

14 COMMISSIONER DIAZ: But you will still have them.  
15 They will still say, in the example that I discussed with  
16 Mr. Callan the other day, if you have a plant that has a  
17 10-year history of superior steam generator inspections and  
18 tracking and water chemistry, you know, and is there, and  
19 all of the sudden, there is a problem with the steam  
20 generator, you have additional data that would say this  
21 issue has been tracking good and all of the sudden there is  
22 an issue which is different, but you will still have the  
23 fact that it was assessed superior. There will be someplace  
24 in the database to include that, but you will not making  
25 judgements on it.



1           MR. BORCHARDT: There would be a record that an  
2 inspection was done in that area, that there were no  
3 negative findings. I'm not in a position to be able to say  
4 to what extent acceptable performance would be documented.  
5 I don't think we have figured that out yet.

6           But you would know how many inspections were done,  
7 and if there weren't any problems identified, what we're  
8 saying is that means that they were acceptable, and then the  
9 first time you get a problem, you know this is the first  
10 time out of five times looking in this area that we have  
11 identified a problem.

12           MR. CALLAN: I'd like to make two quick points on  
13 this.

14           I think it's important to keep in mind that the  
15 inspection guidance that we have out to all of our  
16 inspectors says that we have an absolute obligation to  
17 provide proper context for all of our findings but not  
18 balance. We're not obligated to provide balance.

19           What we're obligated to do is to make sure all of  
20 our findings are presented in the right context. So, to use  
21 Commissioner McGaffigan's example, if a plant is otherwise  
22 flawless and find the singularity, the one example of  
23 whatever it is, the missing hanger, the missing signature,  
24 whatever, the PIM entry should reflect that context, and if  
25 it doesn't, then that's poor regulation, it's poor

1 inspection.

2 The second point is -- and this is probably the  
3 most important and was the pivotal issue in swaying my view  
4 on this subject. As the staff knows, I probably resisted  
5 this issue more than any in the early stages of my personal  
6 odyssey here.

7 If you look at, historically, what we're most  
8 vulnerable to, I think it's to rationalizing low-level  
9 degradating performance -- in other words, the chronic poor  
10 performer, not the acute poor performer. I think we rally  
11 around -- we quickly reach a consensus when we recognize an  
12 acute safety issue. That's not our assessment problem.

13 Our assessment challenge is a plant that has  
14 declining performance in a chronic way over a long period of  
15 time, and if you analyze that vulnerability, you find that  
16 we're often guilty of rationalizing that poor performance  
17 because of noted good attributes, you know.

18 We will note positive management attitude, we'll  
19 note new programs, and those positive attributes mask the  
20 reality, the facts, and so, the question is, where do you  
21 want to inject the positive insights? Do you want to inject  
22 them at the beginning, or do you want to withhold that and  
23 use those positive attributes as an override factor at the  
24 regional administrator level or at the Senior Management  
25 Meeting level, and you do that with caution and you do it in

1 a deliberate way and you have to have a compelling argument  
2 to say -- if the IRAP process gives you an answer you don't  
3 like and you think you know better, you think that it's a  
4 misleading answer, it doesn't reflect reality, then the  
5 burden of proof is on the senior managers to provide the  
6 compelling arguments why the plant shouldn't be red, to use  
7 that example, why it's green, and that's where you can bring  
8 to bear all that positive -- but you have to do that very  
9 cautiously, because that is a vulnerability in our process,  
10 our current process, that still exists.

11 COMMISSIONER McGAFFIGAN: I'm not sure that you  
12 correct a vulnerability without creating a new one. As I  
13 say, if everything is two -- let's say two is green -- I  
14 interpret two -- two today is a good performer who's meeting  
15 regulatory requirements, meets regulatory requirements gets  
16 you a green. There's an absence of findings.

17 The ones are going to meet this easily, hopefully,  
18 today, unless our ones -- our process for identify ones is  
19 messed up. So, all the ones are going to be green and a lot  
20 of the twos are going to be green, and you're not going to  
21 be able to distinguish between the twos and the ones the way  
22 you do today, and resources may be mis-applied.

23 I don't know. You're solving one problem and  
24 perhaps creating another.

25 CHAIRMAN JACKSON: Well, it strikes me that, if

1 one is planning the work and deciding what the core  
2 inspection program is, then that's something that exists,  
3 that you decide that, as a regulatory agency, you have to  
4 do.

5 It's like saying, well, this guy hasn't crashed  
6 any planes yet, you know, recently, so I'm not going to  
7 inspect him, and I don't think any of us are going to say  
8 that that's where, as a regulatory agency, you would go, but  
9 it does say what is your core inspection program relative to  
10 where the risk is, and then you can add to or take away from  
11 that, depending upon what you find.

12 And so, I think an important issue within this is  
13 tying it to what the objectives of the inspection program  
14 are and how does meeting those objectives, you know, drive  
15 what the fundamental inspection program is.

16 I mean I've asked that question before in terms  
17 of, you know, why do we inspect and what should be  
18 inspected, and what is the base-line program that we as a  
19 regulatory agency should have, and once you get there, then  
20 you can talk about, you know, what goes up from there, but  
21 if that's the base-line program for adequate protection,  
22 then that's what you do, and you can argue that there will  
23 be others who get escalated activities or looks, but the  
24 question is what is the base-line program, because otherwise  
25 you're saying that inspection goes away because a person

1 hasn't had a problem or a licensee has not had a problem in  
2 five years that you don't inspect them anymore?

3 COMMISSIONER MCGAFFIGAN: No, I don't think that's  
4 the straw-man being put up. We have residents at every one  
5 of these sites. I don't think there is a base-line program  
6 where everybody on a certain day inspects a certain thing.  
7 There are 70 sites or so.

8 CHAIRMAN JACKSON: No, but they get guidance in  
9 terms of what the core things are that they should --

10 COMMISSIONER MCGAFFIGAN: It's executed  
11 differently.

12 CHAIRMAN JACKSON: Of course it's executed  
13 differently, but there still is base-line guidance as to  
14 what they ought to be doing. Sure, there are 104 reactors,  
15 and each one is different. That's part of the problem we  
16 have.

17 But nonetheless, there is a base-line -- what is  
18 it that you should take a look-see at, and it is going to  
19 get tailored to that specific site to a certain extent,  
20 because the site is unique, but you still should be able to  
21 define what is a fundamental level at which you have to  
22 look, and that's going to get re-normalized according to (a)  
23 the specifics of the plant, (b) what you find. But it has  
24 to be predicated on knowing what is the fundamental program  
25 and risk-informing it appropriately.

1                   COMMISSIONER DIAZ: I heard Mr. Collins say that  
2 something that is very important and which might not be  
3 obvious in the diagrams, and those were -- I call the  
4 decision-making nodes in which, at regional level, somebody  
5 will be able to establish what is the actual weight of the  
6 findings relative to something else, and I think that is --  
7 as the process is developed and grows, that has to become  
8 very evident.

9                   CHAIRMAN JACKSON: I think that's a good point,  
10 and that's what I keep saying, that to the extent that  
11 everybody focuses just on PIM entries, then they're missing  
12 the point. It is an integrated process, and you guys ought  
13 to make that more clear in your presentation, and maybe  
14 that's what's missing, because if people understand, then  
15 they understand more how the process works, but maybe it's  
16 our fault because we haven't let you go through your  
17 view-graphs. So, why don't you proceed?

18                  MR. BORCHARDT: The last point I'd like to make on  
19 slide eight is the second bullet, and that is the task group  
20 felt that the tools that currently are provided by the  
21 regulations are, in fact, sufficient for us to do our job  
22 and that the tools such as the watch list and the trending  
23 letter are not needed and, in fact, have generated  
24 unintended consequences that we think this new process can  
25 avoid.

1           MR. BURNS: I would add that, on that list, the  
2 second bullet, it's missing, one, notices of violation,  
3 which are really the first level of enforcement action,  
4 formal enforcement actions. It should be added there.

5           CHAIRMAN JACKSON: Actually, I said it's  
6 interesting that the tools do not include enforcement  
7 actions, but okay.

8           MR. BORCHARDT: Slide nine, please.

9           This slide tries to show an integrated one-line  
10 diagram of the group's proposal.

11           The next three slides break down this one line  
12 into the three major components of inspection, periodic  
13 assessment, and action decisions.

14           CHAIRMAN JACKSON: Let me ask you a quick  
15 question, because it comes back, in a certain sense, to what  
16 we have been discussing.

17           What is the primary tool for ensuring consistency  
18 across the regions?

19           MR. BORCHARDT: It's really two things, I think,  
20 in my mind.

21           One is the quantification of the matrix that is on  
22 slide 13 allows an easy comparison of inspection findings  
23 across the country.

24           The other is the results of the annual review that  
25 is done -- says routine roll-up, annual regional review

1 meeting --

2 CHAIRMAN JACKSON: But that's at the regional  
3 level.

4 MR. BORCHARDT: Well, it's really an agency  
5 meeting. I really don't like the name. I'm going to change  
6 the name of that.

7 MR. CALLAN: Your question is how did we achieve  
8 -- identify and achieve?

9 CHAIRMAN JACKSON: Right.

10 MR. CALLAN: With the new process.

11 CHAIRMAN JACKSON: Right.

12 MR. CALLAN: My concern, quite frankly, Chairman,  
13 is the new process will only too quickly identify and make  
14 public all of our flaws.

15 CHAIRMAN JACKSON: I understand that.

16 MR. CALLAN: It will quickly highlight any lack of  
17 consistency amongst -- not only amongst the inter-region but  
18 intra-regional inconsistencies.

19 CHAIRMAN JACKSON: I understand it will highlight  
20 it, but how do we go on the search to look at it?

21 MR. CALLAN: Well, first we have to identify it,  
22 and for example, in the last several months, as you know,  
23 we've identified a fair amount of inconsistency with  
24 non-escalated enforcement, and our FY '99 budget cycle  
25 provides resources to attack that inconsistency.



1           We have to identify the inconsistencies, hold  
2 people accountable, and then we can deal with it, and this  
3 process does that. It will hold us accountable, unlike  
4 anything that we've ever had before.

5           MR. COLLINS: There will be various ways, some  
6 currently institutionalized, some to be developed, with this  
7 process.

8           An example would be it would be very easy to do a  
9 search, as we currently have the capability, of plants that  
10 have an equal amount of inspection hours at the end of  
11 quarters or fiscal years.

12           We could then look to see if those are a similar  
13 technology, similar vintage, and we could look at how the  
14 PIM totals up to see if the issues that are being found at  
15 those sites, for the equal amount of hours, for an equal  
16 amount of technology, are similar or not similar.

17           Based on that, is the region adjusting their  
18 inspection program and are we, therefore, consistent at a  
19 much finer level of detail than we can do now.

20           CHAIRMAN JACKSON: And I guess I'm just asking  
21 where in the process and who is going to make that --

22           MR. BORCHARDT: Two places.

23           The Annual Regional Review Meeting is held in the  
24 region, therefore its name, but it is very similar to  
25 today's screening meeting in that it has participation from

1     NRR, AEOD, OI, Office of Enforcement. So, all of those  
2     offices -- and I'm sure I left some out -- will participate  
3     in that annual meeting.

4             The results of that meeting will go to the Agency  
5     Action Meeting, which is the senior managers, and so, they  
6     will provide a program overview of the results of every  
7     reactor in the country to be able to do an assessment of  
8     whether or not a given plant is inappropriately positioned  
9     or we see a difference in implementation from one region to  
10    the next.

11            COMMISSIONER McGAFFIGAN: As I understand the  
12    Plant Issues Matrix -- correct me -- how many are there  
13    potentially in it? Maybe I'm thinking of the assessment  
14    framework that it rolls into, but there's like 24 entries or  
15    16 that you're going to roll into red, green, yellow?

16            MR. BORCHARDT: Well, the Plant Issues Matrix is  
17    really nothing more than a --

18            COMMISSIONER McGAFFIGAN: -- a list of the issues.

19            MR. BORCHARDT: Right.

20            COMMISSIONER McGAFFIGAN: But then when you try to  
21    roll it into the integrated assessment, where do things get  
22    scored? Is that an ongoing thing that anybody in the public  
23    can see --

24            MR. BORCHARDT: Yes.

25            COMMISSIONER McGAFFIGAN: -- the plant at the

1 moment, in the 16 categories, is green in 15 and red in 1?  
2 That will be an ongoing thing?

3 MR. BORCHARDT: The individual inspection issues  
4 would be graded with the issuance of each inspection report,  
5 be provided with the inspection report, so that the public  
6 and the licensee could see what the staff's assessment was  
7 and the grade.

8 COMMISSIONER McGAFFIGAN: Will it also be  
9 transparent as to how that rolls into this assessment  
10 matrix?

11 MR. BORCHARDT: We would designate what we thought  
12 was the functional area on slide 13 now, whether the issue  
13 belonged under material condition and it was caused by a  
14 human performance problem, so you know, you'd go down and  
15 over, and that's the block that it would be in.

16 COMMISSIONER McGAFFIGAN: I'm trying to get a  
17 point here.

18 So, in real time, people will know that the NRC is  
19 currently grading each of 70 sites or so these folks, and  
20 so, inconsistencies may start -- people will do things like  
21 assign green 1 and yellow 2 and red 3 and they'll say that  
22 this is a 1.275 plant or a 2.395 plant, and that all will be  
23 going on, and in real time, as I understand it, under this  
24 proposal --

25 MR. COLLINS: I anticipate there will be a whole

1 new cottage industry out there for entrepreneurs to --

2 COMMISSIONER McGAFFIGAN: Yes.

3 MR. COLLINS: -- provide that type of information.

4 COMMISSIONER McGAFFIGAN: I may have left the  
5 Commission by then and that will be my first role in life.

6 CHAIRMAN JACKSON: Oh, you're going to set up your  
7 business? You better be careful.

8 COMMISSIONER McGAFFIGAN: My business will be  
9 telling the world what we are, what the 104 plants are at  
10 any one time.

11 But how do you then get consistency? I'm leading  
12 up to -- one of the values or wonderful things about this is  
13 that people are going to know exactly they're at 1.25 -- no,  
14 they got a new inspection finding, they went up to 1.23,  
15 they went down to 1.29, and you have 70 different processes  
16 going on for 70 different sites, with potential  
17 inconsistencies that we've just been talking about, not just  
18 trying to have consistencies among four regions but among  
19 70, and how is that all going to work?

20 MR. BORCHARDT: Well, my answer to that is that,  
21 in the annual regional review activity, we're going to be  
22 taking other sources of information such as the work that  
23 AEOD is doing with performance indicators, with the trend  
24 methodology, with the risk program that Mr. Martin referred  
25 to that the Office of Research is working on.

1 All of those elements come together at that  
2 meeting, and we see whether or not -- I don't know if  
3 consistency is the right word at this point or if it's  
4 accuracy, but is the inspection program, which is populating  
5 the Plant Issues Matrix and populating that matrix, giving  
6 us an answer that is consistent with all these other  
7 independent data sources?

8 If not, we have to ask ourselves, was it a  
9 shortcoming with the inspection program, did we not look in  
10 the right areas, did we have incorrect findings, or you  
11 know, maybe those other programs are missing something that  
12 the inspection program saw.

13 But it at least forces us to --

14 COMMISSIONER MCGAFFIGAN: But which number is  
15 public? Is it that chart on page 13 that's public for every  
16 item, or is it something that happens at the annual regional  
17 meeting, where we say, well, they aren't really a 1.25  
18 because of -- their performance indicators are quite low and  
19 they've had other problems lately, and so, we're going to  
20 re-normalize now and say, instead of 1.25, former  
21 Commissioner McGaffigan, you've got it wrong, it's 1.75,  
22 we're knocking them down 5/10ths of a point because of  
23 judgement, and then how is that built in? I mean how is  
24 that made scrutable?

25 MR. BORCHARDT: In my view, chart 13 would be

1 public throughout the year. It would be built -- the  
2 database would be accumulated and be built.

3 At the annual meeting is where a judgement would  
4 have to be made. The summing of those inspection findings  
5 would lead us through exercising the decision logic to a  
6 certain conclusion, but we didn't want to rely on that.

7 So, we're using many of these other data sources  
8 to force us to compare those inspection findings and what  
9 that would have told us to do against these other  
10 independent sources, and that is where management has to  
11 make a decision, if there is a difference, how do we  
12 interpret that and what is going to be the agency action?

13 We wouldn't change the numbers in chart 13. Those  
14 are what they are. They have been established by the  
15 inspection program.

16 What the eventual actions are for that licensee is  
17 it may be heavily influenced by what the senior managers  
18 view as the integrated analysis of all these independent  
19 sources, as well as the inspection program.

20 COMMISSIONER MCGAFFIGAN: But are all those other  
21 data going to be made public, as well, so that if the  
22 integrated assessment process isn't leading -- and this  
23 matrix isn't leading to what the -- our best judgement of  
24 the score is, how are all these other items that may lead  
25 you to a different assessment going to be put in?

1 I mean, at the moment, the Senior Management  
2 Meeting book, which has stuff like that, is labeled  
3 pre-decisional and we don't put it out. Would we be putting  
4 out the Senior Management Meeting or the regional book in  
5 its entirety so that people could see the other data that  
6 we're taking into account?

7 MR. BORCHARDT: We haven't discussed that in  
8 detail, but my personal view is that, to be consistent with  
9 everything else we're trying to do, that all those data  
10 sources would have to be --

11 MR. CALLAN: Anytime the results of the algorithm  
12 or the binning is overridden by other insights, then those  
13 insights and that rationale has to be entirely scrutable,  
14 because otherwise we're right back into the same  
15 vulnerability we had before, you know, which is what we're  
16 trying to fix.

17 The other point -- you were talking about  
18 consistency. Let's talk about fairness for a minute.  
19 Fairness -- at least the reality and the perception of  
20 fairness is very important in the regulatory process.

21 This process does inject, in my view -- and I  
22 don't know whether the industry would agree with this -- a  
23 degree of fairness that our current process doesn't have,  
24 because at each six-week roll-up period, the licensee is  
25 presented the information, they have to come out of the

1 closet.

2 They have to provide some creative tension, and  
3 right now, many licensees don't. They're very passive.

4 COMMISSIONER DIAZ: Or we come out of the closet.

5 MR. CALLAN: We come out of the closet.

6 But we basically beg the question -- do you agree  
7 with these results, and if not, why not?

8 CHAIRMAN JACKSON: Talk slowly. Let me ask you  
9 two quick questions.

10 Do you anticipate that corrective actions have to  
11 await the results of your annual meetings?

12 MR. BORCHARDT: Corrective actions of the  
13 licensees? Absolutely not. This is completely in parallel  
14 with our day-to-day responsibilities.

15 MR. COLLINS: This does not negate the normal  
16 process which currently exists in the regions for the  
17 regions to take actions that they deem appropriate.

18 CHAIRMAN JACKSON: This doesn't override that.  
19 This is assessment.

20 MR. COLLINS: Yes.

21 CHAIRMAN JACKSON: Secondly, where does the trend  
22 methodology and the regression models enter the process  
23 again?

24 MR. BORCHARDT: On chart 9 -- formerly, they would  
25 enter in at the Annual Regional Review Meeting.



1 CHAIRMAN JACKSON: Okay. I shall return.

2 MR. BORCHARDT: Slide 10 takes a portion of that  
3 one-line diagram that focuses largely on the inspection  
4 process.

5 The process starts with inspection findings and  
6 the assignment of significant values. The PIM issues, as we  
7 already discussed, are assigned significant grades and are  
8 issued with each inspection report.

9 The Plant Issues Matrix then becomes the first  
10 opportunity for -- to gather licensee feedback on the issue  
11 significant values that have been assigned.

12 At this point, the items are scored, and all of  
13 this data collection is through the inspection program at  
14 this stage.

15 On slide 11, this is the assessment process  
16 portion, and although the assessment is done continuously by  
17 both the NRC staff and the licensee and the public, because  
18 all the inspection information is public, at least annually  
19 the agency will perform an integrated review, and although  
20 the meeting is called the Annual Regional Review Meeting,  
21 because it's located in the region, it's really an agency  
22 meeting, with participation from a wide range of offices.  
23 It analogous to today's plant performance review and  
24 screening meetings combined into a single meeting.

25 We would expect the meeting to occur over probably

1 a series of days in one region so that all plants within a  
2 region would be done within a couple days.

3 COMMISSIONER MCGAFFIGAN: Would this be public?

4 MR. BORCHARDT: No.

5 COMMISSIONER MCGAFFIGAN: Why not? Is there any  
6 public meeting -- I mean, at least in the current Senior  
7 Management Meeting process, at some point you guys come to  
8 the Commission and have a public meeting. I don't see that  
9 in here.

10 MR. BORCHARDT: That's on the next slide.

11 MR. COLLINS: I think that's a very good question  
12 we have to work our way through. I'm not sure that we have  
13 even thought about addressing it.

14 Some of the issues which Steve Burns may know  
15 better than I would be whether it's considered  
16 pre-decisional to an agency action.

17 In other words, if we were to decide, based on  
18 that meeting, that we might go down the path of a regulatory  
19 action, whether it be a 50.54(f) letter or an order, we  
20 might be discussing instances, potentially, of allegations,  
21 allegation trending specifics, harassment-intimidation.

22 I think, in an idea sense, the types of issues we  
23 are talking about should be readily publicly available. It  
24 would be more of a decision-making process if it would be  
25 termed pre-decisional that I think we have to be careful on.

1 But certainly we have to look at that. I just think we  
2 haven't perhaps considered it.

3 MR. BORCHARDT: The first bullet under assessment  
4 there, "Licensees can provide self-assessments," that would  
5 be a public meeting at which the licensee has the  
6 opportunity to provide their own self-assessment of  
7 performance to the staff as it prepares for this annual  
8 meeting. That would be public.

9 But we did not envision -- but to be honest with  
10 you, we didn't even really consider whether or not the  
11 actual regional review meeting would be --

12 COMMISSIONER MCGAFFIGAN: I'm just going back to a  
13 comment that Mr. Lochbaum, I think, of UCS, at one point  
14 made about the process, and that was that you should discuss  
15 all the plants before the Commission, presumably over an  
16 extended period, and tell us about each one, and that was  
17 something he wanted to see in this result.

18 That, I don't think, is what this agency action  
19 meeting at the end intended to do. You're not going to  
20 discuss with the full Commission every plant under this  
21 proposal, as I understand it.

22 So, to the extent the public is going to  
23 understand something scrutable about why the region judges  
24 the plants the way they judge them and has, like the SALP  
25 process today, a chance to at least witness what's going on,

1 it looks like this regional meeting may be it.

2 MR. BORCHARDT: Okay. There's a couple of points  
3 to make here.

4 As we have now a SALP management meeting following  
5 issuance of the SALP, there's a public meeting with the  
6 licensee, there would still be an annual meeting between the  
7 region -- between the NRC staff and the licensee held at the  
8 licensee's facility, public meeting, to discuss the results  
9 of the annual assessment. So, that would still take place.

10 COMMISSIONER DIAZ: At which time the licensee  
11 can, you know, say I don't agree with you.

12 MR. BORCHARDT: Absolutely, yes.

13 MR. CALLAN: And they'll have multiple times  
14 during the year, also.

15 COMMISSIONER DIAZ: Sure. But in a public forum,  
16 they will have an opportunity to say this is not right or  
17 this is right.

18 MR. COLLINS: Some of these discussions at the  
19 deliberative processes, even SALP internal assessment  
20 meetings, there are a number of views that are proposed by  
21 the staff at those meetings. Ultimately, the process  
22 prevails and they're sorted through using the process.

23 I would not want to inhibit that deliberative  
24 process of the staff, knowing that it comes to a conclusion  
25 which then has to be substantiated in its final form in a

1 public meeting.

2 I would not want to detract from that  
3 give-and-take and openness of that process within the NRC  
4 staff. That would be a concern.

5 MR. BORCHARDT: On slide 11, the research risk  
6 activity trying to take a look at a year's worth of  
7 inspection and other information and coming up with the risk  
8 insights on an integrated type of format -- that would be  
9 done as part or in support of this annual regional review  
10 meeting.

11 MR. COLLINS: A point to make -- and it's not an  
12 impediment currently, but it is a major consideration -- and  
13 that is that our current inspection program does not match  
14 annual cycles. Our current inspection program matches SALP  
15 cycles, which are 12 to 18 to 24 months, the average being  
16 approximately 18.

17 If we were to go to an annual cycle, there would  
18 be a fairly significant adjustment to the inspection  
19 program. The considerations would be do we take 18 months  
20 of inspection and move it down to 12? I think the answer to  
21 that is probably no.

22 So, it would take a look at that program to  
23 determine, fundamentally, which is the second phase of our  
24 committed review on regulatory excellence, to understand how  
25 much inspection is enough and what type of inspection is

1 appropriate to support these 12-month cycles.

2 MR. CALLAN: We have that problem in a massive way  
3 today, because we have this 18-month inspection cycle and  
4 we're doing assessments every six months, and so, the first  
5 six months in an 18-month cycle is pretty sparse.

6 So, this is not a new problem. We just hope to  
7 lick the problem that's been with us for a decade.

8 COMMISSIONER DICUS: I think I'd go back to  
9 Commissioner McGaffigan's question earlier regarding  
10 resources. I see a possibility of this becoming even more  
11 resource-intensive. You're saying because you're only going  
12 to do this every year --

13 MR. BORCHARDT: There's a slide later in the  
14 package which tries to show that there's far fewer meetings.

15 MR. CALLAN: Let's look at slide 16 just briefly.

16 COMMISSIONER MCGAFFIGAN: There are fewer  
17 meetings, but the point about my ones versus twos -- the  
18 average plant today out there is about at 1.5, right?  
19 You've got a couple of ones and a couple twos or they've got  
20 three ones and a three, and if you guys now -- and the ones,  
21 as you say, have consequences at the moment, and if those --  
22 less inspection.

23 If you now homogenize on two, you're going to have  
24 to find the resources to, as Sam says, get everything done  
25 right, unless in the transition from the current system to

1 the new system, you say, well, they are ones at the moment  
2 and so we won't go quite as rapidly to fill every box in the  
3 matrix for the ones from the old system as the new system  
4 would require.

5 COMMISSIONER DIAZ: But I think that the issue --  
6 I'm not sure I'm right -- is that it is information  
7 processing-intensive, not necessarily more  
8 resource-intensive.

9 In other words, there is more manipulation of  
10 data, accumulation, and tracking, but because of the  
11 informatics that we have available, that doesn't make it  
12 more resource-intensive.

13 MR. CALLAN: Let me say one thing about inspection  
14 resources, because this may not be apparent, but the average  
15 site, homogenized, averaged over 104 sites, is about 2,700  
16 hours per year today, and it may go down to 2,500 in FY  
17 2000, depending on how you all deal with the budget  
18 proposal, but 2,700 hours.

19 The station between a SALP-1 inspection regime and  
20 a SALP-2 inspection regime is a few hundred hours, you know,  
21 500 hours perhaps in an extreme.

22 Where the big delta occurs is that handful of  
23 bottom-rung plants that get four, five, six, seven, eight,  
24 ten thousand hours. As you know, Region III has about a  
25 half-dozen sites that are getting 8,000 hours plus, you

1 know. So, that dominates the inspection resource issue,  
2 completely dominates it.

3 So, any distinction between a good performer or a  
4 superior performer and a not so superior performer is  
5 completely dominated by how we do the bottom end of the  
6 spectrum, and to the extent that we're smarter and more  
7 accurate in identifying those bottom-rung performers, we  
8 have the potential to realize tremendous resource savings  
9 and not just sink inspection resources, you know,  
10 inappropriately into a site that doesn't deserve them.

11 COMMISSIONER DICUS: Isn't that what we're doing  
12 now? I really can't see how the new process prevents that  
13 or saves those resources.

14 The new process, if we go to it after it's fleshed  
15 out, simply says we're going to identify plants that need  
16 additional attention.

17 Then we've got many more plants that -- I'm not  
18 quite sure what we're going to do with them, and it seems to  
19 me we set up a potential, if we concentrate resources on the  
20 plants that we think need those resources, taking them away  
21 from plants that are mediocre or whatever we're going to  
22 call the not-getting-attention plants, how can we tell that  
23 one of those plants will not begin to decline in  
24 performance?

25 Even though we have the resident inspectors there,



1     how are going to catch that, and how is that different from  
2     what we are doing today? Maybe we've been talking around  
3     it, but I haven't seen it.

4             COMMISSIONER DIAZ: Well, I think that's precisely  
5     what this process is trying to address. It is supposed to  
6     address that.

7             MR. BORCHARDT: The way, I think, that makes it  
8     easier -- it goes back to -- largely to the quantification  
9     of individual inspection issues, which allows you, on slide  
10    13, to place each issue into the appropriate box, and you  
11    can add them up.

12            In the area of operating performance, you just  
13    take all the issues that are in any of those four blocks  
14    under operating performance, and you can add them and come  
15    to a comparative judgement about how well that licensee is  
16    performing.

17            That will lead you to, I think, in a more direct  
18    way than we do today, being able to assign inspection  
19    resources at an appropriate level.

20            If you found that there were a large number of  
21    issues that had significance in the human performance and  
22    operating performance block, that would allow you to  
23    pin-point where you needed to perhaps do additional  
24    inspection, and that process, that ability doesn't exist  
25    today, because all we have is a listing of inspection issues

1 with -- we have to rely upon the managers to integrate  
2 within their own heads the significance of those issues and  
3 to integrate that in order to come to that resource  
4 allocation judgement.

5 MR. MARTIN: The appeal of this new process -- and  
6 having been involved in the previous process, where we had a  
7 PPR and we had a SALP and we had a Senior Management Meeting  
8 -- are a couple-fold.

9 First of all, this process will not have the same  
10 redundancy of review and repackaging of the same individual  
11 insights for different purposes. To the extent it can, it  
12 improves that efficiency and removes as much redundancy in  
13 that as you go through the phases. In fact, they actually  
14 now feed into each other.

15 The second part is that the process -- and it's  
16 not fully articulated, we recognize that. We still need to  
17 do some more work, but the process will be far more  
18 scrutable. They'll see how we have said we're going to get  
19 from this point to this point, we're going to give the  
20 public access here, they're going to see it, there's going  
21 to be QC by the licensee here, and they can see products out  
22 of the various parts, and where we make decisions that  
23 aren't obvious from the input into those processes, we have  
24 an obligation to articulate why we did something different  
25 or why we came to a different conclusion.

1 I think, in a lot of ways, though, the rest of the  
2 process is going to be pretty much the same in terms of  
3 resource commitments. Problem plants are still going to  
4 have to dealt with. Plants that are doing well -- we'll  
5 adjust the inspection resources for those.

6 We'll still have to do quality inspections. We'll  
7 have to make changes to the inspection program as we see  
8 ways to improve its risk insights.

9 So that the main things I think this new process  
10 gives us is removes a lot of redundancy and, to be quite  
11 frank, frustration in the regions that they keep having to  
12 repackage this same information, and then the better  
13 scrutability. That's the issue.

14 COMMISSIONER MCGAFFIGAN: I agree that we should  
15 not have to repackage the same information and that there  
16 are ways to work with the current system, but just on the  
17 point of this matrix on page 13, you could get misled by it  
18 easily in that you may have a lot of hits in some box and it  
19 may only represent that that's where your inspection  
20 resources went the last year, and indeed, instead of looking  
21 in that box where you have maybe some yellows and reds, the  
22 problem is in one of the boxes you didn't inspect.

23 Also, I worry about the poor plants that are the  
24 lucky winners of the fire protection functional inspection  
25 or the AE inspection or the big -- you know, we get findings

1 in those, and that could skew -- because they happen to be  
2 the one that got one of these heavy-duty inspections that  
3 year, they're going to get a lot of reds and yellows in  
4 their box, and another plant that -- the vast majority of  
5 plants that avoid it, having those inspections, because they  
6 are so resource-intensive on us, they come out looking good  
7 in comparison when they, in fact, aren't.

8 So, how do you normalize for the lucky winners of  
9 our heavy-duty inspections that are oftentimes random?

10 MR. BORCHARDT: We didn't intend to remove the  
11 requirement to have to use a value judgement. This isn't  
12 purely mechanical or purely quantitative. We are using some  
13 quantitative tools to help us do our job, but it's not going  
14 to replace the management judgement of whether or not more  
15 resources need to be applied to a certain reactor, for  
16 example.

17 MR. COLLINS: I'd like to answer your question  
18 more directly.

19 We can't un-know what we know. If we go to a  
20 plant and if that plant is selected appropriately for --  
21 whether it be an architect engineer inspection or a fire  
22 protection inspection -- it's done for a purpose. If it's a  
23 trial program, it's to define the state of the industry, so  
24 to speak.

25 If that plant represents a significant amount of

1 findings, if that's representative of the pilot plants, then  
2 more typical than not that will become an overall initiative  
3 that other plants will be affected by.

4 The staff cannot be in the position of discounting  
5 those issues if they, in fact, are safety or regulatory  
6 significant.

7 What we should be able to consider -- are the more  
8 typical lower-level findings representative of a large  
9 problem or are they just there because we happened to look  
10 in a more focused way and we found low-level issues and,  
11 therefore, they're not indicative of the overall program?  
12 We need to be able to make that judgement call which Bill  
13 was mentioning.

14 The look at the matrix which you indicated, which  
15 was really a hindsight look, which is, after the year, when  
16 we look at the matrix, we only know what we looked at, we  
17 don't know what we do not look at.

18 This process, once invoked -- and it's similar to  
19 the current process -- is that those are, quote, smart  
20 samples, hopefully. The previous findings as well as the  
21 base-line program will send you into directions for  
22 application of the program. That process is meant to do  
23 that.

24 We inspect in areas for a reason, if the process  
25 is working correctly. Therefore, the results should

1 indicate where we thought we needed to look.

2 The fact that there are gaps in that is indicative  
3 of the previous question, which is a fair question, and that  
4 is how much do you need to look to establish a base-line  
5 program? That should be a minimum amount of inspection.

6 If we're going to raise that threshold up and say  
7 not only do we have to have a minimum amount of inspection  
8 to identify regulatory problems but also a minimum amount of  
9 inspection to recognize good performance, that's an extra  
10 amount of inspection, but it also affords us the attribute  
11 of being able to recognize declining performance sooner,  
12 because you have a higher tier or a higher bench-mark.

13 That's a fair policy question to ask -- what is  
14 the intent of this process and what's the best position,  
15 balancing resources, for the staff to be in?

16 COMMISSIONER DICUS: If I recall from earlier in  
17 the briefing, I think you said that this chart, irregardless  
18 of what the dominant color could wind up on it, red or  
19 green, could go away because of other inputs into the  
20 process.

21 MR. CALLAN: Yes.

22 MR. MARTIN: Can I jump in?

23 COMMISSIONER DICUS: Yes.

24 MR. MARTIN: This is a concept paper. We  
25 recognize, if the Commission agrees that this is the right

1 way to go, we've got a lot of work to develop the details to  
2 provide these promises that we're delivering to you in terms  
3 of scrutability and consistency and uniformity. To be quite  
4 frank, among the staff, there are difference of opinions on  
5 how those details are going to go.

6 I think you probably would acknowledge, though,  
7 that this concept certainly has substantial opportunities  
8 for improvement in our efficiency, in our effectiveness, and  
9 in our scrutability, but to deliver that, we've got to do a  
10 lot of work in laying out the formality of the process so  
11 that everyone understands what's expected, and we have to  
12 train our staff, too, and then we have to have the oversight  
13 and the feedback processes to keep it going that way.

14 So, it's easy to tear us apart on the details,  
15 because we haven't really, to be quite frank, agreed on all  
16 of those details, and I see this right now as a concept  
17 paper.

18 COMMISSIONER DICUS: Let me address that, because  
19 earlier on, I thought -- we keep calling this a work in  
20 progress, and we talk about -- my definition of work in  
21 progress, I think of something that's fairly -- reasonably  
22 mature, has moved along to a certain status. I'm not sure  
23 this is to that point yet. I'm more comfortable calling it  
24 an idea in progress.

25 MR. CALLAN: It's a concept.

1                   COMMISSIONER DICUS: And we get into that point,  
2 then -- I think what we're doing -- and I'm not -- I don't  
3 know -- I probably haven't reached a position on this. I'm  
4 probably pretty much a clean slate, pretty neutral on what  
5 to do.

6                   I do want to change the process we're using to  
7 look at our plants. I think we all do. We've all agreed  
8 that there are improvements that can be made, that can make  
9 it better, make it more transparent, make it clearer what  
10 we're doing to everyone, and hopefully make us not miss  
11 issues that we shouldn't be missing. So, I think we're all  
12 on board to do that.

13                  I think we've got an idea, a concept out here on  
14 the table. I think what you're hearing is not -- I wouldn't  
15 take it as being negative. You've put a lot of work into  
16 it, and I, for one, appreciate all the work that has gone  
17 into it.

18                  I think what we're saying -- we're giving you what  
19 our thoughts, our concerns are, and these are the things you  
20 go back and much on to continue to let this concept grow.

21                  So, I don't want, from my perspective, at least,  
22 to say this is all bad, all negative, there is nothing here  
23 that can be used, because I don't particularly feel that  
24 way, but there are some problems.

25                  MR. BORCHARDT: That's exactly the kind of input



1 we need at this point and why we think this is the  
2 appropriate time to get some public interaction, to get the  
3 same kinds of issues identified that are on the industry and  
4 the public's mind relating to this process, so that as we go  
5 forward, we can have knowledge of all of those various  
6 concerns and then develop something.

7 COMMISSIONER DIAZ: Let me pick up on just a word  
8 that Commissioner Dicus said, which I've been trying to  
9 really assess.

10 It's the word "transparency," and we cannot  
11 assess, presently, what the significant on resources that  
12 transparency will have, because we really have not had a  
13 transparent process that allows the licensee to make  
14 correction before they need to get a call, that allows a  
15 licensee to interact, and it's the interactive processes of  
16 this concept that are really, you know, potentially of great  
17 benefit, and like Commissioner Dicus and McGaffigan said, we  
18 are trying to engage in trying to determine how far they go,  
19 but it is obvious that transparency would be a major gain  
20 that will allow our licensees to see from the beginning --  
21 and other stakeholders, what are the processes and the  
22 results, and their response to that, the response of the  
23 licensees to the issues raised is actually a tremendously  
24 significant factor in how they will get weighed at the  
25 decision-making process.

1           MR. CALLAN: I agree. I feel like a caveat here  
2 is in place, because at the outset, I said that we asked for  
3 this meeting, this was our idea, because if we thought this  
4 process would sell itself, we wouldn't need this meeting,  
5 and we recognize it's quite controversial, and I think,  
6 collectively, we also recognize that the typical thinking  
7 person's first impressions of this process are not always  
8 positive. Mine weren't.

9           This process, superficially, is not always  
10 attractive to everybody. It's surprisingly nuanced, and  
11 with my anyway, it was an acquired taste. It's undergone a  
12 lot of evolutionary change since I was first introduced to  
13 it, but I think it's because of our own personal  
14 experiences, we're maybe trying to over-market this to you.  
15 So, we don't mean to come across as taking too strong of an  
16 advocacy position on this, but I think we're trying to give  
17 it our own personal odysseys, as I said, trying to  
18 force-feed you in an hour-and-a-half or two hours what took  
19 us several weeks.

20           COMMISSIONER MCGAFFIGAN: I do think it would have  
21 been useful to have not just the radical concept but an  
22 incremental concept out there for people to mull on, because  
23 I can fix a lot of the problems in the current system -- and  
24 you're working on them simultaneously -- with less radical  
25 schemes that maybe don't have all of the attributes you have

1 here, and maybe that takes a lot of effort -- watch list  
2 meetings happening once a year rather than every six months,  
3 trying to get the PPR to just be the thing that flows into  
4 the regional meetings that lead into the Senior Management  
5 Meeting.

6 I've got rid of one process right then, if all the  
7 PPR is is something that flows into the annual roll-ups, the  
8 regional roll-ups, and that's not very radical, and then you  
9 could look at other elements of what you've done here and  
10 see how many of those I might want to preserve and how many  
11 not, but I think -- either the straw-man of the current  
12 process, with all of its duplicity -- duplication, not  
13 duplicity -- duplication and whatever -- you can fix some of  
14 that, and then it's a choice between incremental change that  
15 gets you somewhere and radical change -- and I think you  
16 honestly do need to look through at how this is going to be  
17 gained, I mean how it's gained -- you're seeing some  
18 resource benefits. I'm seeing, potentially, some resource  
19 costs.

20 Are the benefits and resources outweighed by the  
21 costs? And I know that's -- I think part of the proposal  
22 you have before us is that you're going to look at this in  
23 an individual place or two. I'm not sure that that will  
24 help unless it's one in every region or whatever your  
25 concept is, but I'm not sure whether that will help, because

1 these issues of how things lock together, interrelate, won't  
2 be obvious unless you do several trials as to how this would  
3 work in practice.

4 MR. COLLINS: Commissioner, I think -- not  
5 disagreeing with any of your statements, but I believe for  
6 the staff to go down any one of these paths in an alternate  
7 path, the staff would need specific guidance from the  
8 Commission on which one of the bench-marks that are listed  
9 in this approach and in the Commission paper are more  
10 dominant. It's a mix and match.

11 By having scrutability, you are forced in a  
12 direction. By saving resources, that may or may not be  
13 compatible with scrutability.

14 So, perhaps they're all not honorable goals at  
15 their costs. This process tends to address the majority of  
16 them, if not all of them, sends the staff in a direction of  
17 which a consolidation of our current processes perhaps would  
18 not reach all of those goals, and I think it's going to be  
19 very difficult for the staff to understand which ones of  
20 those are predominant in the minds of the Commission.

21 So, some direction will be needed to go down that  
22 path fruitfully.

23 MR. BORCHARDT: Just from the perspective of the  
24 task group, it wasn't our objective going in to redesign a  
25 new process. What we were trying to do is to meet those 74

1 line items. The only way we saw to be able to get there was  
2 something on the magnitude that we've proposed.

3 To make the 74 individual changes to the current  
4 process may well end up with something that's an awfully lot  
5 like this.

6 COMMISSIONER DICUS: Do you have a list of those  
7 74 line items?

8 MR. BORCHARDT: Yes.

9 COMMISSIONER DICUS: That would be useful.

10 MR. BORCHARDT: I think we've covered most of the  
11 content of the rest of the slides. I'll just go through  
12 them very quickly.

13 Slide 15 just shows a comparison of the proposed  
14 process over the current process, and I think I've made this  
15 point before, that we have three current processes that send  
16 their own message and there is the opportunity for sending  
17 conflicting messages, and we're trying to replace it.

18 MR. CALLAN: And we do acknowledge Commissioner  
19 McGaffigan's point that we could force that current process  
20 into a more streamlined thing.

21 MR. BORCHARDT: Slide 16 just shows a comparison  
22 of, over a three-year period, what meetings are held today  
23 and how many and what the proposed set of meetings would  
24 likely be, and then 17 shows what is the proposed schedule  
25 that's in the Commission paper.

1 I'd just like to make the point that this schedule  
2 includes public workshops that are currently being scheduled  
3 for the May-June time-frame, as well as the Regulatory  
4 Information Conference two weeks from now has a break-out  
5 session on this topic.

6 Those would be influences upon the Commission's  
7 decision --

8 MR. CALLAN: We ought to make that a plenary  
9 session.

10 MR. BORCHARDT: -- on allowing us to go forward  
11 and continue public interaction, but we think this is a  
12 particularly valuable time to get that input, so that we can  
13 proceed.

14 COMMISSIONER DIAZ: I wrote something down. I  
15 really appreciate what you guys have done. You took a risk,  
16 you went forward, you did something that was different, and  
17 I think that's very worthwhile, and I personally want to  
18 thank you for it.

19 I've been looking at this, and I think you make a  
20 very valiant effort of getting out of the ordinary into the  
21 extraordinary and integrate, you know, and be responsive to  
22 the Commission.

23 I believe that what you have done is not only an  
24 integration process of the things that were there, but you  
25 have integrated them with state-of-the-art information

1 technology. You have actually included in there, you know,  
2 issues of sampling frequencies, issues of how you make  
3 decision-making, and you took into consideration  
4 time-dependencies.

5 What I think has happened is that you're trying to  
6 make more quantitative and more transparent the processes  
7 that were there, but it still, you know, is a parallel  
8 process that includes our robust safety philosophy.

9 From my viewpoint, I think it is important that  
10 maybe, you know, a question be answered, and that question  
11 is the bottom line, okay? Are these processes going to  
12 maintain or improve the safety of our processes, and will  
13 they entail a reduction of our resources and the resources  
14 of the licensees?

15 MR. CALLAN: In my view, you know, the current  
16 process is a process for the '80s and '90s. This is a  
17 process for the next millennium. I think we would agree  
18 that the industry, by every tangible measure, is getting  
19 safer.

20 We showed Congress those graphs, and NEI makes  
21 those available. On the whole, I think, increasingly, going  
22 forward in the next decade, next two decades, the agency  
23 will necessarily need to focus and identify that sub-set of  
24 plants that aren't performing with the industry.

25 I think the marketplace -- an economically

1 deregulated marketplace -- the marketplace will demand  
2 superior performance the way we traditionally have measured  
3 it in terms of keeping the plant on the line, availability,  
4 and those sorts of things, and I think we face significant  
5 challenges in identifying declining performance in that kind  
6 of an environment.

7 I think the need to identify superior performance  
8 is going to increasingly invoke the law of decreasing  
9 returns, I think, with the industry going the way it is.  
10 So, I think, going ahead, maybe not today, necessarily, but  
11 certainly, if you're designing a process for the future, as  
12 this is, then I think the focus on the bottom-rung  
13 performers is increasingly going to be appropriate, and more  
14 or less, leave everybody else alone in the sense of the  
15 intrusive regulatory involvement beyond that necessary to  
16 ensure that we have confidence that we can track their  
17 performance.

18 MR. COLLINS: The question was asked earlier and a  
19 comment was made, is the agency held accountable for  
20 extended plant shutdowns, and I think a fair reading of the  
21 GAO report would indicate that, at least in the GAO's  
22 opinion, those plants that had extended shutdowns were  
23 agency failures. That was in a regulated environment.

24 In a deregulated environment, extended plant  
25 shutdowns have a whole new potential impact on licensees, on



1 economics, and therefore, using that philosophy which has  
2 been articulated by an outside agency organization which is  
3 viewing our effectiveness, we may very well be held  
4 accountable for those types of processes which may end up in  
5 failures.

6 COMMISSIONER DIAZ: We are continuously held  
7 accountable for safety.

8 MR. COLLINS: For safety. I'm getting to my  
9 point. We can't lose sight of what our primary mission is,  
10 and that primary mission is to assure safety, which has a  
11 much higher threshold, perhaps, for able to be identified  
12 with our current systems.

13 To reach into the ability to predict and  
14 anticipate declining performance is a whole new level of  
15 sophistication and resources that this process will  
16 accommodate but not perhaps predict success in those areas.  
17 It will allow us to be better, but it may not allow us to be  
18 infallible in those areas.

19 So, that, again, of what are we trying to achieve  
20 and how do we measure success by any change in our processes  
21 has to be defined by what we're trying to accomplish. I  
22 think that's a primary Commission role, perhaps, to send  
23 that message to the staff, because it will dictate the level  
24 of resources, inspection, and how this process is defined.

25 COMMISSIONER DICUS: Okay. Is there anything

1 else?

2 COMMISSIONER DIAZ: I just was going to say that I  
3 think you are acting chairman right now and that we no  
4 longer have a quorum.

5 COMMISSIONER DICUS: That's correct. We're not  
6 voting, though.

7 COMMISSIONER DIAZ: I am not prepared to address  
8 the management performance --

9 COMMISSIONER DICUS: Nor am I.

10 COMMISSIONER DIAZ: -- competency issues at the  
11 present time.

12 COMMISSIONER DICUS: You're making a  
13 recommendation that --

14 COMMISSIONER DIAZ: I will make a recommendation,  
15 Madam Chairman, that we adjourn.

16 COMMISSIONER DICUS: I agree with you. So, this  
17 briefing is adjourned.

18 [Whereupon, at 4:44 p.m., the briefing was  
19 concluded.]

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CERTIFICATE

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

TITLE OF MEETING: BRIEFING ON IMPROVEMENTS TO THE SENIOR  
MANAGEMENT MEETING  
PUBLIC MEETING

PLACE OF MEETING: Rockville, Maryland

DATE OF MEETING: Thursday, April 2, 1998

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

Transcriber: Tamara Slips  
Reporter: Mark Mahoney



**INTEGRATED REVIEW OF  
THE NRC ASSESSMENT PROCESS  
FOR OPERATING COMMERCIAL  
NUCLEAR REACTORS**

**BILL BORCHARDT**  
**Office of Nuclear Reactor Regulation**

**APRIL 2, 1998**

## **WHY THE INTEGRATED REVIEW OF THE REACTOR ASSESSMENT PROCESS (IRAP) WAS PERFORMED**

- **The current assessment processes (SALP, SMM, PPR) have been developed and implemented (individually) over time to address specific Agency needs regarding the assessment of licensee performance**
- **Each of these processes has evolved individually, and overlaps between them now exist so that they:**
  - **Contain multiple structures for data analysis and different assessment criteria**
  - **Have different products which can send mixed messages on licensee performance**
  - **Place significant administrative burdens on NRC staff**
- **While each of the current assessment processes has been individually successful at meeting its particular purpose, an integrated review of the NRC's licensee performance assessment processes had not been performed**

# **APPROACH**

- **Identified key participants and assembled team**
- **Conducted a series of team meetings (4) to:**
  - **Identify objectives of the assessment process**
  - **Identify critical attributes and success criteria**
  - **Identify critical activities**
  - **Identify outputs and inputs**
  - **Allocate functions to locations and positions**
  - **Use continuous quality improvement methods to improve upon existing processes**
  - **Recommend new processes**
- **Forwarded assessment process concept to the Commission (SECY-98-045) to obtain permission to solicit public comments**
- **Work is continuing to fully develop the concept, implementation plan, and transition plan**

# **INTEGRATED REVIEW OF ASSESSMENT PROCESS TEAM**

**Larry Nicholson - Region I**

**Mark Lesser - Region II**

**Marc Dapas - Region III**

**Mike Parker - Region III**

**Bill Johnson - Region IV**

**Mark Satorious - OE**

**Rich Barrett - AEOD**

**Alan Madison - AEOD**

**Bill Borchardt - NRR/PIPB**

**Mike Johnson - NRR/PIPB**

**Tim Frye - NRR/PIPB**

**David Gamberoni - NRR/PIPB**

**Gail Marcus - NRR/DRPW**

**Bill Reckley - NRR/DRPW**

**Bill Dean - OEDO**

**Glenn Tracy - OEDO**

**Heidi Hahn - LANL facilitator**

**Pam Ulibarri - LANL facilitator**

## **BOUNDARY CONDITIONS**

- **All plants must be periodically evaluated**
- **The process must maintain a clear focus on assessing licensee performance against regulatory requirements**
- **A graded approach should be taken for NRC actions based on licensee performance**
- **Actions taken by the NRC should be in accordance with existing policies**
- **Any new process must be closely aligned with the enforcement policy**
- **Licensees should have the opportunity to respond to assessments before the NRC takes action**
- **The results and the basis of the assessment must be effectively communicated to licensees and the public**
- **The process must be able to accommodate new tools (economic indicators, risk-informed analysis, trending methodology, etc.)**



# **ATTRIBUTES**

- **Provide clear roles and responsibilities**
- **Provide results that are repeatable and consistent**
- **Maintain data integrity**
- **Consider risk significance**
- **Be simple, non-redundant, and efficient**
- **Process must be scrutable (outcomes understandable by public)**

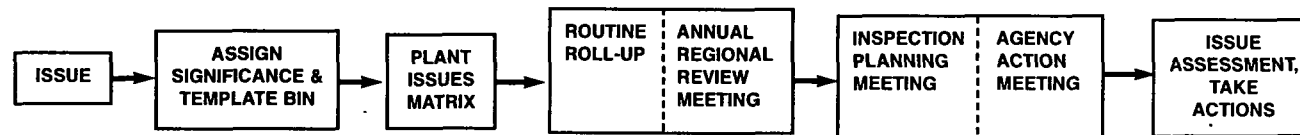
# **PROPOSED ASSESSMENT PROCESS OBJECTIVES**

- **Overall objective:**
  - **Assess overall safety performance of all U.S. commercial nuclear plants to verify that they are operating safely and to identify and prompt the correction of underlying safety issues**
- **Detailed objectives:**
  - **Ensure accurate assessments of safety performance**
    - \* **Provide early warning of declining licensee performance**
    - \* **Provide checks and balances with other processes**
    - \* **Allow for the integration of inspection findings and other relevant information**
    - \* **Focus NRC attention on those plants**
  - **Identify areas of concern in a timely enough fashion to prompt corrective actions before an event occurs**
  - **Effectively communicate assessment results to the licensees and the public**
  - **Assist the Agency in allocating resources**

# **FUNDAMENTAL PRINCIPLES OF THE PROPOSED ASSESSMENT PROCESS**

- **The assessment process will not be designed to distinguish between levels of performance that clearly meet or exceed regulations**
- **Tools currently provided by the regulations are sufficient to enable the staff to take appropriate action to ensure licensees operate plants safely and find and fix problems**
  - **Increased inspection resources**
  - **Team inspections**
  - **Confirmatory action letters**
  - **10 CFR 50.54 (f) letters**
  - **Orders**
- **The NRC inspection program should provide a robust sample such that absence of findings reflects licensee performance that meets or exceeds regulations**
- **The assessment process will not be designed to evaluate positive findings**
- **The significance of inspection issues will be assigned based on safety and regulatory significance (risk-informed)**
- **NRC actions will be taken in a graded approach based on licensee performance**

# NEW ASSESSMENT PROCESS PROPOSAL



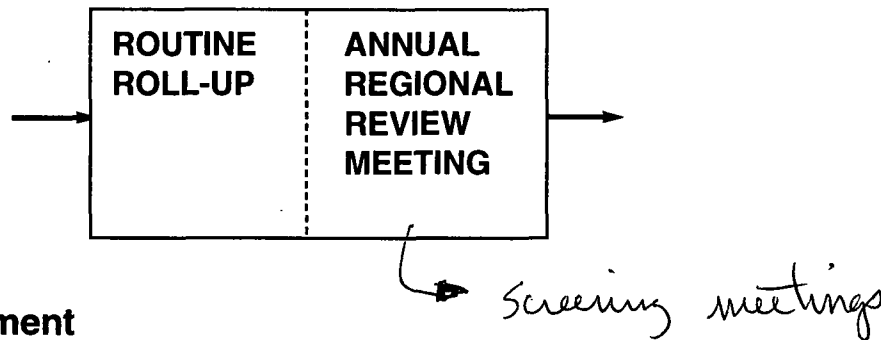
# **NEW ASSESSMENT PROCESS PROPOSAL – DETAILS**



## **Data Collection**

- licensee can comment on issues
- data periodically available to the public
- significance assigned directly to data, closely aligned with enforcement results
- single template, based on SMM template with thresholds to trigger detailed analysis

# NEW ASSESSMENT PROCESS PROPOSAL – DETAILS (CONT)

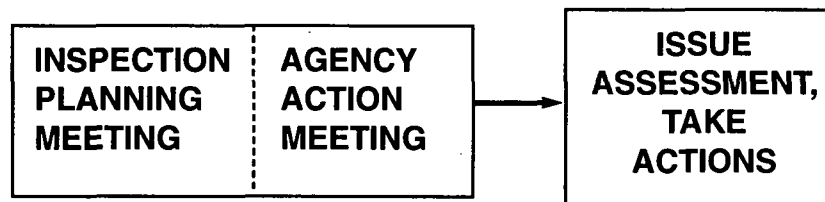


## Assessment

- licensee can provide self-assessment
- assessment results available to the public
- independent checks/tools\*
- criteria/thresholds used to identify range of actions based on logic

\* including trending methodology, risk-informed analysis, and other tools as they are developed

# **NEW ASSESSMENT PROCESS PROPOSAL – DETAILS (CONT)**



## **Action Decisions**

- licensee can comment on actions
- action decisions made public
- graded approach
- basis for decisions outside the decision model are documented
- criteria/thresholds used to identify range of actions based on logic

# INTEGRATED REACTOR ASSESSMENT PROCESS TEMPLATE

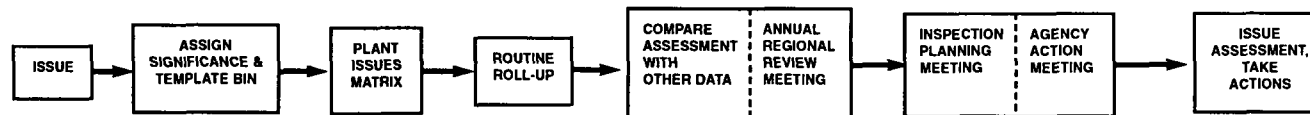
	OPERATING PERFORMANCE	MATERIAL CONDITION	ENGINEERING/ DESIGN	PLANT SUPPORT
GENERAL OBSERVATIONS & FINDINGS				
HUMAN PERFORMANCE				
PROGRAMS & PROCESSES				
PROBLEM IDENTIFICATION & RESOLUTION				



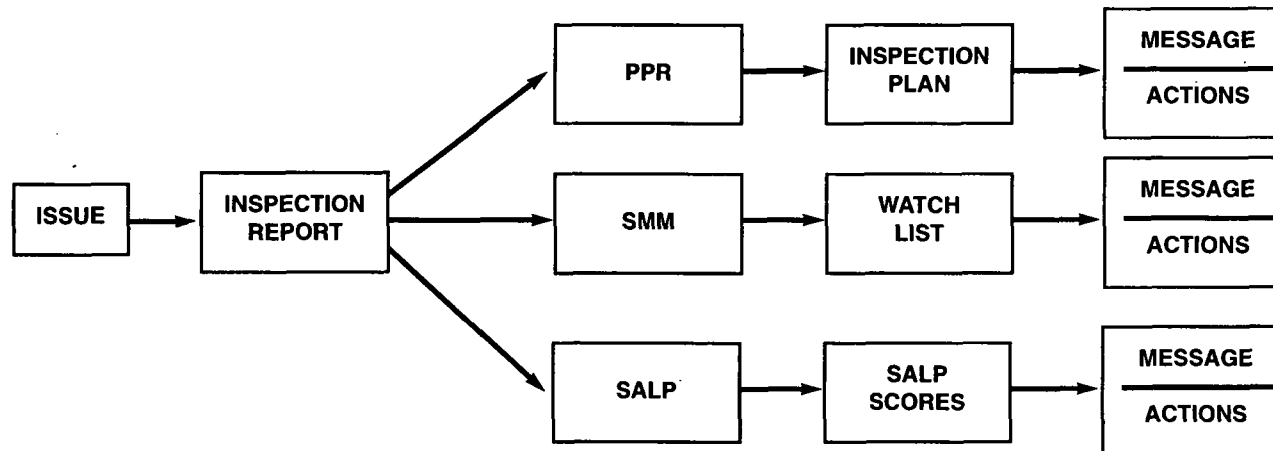
## **PROPOSED ASSESSMENT PROCESS — SUMMARY**

- **Plant issues matrix (PIM) entries are assigned significance (scored) and binned in the Integrated Reactor Assessment Process Template**
- **Category ratings are determined based on criteria**
- **Category ratings are checked via comparison to other assessment data**
- **Annual (Regional Review Meeting) is held (one in each region) to validate results**
- **Decision model is applied to determine the range of NRC actions**
- **Annual (Agency Action Meeting) is held to consider and approve Agency- level actions**

# PROPOSED INTEGRATED ASSESSMENT PROCESS



# CURRENT ASSESSMENT PROCESS



## **COMPARISON OF TODAY'S ASSESSMENT PROCESSES WITH PROPOSED PROCESS - 3 YEAR PERIOD**

	<b>Today</b>	<b>Proposed</b>
<b>Meetings</b>	6 PPRs 6 SMM screening meetings 6 SMMs 2 SALPs	3 Regional Review Meetings 3 Agency Action Meetings
<b>Outputs</b>	Inspection plans Watch Lists SALP reports	Actions, based on regulations Annual report cards
<b>Methodology</b>	Expert panels	Assign regulatory and risk significance directly to the data, reduces reliance on expert panels

## **SCHEDULE**

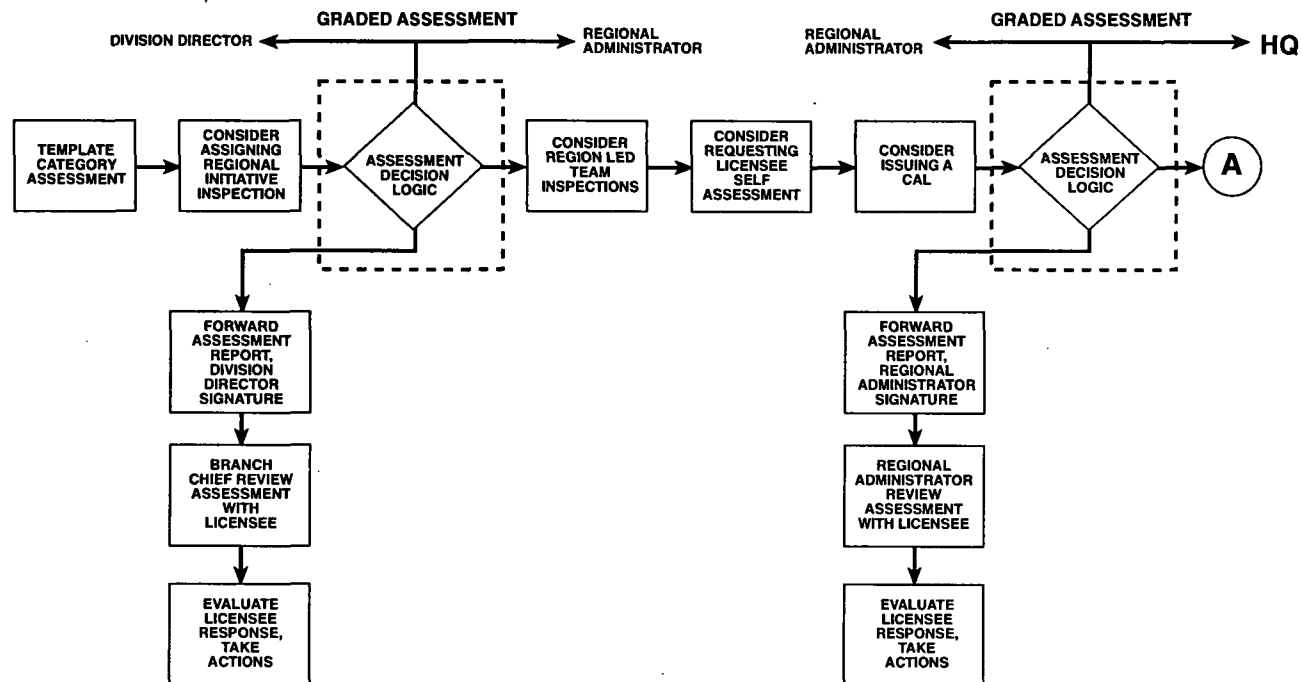
<b>February 23-27, 1998</b>	<b>Held final IRAP team meeting</b>
<b>April 15, 1998</b>	<b>Regulatory Information Conference breakout session</b>
<b>April 30, 1998</b>	<b>Commission approval to solicit public comments</b>
<b>May 1, 1998</b>	<b>Issue Federal Register Notice to obtain public comment</b>
<b>May/June 1998</b>	<b>Public workshops</b>
<b>May/June 1998</b>	<b>IRAP test application</b>
<b>September 1998</b>	<b>Brief ACRS on the new assessment process, results of validation activities, and the results and resolution of public comments</b>

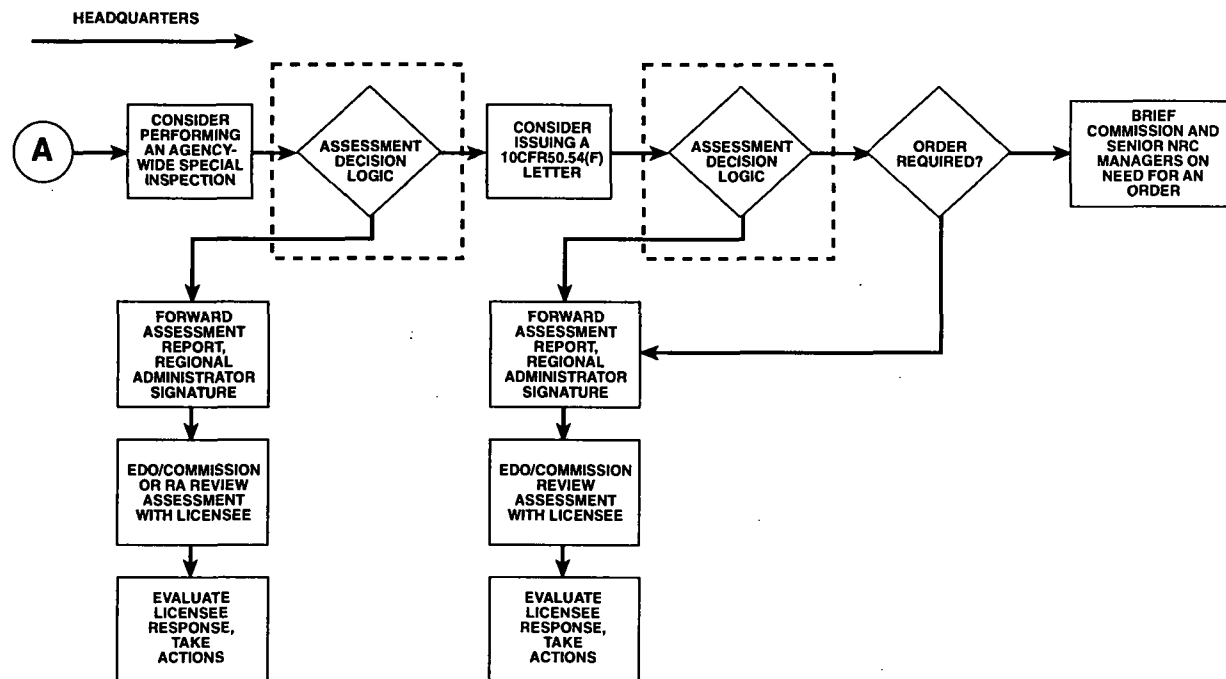
<b>October 15, 1998</b>	<b>Issue Commission paper describing final proposed assessment process</b>
<b>October 30, 1998</b>	<b>Brief Commission on Final Proposed Process, Public Comments Received, and Implementation Plan</b>
<b>July-December 1998</b>	<b>Develop implementing procedures, train staff, and develop transition plan</b>
<b>January 1999</b>	<b>Begin implementation of the new integrated reactor assessment process. Phase out current processes and phase in new process throughout the remainder of 1999.</b>
<b>January 2000</b>	<b>First annual performance assessment conducted under the new integrated reactor assessment process</b>

## **ATTRIBUTES/SUCCESS CRITERIA**

- **Provide clear roles and responsibilities**
  - **Not more than 10% non-compliance with activities assigned by process**
- **Provide results that are repeatable and consistent**
  - **95% overall accuracy on binning, scoring, and execution of logic**
- **Be simple, non-redundant, and efficient**
  - **Level of effort spent on assessment is 25% less than current**
- **Process must be scrutable (outcomes understandable by public)**
  - **Pre- and post- survey results show increased satisfaction**

# SIMPLIFIED PROCESS MODEL









## **POLICY ISSUE**

### **(Notation Vote)**

March 9, 1998

SECY-98-045

FOR: The Commissioners

FROM: L. Joseph Callan  
Executive Director for Operations

SUBJECT: STATUS OF THE INTEGRATED REVIEW OF THE NRC ASSESSMENT  
PROCESS FOR OPERATING COMMERCIAL NUCLEAR REACTORS  
(SRM 9700238)

#### PURPOSE:

This Commission paper responds to staff requirements memorandum (SRM) 9700238 in which the Commission requested that the staff provide periodic updates on the progress of the integrated review of the NRC assessment process for operating commercial nuclear reactors. This paper presents the preliminary results of the effort by the integrated review of assessment process (IRAP) team to create an improved and less resource-intensive integrated assessment process. The staff plans to integrate the schedules for the IRAP effort with the senior management meeting (SMM) improvements effort, and requests the Commission's approval to solicit public comment on the process described herein. Many of the approaches presented herein are still being developed and have not had widespread review by NRC management and staff, input from external stakeholders, or detailed validation and bench-marking. After it receives public and industry comments on the proposed process, the staff will provide a final assessment process, approved by NRC management, for the Commission's approval.

#### BACKGROUND:

In an SRM dated June 28, 1996, the Commission directed the staff to assess the SMM process and evaluate the development of indicators that can provide a basis for judging whether a plant should be placed on or deleted from the NRC Watch List. In response to the Commission's request, a study of the effectiveness of the SMM process was completed on

Contact:  
Timothy J. Frye, NRR  
301-415-1287

NOTE: TO BE MADE PUBLICLY AVAILABLE AT  
THE COMMISSION MEETING ON APRIL 2, 1998

December 30, 1996, by the Arthur Andersen Company. On April 2, 1997, the staff issued SECY-97-072, "Staff Action Plan to Improve the Senior Management Meeting Process," to inform the Commission of the staff's plans to address the recommendations made by the Arthur Andersen Company. On June 24, 1997, the Commission issued SRM M970424B, "Staff Requirements—Briefing on Staff Response to Arthur Andersen Study Recommendations," in which it approved the staff's plan to develop improvements to the SMM process.

In parallel with the efforts of the Office for Analysis and Evaluation of Operational Data (AEOD) to evaluate improvements to the SMM process, several SRMs directed the staff to improve the objectivity, accuracy, and efficiency of the current assessment process and to evaluate the efficacy of defining and formalizing a unified licensee performance assessment program that integrates the various separate processes being utilized. On June 6, 1997, the staff issued SECY-97-122, "Integrated Review of the NRC Assessment Process for Operating Commercial Nuclear Reactors," to inform the Commission of the staff's plans to perform an integrated review of the current NRC assessment processes, including plant performance reviews (PPRs), systematic assessments of licensee performance (SALPs), and SMMs. On August 19, 1997, the Commission issued SRM 9700238, "Staff Requirements—SECY-97-122—Integrated Review of the NRC Assessment Process for Operating Commercial Nuclear Reactors," which approved the staff's plans to perform the integrated review.

On September 19, 1997, the staff briefed the Commission on the status of improvements to the SMM process and the objectives, goals, and schedule for the integrated review of assessment effort.

An IRAP team was assembled with representatives from each regional office, AEOD, the Office of Enforcement, the Office of the EDO, the Office of Nuclear Reactor Regulation (NRR) Inspection Program Branch, and the NRR Division of Reactor Projects. The team members included a cross section of experience represented by deputy division directors, branch chiefs, project managers, and staff with recent regional inspection experience. The first team meeting was held the week of September 29, 1997, and four meetings have been held to date.

The IRAP team took a process re-engineering approach to identify those objectives, attributes, and activities that a new assessment process would need to adequately assess licensee performance and to identify the sources of information necessary to support the assessment. The team evaluated the current assessment processes, such as the SALP, PPR, and the SMM, using continuous quality improvement techniques to determine which attributes may be retained to support the new process. The inspection and enforcement programs were assumed to be implemented "as-is" for the integrated review, while any necessary changes to these programs resulting from this effort will be evaluated separately following the integrated review.

During the second team meeting, a public meeting was held on November 6, 1997, and attended by representatives of the Nuclear Energy Institute (NEI) and the Union of Concerned Scientists (UCS). Concerns about the current assessment processes and comments regarding the development of any new assessment process were raised at this meeting. These comments were noted and were reviewed by the IRAP team after the meeting. Future workshops and meetings are planned to obtain additional industry and public input on the new assessment process to ensure that all stakeholder comments are properly considered and evaluated. The

team anticipates further deliberation on such issues as the inclusion of positive findings within the PIM.

The results of the IRAP team effort to date and the possible approaches for a new integrated assessment process are discussed below.

## DISCUSSION

A brief overview of the proposed new assessment process under consideration, its objectives, and those attributes that it was designed to meet are discussed below. Those issues that are key differences from current processes are discussed. Also included is a discussion of integrating schedules and resources with the AEOD SMM improvement project, and a discussion of and a request for Commission approval for additional public interaction regarding the proposals in this paper. Attachment 1 contains a more detailed discussion of the proposed new integrated assessment process. Attachment 2 provides a schedule of the activities and milestones for the integrated review. Attachment 3 provides a simplified version of a decision logic model which will be used by the proposed assessment process.

As one of its first activities, the IRAP team considered the weaknesses of the current assessment processes to help determine those attributes that should be addressed and corrected by a new integrated assessment process. Some of these weaknesses include the following:

- redundancy of many of the current assessment processes
- assessment criteria that differ between processes
- assessment processes that have the potential for inconsistent implementation
- assessment results such as SALP scores and watch list designations that are not clearly defined and not well understood by the public or the industry

The team also considered many of the strengths of the current assessment processes, such as graded assessment areas, which reflect licensee performance, and public meetings with licensees to discuss the results of the assessments. Criteria were developed to address the weaknesses and to preserve the strengths of the current assessment processes. The new process must achieve the following:

- Provide clear roles and responsibilities.
- Maintain data integrity so that the process does not distort the data
- Include a decision model or criteria so that NRC actions are predictable.
- Be risk informed.
- Be simple, nonredundant, and efficient.

Objectivity, consistency, predictability, and scrutability will be enhanced by designing a new assessment process that meets the above attributes.

It was determined that the overall objective of any new assessment process should be to accurately assess the overall safety performance of all U.S. commercial nuclear power plants to

verify that they are operating safely and to identify and prompt the correction of underlying safety issues.

This objective is similar to that of other NRC processes such as the inspection and enforcement programs. The new assessment process is not intended to supplant these other processes, but is meant to make broader conclusions on licensee performance based on the integration of performance issues from these processes. Likewise, NRC actions resulting from the new assessment process are intended to supplement NRC actions already taken by the separate processes, based on the integration and broad assessment of licensee performance issues.

Boundary conditions and additional objectives were also established for the new assessment process. They include: (1) all plants must be periodically evaluated, but not necessarily with an overall ranking of performance, (2) the process must maintain a clear focus on assessing licensee performance against regulatory requirements to ensure the adequate protection of public health and safety (in contrast, a widely held perception of the current process is that the NRC staff assesses licensee performance against a more subjective standard involving a rising standard of excellence), (3) a graded approach should be taken for NRC actions based on licensee performance, (4) actions taken by the NRC must be in accordance with existing policies, (5) any new process must be closely aligned with the enforcement policy, (6) licensees should have the opportunity to respond to assessments before the NRC takes action, and (7) the results and basis of the assessment can be effectively communicated to licensees and the public.

#### Fundamental Assumptions and Key Differences from the Current Assessment Processes

The underlying assumptions and the key differences from the current processes are discussed before focusing on the new process.

- The new assessment process will not attempt to make distinctions among those plants that meet regulatory requirements in order to determine which plants are performing better than others, nor will the new process attempt to identify excellent or superior licensee performance.
- The inspection program will continue to observe all aspects of licensee performance, including issues reflecting both positive and negative performance attributes. However, the new assessment process will not consider inspection findings consisting solely of good or neutral licensee performance. Those findings involving weak or poor licensee performance will still retain both the positive and negative aspects of the issue to ensure that the proper context of licensee performance is maintained.
- The absence of inspection and performance issues in an assessment area is indicative of licensee performance that meets regulatory requirements. This assumption is based on the continued sampling of all assessment areas by the inspection program to ensure that examples of licensee performance that do not meet regulatory requirements are identified.

- The significance of inspection issues will be assigned directly to the data and will be based on safety and regulatory significance. This graded inspection data will be made publicly available on a periodic basis so that both licensees and the public can determine how inspection issues affect the overall assessment of licensee performance.
- A decision logic model shall be used to provide for a structured and graded approach to NRC actions, based on the assessment of licensee performance. However, this process will not preclude the NRC from taking any action as warranted in a timely manner.
- A graded approach will be taken to the level of NRC management involvement required in the assessment and decision processes. An annual meeting will be held in each of the four regions to assess licensee performance at each plant. This meeting will be conducted by regional NRC management, with participation by the appropriate Headquarters' offices. The majority of licensees who generally meet or exceed regulatory requirements will require only regional NRC involvement for implementing actions. Only those plants whose performance warrants heightened, agency-wide action will be forwarded for further discussion by Headquarters' management. This annual assessment process will be performed in place of the current PPR, SALP, and SMM processes.
- Regulatory-based NRC actions (such as assigning additional inspection resources and issuing 10 CFR 50.54(f) letters, on one end of the spectrum, to issuing orders on the other) are sufficient to ensure that the objectives of the new assessment process can be met. Further, many of the positive attributes and strengths of the current processes (such as graded assessments and public interaction) are retained in the new assessment process. Therefore, SALP grades, SALP reports, and the SMM Watch List will not be needed in the new assessment process.

After considering these attributes, objectives, and assumptions, the IRAP team designed a new assessment process as described below.

#### Overview of the Proposed New Integrated Assessment Process

The inspection program will continue to observe both positive and negative performance attributes and document these observations within inspection reports in accordance with existing guidance. Performance issues (i.e., issues identified in inspection reports, licensee event reports, docketed correspondence) are entered into the Plant Issues Matrix (PIM). Good or neutral assessments of licensee performance are not included in the PIM. Issues of weak or poor licensee performance are entered in the PIM and include both the positive and negative aspects of each issue to ensure that the issue is placed in the proper context.

Each PIM entry is graded for significance and assigned to one or more template categories. The template is a tool for sorting inspection issues for assessment and includes categories such as:

- problem identification and resolution
- operating performance

- human performance
- material condition
- engineering/design
- programs and processes

An additional template category, "Management Effectiveness," is currently being developed by AEOD and may be included in the future as an assessment area.

The team chose a template format because it allows for the identification of the causes of issues (such as human performance) and the effect of the issues on plant operation (such as material condition). The graded PIM in template format is periodically issued to the public to allow both the licensee and the general public to see how each individual issue affects overall licensee performance.

The graded PIM entries are periodically aggregated by template category to assess licensee performance by assigning a color assessment rating to each template category. The following color ratings will be used:

- GREEN—Performance that generally meets or exceeds regulatory requirements
- YELLOW—Performance that demonstrates a pattern of noncompliance with regulatory requirements or that results in a number of performance issues indicative of a programmatic weakness that warrants increased licensee attention or corrective actions
- RED—Performance that demonstrates significant noncompliance with regulatory requirements in a systemic or pervasive manner that warrants licensee corrective action

These color ratings for each template category will be assigned using numerically-based thresholds. Licensee performance will be assessed both routinely (after inspections are completed) and annually. Regional management will routinely assess performance to detect changing trends in performance and to periodically reallocate regional inspection resources.

An annual meeting will be held in each region to assess the performance of every plant. This meeting will allow for the review of, and reconciliation between, the template assessment and other information, such as licensee-provided assessments, AEOD trending methodology, and industry performance indicators. Although held in the regions, active participation by personnel from Headquarters' offices, including NRR, Office of Enforcement, Office of Investigations, and AEOD, will ensure consistency and the proper consideration of all assessment information. A decision logic model, as shown in Attachment 3, will be applied to the assessment results in each template category to determine the range of actions that should be considered, based on licensee performance. Following the regional meeting, those plants with significant performance weaknesses will be discussed by senior NRC managers at a Headquarters's meeting. Only those plants whose performance indicates the need for heightened agency level action (i.e., special inspections or an order to modify, suspend, or revoke licensed activities) will be forwarded to this meeting. After the Headquarters' meeting, the Commission will be notified of the results of the annual assessment meetings.

The assessment results and the proposed actions for each plant are issued by letter to the applicable licensees and made available to the public. The assessment results are then

reviewed with each licensee at a public meeting. Licensees are afforded the opportunity to respond to the assessment before the NRC takes any proposed actions. NRC actions, such as issuing an assessment letter and holding a public meeting with the licensee to review its performance, are taken in a graded approach with different levels of NRC management responsible for the action, depending on licensee performance.

#### Integration With AEOD SMM Improvement Activities

As proposed by the staff in SECY-97-072 and as directed by the Commission in SRMs M970424B and M970919C, improvements to the current SMM process have been under development by AEOD in parallel with the IRAP effort. For the new assessment process, the IRAP team considered several assessment tools being developed by AEOD, such as the plant performance assessment template and trending methodology. Although the work on these two efforts has been closely coordinated, their schedules have developed separately. The staff now proposes that the schedules for these two efforts be integrated.

In accordance with SRM 9700238, a new assessment process was to be developed by June 18, 1998. The team proposes that the schedule for the IRAP effort be modified as follows to allow better integration with the development of the SMM template by AEOD. The proposed new assessment process, including the template and any other associated tools developed by AEOD, would be issued together for public comment in May 1998. After a 60-day public comment period, the Advisory Committee on Reactor Safeguards (ACRS) would be briefed in September 1998 on the new assessment process and on the public comments received. A Commission briefing would then be held by October 30, 1998, to seek approval for the new assessment process and for the plans developed for its implementation. The team will likely propose a phased implementation of the new assessment process starting in January 1999, with the current processes being phased out throughout the year. The first annual assessment meeting of the new process would be held around January 2000. The implementation date of January 1999 is approximately 1 month later than the original schedule. This proposed integrated schedule is also provided as Attachment 2. The team believes that these schedule adjustments are necessary to allow a coordinated product to be issued for public comment, and to allow sufficient time to receive, evaluate, and incorporate public comments on a new assessment process. The team notes that the proposed schedule is both challenging and relies on the successful and timely completion of several significant milestones including the consideration of internal and external stakeholder comment.

Efforts to coordinate resources between the SMM improvement effort by AEOD and the IRAP effort will continue. For example, the Office of Nuclear Regulatory Research and AEOD have coordinated workshops to develop guidance for performing an overall risk-based assessment of the template to support the current SMM process. The IRAP team has sought assistance from this group, as necessary, to help in the development of risk-informed PIM scoring and template category assessment thresholds for the new assessment process.

#### COORDINATION:

The Office of the General Counsel has reviewed this Commission paper and has no legal objections to its content.

The Office of the Chief Information Officer has reviewed this Commission paper for information technology and information management implications and has no objections to its content.

The Office of the Chief Financial Officer has reviewed this Commission paper for resource implications and has no objections to its content.

**RECOMMENDATION:**      That the Commission:

1.    Approve the staff begin soliciting, by May 1998, public comments on the proposed new assessment process as described herein.
2.    Note:
  - a.    The staff will integrate the IRAP schedule with the AEOD SMM improvement schedule; NRR is the lead office for the integrated review of assessment process;
  - b.    The new assessment process and SMM improvements would be published in the Federal Register for a 60-day public comment period;
  - c.    The proposed schedule (Attachment 2), reflects changes from the original schedule and is contingent upon solicitation of public comments by May 1, 1998.



L. Joseph Callan  
Executive Director  
for Operations

- Attachments:
1. Detailed Discussion of the Proposed  
    New Integrated Assessment Process
  2. Schedule of Integrated Review of  
    Assessment Activities and Milestones
  3. Simplified Decision Logic Model



Commissioners' completed vote sheets/comments should be provided directly to the Office of the Secretary by COB Thursday, April 9, 1998.

Commission Staff Office comments, if any, should be submitted to the Commissioners NLT April 2, 1998, with an information copy to the Office of the Secretary. If the paper is of such a nature that it requires additional review and comment, the Commissioners and the Secretariat should be apprised of when comments may be expected.

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**DETAILED DISCUSSION  
OF THE  
PROPOSED NEW INTEGRATED ASSESSMENT PROCESS**

## DISCUSSION OF THE OBJECTIVES AND ATTRIBUTES OF A NEW INTEGRATED ASSESSMENT PROCESS

The integrated review of assessment process (IRAP) team determined that the overall objective of any new assessment process should be to accurately assess the overall safety performance of all U.S. commercial nuclear power plants to verify that they are operating safely and to identify and prompt the correction of underlying safety issues.

This objective is similar to that of other NRC processes such as the inspection and enforcement programs. The new assessment process is not intended to supplant these other processes, but is meant to make broader conclusions on licensee performance based on the integration of performance issues from these processes. Likewise, this new assessment process is not intended to preclude taking NRC action as warranted by the other processes. Rather, NRC actions resulting from the assessment process are intended to supplement actions already taken based on the integration and broad assessment of licensee performance issues.

The purpose of assessing licensee performance is not to identify or measure excellence, but to evaluate licensee performance against regulatory requirements to ensure the adequate protection of the public health and safety. Therefore, the team concluded that any new assessment process should not attempt to make distinctions among those plants that are clearly meeting regulatory requirements in order to determine which of those plants are performing better than the others.

Nuclear power plant licensees are responsible for operating the plant in accordance with their license. Assurance of continued safe operation rests on the licensee programs and processes that are required by NRC rules and regulations, and that are verified by NRC regulatory oversight. Assuming that the inspection program is implemented as required to provide a broad sample of licensed activities, the new assessment process proposed by the team will rely on the fact that a lack of negative findings is indicative of licensee performance that meets or exceeds regulatory requirements. Therefore, the new assessment process will not evaluate those issues solely pertaining to good or neutral licensee performance. However, those issues involving weak or poor licensee performance will still retain both the positive and negative aspects of the issue to ensure that the proper context of licensee performance is maintained.

The new assessment process proposed by the team will retain many of the strengths and positive attributes of the current assessment processes. These attributes include: (1) periodic assessments that are frequent enough to assess current performance, but with a long enough data window to identify trends in performance, (2) graded assessment areas to accurately reflect licensee performance, and that clearly communicate this assessment to all stakeholders, (3) public meetings with licensees to discuss the results of the assessment, and (4) senior NRC management review of those licensees with significant performance weaknesses to develop coordinated agency positions and actions. By incorporating these attributes into a single assessment process, separate systematic assessment of licensee performance (SALP) meetings, plant performance review (PPR) meetings, and the senior management meeting (SMM) Watch List are superseded.

Licensees and the public should be able to predict NRC actions based on the inspection issues documented in the PIM. To accomplish this goal, a decision logic model has been developed which provides for a structured and graded approach for NRC actions that can be taken based

on the assessment of licensee performance in each template category. This graded approach will be taken for actions such as the assignment of additional inspection resources, the type of public meeting to hold with the licensee, and the level of NRC management review required to validate the assessment and to approve any recommended actions. The Decision Logic Model further directs the consideration of a series of actions of increasing significance, such as confirmatory action letters (CALs); special inspections; 10 CFR 50.54(f) letters; and orders to modify, suspend, or revoke licensed activities. By periodically issuing an updated and graded Plant Issues Matrix (PIM) and with a published decision logic model, licensees and the public will be able to foresee and anticipate future NRC actions on the basis of changing trends in licensee performance.

The use of the new assessment process will not preclude taking actions in a timely manner. For example, the issuance of a CAL or assignment of an inspection in response to a plant event may still be performed independent of the annual assessment process. The new process will also be closely aligned with the enforcement policy so that the enforcement actions taken are assessed equally and consistently among plants. The opportunity for licensees to provide a response to assessments and proposed actions is factored in at several different levels of the process. Finally, required changes to the inspection program and enforcement policy based on changes to the assessment process will be reviewed after the IRAP team effort is completed.

#### DISCUSSION OF THE SPECIFICS OF THE PROPOSED NEW INTEGRATED ASSESSMENT PROCESS

Performance issues (i.e., those from inspection reports, licensee event reports, and other docketed correspondence) are entered into the PIM. These issues are then assigned one or more template categories. The template is a tool for sorting these inspection issues to support the assessment of licensee performance and is broken down into categories such as the following:

- problem identification and resolution
- operating performance
- human performance
- material condition
- engineering/design
- programs and processes

An additional template category, "Management Effectiveness," is currently being developed by the Office for Analysis and Evaluation of Operational Data (AEOD) and may be included in the future as an additional assessment area.

A template format was chosen since it allows for the identification of the causes of issues (such as human performance) and the effect of issues on plant operation (such as material condition). The assessment of causal areas provides a leading indication of changes in licensee performance, and the functional area assessments allow for the targeting of inspection resources to further assess licensee performance.

Each PIM entry is assigned one or more template categories as appropriate. A significance-based scoring system is used by the inspector and regional managers to give a numerical score to each PIM entry. For example, a single point may be assigned to inspection issues such as NRC-identified performance issues that, if left uncorrected, could result in noncompliance with NRC regulations. More points would be assigned to performance issues that actually result in negative impacts on plant operation, programmatic weaknesses, or noncompliance with an NRC regulation. The PIM is scored and updated every time new PIM entries are made. Although subjectivity is still present to a certain degree in assigning these numerical scores, the subjectivity is driven to the lowest possible level, to the source of the data, where it is best supported. Consistency in PIM scoring will be achieved through clear and thorough guidance documents, training of associated personnel, and oversight of process implementation by appropriate Headquarters' offices. An updated and scored PIM is periodically forwarded to the licensee and placed in the public document room. Licensees are afforded several opportunities to provide feedback on the significance of the PIM entries, for example, at the inspection exit meetings and after a revised PIM is issued with the inspection report.

A regional manager will periodically roll-up the scored PIM entries into an assessment to ensure that changes in licensee performance are promptly identified. Periodically (i.e., after every resident and special inspection report), the manager will aggregate the scored PIM data into template categories. The manager will then use numerical thresholds to score each category as "Green," "Yellow," or "Red." A Green rating indicates performance that generally meets or exceeds requirements, a Yellow rating indicates performance that demonstrates a pattern of noncompliance with regulatory requirements or results in a number of performance issues indicative of a programmatic weakness that warrants increased licensee attention or corrective actions; and a Red rating indicates performance that demonstrates significant noncompliance with regulatory requirements in a systemic or pervasive manner that warrants licensee corrective action. A rolling data window (i.e., 12 months) is used as the assessment data-base to allow for the identification of long-term trends in performance. The Decision Logic Model is used by regional management during these periodic assessments as guidance for proposing and taking actions as dictated by any changes in the assessment. Periodic changes to regional inspection resource allocations may be made on the basis of the results of these routine roll-ups of the PIM data. By using scored PIM entries, defined assessment thresholds, and an established decision logic model, assessments of licensee performance and the resulting NRC actions can be made in a traceable and repeatable manner, with a clear tie established between the assessment and the resultant action taken.

An annual performance assessment meeting will be held in each region to validate the performance assessment for each plant, and to review and approve recommended NRC actions. These regional assessment panels will be chaired by the regional division directors, attended by the Regional Administrator (RA), and participated in by representatives from AEOD, the Office of Enforcement, the Office of Investigations, the Office of Nuclear Reactor Regulation (NRR) Division of Reactor Projects, and the Agency Allegation Coordinator. Although these annual assessment meetings will be held at the regional level, active participation by Headquarters' personnel will ensure consistency and proper consideration of other assessment information. A regional manager will assess licensee performance in each template category by comparing the category color rating with other performance information, such as NRC and industry performance indicators, AEOD trend plot results, and information submitted before the

annual assessment by the licensee. These comparisons with other performance measures will serve as a quality control check to validate the template assessment and to highlight discrepancies for further review and reconciliation at the assessment meeting. Based on the assessment results, the regional manager will also develop recommended NRC actions based on the Decision Logic Model. The manager will present the assessment results to the panel for validation and recommended actions for review and approval. NRC actions with regional responsibility (i.e., regional initiative and team inspections) would be coordinated at an inspection planning meeting following the annual meeting.

Approximately 1 to 2 weeks following the last annual regional assessment meeting, senior NRC managers will meet to review the assessments for those plants with significant performance weaknesses. Those plants discussed by the senior managers will be a small subset of those plants that were discussed at the annual regional assessment meeting, and are those plants for which the Decision Logic Model directs the consideration of NRC actions requiring Headquarters' involvement (i.e., special inspections, 10 CFR 50.54(f) letters, orders). The RA will present the previously prepared assessment results for review by the senior managers and would also present recommended actions for approval. Review by senior NRC manager's of those plants with significant performance weaknesses will ensure that appropriate actions are taken commensurate with the assessment of licensee performance. After the Headquarters meeting, the Commission will be notified of the results of the annual assessment meetings.

Following the meeting of senior NRC managers and notification of the Commission, the assessment results and the proposed actions for each plant will be forwarded by letter to the associated licensees and made available to the public. A public meeting will be held with each licensee to discuss the assessment results and the proposed NRC actions. Licensees will be afforded the opportunity to respond to the assessment before the proposed actions are taken. This measure will ensure that any subsequent information provided by the licensee is reviewed and evaluated before action is taken. After the review of any licensee response, actions will be implemented as appropriate (i.e., scheduling and performance of inspections, issuance of CALs and 10 CFR 50.54(f) letters).

All of these actions will be taken in a graded approach in accordance with the Decision Logic Model and will depend on the overall template category assessment results. For example, the letters forwarding the assessment and the proposed actions to the licensees will be signed by either the Division Director or the RA, depending on the assessment. The public meeting with the licensee to discuss the assessment results will be held by the responsible branch chief (BC), RA, or the Executive Director of Operations (EDO) and/or the Commission as appropriate, also depending on the assessment results. Licensees with performance that generally meets or exceeds regulatory requirements will review their assessment with the BC, while licensees with significant performance weaknesses might meet with the EDO or the Commission, if appropriate.

**SCHEDULE OF  
INTEGRATED REVIEW OF ASSESSMENT  
ACTIVITIES AND MILESTONES**

Schedule of Integrated Review of Assessment Process (IRAP) Activities and Milestones

February 3 and 5, 1998	Briefed Advisory Committee on Reactor Safeguards (ACRS) on proposed assessment process.
February 3, 1998	Briefed senior NRC managers on proposed assessment process at the Office of Nuclear Reactor Regulation (NRR)/Regional Administrator (RA) meeting.
February 23-27, 1998	Final IRAP team meeting to finalize concepts for the new assessment process, develop strategies for validation, and discuss methods for obtaining public comment.
March 1998	Brief Commissioner Technical Assistants on new integrated assessment process.
April 1998	NRR commence solicitation of comments and concurrence from other NRC program offices and regions on the new assessment process.
April 15, 1998	Regulatory Information Conference breakout session held by NRR on the new assessment process.
April 30, 1998	Commission approval to solicit public comments
May 1, 1998	NRR issue <i>Federal Register</i> Notice to obtain public comment, commence 60-day public comment period.
May/June 1998	Public workshop(s) held by NRR on the new assessment process as needed.
July 1, 1998	End of the public comment period.
July 1998	Validation of the new integrated assessment process by NRR.
September 1998	Brief ACRS on the new assessment process, results of validation activities, and the results and resolution of the public comments.
October 15, 1998	Issue Commission paper describing the final proposed assessment process, results of validation, and plans for implementation.
October 30, 1998	Commission briefing on the final proposed integrated assessment process providing results of validation, results and resolution of public comments, and plans for implementing the new process. Request Commission approval to implement the new process.



**Schedule of Integrated Review of Assessment Process (IRAP) Activities and Milestones**  
**(continued)**

January 1999	Begin implementation of the new integrated assessment process.
January-December 1999	Phasing out of current assessment processes and phasing in of new assessment process.
January 2000	First annual plant performance assessment conducted under the new assessment process.

## **SIMPLIFIED DECISION LOGIC MODEL**

## SIMPLIFIED DECISION LOGIC MODEL

