

ORIGINAL

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

**Title:**           **BRIEFING ON ANALYSIS OF QUANTIFYING  
PLANT WATCH LIST INDICATORS - PUBLIC  
MEETING**

**Location:**       **Rockville, Maryland**

**Date:**           **Tuesday, February 18, 1997**

**Pages:**          **1 - 73**

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1 UNITED STATES OF AMERICA  
2 NUCLEAR REGULATORY COMMISSION

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4 BRIEFING ON ANALYSIS OF QUANTIFYING  
5 PLANT WATCH LIST INDICATORS

6 \*\*\*

7 PUBLIC MEETING

8 \*\*\*

9 Nuclear Regulatory Commission  
10 Commission Hearing Room  
11 11555 Rockville Pike  
12 Rockville, Maryland  
13

14 Tuesday, February 18, 1997  
15

16 The Commission met in open session, pursuant to  
17 notice, at 2:39 p.m., the Honorable SHIRLEY A. JACKSON,  
18 Chairman of the Commission, presiding.

19 COMMISSIONERS PRESENT:

20 SHIRLEY A. JACKSON, Chairman of the Commission  
21 KENNETH C. ROGERS, Member of the Commission  
22 GRETA J. DICUS, Member of the Commission  
23 EDWARD McGAFFIGAN, JR., Member of the Commission  
24 NILS J. DIAZ, Member of the Commission  
25

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1 STAFF AND PRESENTERS SEATED AT THE COMMISSION TABLE:

2 JOHN C. HOYLE, Secretary of the Commission

3 KAREN D. CYR, General Counsel

4 EDWARD JORDAN, Deputy Executive Director for  
5 Regulatory Effectiveness, Program Oversight,  
6 Investigations, & Enforcement

7 DR. DENWOOD ROSS, Acting Director, AEOD

8 RICHARD BARRETT, Deputy Director, Incident  
9 Response Division, AEOD

10 IRA GOLDSTEIN, Arthur Andersen, Partner, Federal  
11 Industry

12 KAREN VALENTINE, Arthur Anderson, Senior Manager,  
13 Office of Government Services

14 LOUIS ALLENBACH, Senior Management Consultant

15 KATHRYN KELLY, Senior Consultant

16 AARON LIEBERMAN, Senior Consultant

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

[2:39 p.m.]

CHAIRMAN JACKSON: Good afternoon, ladies and gentlemen.

I am pleased to welcome members of the NRC Staff to brief the Commission on the Arthur Andersen Assessment of the Senior Management Meeting Process and Information Base.

The assessment was performed to ascertain how the Senior Managers can improve the timeliness and thoroughness of its plant safety assessments. The Senior Management meeting process is intended to facilitate the early identification of plants which require increased regulatory attention

The Commission has indicated previously its belief that there is room for improvement in the Senior Management Meeting decisionmaking process. These improvements relate to making the process more scrutable, using objective data with well-defined decisions criteria.

The objective ultimately should be to attain a clear, coherent picture of performance at operating reactor facilities.

I understand that copies of the slide presentation are available at the entrances to the meeting room, so unless my fellow Commissioners have any opening comments, Mr. Jordan, please proceed.

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1 MR. JORDAN: We changed on you from the last  
2 meeting.

3 CHAIRMAN JACKSON: That's right.

4 MR. JORDAN: Thank you very much, Chairman  
5 Jackson, Commissioners.

6 With me at the table are Dr. Denny Ross, Acting  
7 Director of AEOD and Rich Barrett, Deputy Director, Division  
8 of Incident Response, who provided direct management  
9 oversight of this effort.

10 Seated behind us are some of the Arthur Andersen  
11 personnel who conducted the assessment.

12 Ira Goldstein is the partner in charge of Arthur  
13 Andersen's Federal Industry --

14 CHAIRMAN JACKSON: Raise your hand high. Thank  
15 you.

16 MR. JORDAN: Thank you -- Federal industry work.  
17 Karen Valentine is the Senior Manager of the  
18 Office of Government Services.

19 Louis Allenbach is the Senior Management  
20 Consultant.

21 Kathryn Kelly is a Senior Consultant.

22 Aaron Lieberman is a Senior Consultant.

23 They are available to respond to specific  
24 questions about their work that NRC Staff are unable to  
25 answer.

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1           The Arthur Andersen study of the Senior Management  
2 Meeting grew out of a discussion at the June 25th, 1996  
3 periodic Commission meeting on operating reactors in fuel  
4 cycle facilities.

5           At that meeting the Commission raised a number of  
6 questions about improving the information base of the Senior  
7 Management meeting in order to make the Senior Management  
8 Meeting decisions more objective, consistent and timely.

9           Following the issuance of an SRM on June 28th,  
10 1996, the responsibility for this assessment was assigned to  
11 AEOD by the Executive Director for Operations. The AEOD  
12 staff decided to conduct an independent assessment of the  
13 Senior Management Meeting process using a contractor with  
14 extensive experience in management consulting and  
15 performance indicators.

16           Arthur Andersen Consulting was selected for this  
17 responsibility, using a streamlined process to select from a  
18 list of GSA approved contractors. For the four-month period  
19 of the study the AEOD staff provided Arthur Andersen with  
20 the information and access they needed in order to provide a  
21 creditable assessment.

22           The NRC Senior Advisory Panel was created to  
23 review and comment on the NRC Staff proposed statement of  
24 work and to provide input at key milestones in the study.  
25 The Advisory Panel consisted of myself, Jim Milholland, Dave

1 Morrison, Stu Ebnetter, and Frank Miraglia.

2 The report you have received and will be briefed  
3 on today represents the views of Arthur Andersen Consulting.  
4 The NRC Staff has begun an aggressive effort to evaluate the  
5 recommendations and develop implementation options. The NRC  
6 Staff recommendations will be presented in a Commission  
7 paper which we plan to forward in the end of March, this  
8 year.

9 The briefing this afternoon is intended to review  
10 the findings and recommendations of the Arthur Andersen  
11 report without providing NRC Staff views, and that is  
12 normally difficult but Rich, I will ask you to begin the  
13 presentation, please.

14 CHAIRMAN JACKSON: Commissioner?

15 COMMISSIONER McGAFFIGAN: Just one comment,  
16 because we won't come back to this.

17 I would like to commend you for the process that  
18 you went through, the streamlined procurement process, I  
19 think to get this study in this timeframe. I think that is,  
20 whether it was AEOD or working I'm sure with Procurement  
21 shop, the strategy of going to the GSA approved list,  
22 getting a contract with the appropriate qualifications and  
23 getting them on board rapidly, that's very refreshing  
24 because it often times takes a lot longer to get this sort  
25 of study.

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1 MR. JORDAN: I intended to give Admin the credit  
2 for assisting us in that effort. Thank you.

3 MR. BARRETT: Good afternoon, Chairman Jackson,  
4 Commissioners.

5 If I could have Slide 2, please.

6 Our intention this afternoon is to simply go  
7 through the content of the Arthur Andersen report including  
8 the methodology that they used in preparing the report and  
9 also to present their findings about the outcomes of past  
10 Senior Management Meetings as well as their findings and  
11 recommendations regarding the information that we have used  
12 in the past and the information we might use in the future  
13 for Senior Management Meeting decisions, and the process we  
14 use for making these decisions.

15 As Mr. Jordan pointed out, we will briefly at the  
16 end talk about the schedule for the Staff's evaluation of  
17 the recommendations and for development of options for  
18 implementation.

19 Slide 3, please.

20 I think Mr. Jordan has already pretty well gone  
21 over the chronology of the study. I would like to point out  
22 however one thing I think is of interest.

23 The original Staff requirements memorandum  
24 concentrated on the development of indicators that could  
25 form a more objective basis for Senior Management Meeting

1 decisions. After Arthur Andersen came on board and began to  
2 review the written documentation from the Senior Management  
3 Meeting they made the recommendation to us that we expand  
4 the study so that we also look at the process itself because  
5 their feeling was that a great deal of what was happening in  
6 the Senior Management Meeting was related to the process we  
7 used and that to have a full examination of a step toward a  
8 more objective measures required us to look at the process.

9 The Staff evaluated that recommendation and  
10 concurred with it, so the contract was modified at that  
11 point and we went forward with the fuller scope of work.

12 If I could have Slide 4, please.

13 Arthur Andersen assigned nine professional to this  
14 task. As Mr. Jordan mentioned, it was led by a partner of  
15 the firm as well as two senior managers of Arthur Andersen.  
16 In addition, they involved part-time two of their senior  
17 staff with extensive experience in utility finances as well  
18 as nuclear operations, some experience in nuclear  
19 operations, and four very capable staff members who worked  
20 primarily almost full-time throughout the course of the  
21 study.

22 The methodology they used was quite thorough in my  
23 opinion. They first of all did a very thorough review of  
24 the written record of the senior management meeting from  
25 1992 to 1996.



1           That included the briefing books, which are  
2           supplied to the Senior Managers prior to the meeting, the  
3           Minutes that are published after the meeting, and the  
4           transcripts of the Commission briefings that are given after  
5           each one of the meetings.

6           Based on their review of the written record they  
7           developed an extensive database. This was a database of the  
8           characteristics and measures that were most often cited as  
9           being the basis for the decisions, the performance  
10          characteristics and performance measures.

11          In fact, they ended up with a database of 1700  
12          records, which provided a great deal of insight into the  
13          bases that we have used in the past for these decisions.

14          Secondly, Arthur Andersen conducted over 30  
15          interviews of three types -- interviews with NRC Senior  
16          Managers who have past experience with the Senior Management  
17          Meeting, both Headquarters Managers and Regional  
18          Representatives from all of the regions; we interviewed  
19          Resident Inspectors and their immediate supervisors in the  
20          Regional office; and we interviewed five senior utility  
21          executives at the Vice President, Nuclear level.

22          Now the purpose of these interviews was different  
23          in each case. In the case of the interviews with the NRC  
24          Senior Managers, what we were trying to get there was an  
25          understanding of how the Senior Management Meeting process

1 works, because it was very important for Arthur Andersen to  
2 understand that and of course they had no opportunity to  
3 attend the meeting.

4 Also, to understand in the opinion of the people  
5 who participated what were the most important factors in  
6 shaping the decisions that have been made in past Senior  
7 Management Meetings and also to understand what the roles of  
8 the various participants in the meetings are and finally to  
9 see if these Senior Managers had any suggestions for process  
10 improvements or if they felt that there were any plants that  
11 if they had a chance to go back and look again they might  
12 have treated differently -- so that was the purpose of  
13 interviewing the NRC Senior Managers.

14 The purpose of interviewing the Resident  
15 Inspectors and their immediate supervisors was for Arthur  
16 Andersen to get a sense of how information that is  
17 fundamental to the Senior Management Meeting performance  
18 assessment process, how it is first gathered and how it is  
19 developed and analyzed as it moves up through the chain of  
20 events and then becomes part of our assessment, performance  
21 assessment processes, such as the SALP and the Senior  
22 Management Meeting.

23 Finally, the purpose of interviewing the utility  
24 executives was to get a sense of how much they use  
25 performance indicators in evaluating their own plants and



1 how they make use of performance indicators.

2 Also, we wanted to get a sense of what their  
3 understanding of the Senior Management Meeting process was  
4 from an outsider's perspective, so we conducted over 30  
5 interviews.

6 Third, the third aspect of their methodology was  
7 to create what they call a performance trend model, and we  
8 will actually show you an example of the performance trend  
9 model later in this presentation and we'll discuss it in  
10 great detail, but the purpose of the performance trend model  
11 was to demonstrate how indicators could be used in making  
12 decisions related to the Senior Management Meeting,  
13 indicators that are already available to the NRC Staff and  
14 are already developed in the processes that we have  
15 ongoing -- and how criteria could be used in conjunction  
16 with those indicators to inform the process of  
17 decisionmaking.

18 COMMISSIONER MCGAFFIGAN: Could I ask --

19 MR. BARRETT: Sure.

20 COMMISSIONER MCGAFFIGAN: -- maybe it's  
21 appropriate to wait until later, but the indicators that are  
22 available to the Staff, are they also available to the  
23 public?

24 If you went through our documents, could you make  
25 one of the charts that you are going to show us later from

1 the publicly available information?

2 MR. BARRETT: At the moment, seven of the nine  
3 indicators we use are routinely made available to the  
4 public.

5 These are the NRC performance indicators.

6 The two other indicators, which were related to  
7 our enforcement and to numbers of allegations are not, I  
8 believe, routinely made available to the public although I  
9 don't believe there is any problem with making them  
10 available to the public.

11 CHAIRMAN JACKSON: But we do have those indicators  
12 ourselves and we make use of them.

13 MR. BARRETT: We do, yes.

14 CHAIRMAN JACKSON: Or we at least trend them at  
15 this stage.

16 MR. BARRETT: We trend seven of the nine and the  
17 other two I believe are just used internally within the  
18 offices that they are developed in.

19 CHAIRMAN JACKSON: I see, but the information base  
20 for developing indicators with them exists.

21 MR. BARRETT: It exists, yes.

22 Okay. It was not a great deal of effort for  
23 Arthur Andersen to develop these charts with the  
24 information.

25 The fourth item they did was to create an

1 integrated performance model, and again we will look at the  
2 integrated performance model, but the purpose of the  
3 integrated performance model was to illustrate how different  
4 types of information could be used at various stages in the  
5 performance assessment process, and again we will discuss  
6 that in some detail.

7 Finally, Arthur Andersen developed a process map,  
8 and part of that was developed -- this is a process that  
9 describes how the NRC gathers information of various types,  
10 how we analyze it, and use it in various processes such as  
11 enforcement, the SALP process, and other processes leading  
12 up to the Senior Management Meeting.

13 We don't plan to go into detail today on that  
14 process map, but it is available in the report in Appendices  
15 3 and 4.

16 If I could have Slide 5, please.

17 Arthur Andersen drew some conclusions about the  
18 past record of the Senior Management Meeting with regard to  
19 identifying poorly performing plants and with regard to  
20 taking formal action.

21 CHAIRMAN JACKSON: Let me ask this question. Did  
22 the use of the Arthur Andersen performance trend charts  
23 identify any plants with poor performance which had not been  
24 identified for discussion or vice versa?

25 MR. BARRETT: If you looked at the Arthur Andersen

1 performance trend plots and the criteria that they developed  
2 as a straw man criteria, there would be plants that would  
3 come up that were not on the list and were not discussed.

4 CHAIRMAN JACKSON: Would those have been ones that  
5 upon discussion with Senior Managers or utility execs might  
6 be agreed that should be on the list but were not, or -- or  
7 was there any agreement that any that had previously been  
8 placed on the list should not have been?

9 MR. BARRETT: There were no cases where plants had  
10 been placed on the list where there was agreement among  
11 anyone interviewed that it should not have been placed on  
12 the list.

13 There were cases of plants, there were two cases  
14 of plants that have been on the list where you could not  
15 have identified those performance problems purely on the  
16 basis of indicators. You would have to have looked at other  
17 information to identify those as problem plants.

18 With regard to whether there were plants that  
19 should have been on the list according to the charts that  
20 were not on the list in the past. Yes, there were. There  
21 were some that based on these, on this particular chart with  
22 these criteria, would have been identified.

23 I would say that, and Arthur Andersen would say  
24 this, that these particular indicators and these particular  
25 criteria are not meant to be the set of indicators and



1 criteria and their recommendation to the NRC is that they  
2 use the insights from the study to go in and do a systematic  
3 look at indicators and criteria to come up with the ones  
4 that we feel are the true indicators of performance.

5 CHAIRMAN JACKSON: So when you come back with the  
6 paper in March, you intend to have identified what those  
7 indicators really should be?

8 MR. JORDAN: Yes, Step 1. We will never have the  
9 final answer but we will have an improved list --

10 CHAIRMAN JACKSON: With improved criteria or  
11 refined criteria?

12 MR. JORDAN: Yes.

13 CHAIRMAN JACKSON: Dr. Ross?

14 DR. ROSS: I was going to say we were cautioned,  
15 and this is in the report, in Appendix 2, page 2 -- in fact,  
16 they felt strongly enough about it that they put it in  
17 italics. They said that "The stress of our  
18 recommendations" -- of course, meaning the Arthur Andersen  
19 recommendations -- "lies in the methodology, not in the  
20 numbers reported in the methodology. The NRC should first  
21 conduct a review of the selected performance indicators to  
22 be used when analyzing performance trends and then turn its  
23 attention to formalizing a methodology such as the one  
24 proposed to categorize plants."

25 And I think that is what we need to do.

1 CHAIRMAN JACKSON: Okay. Commissioner McGaffigan,  
2 did you have a comment?

3 COMMISSIONER MCGAFFIGAN: I'll come back.

4 CHAIRMAN JACKSON: Okay.

5 MR. BARRETT: I will come back to that question,  
6 your question, in a moment.

7 First of all, with regard to the outcomes, in  
8 general the Arthur Andersen concluded that for plants that  
9 had performance problems the NRC has identified them for  
10 discussion and that that was a fairly favorable result.

11 In addition, they concluded that plants that had  
12 been put on the Watch List in the past had been placed there  
13 appropriately, that the NRC has not been in the habit of  
14 over-reacting in terms of putting plants on the Watch List.

15 Arthur Andersen also concluded, however, that the  
16 NRC, the Senior Management Meeting has sometimes been slow  
17 in taking formal actions in terms of trending letters or  
18 Watch List designation and that NRC outcomes, Senior  
19 Management Meeting outcomes, appear to be inconsistent.  
20 That is to say that plants with apparently similar  
21 performance have had experienced different outcomes.

22 Now if I could get back perhaps to a more full  
23 discussion in answer to your question, the basis for the  
24 Arthur Andersen's conclusions was really the entire scope of  
25 the information they looked at.

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1           We have no base truth here. We really don't have  
2 anything with any fundamental principle we can go back to  
3 and say based on this fundamental principle we now know  
4 which plants should have been on the list or should not have  
5 been on the list, so we had to use the preponderance of  
6 information that was available, and the information that was  
7 available, first of all, was their review of the written  
8 record.

9           When Arthur Andersen reviewed the written record  
10 of the Senior Management Meeting, their staff formed certain  
11 impressions about the severity and the duration of  
12 performance problems and based on that they came to  
13 preliminary views about which plants seemed to deserve to be  
14 put on the Watch List or deserved to get trending letters.

15           The second source of information that was used  
16 were the interviews.

17           In the interviews with our own Senior Managers,  
18 many of them expressed in hindsight the views that certain  
19 plants probably should have been treated differently, so  
20 that was a second source of information.

21           Finally, the performance trend model was developed  
22 and was run for 109 plants and there were many cases where  
23 the results of the model did not comport with the results of  
24 the Senior Management Meeting.

25           The conclusions that Arthur Andersen drew are

1 based on a confluence of those three sources of information  
2 where consistency could be seen in all three sources of  
3 information.

4 CHAIRMAN JACKSON: Since we are talking about the  
5 Arthur Andersen assessment, and since we have the benefit of  
6 having this team sit here, I am going to ask whoever is the  
7 senior-most person on that team to offer to give us any  
8 further illumination you might wish to provide.

9 MR. GOLDSTEIN: Madam Chairman, I'm Ira Goldstein.  
10 I am the partner responsible for this engagement and,  
11 indeed, for our government work.

12 I think the summary that the staff has given to  
13 you is an accurate reflection of the work that we did and of  
14 the conclusions that we drew. I would focus for one moment  
15 on the general perception, as I think Mr. Barrett said, that  
16 the correct set of indicators had been looked at, that a  
17 great deal of information had always been collected and that  
18 if there was one indication of change that we concluded  
19 should be focused on, it was the extent to which discussions  
20 occurred that led to watch list placements somewhat later  
21 than our model would indicate could have been the case.

22 The other conclusion, if you will, that I would  
23 focus on is the balance between the objective indicators and  
24 subjective judgments. Our belief, as I think the staff and  
25 the staff of the NRC has always believed that ultimately

1 judgment must prevail. What we found was, as we looked at  
2 the outcomes of the senior management meetings, that some of  
3 the performance indicators could be used in a more objective  
4 way as indicators that could lead to what we would like to  
5 call a presumptive judgment and that is that the model can  
6 give you some indication that there might be a presumption  
7 that a particular plant could be appropriate for the watch  
8 list, subject to rebuttal in a discussion. Our  
9 recommendation secondly focused on that.

10 Thirdly, we also provided some recommendations  
11 relating to the breadth and depth of the discussion in the  
12 meeting and that we felt and I think the staff has expressed  
13 sympathy with this perception that expanded participation  
14 and expanded independent debate within that meeting could  
15 lead to a fuller discussion of those indicators.

16 So with those three points of focus, I certainly  
17 believe that the recounting that you hear is an accurate  
18 reflection of what we reported.

19 CHAIRMAN JACKSON: Thank you.

20 MR. BARRETT: If I could have slide six --

21 COMMISSIONER ROGERS: Before you leave this slide,  
22 I wonder if you could just clarify what you mean by "most"?  
23 I see the word "most" appearing here a couple of times and I  
24 just want to get a little feeling, particularly about the  
25 second bullet. Most NRC senior manager utility executives



1     agreed that plants on the watch list were appropriately  
2     placed.

3                     How large was the disagreement there?

4                     MR. BARRETT: I wouldn't say there was  
5     disagreement. There was really a question of those people  
6     who addressed the question and those people who did not. I  
7     don't recall and perhaps Arthur Andersen recalls, but I  
8     don't recall anyone saying that, disagreeing with that  
9     statement. It was just a question of which people addressed  
10    it and which people did not.

11                    COMMISSIONER ROGERS: All right.

12                    If that's what you found. Is that what you did  
13    find in your interviews, folks from Andersen?

14                    MR. GOLDSTEIN: Yes.

15                    COMMISSIONER ROGERS: All right.

16                    MR. BARRETT: If I could have slide six now?

17                    The next three slides relate to findings and  
18    recommendations of the Arthur Andersen study with regard to  
19    the information base, the information we use for the current  
20    senior management meeting decisions. And Arthur Andersen  
21    made some favorable conclusions about our information base  
22    which I think are very heartening.

23                    First of all, one of their first impressions was  
24    that the NRC has a wealth of information available to us, a  
25    wealth of information that is directly applicable to the

1 assessment of performance and directly applicable to safety  
2 and they don't always find that when they go out to assess  
3 organizations. So there were no significant gaps that we  
4 need to go out and start new major programs to develop new  
5 information.

6 They also concluded that the performance  
7 characteristics that have been used in past senior  
8 management meeting decisions are indeed related to safety  
9 and are related to risk, so again a very positive, positive  
10 finding.

11 Arthur Andersen did identify what they considered  
12 were conditions, however, related to how information was  
13 handled and how information is used. First of all, they  
14 concluded that the NRC focuses on events, tends to focus on  
15 events or major problems that occur at plants and then,  
16 based on those events, take a retrospective look at the  
17 plant, looking for the root causes and quite frequently  
18 finding the root causes in problems with management  
19 effectiveness and operational effectiveness.

20 And what Arthur Andersen basically is recommending  
21 is if we continue to focus on events in this way, we are  
22 going to be identifying performance problems later than we  
23 could. If, on the other hand, we had an ongoing systematic  
24 program for assessing management effectiveness and  
25 operations effectiveness, that we would have a program that

1 identified performance problems earlier and would give  
2 licensees more of an opportunity to turn these problems  
3 around before they become significant to safety.

4 CHAIRMAN JACKSON: That actually raises an  
5 interesting question in my mind. The question is, is that  
6 to say that the NRC does not assess management and  
7 operational effectiveness on an ongoing basis or that that  
8 assessment occurs but in the senior management meeting  
9 decisions it is not focused on? And those are separate  
10 issues. So I don't know if you want to speak to it or the  
11 Arthur Andersen rep wants to speak to it or both.

12 MR. BARRETT: I think Arthur Andersen would say  
13 that the management and operations effectiveness are clearly  
14 focused on in most of the major programs, especially the  
15 inspection program at the NRC. For instance, operations  
16 effectiveness is a key focus of the SALP process.

17 What they are saying, basically, is that we need  
18 to have a more systematic and structured way of developing  
19 management effectiveness and operations effectiveness  
20 information in a way that better feeds the senior management  
21 meeting process. So it's a question of how information is  
22 handled and how it's used.

23 DR. ROSS: The retrospective might be the key word  
24 in terms of what are leading versus lag, and more focus on  
25 the second bullet might produce leading indicators, which is

1 the main lesson to extract from this.

2 CHAIRMAN JACKSON: Okay, but there is a separate  
3 question that underlies this and that is the question of is  
4 there anywhere in our plant assessment processes that we  
5 focus on management and operational effectiveness as leading  
6 indicators? That's the first question, that's part A.

7 And part B is, if the answer is, yes, are we  
8 saying that it is not used as such in the senior management  
9 meeting process? So that's question one. Or is it that we  
10 don't assess it?

11 I mean, those are two separate questions. You  
12 see, we do SALP, we do plant performance reviews, we do  
13 this, we do that. And the question is, do we focus on  
14 management and operational effectiveness at those levels but  
15 on an ongoing basis but it doesn't propagate to the senior  
16 management meeting. Or are we saying that we don't,  
17 anywhere in our program, focus on an ongoing basis on  
18 assessing management and operational effectiveness and those  
19 are two separate kinds of things.

20 MR. JORDAN: Right. I think I can try to answer  
21 that.

22 Certainly the discussions in the senior management  
23 meeting talk both about management and the SALP process  
24 provides data input evaluations on operational  
25 effectiveness. So they are both present.

1           In terms of having the data assimilated in a way  
2       that is more easily used by the senior managers, I believe  
3       that's the focus. So there are assessments but the  
4       structure and collection of the information is not conducive  
5       to use and we do, in fact, extract much of our information  
6       about management effectiveness from things that happen as  
7       opposed to a more I would say overview of capabilities.

8           And that is sort of historic. In the past, when  
9       we try to look at capabilities, the industry itself was  
10      critical of the NRC going in as a paragon of management  
11      skills and knowledge and not looking at performance because  
12      it really is an idea of management performance. So the  
13      staff has been cautious, I believe, in assessing management  
14      in terms of their capabilities as opposed to their  
15      performance.

16           CHAIRMAN JACKSON: Mr. Goldstein looks as though  
17      he has an itch.

18           Mr. Goldstein, I think when you sit down, we would  
19      like you to sit in a green chair after this.

20           MR. GOLDSTEIN: A green chair?

21           CHAIRMAN JACKSON: here at the table.

22           MR. GOLDSTEIN: At the table, okay.

23           My wife points out every morning when I pick my  
24      ties that I am close to color blind so that as we wave over  
25      the chair --



1           CHAIRMAN JACKSON: Well, it turns out that your  
2 tie matches the chair.

3           [Laughter.]

4           MR. GOLDSTEIN: I will mention that when I get  
5 home.

6           CHAIRMAN JACKSON: She set you up.

7           MR. GOLDSTEIN: She has done that before, Madam  
8 Chairman.

9           Let me reinforce something that Mr. Jordan said  
10 and maybe even extend it a little further. We have put into  
11 the report what we call an integrated performance model that  
12 speaks very directly to the issue you are raising and  
13 indeed, as Mr. Jordan said, management effectiveness is  
14 discussed and is looked at and there is a great deal of  
15 discussion in the record of management effectiveness.

16           But as one looks at risk and resource allocation,  
17 the closer you get to an actual performance failure, the  
18 more difficult it is to do something constructive and the  
19 more the risk goes up and the more resources it takes to fix  
20 the problem.

21           We like to view the levels of indicators as four  
22 groupings. Furthest from the event is economic stress. If  
23 you could see that, that would give you some more distant  
24 indication. Management effectiveness, perhaps next.  
25 Operational effectiveness, getting closer. And then

1 ultimately, performance results.

2 I would respond to your question by saying the  
3 discussions of management effectiveness appear to be  
4 triggered in the senior management meeting by results  
5 events, by performance events as opposed to being a leading  
6 edge of that type of performance.

7 CHAIRMAN JACKSON: Okay, thank you.

8 Commissioner Diaz?

9 COMMISSIONER DIAZ: Would it be fair to say that  
10 as important as propagating an assessment of operating  
11 effectiveness would be to negatively bias events that might  
12 not have significance as part of this operational  
13 effectiveness rather than propagating the event, the event  
14 in a continuously amplified basis. Would you think it's --  
15 would you like me to restate that?

16 MR. GOLDSTEIN: I would appreciate it. I am  
17 having trouble understanding the relationship you're  
18 drawing.

19 COMMISSIONER DIAZ: Okay, there are two issues in  
20 here. One is we take an event and that event might tend to  
21 dominate the process and then the actual assessment of  
22 operational effectiveness might not propagate and be  
23 properly amplified through the system to give it its  
24 importance.

25 My point is that, as we look at the indicators, it

1 might be as important to negatively bias an event, okay,  
2 that might not have full safety significance and comparable  
3 impact on operational effectiveness and it is to amplify  
4 properly those components that do have operational  
5 significance on safety.

6 MR. GOLDSTEIN: I agree. It could be. But as  
7 Mr. Jordan pointed out, it is much more difficult to assess  
8 in any objective way management effectiveness and so I would  
9 be cautious about using it as an amplifier or as a reduction  
10 because it's a much softer indicator.

11 COMMISSIONER DIAZ: But I didn't say management.  
12 I took the word "management" out. I said operational  
13 effectiveness and event-related response.

14 MR. GOLDSTEIN: Easier to deal with, no question.

15 COMMISSIONER DIAZ: Thank you.

16 CHAIRMAN JACKSON: Commissioner McGaffigan?

17 COMMISSIONER McGAFFIGAN: Madam Chairman, this  
18 goes back to a question you asked earlier about were there  
19 plants that the performance trend model would indicate  
20 should have been discussed and weren't discussed and there  
21 clearly were some. If you also apply the decision criteria  
22 suggested, there are plants that should have been on lists  
23 and weren't on lists.

24 The thing that seems to, you know, bearing in mind  
25 that italicized wording in Appendix 2, but the difference

1 between some of those plants and I've asked staff about one,  
2 they said, oh, yeah, that's one of our lower quartile  
3 plants, they limp along but they didn't have an event.

4 And so they can look quite bad on the Arthur  
5 Andersen performance indicators over a very extended period  
6 of time, one case a decade, but not be on the list because  
7 they don't have an event. They are adequate. They are  
8 getting SALP 3's and occasional 2's but they aren't trending  
9 downward. And that's -- one of the insights you get from  
10 the Arthur Andersen report, I think, is the relative  
11 importance of events in sort of focusing us and I don't  
12 know. I mean, at a previous meeting, Commissioner Rogers,  
13 we talked, you know, about adequate -- we were getting the  
14 SALP, a 3 trending downward or trending upward, what is a 3,  
15 a three is adequate.

16 But what is a watch plant list? A watch plant, a  
17 plant deserving to be on the watch list is a -- I'm not sure  
18 we yet have the right criteria for. But that isn't going to  
19 be decided today. It's just that we get a lot of insight  
20 from looking at the 108 plants, not all of which are in the  
21 report, and seeing, you know, comparing those judgments.

22 CHAIRMAN JACKSON: Well, we seem to be able --  
23 that everyone might know that there is a plant that is, as  
24 you would say, limping along and it is as if, well, we can't  
25 do anything unless it has an event and so we are event

1 triggered. And then there is the potential that if one is  
2 event triggered, if we are event triggered, can overreact to  
3 an event at the same time. And so it's an interesting  
4 issue, so I am interested to see how you are going to  
5 suggest you are going to deal with it.

6 But Mr. Barrett came prepared to give his  
7 presentation so let's let him continue.

8 MR. BARRETT: Well, let me move on with some of  
9 the other problems that were identified with the information  
10 base.

11 Arthur Andersen made the finding that the  
12 information for the assessment was inconsistent from plant  
13 to plant and from region to region. And what they mean by  
14 that is that in the past, in the written record, information  
15 that appeared to be important for one plant was not  
16 mentioned for other plants.

17 For instance, SALP. Sometimes SALP was very  
18 important in the discussion for one plant, not very  
19 important for another plant and, in other cases, the results  
20 seemed to be even inconsistent with the SALP. Of course,  
21 SALP is a lagging indicator but nevertheless there were  
22 examples of that where information seemed to be used in an  
23 inconsistent manner.

24 Arthur Andersen recommends reengineering the  
25 information, the way in which we deal with information

1 again. And we will talk about their integrated model in a  
2 while.

3 By the way, there has been some discussion  
4 recently about improvements that were made in the most  
5 recent senior management meeting in the way in which  
6 information was organized and presented and so while I was  
7 not at the meeting, that sounds like perhaps an improvement  
8 in that respect.

9 CHAIRMAN JACKSON: So is the inconsistency the  
10 inconsistency in the information or inconsistency in its use  
11 and application?

12 MR. BARRETT: It's the information, in this  
13 particular case, in what information is brought to the  
14 table.

15 CHAIRMAN JACKSON: So that's in its use?

16 MR. BARRETT: It's use, yes.

17 CHAIRMAN JACKSON: All right.

18 MR. BARRETT: If I could have slide seven.

19 I can move through some of these others with  
20 regard to information.

21 Arthur Andersen found that the decision process is  
22 highly subjective and that there is -- the process minimally  
23 values objective indicators. Now, when they refer to  
24 subjective information, I think it is important to  
25 understand what they mean. Information can be unquantified



1 or unquantifiable and still be objective. It can still be  
2 observable, it can still be inspectable.

3 When they refer to subjective information, they  
4 are referring to information that can be viewed quite  
5 differently by two observers and the examples that they most  
6 frequently cite are the fact that the written record from  
7 1992 to 1996 frequently emphasizes the importance of  
8 personnel changes and reorganizations that have been made  
9 recently at a plant and improvement plans that have been  
10 developed. Arthur Andersen considers these to be subjective  
11 information, information that we really can't evaluate a  
12 priori and that this information appears to keep -- to carry  
13 very high weight in the senior management meeting process.

14 Conversely, with regard to performance indicators  
15 which have been available to the NRC for quite some many  
16 years, the indications that they have from the interviews  
17 are that not very many, in fact very few if any of the  
18 senior managers interviewed, identified the performance  
19 indicators as primary decision criteria for the senior  
20 management meeting decisions. And Arthur Andersen also  
21 observed they actually attended all of the January 1997  
22 screening meetings, and their observations were that while  
23 the performance indicators were mentioned, they were not  
24 focused on. So that the bottom line of all of this is that  
25 objective indicators appeared to be minimally valued in past

1 senior management meeting discussions.

2 CHAIRMAN JACKSON: Excuse me, Mr. Barrett, I want  
3 to ask Mr. Goldstein, what do you mean when you say that the  
4 personnel changes, reorganization or improvement plans are  
5 subjective as opposed to objective?

6 MR. BARRETT: Two observers can watch the change  
7 in leadership. One can draw the conclusion that it will  
8 focus the organization more directly in the correct  
9 direction and another person can determine that it's a step  
10 backwards because the new leader does not have experience in  
11 nuclear safety. Valuing that change as positive or negative  
12 will be a subjective assessment.

13 CHAIRMAN JACKSON: I see.

14 COMMISSIONER ROGERS: Don't you have a little  
15 difficulty here when you are talking about assessing  
16 management effectiveness and at the same time trying to find  
17 objective measures to do that? The kinds of things that we  
18 are touching upon here relate to judgment calls about  
19 management decisionmaking and therefor potential  
20 effectiveness and isn't this really an area where it is very  
21 difficult to have it both ways, to get away from subjective  
22 measures or subjective judgments and yet judge management  
23 effectiveness at all levels?

24 Now, I mean, at a lower level it is easier to do  
25 than at the higher level in the organization to judge

1 management effectiveness and it seems to me that that's a  
2 very thorny area to get into. It is one that Mr. Jordan  
3 touched on, why we haven't gone further in that direction in  
4 the past. And certainly I would like to hear, you know, any  
5 thoughts you may have sometime on that issue because it is  
6 central to overall safety and yet it is the most difficult  
7 one for us to deal with.

8 MR. GOLDSTEIN: I believe that Mr. Jordan will be  
9 presenting the integrated performance model that we put in  
10 the report as well as the proposal we made for use of harder  
11 indicators in the meetings and, if I could, I think it would  
12 be more effective for me to wait until after that and then  
13 use those to answer your question.

14 COMMISSIONER ROGERS: Fine. Fine, very good.

15 CHAIRMAN JACKSON: Mr. Barrett?

16 MR. BARRETT: Yes. I would like to take a shot at  
17 that question, though. There are things that happen every  
18 day at nuclear power plants which are objective indications  
19 of the effectiveness of the organization and perhaps  
20 organizational effectiveness is a better term than  
21 management effectiveness. I think part of the challenge as  
22 we evaluate options for implementing the Arthur Andersen  
23 recommendation will be to find objective ways of --  
24 objective, observable, inspectable findings that indicate  
25 how effective the organization is and the management, as

1     opposed to behaviors which, of course, are -- management  
2     behaviors, which are subjective.

3             Let me move on. Another finding of the Arthur  
4     Andersen assessment was that the mass of unprioritized  
5     information inundates senior managers. Many of the managers  
6     we interviewed cited the large volume of information in the  
7     briefing books and also many of them talked about the  
8     difficulty in assimilating the information as it's presented  
9     by the regional administrator. The numerous examples that  
10    are put on the table that, after a while, the listener  
11    begins to lose context and so that the Arthur Andersen  
12    recommendation is that we pay more attention to the  
13    formatting of information and the volume of information that  
14    is presented to senior managers so that they can get a  
15    better context of what it all means.

16            Analyze the information and present it in such a  
17    way that conclusions might be more evident. Have a  
18    consistent structure and order of presentation of  
19    information so that problems can be put in context and  
20    plants can be compared with plants previously discussed.

21            And I should point out and Arthur Andersen points  
22    this out that there already has been a lot of progress in  
23    this area over the past several senior management meetings  
24    with some of the information, management strategies such as  
25    the plant issues matrix, which is good.

1           If I could have slide eight, please?

2           This is the final slide on information issues.

3       One of the issues that they noticed was that a great deal of  
4       manual effort goes into assimilating performance information  
5       here at the NRC. And without going into a lot of detail,  
6       their recommendation is that we could have a process that  
7       would be much more efficient and have a much better sharing  
8       of information if we continue to improve information access  
9       through automation. And the agency, as you know, has some  
10      efforts in place to improve our availability of information,  
11      making sure that information is available in standard  
12      formats that is available electronically to everyone who  
13      wants to use it for whatever purpose. So this is an area  
14      that Arthur Andersen feels would really help us to be more  
15      efficient and more effective in our assessments.

16           And, finally --

17           CHAIRMAN JACKSON: Mr. Gillespie, when we were  
18      talking about the reactor oversight program last week,  
19      talked about some activities having to do with automating  
20      things along the line beginning with inspection and various  
21      other inputs. These beginning efforts that you are talking  
22      about, is that what you are speaking of?

23           MR. BARRETT: Yes, that would definitely be  
24      apropos.

25           CHAIRMAN JACKSON: And then a question I have is

1     how proprietary is that system to just NRR's use as opposed  
2     to in fact being accessible and/or compatible with other  
3     systems?

4             MR. BARRETT: I am not in a position to answer  
5     that question. I don't know enough about that system.

6             MR. JORDAN: It is an NRC system. It would be  
7     available to the regions and other managers.

8             CHAIRMAN JACKSON: Will it be available to other  
9     parts of the agency not in NRR?

10            MR. JORDAN: Yes.

11            CHAIRMAN JACKSON: I mean not in just the reactor  
12     part of the business?

13            MR. JORDAN: Yes.

14            CHAIRMAN JACKSON: Okay.

15            MR. BARRETT: The final finding regarding  
16     information base has to do with economic stress. I don't  
17     think it is any secret to anyone that there is a concern  
18     about economic stress due to deregulation of the industry  
19     and Arthur Andersen has made the finding that the NRC needs  
20     to keep an eye on this kind of stress because economic  
21     stress can be a cause of performance problems.

22            On the other hand, they caution us that economic  
23     stress cannot -- is not necessarily a predictor of problems.  
24     Economic stress can be handled by some organizations, quite  
25     nicely, in fact. In some cases, can actually lead to an

1 improvement in performance. So they are not recommending  
2 that we use economic stress in the context of the senior  
3 management meeting as an indicator that would be used in the  
4 decisionmaking process. They are rather recommending that  
5 we have a process and have a system available whereby we can  
6 choose economic indicators, track those indicators and use  
7 them as a way of nominating plants for perhaps a little  
8 extra oversight that we can see, keep an eye on whether  
9 economic stress as it is indicated does indeed have an  
10 impact on performance as time goes by.

11 CHAIRMAN JACKSON: Well, isn't it also true that  
12 excessive expenditures of money can also be an indicator of  
13 organizational ineffectiveness. It doesn't necessarily  
14 mean -- what you are really saying is that you can't track  
15 dollar expenditures to organizational effectiveness.

16 MR. GOLDSTEIN: I agree. I think what we are  
17 saying is variations too far away from the norm ought to  
18 catch your attention but, as Mr. Barrett said, we would not  
19 put them into a model as one of a quantity of more  
20 formalized indicators but one ought to go find out why  
21 that's happening and keep an eye on it is really what we are  
22 trying to say.

23 MR. BARRETT: We are also saying it is not  
24 necessarily the absolute value of an indicator. It is the  
25 trend over some period of time that may be more important to

1 look at.

2 COMMISSIONER McGAFFIGAN: If they want to go back  
3 to slide 17, they might want to flash up there briefly, that  
4 shows what the economic indicators proposed by Arthur  
5 Andersen are.

6 CHAIRMAN JACKSON: Why don't we come to that and I  
7 will offer them an opportunity to speak to it. But I assume  
8 that's why on the next -- on page 9 that economic stress is  
9 an ellipse and not a rectangle; is that right?

10 MR. BARRETT: Well, I'll say yes.

11 But I will say there is no plan to go at any point  
12 in the presentation to slide 17, so --

13 CHAIRMAN JACKSON: But I'm saying you do now.

14 MR. BARRETT: Okay.

15 COMMISSIONER ROGERS: I would like to come back to  
16 it myself.

17 MR. BARRETT: Okay, fine.

18 COMMISSIONER DICUS: I can save my question until  
19 we come back.

20 We have questions.

21 MR. BARRETT: All right. Let's go to -- I think  
22 I've lost track of where I am.

23 CHAIRMAN JACKSON: Page 9.

24 MR. BARRETT: Slide 9, yes.

25 Slide 9 is a conceptual representation of the



1 approach that we have already talked about to a certain  
2 extent here. It's an approach for using four levels of  
3 information in a coordinated way for assessments and from  
4 the right-hand side as I look at it to the left-hand side,  
5 you're getting information that has a greater and greater  
6 value in terms of getting more and more warning of impending  
7 performance problems.

8 On the right-hand side, the bar there is called  
9 results and what that really refers to is the occurrence of  
10 significant events or other issues that might be viewed as  
11 having a direct impact on safety. You can certainly catch  
12 performance problems using this type of indicator but this  
13 is going to catch performance problems at a point where they  
14 are going to have a higher safety implication and it is  
15 going to take more resources on the part of the utility to  
16 reverse the trend. These kind of indicators typically are  
17 the kinds that we have used in terms of significant events  
18 or severe accident precursors, SCRAMs, safety system  
19 failures. These are occurrences that actually have safety  
20 significance.

21 If you are looking for a more timely, ongoing type  
22 of assessment, Arthur Andersen would ask you to move to the  
23 left one block to operations effectiveness and get an  
24 ongoing systematic way of looking at operations  
25 effectiveness in a way that can be presented to the senior

1 management meeting.

2 Operations effectiveness refers to sort of those  
3 categories that we use in the SALP process, the operations  
4 program, the maintenance program, engineering and the other  
5 plant support programs. We already have a large program to  
6 inspect in these areas. What Arthur Andersen is proposing  
7 is that we need a systematic approach to assessing  
8 performance in these areas.

9 If you want a still more timely systematic way of  
10 looking at performance that will give you earlier warning,  
11 earlier indication, management effectiveness or, as I would  
12 prefer to call it, organizational effectiveness should be  
13 looked at in a systematic way. These are issues such as the  
14 ability of the licensee to do self-assessment, the ability  
15 to identify problems and resolve those problems, the ability  
16 to coordinate and control work, the quality of procedures  
17 and procedural adherence and issues of this type that are  
18 sometimes referred to as soft issues.

19 Again, we look at these but quite frequently it is  
20 a retrospective look in the wake of an event. Arthur  
21 Andersen would like us to look at it in an ongoing way and  
22 in a consistent and systematic way.

23 And finally, on the far left, we have economic  
24 stress which, as I said before, can cause performance  
25 problems and may be an early indicator and certainly should

1 be watched by the NRC. But, again, as I said, it is not  
2 recommended for use in the senior management meeting itself.

3 Why don't we pull up 17. Slide 17, which is a  
4 backup slide.

5 While we are waiting for slide 17, I think an  
6 important point to make here, and I think this is something  
7 that the Arthur Andersen people make quite frequently, is  
8 that we shouldn't be looking necessarily for the magic set  
9 of indicators. There are any number of good indicators that  
10 can tell us about performance degradation. It is important  
11 that we look at a spectrum of indicators and understand that  
12 we are looking at indicators that are somewhat independent  
13 of each other, but there is no magic set that is going to  
14 tell you the answer.

15 And the five that they have given us here are five  
16 that they are proposing as being ones that certainly have  
17 promise but, again, they are recommending that the NRC do a  
18 systematic look and see which ones that we are interested  
19 in.

20 The first one here is operating costs per kilowatt  
21 hour. Apparently, this is a measure that is quite  
22 frequently used by utilities for their own internal look at  
23 the operating effectiveness of a nuclear unit or any unit  
24 for that matter. And it is certainly an indication of the  
25 competitiveness of a particular unit in a market, especially

1 a competitive market where price is important. And if a  
2 plant is not competitive, that may well be an indication it  
3 will be experiencing economic stress in the future.

4 Debt to equity ratio is more of a measure of the  
5 overall health of the company, especially a publicly traded  
6 company, obviously. As debt to equity ratio rises, that can  
7 be a negative measure on the overall strength of the company  
8 and, again, perhaps a leading indicator of stress coming  
9 down the road.

10 The next two, operating cost trends and capital  
11 spending trends, are much more directly related to the way  
12 in which the plant is operated. Capital spending trend, of  
13 course, the indication is from past experience that capital  
14 spending is one of the first things that's sacrificed when a  
15 plant, when a company is undergoing economic stress and,  
16 according to Arthur Andersen, this is one that may be a good  
17 indicator of more immediate economic stress that a plant is  
18 experiencing because of economic stress at a higher level in  
19 the corporation.

20 COMMISSIONER McGAFFIGAN: How do you treat steam  
21 generator replacements within that because that is sort of a  
22 big lump that pops up that isn't necessarily a good  
23 indicator other than that they want to continue to operate  
24 for a while or whatever.

25 MR. BARRETT: Yes, that's -- clearly, a lot of

1     these indicators are -- there are many, many things that  
2     happen in the life of a nuclear power plant. Just an  
3     outage, for instance, which has to be taken into account.  
4     And any of the indicators, even in the ones we currently  
5     use, and certainly big expenditures like that, we would have  
6     to look at these things in a smart way.

7             CHAIRMAN JACKSON: Well, the signal may be in  
8     trend since the steam generator replacement is a delta  
9     function.

10            MR. BARRETT: It's a delta function and it might  
11     actually lead to loss of capital spending elsewhere as they  
12     try to squeeze that in or it might not.

13            With regard to operating costs, Arthur Andersen  
14     said that we should simply look at the trend in operating  
15     costs. Either an increase in operating costs or a decrease  
16     in operating costs should be looked at because it may -- we  
17     should try to understand the underlying reason for that  
18     change.

19            And, finally, one that kind of surprised me but  
20     maybe it shouldn't have, is the percent of utility  
21     generating capacity from nuclear. According to the Arthur  
22     Andersen report that it's the opinion of their experts that  
23     they have consulted that stress is greater on a utility that  
24     has a high percentage of nuclear units, whether those units  
25     are performing poorly or performing well. Nevertheless,

1     there is more economic stress on a utility that has a high  
2     percentage of nuclear units.

3             So that is the rationale in a nutshell as to the  
4     five that are proposed here but, as I said before, Arthur  
5     Andersen is urging us to take an independent look at all the  
6     indicators including economic stress indicators.

7             CHAIRMAN JACKSON: You had a question that you  
8     wanted to ask, Commissioner Rogers?

9             COMMISSIONER ROGERS: Just I do think -- I was  
10    listening for it and I think I heard it. And that is that  
11    really it's changes that you have to be watching that  
12    trigger your attention and that if something is changing you  
13    better understand why it's changing, could be going up or  
14    down and either one could be good or bad, depending upon the  
15    reason for that.

16            Operating costs per kilowatt hour, generally  
17    speaking, low is good but if you just try and reduce your  
18    costs to get that down and you're not looking at the best  
19    way to do that but just in a shortcut way, that's bad. So,  
20    you know, it seems to me that what you are telling us is  
21    watch for changes and try to understand what they are and  
22    then use that as a way of screening or calling attention to  
23    plants that you might want to look at more closely, but not  
24    by themselves are determinant of whether somebody will go on  
25    a watch list or not.

1 CHAIRMAN JACKSON: Commissioner?

2 COMMISSIONER DICUS: I have a question.

3 If we were to incorporate this in some fashion  
4 into the overall decisionmaking process, in your view do you  
5 think that the NRC staff has the resources to do this? And  
6 perhaps even on a couple of these, the expertise to be able  
7 to effectively evaluate them?

8 MR. JORDAN: Maybe I could answer by saying that  
9 these five that are listed are commercially available. The  
10 staff would not have to do any collection of information.  
11 They are part of the financial community.

12 In terms of NRR does have persons that are  
13 involved in the review of the financial capability of  
14 utilities, a limited number. The object here would not be  
15 to affect the decision process but to, in engineering terms,  
16 if there is stress there may be strain so if the presence of  
17 the stress is causing safety strain then there would be  
18 communication to the staff to be watchful for safety strain.

19 So it would be a sensitization and so it would be  
20 one of the earliest measures that one could become concerned  
21 about but not as a basis for decision.

22 CHAIRMAN JACKSON: It wouldn't be a decision  
23 trigger but I like the word of sensitization.

24 Please.

25 MR. BARRETT: If I could have slide 10?

1           Arthur Andersen made some findings and  
2       recommendations regarding the process that we use. The  
3       first one is a very positive one, namely that they feel that  
4       the process is logically sound. They did take a look at our  
5       process from front to back, bottom to top, and they feel  
6       that we are using -- we have good processes for gathering  
7       information. It is a logical progression of analysis and we  
8       have the right people involved in the senior management  
9       meeting.

10           Among the negative findings Arthur Andersen made  
11       are, first of all, they feel that -- they concluded that the  
12       senior management meeting process is dominated by the  
13       regional administrator and the basis for that, first of all,  
14       is that much of the information is developed in the region.  
15       Secondly that a lot of this conclusion came from the  
16       interviews that were conducted. Clearly NRC managers in  
17       general tend to defer to the regional administrator's  
18       greater depth of first-hand knowledge about the plants and  
19       certainly that -- there is a certain amount of  
20       reasonableness to that for sure.

21           They found that in interviews at the meeting,  
22       while it involves many people, in the past at least it has  
23       tended to be dominated by the regional administrator, the  
24       EDO and the director of NRR and, among the three of those,  
25       the deference is to the regional administrator.



1           The regional administrator is the principal  
2 presenter at the meeting and the observation of Arthur  
3 Andersen regarding their experience with the screening  
4 meetings in January 1997, which they attended, was that the  
5 regional administrator tended to act as a gatekeeper for  
6 other participants and other information.

7           So the process is dominated by the regional  
8 administrator and the role of some of the other senior  
9 managers is unclear. So the recommendation that they make  
10 is that there be a better balance among the participants,  
11 that the NRC should strive to elevate the importance of  
12 independent sources of information such as AEOD's event  
13 information and enforcement information from OE, information  
14 about investigations and allegations, that we try to elevate  
15 the importance of these independent sources of information  
16 and also that we consider a consensus building process, some  
17 sort of techniques for consensus building. One of the  
18 things that they suggested was the possible use of a  
19 facilitator for the meeting.

20           I should note that in the January 29 meeting,  
21 there was a fair bit of discussion about more discussion  
22 among the various participants, a greater amount of  
23 participation in the January 1997 meeting than has been  
24 experienced in the past.

25           Slide 11.

1           One of the most important findings of the Arthur  
2 Andersen assessment is that we have no clear criteria for  
3 various levels of formal actions and that they view that as  
4 a very important thing. We will discuss in a little while  
5 the issue of objective criteria.

6           They found that the presentation of information at  
7 the meeting is not balanced in structure, again coming back  
8 to some of the things we said before. The regional  
9 administrator presents his list of problems and at the last  
10 senior management meeting apparently also the list of  
11 strengths for each plant and the weight of this information  
12 dominates all subsequent discussion.

13           The finding is that there is not sufficient weight  
14 given to events and other types of information and  
15 indicators and they are recommending a more rigorous and  
16 structured presentation. That objective information be put  
17 on the table first in a scrutable and compelling format and  
18 that it be used as a rebuttable presumption. That the  
19 objective information presents a case for some action and  
20 then the discussion can be either to reinforce that case or  
21 to rebut it for the rest of the meeting.

22           COMMISSIONER DIAZ: Who actually makes the  
23 rebuttal? Has that been considered?

24           MR. BARRETT: Anyone who is at the meeting who has  
25 information that is relevant.

1 COMMISSIONER DIAZ: You are not planning on  
2 separating teams?

3 MR. BARRETT: There was no specific mention of  
4 teams, no.

5 CHAIRMAN JACKSON: If in fact you are talking  
6 about having the objective information presented in a way  
7 that it forms the basis of or generates a rebuttable  
8 presumption, aren't you in some sense really getting at the  
9 screening meetings themselves? Because how plants come  
10 forward or that is a rebuttable presumption that a plant be  
11 discussed for inclusion in the watch list has to flow from  
12 somewhere, you know, in order for it to get put on the  
13 table. And really it is at that screening meeting level  
14 that a lot of the -- essentially the bias in the system  
15 occurs, whether it is either to put a plant onto the table  
16 for discussion coupled with the discussion itself in the  
17 meeting but it sounds like what you are saying is the  
18 discussion follows what essentially has flowed out of that  
19 regional discussion. Or to not put a plant onto the table  
20 for discussion.

21 MR. BARRETT: I think you are absolutely right.  
22 There was no discussion of that in the Arthur Andersen  
23 report but I think you're right. This recommendation does  
24 push the process back into the screening meeting.

25 COMMISSIONER MCGAFFIGAN: To some degree it is

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1 because if you go to chart 15, which is another one of the  
2 backup slides you're probably not planning to use, it really  
3 goes to the Chairman's question in that the first two  
4 bullets are the screening meetings. Select discussion plans  
5 using trend charts and decision criteria for input using  
6 evaluation sheets and trend charts. Those are the two  
7 places where the rebuttable presumption using the decision  
8 criteria and the trend charts get put together really by  
9 staff long before the meeting.

10 Then you have the discussion. Then they suggest  
11 places that they go away from the rebuttable presumptions,  
12 the accepted rebuttals, that that also be documented to the  
13 Commission. So I think that chart sort of answers the  
14 report, has at least some glimpse of that.

15 MR. BARRETT: Yes, it does. You're right,  
16 absolutely right.

17 CHAIRMAN JACKSON: It's really like a three-part  
18 process. It's what comes up through a prior -- whatever  
19 prior process there is, screening. Then there is the actual  
20 process in the meeting and then there is the documentation  
21 and public presentation of whatever the results are. So  
22 there are those three distinct phases and pieces.

23 MR. BARRETT: Arthur Andersen also found that  
24 stakeholders do not understand the process and the outcomes  
25 of the senior management meeting, that our discussions with

1 utility executives, there was a fair bit of consensus that  
2 they were not clear on what it takes to get on the problem  
3 plant list or off the list and they are not clear about what  
4 the process is by which we make the decision.

5           Arthur Andersen feels that we must do a better job  
6 of communicating to the Commission, to the public and to the  
7 industry and they are recommending that we more fully  
8 document the public record at the senior management meeting.  
9 They are recommending that we consider publishing  
10 transcripts of the meeting or at least that we publish a  
11 more complete and accurate set of minutes at the meeting, so  
12 that there can be a better understanding of what we decided  
13 and why.

14           COMMISSIONER DIAZ: You could probably add  
15 stakeholders and one commissioner right here.

16           CHAIRMAN JACKSON: You're a stakeholder,  
17 commissioner.

18           COMMISSIONER DIAZ: Oh.

19           CHAIRMAN JACKSON: We know the commissioner is a  
20 special beast but we are all stakeholders.

21           [Laughter.]

22           MR. BARRETT: If I could go to slide 12?

23           I would like to talk a little bit about the trend  
24 plots before we actually put one up there.

25           The Arthur Andersen trend plots basically show how

1 NRC information can be used, could be used, along with some  
2 reasonable criteria to greatly inform the decisions of the  
3 senior management meeting. The model tracks the performance  
4 of a plant against nine indicators in this particular case,  
5 although Arthur Andersen, as Mr. Ross earlier said, wants us  
6 to go back and do a systematic look at which indicators we  
7 want to use.

8 Takes those nine indicators, including the  
9 nine -- including the seven performance indicators of the  
10 NRC plus an indicator of civil penalties and an indicator of  
11 the number of allegations that a plant has experienced.

12 When a plant exceeds twice the average value for  
13 the industry in any given indicator, then that becomes a  
14 hit, twice the average for the industry, that's a hit. And  
15 if it -- and that only has to exist for one quarter.

16 Hits accumulate. They accumulate for four  
17 quarters and there is a four-quarter running sum of hits  
18 that a plant carries with it.

19 CHAIRMAN JACKSON: Is each quarter weighted the  
20 same?

21 MR. BARRETT: Yes.

22 CHAIRMAN JACKSON: And that particular averaging,  
23 was that rooted in anything in particular or was it  
24 arbitrary?

25 MR. BARRETT: It was arbitrary.

1 MR. GOLDSTEIN: The concept of using a rolling  
2 average --

3 CHAIRMAN JACKSON: No, I know that. The issue is  
4 how much -- what do you roll over. You know --

5 MR. GOLDSTEIN: How many quarters?

6 CHAIRMAN JACKSON: Exactly.

7 MR. GOLDSTEIN: No. I think enough so that you  
8 can pick up changes and drop them in a timely fashion. You  
9 don't want it too long.

10 CHAIRMAN JACKSON: All right.

11 MR. BARRETT: One of the assertions of the Arthur  
12 Andersen study is that performance does not change  
13 precipitously at the plants. It takes time for a plant's  
14 performance to degrade and it takes time for it to recover.

15 CHAIRMAN JACKSON: Right. No, I agree with all  
16 that. Part of the reason I bring that up is commissioners  
17 have raised the point in the past or questions relative to  
18 SALP and how it ties into the senior management meeting  
19 process and the SALP covers a certain period of time that is  
20 on the order of 18 to 24 months and that is the reason why I  
21 asked the particular question about the number of quarters  
22 over which you do the rolling average.

23 MR. BARRETT: So at any given point on the graph  
24 is the sum of the hits for four quarters and for any four  
25 quarters, the maximum number of hits you could have is 36,

1 four times nine.

2 What I think is important about this particular  
3 model is not necessarily the details of it but two things  
4 really. First of all, it is predicated on the idea that if  
5 a plant is experiencing true performance problems it is  
6 going to show up not in one indicator but in a variety of  
7 indicators so you should be looking at a number of hits and  
8 that you should be looking at it over an extended period of  
9 time, not just for one quarter.

10 COMMISSIONER McGAFFIGAN: Could I ask a question  
11 about the comment that NEI made after our briefing on the  
12 senior management meeting? The heart of their comment was  
13 you could be on the watch list today and would have been a  
14 top quartile plant a decade ago and sort of built into these  
15 performance indicators, and maybe it's fair to ask Arthur  
16 Andersen, if the trend overall in performance indicators is  
17 an improvement, being twice as bad as the industry average  
18 and therefore deserving a hit, it could be quite a bit  
19 better today than it was a decade ago. And so if there is  
20 continued improvement and I know in recent years there has  
21 been a sort of leveling off in the performance indicators  
22 but if you have a declining trend then you are potentially  
23 holding people to a moving target.

24 Is that a fair criticism of your model or --

25 MR. GOLDSTEIN: I think as Mr. Barrett explains



1 further, I believe this is in his explanation, the action  
2 that we would propose that you take would be related to not  
3 solely whether you have an accumulated number of hits above  
4 a certain amount but, more importantly, to the trend over  
5 time. That you would -- that a few quarters of growth would  
6 lead to a discussion. Reduction over time would lead to a  
7 step to take you or a rebuttable presumption that you be  
8 taken off the watch list, so that our focus is on the -- is  
9 on the trend over time as an indicator of risk, even if your  
10 number of hits is higher than the average. You still,  
11 perhaps, should be moving down the level of risk that the  
12 Commission uses.

13 MR. BARRETT: Let me add a word to that --

14 MR. JORDAN: I think the answer to your question  
15 is, yes.

16 MR. BARRETT: One of the things we might consider  
17 is actually fixing the criteria. Rather than comparing to  
18 an industry average, compare to some fixed value and it  
19 might be the industry average.

20 MR. JORDAN: But we are responding to this model  
21 and this model would facilitate a rising standard and  
22 compare plants against a rising standard. This is an  
23 intriguing model but we are not trapped by it; I think it is  
24 a useful concept.

25 COMMISSIONER McGAFFIGAN: But that is a possible

1 problem with this model?

2 MR. JORDAN: Yes, correct.

3 COMMISSIONER MCGAFFIGAN: As long as performance  
4 indicators continue to improve in the industry, you would be  
5 continuing to -- you would be moving against a moving  
6 target.

7 I don't know what numbers in 1987 would get you a  
8 hit but it's probably now, it would put you in the lowest  
9 quartile.

10 MR. BARRETT: I suspect that still one SCRAM would  
11 get you a hit.

12 COMMISSIONER MCGAFFIGAN: One SCRAM would get you  
13 a hit today whereas in '87 it might --

14 MR. BARRETT: Yes, because the industry average  
15 would be less than half of a SCRAM per quarter. And there  
16 are a number of indicators where that would be the case.

17 So it is not a fatal flaw in the model but it is  
18 something that you would need to fix if, you know, we went  
19 forward.

20 COMMISSIONER ROGERS: It is a question of  
21 establishing some calibration for it, which is what you have  
22 suggested might be a way to do it, and some absolute number.

23 And the other one is, you know, the obvious  
24 problem with it and, you know, it's a bad thing to be below  
25 average. I mean, you just can't be below average.

1 [Laughter.]

2 COMMISSIONER McGAFFIGAN: They didn't say you just  
3 had to go below average, you had to be twice as bad as the  
4 average.

5 COMMISSIONER ROGERS: I know, but there is always  
6 going to be somebody twice as bad.

7 CHAIRMAN JACKSON: Well, we are all scientists and  
8 engineers here for the most part and we all know that what  
9 you normalize to is always the critical thing.

10 MR. BARRETT: Okay, well, let's move on to the  
11 next slide which is an actual -- which is a performance  
12 trend plot for an actual plant that was graphed from 1987 to  
13 1996.

14 The curve with the diamonds represents the four-  
15 quarter sum of hits for the actual plant. The squares  
16 represent the industry average number of hits which ranges  
17 from about five to six if you look on the right-hand scale.

18 Just to help you understand this, you can see the  
19 peak there of the diamonds is 16 hits in that particular  
20 quarter of 1991. And again, the maximum number you could  
21 possibly have would be 36 hits. So, for this particular  
22 plant, plant A, it ran along at about the industry average  
23 or better than the industry average until 1991 when it took  
24 a turn for the worse, peaking at 16 hits in the fourth  
25 quarter of 1991 and then moving along through 1995 at

1 roughly that level.

2 On the left-hand margin, you will see the action  
3 levels from one to five where a five is equivalent to being  
4 a category three plant shutdown requiring Commission action  
5 to allow them to restart. Action step four would be a watch  
6 list plant. Three would be a trending letter and two would  
7 be a discussion plant and one would be a plant that should  
8 be removed from the list.

9 The yellow bars represent the actual NRC actions  
10 with respect to this plant. It was discussed several times  
11 starting in 1991 and was placed on the watch list by action  
12 of the senior management meeting in January of 1996.

13 The green -- they turned out blue there, don't  
14 they? Well, anyway, they're green when you're up closer.  
15 The green bars are the criteria or the actions that would be  
16 indicated by the Arthur Andersen criteria. And they would  
17 have said that this plant would get a trending letter in  
18 1992 and then be placed on the watch list in 1993.

19 This is a plant that would illustrate a case where  
20 Arthur Andersen would say the NRC was slow to take formal  
21 action and this was a plant that many NRC managers during  
22 the interviews said they believed in retrospect might have  
23 gone on the list earlier.

24 CHAIRMAN JACKSON: What triggered the action in  
25 the first quarter of '96?

1 MR. BARRETT: The action on the part of the NRC?

2 CHAIRMAN JACKSON: Right.

3 MR. BARRETT: I --

4 CHAIRMAN JACKSON: It's just the way it happened?

5 COMMISSIONER McGAFFIGAN: That might identify the  
6 plant, which --

7 CHAIRMAN JACKSON: Never mind. We're not supposed  
8 to be discussing these guys. That's right.

9 COMMISSIONER McGAFFIGAN: Could I ask, another  
10 problem with performance indicators that comes up when you  
11 look at some of the charts, and I go away from this plant  
12 but if you are shut down, it's hard to get SCRAMs so you  
13 eliminate one category of hits. Now, if you're shut down,  
14 you also may be getting plenty of additional inspectors  
15 finding problems which gives you hits. But how do  
16 you -- have you thought through, and maybe this is a March  
17 31 question, how you are going to deal with normalizing the  
18 performance indicators to things like what -- whether the  
19 plant is in a shutdown condition or not and that sort of  
20 thing?

21 MR. JORDAN: Clearly, this scheme has limitations  
22 with respect to plants that are not operating and so it  
23 simply doesn't work right for that and so there are a number  
24 of conditions that for the March presentation -- we have to  
25 look at the independence of the indicators, relative

1 weighting that one applies, the plant condition, whether a  
2 rising standard is embedded in it.

3 So there are a lot of parameters that we have to  
4 consider when we come back to say, okay, here is closer to  
5 the ideal. But I think the model that they provided is a  
6 real thought provoker and has a lot of merit to it but we  
7 have to look further.

8 CHAIRMAN JACKSON: What was the indicator you used  
9 for allegations and for enforcement action? Just numbers?

10 MR. JORDAN: Yes.

11 MR. BARRETT: Just number of allegations.  
12 I believe it was number of civil penalties.

13 COMMISSIONER DIAZ: Should this plant --

14 MR. BARRETT: Excuse me, it's dollars of civil  
15 penalties.

16 CHAIRMAN JACKSON: Dollars of civil penalties.

17 COMMISSIONER DIAZ: Should this plant have  
18 remained on the watch list if it was placed on the watch  
19 list after it broke down?

20 MR. BARRETT: Yes. As you can see, the green bar  
21 there would not have indicated that they met the criteria  
22 for removal. The Arthur Andersen model also has criteria  
23 for removal.

24 COMMISSIONER DIAZ: Right. Another quarter would  
25 have done that at that performance?

1           MR. BARRETT: Possibly. I would say, yes, because  
2           that would be three quarters consecutively below the  
3           industry average.

4           COMMISSIONER DIAZ: So it would be four quarters  
5           below the industry average.

6           CHAIRMAN JACKSON: Mr. Goldstein?

7           MR. GOLDSTEIN: I would like to avoid focusing too  
8           much on this model and these indicators. The objective of  
9           the engagement was to probe on the issue of objective versus  
10          subjective decisions at the senior management meeting. This  
11          is one model. There are many, many others that can be used  
12          and also replicated by the industry each plant in its own  
13          behalf to tell how it will fare under a set of objective  
14          criteria.

15          A lot of indicators have been put on the table  
16          here and these may be the right nine. I'm not sure that  
17          they should all be weighted equally. Dollars are used for  
18          the indication of enforcement action. Maybe it should be  
19          number of enforcement.

20          The key point is that models can be created that  
21          can track historically and that is a test that has to be  
22          done, and for which sensitivity analyses have to be done and  
23          the time frame we had in this engagement neither did we  
24          conduct some of the usual validity checks that have to do  
25          with the sensitivity of the model to things like changing

1 the number of quarters and so forth. The one thing I guess  
2 I would urge is that the individual elements of whatever  
3 model is picked not be tested against an ironclad standard  
4 but be viewed as a starting point.

5 It will take years to refine the right model that  
6 gives you both the right objective standard and some  
7 flexibility but the term "continuous improvement" in my  
8 business is one way we try to convey to clients that it is  
9 better to start and even if you're refining as you go along  
10 it, at least in this environment, can be an improvement.

11 MR. JORDAN: I'd make one comment. We have a  
12 remarkable historical record that we can use to benchmark  
13 against. The variables that occur in the plant in terms of  
14 objective measures and how their performance of those plants  
15 has actually changed over time so the validation,  
16 subsequently, can be reasonably powerful.

17 CHAIRMAN JACKSON: Okay.

18 MR. BARRETT: If I could have slide 14, I would  
19 like to wrap this up.

20 In summary, Arthur Andersen concluded that we have  
21 a logical process but that there are findings and  
22 recommendations regarding the information and the process  
23 itself that can greatly improve the way in which we conduct  
24 our assessments.

25 We do not intend to implement the findings until



1 we have developed a staff consensus on what the right  
2 options are to go forward and until we have had policy  
3 guidance from the Commission but we will be preparing a  
4 Commission paper which we expect to forward on March 31 and  
5 we will proceed following Commission guidance.

6 The Commission paper will deal with options for  
7 the process changes that have been recommended by Arthur  
8 Andersen and also options and plans for development of the  
9 leading indicators and the integrated process, the  
10 integrated information system that is proposed by Arthur  
11 Andersen.

12 In the meantime, we would expect that there might  
13 be incremental changes implemented at the June 1997 senior  
14 management meeting, mostly those that might relate to  
15 process changes. It is a much more difficult challenge to  
16 address the types of issues that have to be gotten over in  
17 order to develop the information changes and we would expect  
18 that those would be implemented on a trial basis in January  
19 of 1988. So that concludes my presentation. If you have  
20 any further questions, I would be happy to try to answer  
21 them.

22 CHAIRMAN JACKSON: Commissioner Rogers?

23 COMMISSIONER ROGERS: Well, I think the report is  
24 an extremely interesting one and I think that a number of  
25 suggestions that have come out of it have been really very

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1 good.

2 It is a question of details on things like the  
3 model and whatnot and I think that the disclaimers that have  
4 been made have been appropriate, don't get too hung up on it  
5 right now but it is a very interesting and possibly quite  
6 powerful approach.

7 A couple of points about the report. One is I  
8 think you did say, I don't remember the pages now but I know  
9 I read it carefully at one time at any rate and noticed that  
10 you were emphasizing the importance of risk. But I really  
11 didn't see anything much about risk in the report and I  
12 wondered what you had in mind there, whether you were  
13 talking about really a kind of qualitative judgment of risk  
14 or something more mathematically defined, such as we would  
15 come up with with a probabilistic risk assessment. And so  
16 what is your concept of how we ought to fold risk into this  
17 process?

18 MR. GOLDSTEIN: Are you asking me?

19 COMMISSIONER ROGERS: Yes.

20 MR. GOLDSTEIN: We learned early in the engagement  
21 that the NRC has and we reviewed them, quantitative  
22 standards that you use for what would be acceptable events,  
23 the kind of radiation problems that would occur immediately  
24 proximate to the plant and further out and those members of  
25 the team who are anchored in risk issues for the nuclear

1 industry rapidly translate that into performance integrity  
2 and assuring that the integrity of the plant and the  
3 protection against some major operational failure is their  
4 translator into risk.

5 I could contrast it to FAA. We do a great deal of  
6 work for FAA where, although certainly a serious crash is a  
7 disaster, it is not of the same magnitude. And so the  
8 concept of risk isn't defined as zero defects; in fact, FAA  
9 has a specific policy about refining designs as a result of  
10 recurring air failures.

11 Our industry people in working with us here seem  
12 to be very comfortable that the operating concept of risk  
13 that you use and that we therefore could use is a zero  
14 defect avoiding of operating failures and that is the -- we  
15 did not go past that line to challenge the quantitative  
16 models that you use, translate that into probability of  
17 failure.

18 COMMISSIONER ROGERS: Well, I'm nodding my head.  
19 That just means I heard you; I don't necessarily agree with  
20 that definition.

21 MR. BARRETT: I would like to add a few words on  
22 that subject.

23 COMMISSIONER ROGERS: Yes.

24 MR. BARRETT: We did in the process of this study  
25 inform Arthur Andersen on the NRC's model of risk in terms

1 of its quantitative model of risk being consequences times  
2 frequency and the major factors that tend to drive risk,  
3 which is initiating events, failure probability and  
4 equipment failures and common cause failures.

5 And we developed a qualitative model that relates  
6 those to the types of things that tend to be assessed in the  
7 context of the senior management meeting and that writeup is  
8 actually Appendix 1 of the report, which was developed by  
9 the NRC staff and given to Arthur Andersen. But there was  
10 no intention and there is no intention of trying to make a  
11 quantitative assessment of risk based on performance.

12 In the future, we have under development risk-  
13 based indicators which, as they become available, as the  
14 information becomes available to develop those indicators, I  
15 could see that we could move those indicators into the  
16 model, either to supplement the indicators we currently are  
17 using or perhaps even to replace indicators that we are  
18 currently using. But, basically, the answer to your  
19 question is it is a qualitative rather than quantitative  
20 connection.

21 COMMISSIONER ROGERS: Just one more point, I  
22 think, before I get out of here and let other people have  
23 their say. I think this suggestion with respect to  
24 consensus decisionmaking and the idea of a rebuttable  
25 presumption on the part of -- as a starting point for an

1 analysis I think is extremely interesting and I wonder if,  
2 you know, there could be some more specific mechanisms  
3 discussed for doing that, not necessarily right here today.  
4 But I think if this process is to be one that is clearly  
5 defensible and transparent to the public, then I think we  
6 have to be pretty clear on exactly how we are going to get  
7 to an end point starting with a rebuttable presumption and a  
8 consensus decisionmaking process, just exactly what that  
9 means.

10 CHAIRMAN JACKSON: Mr. Jordan, you were going to  
11 make a comment?

12 MR. JORDAN: Rich covered my comment extremely  
13 well.

14 CHAIRMAN JACKSON: Commissioner Dicus?

15 COMMISSIONER DICUS: Nothing further, thank you.

16 CHAIRMAN JACKSON: Commissioner Diaz?

17 COMMISSIONER DIAZ: Let's see, I've got one, two,  
18 three, four, five. I'm going to throw them all away and go  
19 back to zero defect. I'm going to throw all my questions  
20 away.

21 This zero defect of operational failure which you  
22 said is the basis on which you developed your performance  
23 indicators, could you explain what an operational failure  
24 is? Is that a core meltdown or is that control rods falling  
25 in or is that a leaking pump? What is an operational

1 failure?

2 MR. GOLDSTEIN: We didn't develop the performance  
3 indicators. The indicators that are here are the  
4 indicators -- the seven indicators that the staff already  
5 uses and that we are putting in the model. Those are what  
6 we did use.

7 COMMISSIONER DIAZ: Zero defect.

8 MR. BARRETT: Well, I don't know that. Nuclear  
9 power plants, as you well know probably as well as I or  
10 better, are very complex machines and they are designed to  
11 be somewhat forgiving of failures here and there so with  
12 redundancy and diversity so --

13 COMMISSIONER DIAZ: We don't base performance  
14 indicators on zero defects, do we?

15 MR. JORDAN: No. In the context you asked it, I  
16 believe, what the Arthur Andersen report was saying was that  
17 the NRC is adverse to risk and I would say in terms of a  
18 severe accident, it is unacceptable to have a severe  
19 accident. So that would be the connotation that I would put  
20 on their comment.

21 COMMISSIONER DIAZ: Okay. So a connotation is a  
22 severe accident that has significant impact on the health  
23 and safety of the public versus, you know, the plant  
24 shutting down because he has a bad seal on a pump.

25 MR. JORDAN: Correct. Correct.

1 COMMISSIONER DIAZ: So there is a very important  
2 difference in there. Okay, thank you.

3 CHAIRMAN JACKSON: Well, we, I mean, I would  
4 imagine, be hard pressed to prevent, you know, a seal on a  
5 reactor coolant pump from failing. The question is, do we  
6 pick up things ahead of time to not get to the severe  
7 accident scenario.

8 Commissioner McGaffigan?

9 COMMISSIONER MCGAFFIGAN: Just one comment. I do  
10 think this was a remarkable effort over the last six months  
11 and commend Admin for working with you at the start, as I  
12 said, and I think the result is one of the best pieces of  
13 work if not the best piece of work I have seen in the six  
14 months I have been here.

15 That said, I would like to ask a question and that  
16 is while this has been going on the General Accounting  
17 Office is looking at exactly this set of issues. Are we  
18 sharing all of our analysis and everything with GAO? How  
19 are we trying to deal with being open and candid with the  
20 Congress via the GAO?

21 MR. JORDAN: Certainly, the information that has  
22 been developed is being made available or has been made  
23 available to the GAO. They are aware of the effort and have  
24 interviewed or are beginning to interview our staff.

25 COMMISSIONER MCGAFFIGAN: So they have a sense

1 that we are struggling with the exact same set of issues  
2 that they have been tasked to look at?

3 MR. BARRETT: They have conducted a number of  
4 interviews of not only the people who worked with me as NRC  
5 staff on this but they have also interviewed a number of the  
6 Arthur Andersen panelists on the study. We have provided  
7 them an early copy of the report prior to public release.  
8 We have tried to be as --

9 COMMISSIONER McGAFFIGAN: Do we have a sense of  
10 the timing? Will they -- the March 31 meeting where you are  
11 going to tell us at least your preliminary views as to how  
12 to deal with the report and what we might be able to adopt,  
13 is that compatible, will that be ahead of GAO or will they  
14 run ahead of that? Will they be able to wait and see what  
15 you are proposing to us?

16 MR. JORDAN: We don't know what their schedule is.  
17 We will find out and communicate with GAO.

18 CHAIRMAN JACKSON: Yes, Mr. Goldstein?

19 MR. VALENTINE: Let me just answer that because I  
20 met with them twice. One thing we did have the advantage of  
21 is both Ira and I used to work at GAO so we sort of --

22 COMMISSIONER McGAFFIGAN: This looked like a GAO  
23 report.

24 MR. VALENTINE: Well, I hope it didn't look  
25 completely like a GAO report. But we met with them and I



1 think one thing about GAO that I have found since I came  
2 over to Arthur Andersen, we generally do things a little  
3 quicker than GAO, so they are not going to be ready by March  
4 31 with a detailed report but they are sort of interested in  
5 what's going on here. They are very aware of what is going  
6 on and as much as they could be supportive, they were  
7 supportive.

8 CHAIRMAN JACKSON: Thank you.

9 I would like to thank the staff as well as the  
10 representatives from Arthur Andersen for a very informative  
11 briefing. I think what we can say is that the Arthur  
12 Andersen report indicates that there is a relationship  
13 between existing NRC indicators and plant performance and I  
14 believe the staff should continue to evaluate to what extent  
15 the existing indicators can be used to characterize plant  
16 performance and you have kind of spoken to it, Mr. Barrett,  
17 yourself that if the current set of indicators are  
18 inadequate in the sense that they are not fully risk  
19 informed, then the assumption is that the staff is exploring  
20 the development of new indicators and will phase them in as  
21 appropriate.

22 We have already talked about using management or,  
23 as you said, organizational effectiveness as well as risk-  
24 based indicators and I think those are very important.

25 The thing that has kind of been woven through this

1 but it seems needs more direct focus is the issue of the  
2 screening meetings which feed the senior management meetings  
3 and having them be as objective as possible. And a question  
4 I would like to leave you with is whether the performance  
5 indicators are perhaps better used at that point in terms of  
6 developing the rebuttable presumptions about the plants and  
7 having the meetings themselves focus on the kinds of process  
8 improvements that you mentioned. And there was a plant  
9 performance template that had been developed or was being  
10 developed for use in that meeting and it would be useful to  
11 know what intent you intend to make of that.

12 Then speaking further about the senior management  
13 meeting itself, the scrutability of the framework and the  
14 process, the process and the framework for decisionmaking  
15 should display the connection, I think, that exists between  
16 the plant performance data and what the actual ensuing  
17 decisions are. And, as I said, it seemed that you had moved  
18 along the lines of developing a plant performance template  
19 to help do that. And I think the Commission would be very  
20 interested in your establishing a consistency and if the  
21 consistency already exists then establishing the evidence of  
22 it, of the consistency between the senior management meeting  
23 decisions and decisions that are reached in our other  
24 evaluative processes. And here we are talking about the  
25 SALP process, the plant performance reviews and the

1 inspection reports.

2 We had a briefing last week on the reactor  
3 oversight program. It spoke to that. We have had a  
4 discussion here about the performance indicators and their  
5 uses. And we are speaking to it but we have to see the  
6 connection in actual fact and so I think that's very  
7 important.

8 So unless there are any further comments by the  
9 commissioners, we are adjourned.

10 [Whereupon, at 4:21 p.m., the briefing was  
11 adjourned.]

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CERTIFICATE

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

TITLE OF MEETING: BRIEFING ON ANALYSIS OF QUANTIFYING  
PLANT WATCH LIST INDICATORS - PUBLIC  
MEETING

PLACE OF MEETING: Rockville, Maryland

DATE OF MEETING: Tuesday, February 18, 1997

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: Basile Geron

Reporter: Jon Hundley



**ARTHUR ANDERSEN ASSESSMENT  
OF THE  
SENIOR MANAGEMENT MEETING  
PROCESS AND INFORMATION BASE**

**February 18, 1997**

**Richard J. Barrett**

# OUTLINE

- **Chronology**
- **Arthur Andersen Methodology**
- **Assessment of Senior Management Meeting Outcomes**
- **Senior Management Meeting information base**
- **Senior Management Meeting process**
- **Schedule for NRC evaluation and implementation**

# **CHRONOLOGY**

- **June 28, 1996 SRM: Evaluate indicators that can provide an objective basis for judging whether a plant should be placed on or removed from the watch list**
- **Staff adopted Arthur Andersen recommendation to assess processes that use inspection and event information for judgments regarding plant performance**
- **Independent assessment of SMM by Arthur Andersen completed December 30, 1996**
  - **Idaho National Engineering Laboratory provided analytical support**
- **NRC Senior Advisory Panel provided oversight at key milestones in the study**

# **ARTHUR ANDERSEN METHODOLOGY**

- **Examined written record of Senior Management Meetings from 1992 to 1996**
- **Interviewed NRC senior managers, regional inspection staff and utility executives**
- **Conducted analytical studies of several candidate indicators**
- **Developed Performance Trend Charts with candidate action criteria**
- **Developed an Integrated Performance Model for NRC assessment process**
- **Developed process map for the SMM**



# **ARTHUR ANDERSEN ASSESSMENT OF SMM OUTCOMES**

- **Current process identifies most poor performing plants for discussion**
- **Most NRC senior manager and utility executives interviewed agreed that plants on the watch list were appropriately placed**
- **Senior Management Meeting has sometimes been slow to take formal actions**
- **Outcomes of Senior Management Meetings have not been consistent**

# **ARTHUR ANDERSEN FINDINGS AND RECOMMENDATIONS ON SMM INFORMATION BASE**

- **NRC considered characteristics related to safety and risk in past decisions**
- **NRC assessments tend to focus on root causes of events and other problems**
  - **Recommend assessing management and operational effectiveness on an ongoing basis**
- **Information for making performance assessments remains inconsistent**
  - **Recommend re-engineering assessment information to better support SMM**

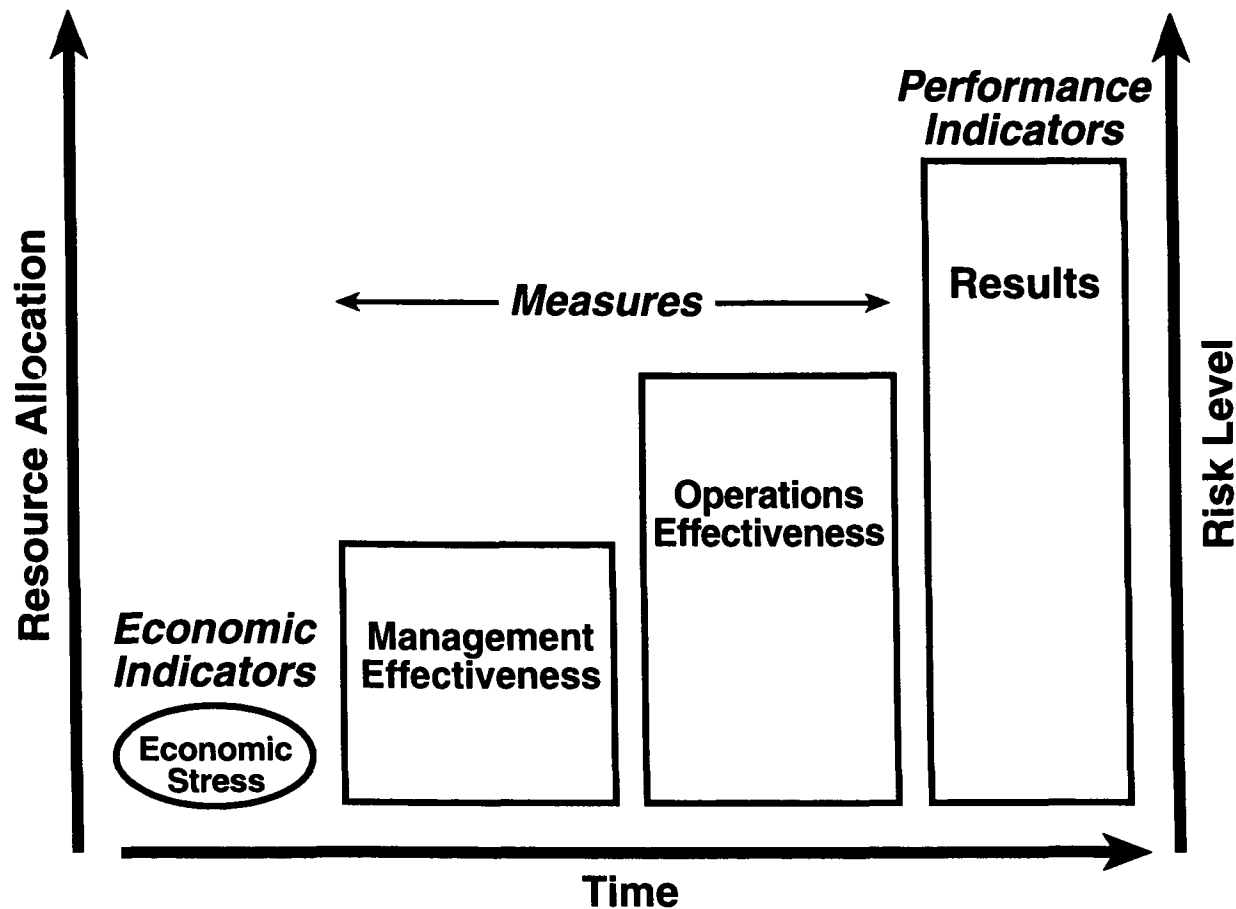
# **FINDINGS AN RECOMMENDATIONS ON INFORMATION BASE (CONTINUED)**

- **Decision making process is highly subjective and minimally values objective indicators**
  - **Recommend shift from subjective to objective factors**
- **The mass of unprioritized information inundates senior managers**
  - **Recommend restricting format and volume of information**

# **FINDINGS AND RECOMMENDATIONS ON INFORMATION BASE (CONTINUED)**

- **NRC uses a great deal of manual effort to assimilate performance information**
  - **Recommend continued effort to improve information access through automation**
- **Deregulation may cause economic stress**
  - **Economic stress does not necessarily predict changes to operating performance**
  - **Recommend using new economic indicators outside the SMM process**

# ARTHUR ANDERSEN INTEGRATED PERFORMANCE MODEL



# **ARTHUR ANDERSEN FINDINGS AND RECOMMENDATIONS ON SMM PROCESS**

- **Senior management meeting process is logically sound**
- **Senior Management Meeting process is dominated by the Regional Administrator**
- **Roles of some senior managers not clear**
  - **Recommend attaining better balance in participants' roles in decision process**
  - **Recommend consideration of consensus decision-making techniques**

# **FINDINGS AND RECOMMENDATIONS ON PROCESS (CONTINUED)**

- **There are no clear criteria for various levels of NRC actions**
- **Presentation of information not balanced and structured**
  - **Recommend presenting information in a rigorous and structured way**
- **Stakeholders do not understand SMM process and outcomes**
  - **Recommend developing a better process for compiling the public record of the SMM**

# **ARTHUR ANDERSEN**

## **PERFORMANCE TREND MODEL**

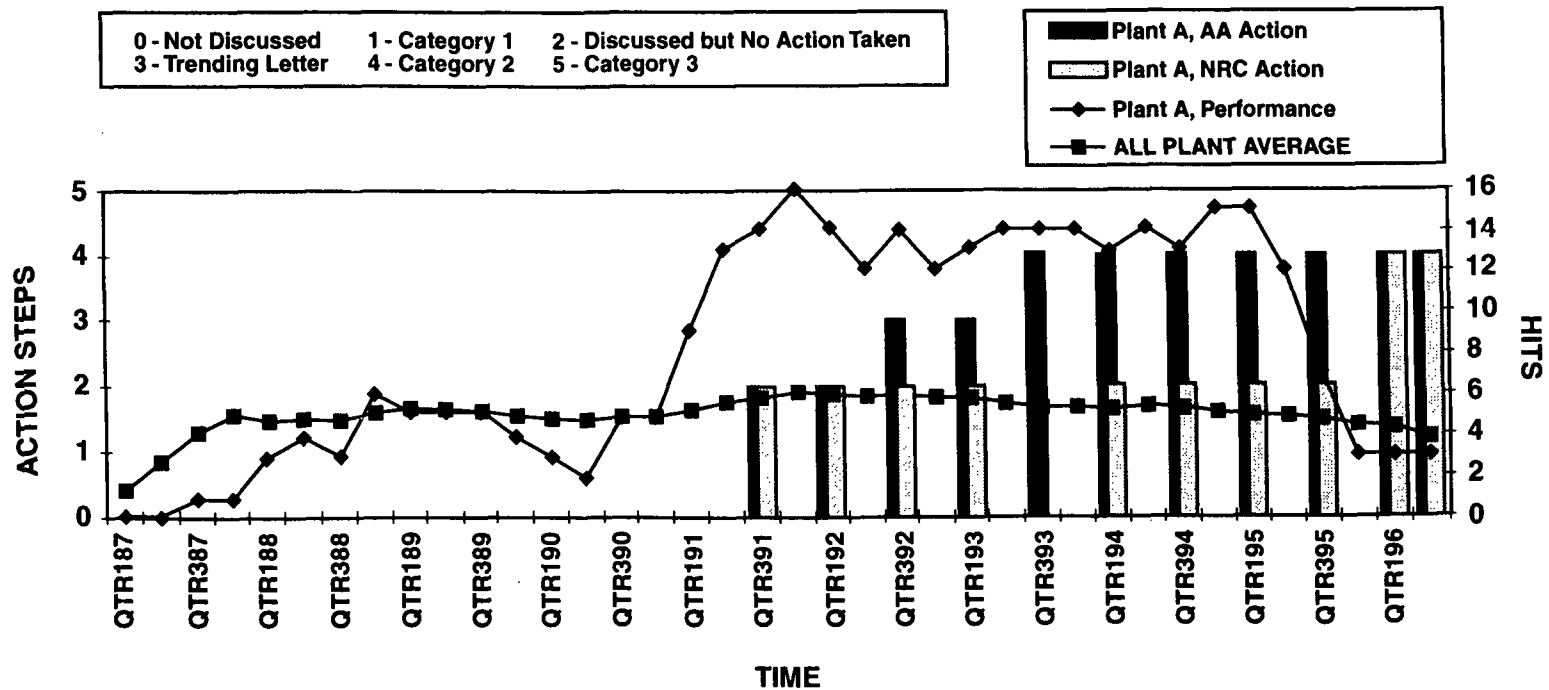
- **Tracks plants against nine individual indicators, including the seven NRC Performance Indicators plus enforcement and allegations**
- **A “hit” is any instance of exceeding twice the industry average for an individual indicator**
- **Each point on the plot represents a four-quarter moving sum of hits**
- **SMM action criteria based on trend in number of hits**
- **Meeting an action criterion would create a “rebuttable presumption”**



# ARTHUR ANDERSEN

## PERFORMANCE TREND MODEL

### Plant A



# **IMPLEMENTATION MILESTONES**

- **Commission Paper on implementation plan by March 31**
  - **Options for process changes**
  - **Plan for development of management and operational effectiveness measures and criteria**
- **Commission policy guidance**
- **Incremental changes for June, 1997 SMM**
- **Implement changes on a trial basis for January, 1998 SMM**

# Backup Slides

# **RECOMMENDED PROCESS**

- **Select discussion plants using Trend Charts and decision criteria**
- **Prepare SMM input using Evaluation Sheets and Trend Charts**
- **SMM discussions focus on rebuttable presumption**
- **Brief Commission on decisions, including rationale for all accepted rebuttals**
- **Document results, including accepted rebuttals**

# **MONITORING PROGRAM EFFECTIVENESS**

- **Track number, type and nature of accepted rebuttals**
- **Adjust indicators, measures and criteria based on experience**
- **Monitor important NRC processes for consistency**
- **Verify accuracy of licensee-based information**

# **ECONOMIC INDICATORS PROPOSED BY ARTHUR ANDERSEN**

- **Operating Cost per Kilowatt Hour**
- **Debt-to-Equity Ratio**
- **Operating Cost Trend**
- **Capital Spending Trend**
- **Percent of utility generating capacity  
from nuclear**

# **INDEPENDENCE AND DIVERSITY IN THE SENIOR MANAGEMENT MEETING PROCESS**

- **Independence of information sources: inspection, reporting and allegations**
- **Diverse process criteria: SALP, Escalated enforcement, Significant Events**
- **Independence of ownership**
  - **Regions: PIM, IPAP, SALP**
  - **Regions, OE, NRR: Escalated enforcement**
  - **AEOD, NRR: Significant Events Panel**
  - **OI: Investigations**



## **POLICY ISSUE**

### **(Notation Vote)**

February 12, 1997

SECY-97-036

FOR: The Commissioners

FROM: Hugh L. Thompson, Jr.  
Acting Executive Director for Operations

SUBJECT: MILLSTONE LESSONS LEARNED REPORT, PART 2: POLICY ISSUES

PURPOSE:

To inform the Commission of the results of the staff's evaluation of the "Millstone Lessons Learned Task Group Report, Part 1: Review and Findings," and obtain Commission approval of the staff's recommended approach to address the key policy issues that were identified.

BACKGROUND:

In a memorandum of November 30, 1995,<sup>1</sup> the Chairman of the Nuclear Regulatory Commission (NRC) requested that the staff perform a Millstone lessons-learned review to "explore whether existing oversight processes need improvement or new processes need to be developed which would have produced earlier NRC recognition of and action on Millstone Unit 1 noncompliance with its FSAR [final safety analysis report]." A task group was chartered to review the findings of various NRC reviews, investigations, and inspections pertaining to Millstone's refueling practices and associated topics for their implications for NRC processes. The lessons-learned review was conducted and reported in two parts. The first part consisted of a staff-level review with recommendations in the areas of inspection, licensing, enforcement, and licensee reporting. The staff-level review was reported in "Millstone Lessons Learned

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<sup>1</sup>Memorandum, "Lessons Learned From Millstone Unit 1," Shirley Ann Jackson, Chairman, to James M. Taylor, Executive Director for Operations, and Karen D. Cyr, General Counsel, November 30, 1995.

CONTACT:  
S. R. Stein, NRR  
415-1296

NOTE: TO BE MADE PUBLICLY AVAILABLE WHEN THE  
FINAL SRM IS MADE AVAILABLE



Task Group Report Part 1: Review and Findings" (Part 1 report) issued September 1996 and given to the Commission by memorandum from the Executive Director for Operations (EDO) on September 19, 1996. In the second part, the staff identifies policy issues related to its findings in the Part 1 report and presents its options and recommendations for addressing the issues in the Part 2 report, which is attached to this paper.

The results of several of the staff's activities, which were in response to the Millstone related issues and that were reviewed by the Millstone lessons-learned task group, have been reported to the Commission. The staff's review<sup>2</sup> of the conformance of spent fuel pool operating practices with the description of such operations in licensing documents at all operating power reactors (survey of refueling practices) was reported to the Commission on May 21, 1996. The special team inspections of engineering and licensing at Millstone and Haddam Neck were reported in inspection reports in September 1996<sup>3</sup> and July 1996,<sup>4</sup> respectively. An analysis<sup>5</sup> of inspection results from a reemphasis on FSARs was reported to the Commission on September 17, 1996. The staff's plan<sup>6</sup> for reviewing Section 50.59 of Title 10 of the *Code of Federal Regulations* (CFR) was given to the Chairman in April 1996 and discussed at a Commission meeting on May 31, 1996. The staff's positions on 10 CFR 50.59 and its implementation recently have been reported to the Commission in SECY 97-XX, "Regulatory Guidance Related to the Implementation of 10 CFR 50.59."

#### DISCUSSION:

The issue at Millstone Unit 1 that initiated the reviews, investigations, and inspections by the NRC was that the licensee's refueling practices were inconsistent with information provided to and reviewed by the NRC through the licensing and license amendment processes. The utility's root cause analysis of the situation showed that (1) the plant's FSAR (a key licensing document) contained errors and omissions; (2) the plant's administrative process, if followed precisely, would not have maintained the FSAR accurately; and (3) utility staff did not fully understand the interrelationship of licensing and design documents. The associated investigations at Millstone and Maine

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<sup>2</sup>Memorandum, "Report on Survey of Refueling Practices," EDO to the Commission, May 21, 1996.

<sup>3</sup>NRC inspection report 50-336,423/96-201, "Special Inspection of Engineering and Licensing Activities at Millstone Nuclear Power Station," September 1996.

<sup>4</sup>NRC inspection report 50-213/96-201, "Special Inspection of Engineering and Licensing Activities at Haddam Neck-Connecticut Yankee," July 1996.

<sup>5</sup>Memorandum, "Final Safety Analysis Report Inspection Results and Planned Improvements," EDO to the Commission, September 17, 1996.

<sup>6</sup>Memorandum, "Action Plan for Improvements to 10 CFR 50.59 Implementation and Oversight," EDO to Chairman Jackson, April 15, 1996.

Yankee by NRC's Office of the Inspector General raised concerns about NRC's process for reviewing and approving licensing actions and NRC's reliance on information submitted by the licensee. The subsequent NRC reviews and inspections dealt with (1) how well the regulatory process for determining if changes to facilities effect the FSAR or require prior NRC approval is implemented (Section 50.59 review); (2) how well the NRC-reviewed designs for spent fuel pools are maintained (survey of refueling practices); (3) how Millstone's licensee identifies, evaluates, and resolves technical issues (special team inspection of engineering and licensing); and (4) how well facilities are conforming to their FSARs (reemphasis of FSARs in NRC inspections).

The reviews conducted in response to the issues at Millstone have indicated that, although the operational safety performance of the industry remains good and NRC's regulatory processes are fundamentally sound, improvements are needed to ensure that the problem areas identified are appropriately addressed to prevent their recurrence. The staff has already initiated actions to address weaknesses in the regulatory process and the industry's performance with respect to the lessons learned from Millstone. Several key actions that have been implemented are the following:

- The staff developed and began implementing guidance that requires inspectors to verify FSAR commitments by reviewing the applicable portions of the FSAR during inspection preparation and verifying that the commitments had been properly incorporated into plant practices, procedures, or design. Pending any additional guidance from the Commission, the staff will update inspection procedures and manual chapters with FSAR inspection guidance at planned revisions. In addition, the Commission approved modifications to the enforcement policy that provide additional guidance to the staff on how to address licensees' departures from FSARs.
- With Commission approval, the NRC began a series of special design inspections to verify that selected plants are operating under the terms and conditions of their licenses. These inspections focus on reviewing the plant's original design and configuration and conformance with the licensee's safety analysis report. Each inspection team is made up of engineers from the NRC and design specialists from the architect/engineering firms of Stone & Webster or Sargent & Lundy. To-date, inspections have been conducted at St. Lucie, Three Mile Island, and Washington Nuclear Project-2. Similar inspections will be performed periodically over the next 2 years.
- On the basis of findings from the special team inspections of engineering and licensing conducted at Millstone, Haddam Neck, and Maine Yankee, the staff sent 10 CFR 50.54(f) letters<sup>7</sup> to all power plant licensees to get information on design and configuration control

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<sup>7</sup>NRC letter, "Request for Information to 10 CFR 50.54(f) Regarding Adequacy and Availability of Design Basis Information," from EDO to individual operating power reactor licensees, October 9, 1996.

processes, problem identification and correction processes, and each licensee's rationale for ensuring that its plants and procedures are consistent with the design bases. The information will be used to better focus and set priorities for design-related inspections such as the special design inspection described above.

- The Associate Director for Projects of the Office of Nuclear Reactor Regulation (NRR) established a Process Improvement Plan<sup>8</sup> (PIP) to address the concerns pertaining to NRC's licensing process that were raised at Millstone, Haddam Neck, and Maine Yankee. The plan, which includes over 100 separate actions, is approximately 40 percent complete.
- Under the 10 CFR 50.59 action plan, the staff has developed proposed guidance that clarifies definitions for words in the rule and that reaffirms, clarifies, or establishes staff positions on specific implementation issues. The staff's proposed guidance is being forwarded to the Commission in a separate paper. During its review of the implementation of 10 CFR 50.59, the staff identified two areas where it felt rulemaking could be effective in resolving some of the differences between the staff and licensees in interpretation and expectations of the process. These two areas are: (1) the scope of 10 CFR 50.59, and (2) the criteria that establish when an unreviewed safety question exists such that prior staff approval is needed.

Although these and other actions, including those adopted as a result of the Part 1 report, will result in continued improvement, analysis of the underlying policy issues that may have contributed to the problems at Millstone has identified a few major areas in which the staff is seeking Commission guidance. These areas are licensing basis, design bases, and FSARs. A brief summary of the concern in each area, short- and long-term actions, approach recommended by the staff, and associated implications and considerations follow. In each area, the short-term actions can be implemented by the staff within the current regulatory framework and do not need Commission-level decisions. The long-term actions involve establishing new regulations (or modifying existing ones) that change the directions or policies previously established by the agency and that may not meet the threshold for a substantial increase in public health and safety of the backfit rule, 10 CFR 50.109. Therefore, Commission direction is needed for the staff to pursue these actions.

Although discussed separately, the staff recognizes the interrelationship of the areas and associated actions, especially for the long-term actions. The long-term actions discussed below and in the Part 2 report are presented for the Commission's consideration, but the staff needs to develop additional information, including resource estimates, before it can make its final

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<sup>8</sup>The ADPR PIP was initially given to the Commission by memorandum from the EDO to the Commission, "NRR Associate Director for Projects Process Improvement Plan," dated October 28, 1996. The current ADPR PIP is attached to this Commission paper.

recommendations to the Commission. The long-term actions need to be considered in an integrated manner to assure that all the associated staff activities are coordinated, consistent and correctly sequenced.

### Licensing Basis

The Millstone lessons-learned review showed that major licensing-basis documents (primarily FSARs) for a number of plants contained many discrepancies,<sup>9</sup> and some plants were not complying with certain license conditions or not incorporating pertinent information into associated plant procedures. In its survey<sup>10</sup> of refueling practices at all reactor sites, the staff found pertinent licensing information in several key types of documents. The review also showed that some licensees and the NRC had difficulty in retrieving licensing-basis information. Although it is the licensee's responsibility to know and comply with its licensing basis, difficulty in retrieving it from agency records affects NRC's ability to independently verify compliance.

To address this concern, the staff recommends the following short- and long-term actions. These actions are intended to provide increased assurance that licensees know and are complying with their licensing basis without imposing an undue regulatory burden on them. In addition the actions will improve the systems that NRC uses to independently identify and retrieve a plant's licensing basis.

#### Short-term Actions

Action 1: Have licensees explicitly identify their licensing-basis commitments in future written communications with the agency. This action would clearly identify new commitments made by licensees and is the forward-looking action that is complementary to Action 5. Through several actions on the ADPR PIP (see Attachment 2), the staff is determining the feasibility of having licensees add to their FSARs, or NRC add a license condition for, certain commitments made during licensing actions and activities as a condition of NRC's approval.

Action 2: Encourage licensees to use Nuclear Energy Institute's (NEI's) guideline for managing commitments made to the NRC titled "Guideline for Managing NRC Commitments." The staff endorsed the guideline in January 1996 and began efforts to evaluate its effectiveness. Continuing these efforts will help the NRC determine if additional guidance or rulemaking is necessary.

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<sup>9</sup>See footnote 5 on page 2. Over a 3-month period, the NRC documented over 200 discrepancies between plants and their associated FSARs. Of these discrepancies, the NRC took enforcement action for 30; 3 escalated actions and 27 severity level IV notices of violation.

<sup>10</sup>See footnote 2 on page 2. The survey resulted in enforcement actions taken at several plants. The significance of the issues that were enforced will be discussed in a future Commission paper.

Action 3: Continue to implement the ADPR PIP. In addition to the items related to Action 1, above, the plan contains additional actions to improve the agency's licensing process for nuclear power reactors. The actions include ones to (1) better communicate licensing commitments between NRC projects divisions and inspectors, (2) clarify guidance on documents to be reviewed when processing licensing actions, and (3) develop procedures for documenting verbal communications between NRC licensing and review staff and licensees. More than one-third of all the actions on the ADPR PIP have been completed.

Action 4: Develop a process to identify and track licensing commitments made to the NRC by individual licensees. The ADPR PIP contains several items on developing such a process. Commitments made to the NRC after the process is implemented are to be included. The staff will review selected past licensing issues to identify existing commitments and to verify their implementation.

#### Long-term Actions

Action 5: Develop a rulemaking plan to explore the need to require licensees to compile their licensing bases into either the FSAR or some other document that has comparable controls. This action would be required in order to note all existing licensing-basis commitments and is the retrospective action that is complementary to Action 1 (having licensees identify licensing-basis commitments in future actions).

Action 6: Develop a rulemaking plan to reevaluate whether the NRC should adopt a definition of current licensing basis for 10 CFR Part 50, and whether the definition should be similar to that in 10 CFR Part 54 or some narrower definition.

Action 7: Develop a plan for establishing required controls for licensing-basis commitments not now covered by requirements.

#### Recommended Approach

The staff recommends continuing the implementation of Actions 1 through 4, which will improve identification of new licensing-basis commitments and will establish processes for licensees and the NRC to manage them. The NRC then can inspect licensees' implementation of NEI's commitment management guidance, design control practices, and compliance with licensing-basis documents to determine if new controls need to be imposed on existing licensing-basis information and if long-term Actions 5 through 7 should be pursued.

#### Implications and Considerations

Actions 1 through 4 should have minimal effect on licensees. Action 1 would result in licensees only highlighting in future submittals and correspondence that information considered to be commitments. Action 2 would help standardize criteria for processes most licensees already use.

Actions 3 and 4 would principally affect NRC processes and staff, and many of the associated action items have been completed or are in progress.

Developing systems to identify, track, and follow up on commitments and licensing actions could have significant implications for agency resources, although exact resource estimates are unknown at this time. Changing the workload for inspectors by having them verify implementation of licensing actions, without regard to significance, could divert the inspectors from more performance-based, operationally significant inspections, although exact resource estimates are unknown at this time.

Actions 5 through 7 could have a significant impact on licensees by imposing new requirements resulting in licensees developing new administrative processes or having to examine their complete set of documents previously submitted to the NRC.

### Design Bases

The inspection findings at Millstone, Haddam Neck, and Maine Yankee and the survey of refueling practices indicated that design-basis information has not been appropriately maintained and implemented at these and several other facilities.

In its 1992 policy<sup>11</sup> on adequacy and availability of design bases, the Commission emphasized that licensees are responsible for ensuring that (1) their plants' physical and functional characteristics are maintained and are consistent with the design bases as required by NRC regulations; (2) systems, structures, and components can perform their intended functions; and (3) the plants are operated in a manner consistent with the design bases. The Commission also recognized that the regulatory framework exists to address the need for accessible design bases and control of design information. The availability of current design and licensing bases will expedite regulatory processes.

The NRC and industry, however, did not implement the FSAR update rule, 10 CFR 50.71(e), to require that the updates contain new design bases developed as a result of rules, generic communications, or actions not directly associated with new requirements. As a result of the evolution of licensing, FSARs differ for each plant and can differ significantly between earlier licensed plants (before the accident at Three Mile Island) and later licensed plants.

The following recommended actions are intended to provide increased understanding of design bases and greater assurance that facilities are controlling and are in compliance with their design bases.

### Short-term Actions

Action 8: Encourage licensees to explicitly identify design bases in future written communications with the NRC. This action would clearly identify new or revised design bases developed by licensees to address new safety issues

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<sup>11</sup>57 *Federal Register* 35455, "Availability and Adequacy of Design Bases at Nuclear Power Plants; Policy Statement," August 10, 1992.

raised by the Commission and would facilitate their separation from other information in FSARs. This action would be part of Action 1, identifying licensing-basis commitments. It also is the forward-looking action that is complementary to Action 15.

Action 9: Provide guidance to licensees to implement 10 CFR 50.71(e) as explained in the rule's statement of consideration and to include in FSARs new design bases (as defined in 10 CFR 50.2) developed at the Commission's request. This action may require an analysis pursuant to 10 CFR 50.109 as a new interpretation of the Commission's rule and also may be subject to the Small Business Regulatory Fairness Act. Design bases are defined in regulation (10 CFR 50.2) and are required to be in the FSAR (10 CFR 50.36), and, therefore, changes to them are controlled by regulation (10 CFR 50.59 and 50.71(e)). Therefore, Actions 5 and 6, which may significantly affect FSARs and place regulatory controls on information not now controlled, would not greatly affect design bases, even though they are part of the licensing basis.

Action 10: Use the information submitted by licensees on their programs in response to the 10 CFR 50.54(f) letters discussed above. The staff will use this information to assign priorities to and to better focus design-related inspections, and to help ensure that FSARs properly describe the associated facility.

Action 11: Pay increased attention to inspection and enforcement of licensee compliance with 10 CFR 50.71(e). The agency recently issued a change<sup>12</sup> to its enforcement policy that contained examples of various severity level violations of 10 CFR 50.71(e). The ADPR PIP includes actions for project managers to verify FSAR updates. The inspection program is being enhanced to reemphasize using FSARs in preparing for all inspections.

Action 12: Reemphasize design inspections. The NRC has begun a program of headquarters-led team inspections using contractor inspectors with current experience in nuclear plant design and is considering other design verification activities. These inspections will be in addition to the normal inspections conducted at nuclear power plants to maintain the inspection program's focus on operational safety.

Action 13: Publish guidance for the staff on design bases (10 CFR 50.2) and supporting information beyond the design bases (subject of NUREG-1397<sup>13</sup> and the 1992 policy statement on availability and adequacy of design bases<sup>14</sup>) and their relationship to licensing and inspection.

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<sup>12</sup>61 *Federal Register* 54461, "Policy and Procedure for Enforcement Actions: Departures From FSAR," October 18, 1996.

<sup>13</sup>NUREG-1397, "An Assessment of Design Control Practices and Design Reconstitution Programs in the Nuclear Power Industry," Office of Nuclear Reactor Regulation, February 1991.

<sup>14</sup>See footnote 11 on page 7.

## Long-term Actions

Action 14: Evaluate the need to establish requirements from the 1992 policy statement on availability and adequacy of design bases at nuclear power plants. As discussed previously, the Commission stated in its policy statement that licensees should assess the accessibility and adequacy of their design-basis documents and that such assessments would provide licensees with "current design documents and adequate technical bases to demonstrate" that the configuration of the plants was within the design bases, intended safety functions could be performed, and plants were being operated consistent with the design bases. The responses to the recent 10 CFR 50.54(f) letters on the same topic will be used to help the NRC determine if additional inspections are needed and if voluntary licensee activities have achieved the Commission's expectations or new regulations concerning design-bases programs are needed.

Action 15: Evaluate the benefits of having licensees identify design bases that exist outside their facilities' FSARs and incorporate them into the FSARs. As discussed previously, the FSAR update rule was not consistently implemented so that new design bases were incorporated into FSARs; therefore, some design bases exist in other docketed records. This is the historical, complementary action to Action 8.

## Recommended Approach

The staff recommends that Actions 8 through 13 be implemented to better identify and control new design bases as they are developed, and to better gauge the understanding and use of design bases at individual plants.

The information gathered through the 10 CFR 50.54(f) letters and the design team inspections can be used to determine if additional controls are necessary or if long-term Actions 14 and 15 should be pursued. These results can also be used to determine if individual plants may need to backfit design-basis information into the FSAR or design documents.

## Implications and Considerations

Actions 8 through 13 would have minimal effect on licensees beyond the effects normally associated with team inspections. Actions 8 and 9 would result in licensees only highlighting in future submittals and correspondence certain information they already need to provide to the NRC and ensuring that new design bases are incorporated into updated FSARs. However, Actions 14 and 15 could significantly affect licensees and their programs.

Actions 11 and 12 would affect agency resources. Action 11, which increases the requirements in the inspection program to inspect and follow up on FSAR updates, could divert existing resources from their primary goal of operational safety, although exact resources are unknown at this time. For Action 12, the NRR budget includes \$4.5M and 1 FTE for each year (FY97 and FY98) to conduct 12 inspections annually.



## FSARs

Decisions made on actions related to licensing basis and design bases will have an effect on FSARs because of that document's relationship and importance to licensing and design descriptions.

As part of the operating license application, the FSAR for each plant is a major part of the licensing basis for the plant, but is not the complete licensing basis. The FSAR contains the information required by regulation (10 CFR 50.34(b)), including the design bases, and is intended to be an accurate reference for certain information (10 CFR 50.71(e)) submitted to the Commission after the operating license is issued. The ultimate authority for discrepancies still would be the original FSAR plus the plant's docket file.<sup>15</sup> As noted earlier, FSARs vary in the level of detail and information contained therein.

10 CFR 50.71(e) requires periodic updates to FSARs that contain "all changes necessary to reflect information and analysis submitted to the Commission by the licensee." However, it has not been implemented to consistently add new design bases or commitments for new regulations, generic issues, or plant-specific actions. The variability in the content of FSARs, as discussed above, also contributes to the inconsistent content of FSAR updates in two ways: (1) the updates are to be, as a minimum, at the same level of detail as the original FSAR, and (2) the updates are to include the effects of "all changes made in the facility or procedures as described in the FSAR."

Implementation of 10 CFR 50.59 also is affected by the variability in FSARs. Licensees may make changes to their facilities "as described in the safety analysis report" and may conduct tests not described in the safety analysis report without prior NRC approval if the change or test meets certain criteria. Therefore, more recently licensed plants with more detailed FSARs have plant information that is within the scope of 10 CFR 50.59 that earlier licensed plants with less detailed FSARs do not have. The staff's evaluation of 10 CFR 50.59 and its positions and recommendations are discussed in SECY 97-XX, "Regulatory Guidance Related to the Implementation of 10 CFR 50.59."

The following actions are intended to facilitate licensees updating their FSARs with the appropriate information and help to determine if additional information should be added to updated FSARs and if it is necessary to establish a standard level of detail for FSAR updates.

### Short-term Actions

Action 9, above, addresses implementing 10 CFR 50.71(e) as described in the statement of consideration and requiring that new design-basis information developed in response to Commission requests be included in periodic updates of FSARs.

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<sup>15</sup>Generic Letter 80-110, "Periodic Updating of Final Safety Analysis Reports," December 15, 1980.

Action 16: Continue to audit FSAR accuracy through inspections. The inspection program has been modified to reemphasize using FSARs in preparing for all inspections.

Action 17: Identify information to be added to FSARs. The staff could identify, in generic communications and in safety evaluations for licensing actions, information it finds should be included in FSARs. Establishing internal criteria for the level of change control necessary for information relied on for regulatory decisions would facilitate including that information in a document controlled by regulations. Also, encouraging licensees to specifically identify their commitments in correspondence (Action 1) and repeating in safety evaluations the commitments made by them in regard to the licensing issue would make such commitments easier to identify.

#### Long-term Actions

Actions 5 and 6 address re-evaluating the need for licensees to compile their licensing basis and the need for adopting a definition for current licensing bases for 10 CFR Part 50. Adding licensing-basis information not now contained in FSARs needs to be part of those evaluations. Such evaluations will also affect decisions on the scope of 10 CFR 50.59.

Action 18: Revise Regulatory Guide 1.70<sup>16</sup> to include format, content, and level of detail for updates to FSARs. Standards for FSAR updates would provide greater consistency in the information added to FSARs. Such standards may require an analysis pursuant to 10 CFR 50.109 (and may be subject to the requirements of the Small Business Regulatory Fairness Act) as a new interpretation of the Commission's rule because 10 CFR 50.71(e) does not address level of detail for FSAR updates.

#### Recommended Approach

The staff recommends implementing Actions 16 and 17. These actions, along with Actions 9 and 11, will make implementation of the FSAR update rule more consistent and will improve the NRC's verification of FSAR information. The results of design-based inspections, inspection focus on FSARs, and the 10 CFR 50.54(f) letters on the adequacy of design-basis information can be used to determine if Action 18 or additional longer term actions are necessary.

#### Implications and Considerations

The short-term actions that address licensing basis, design bases, and FSARs would have minimal impact on licensees. In general, these actions would not change the information licensees are already submitting to the NRC; they only highlight the information and ensure that the appropriate information is included in future periodic updates to FSARs.

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<sup>16</sup>Regulatory Guide 1.70, "Standard Format and Content of Safety Analysis Reports for Nuclear Power Reactors, LWR Edition," Revision 3, November 1978.

Actions that identify information from licensing actions or FSAR updates for NRC verification or followup could affect the focus of existing inspection resources, although exact resource estimates are unknown at this time.

The long-term actions addressing licensing basis and design bases also could affect what information is in FSARs. In addition, decisions made on these issues, which can change the information in and management of FSARs, also could affect implementation of 10 CFR 50.59. (Issues concerning 10 CFR 50.59 are presented in a separate Commission paper.)

#### IMPLEMENTATION:

The findings (and resultant recommendations) from the Millstone Lessons Learned Task Group Report, Part 1, pertain to the specific program areas that the task group reviewed: inspection, licensing, enforcement, licensee reporting, and management oversight. The findings overall led to questions of policy that were further reviewed by agency managers and reported in the attached Millstone Lessons Learned Report, Part 2.

The staff is proceeding with implementation of the recommendations from the Part 1 report. Upon approval of its approach to addressing the policy issues, the staff will develop and forward to the Commission an integrated plan for implementing Millstone lessons learned improvements, including major activities and milestones. The Commission paper on the 10 CFR 50.59 process also raises two policy issues with the potential for rulemaking that would enhance the regulatory effectiveness of the process. Those two issues are (1) a revision of the rule to better define the scope of 10 CFR 50.59, and (2) a revision of the criteria that define when an unreviewed safety question exists. The staff will incorporate these issues into its evaluation of the issues raised in this paper so it can present integrated recommendations to the Commission at a later date.

Many of the long-term and short-term actions could affect staff resources. For example, actions regarding the identification and verification of commitments would require additional effort on the part of inspectors and project managers. This could divert existing resources from their primary purpose such as direct inspection of operational safety. Exact resource estimates are unknown at this time.

Several of the long-term actions to address the policy issues could likely result in backfits, and the required regulatory analysis for backfits takes considerable staff effort. It is likely that the regulatory analysis supporting most of those actions would not show them to be "a substantial increase in overall protection" as prescribed in 10 CFR 50.109, although the staff will analyze each action as it develops its proposals for the Commission's consideration. Therefore, should the Commission approve the approaches proposed in this paper, it should be with the understanding that further review may show that the actions may not be justifiable under 10 CFR 50.109 criteria.

COORDINATION:

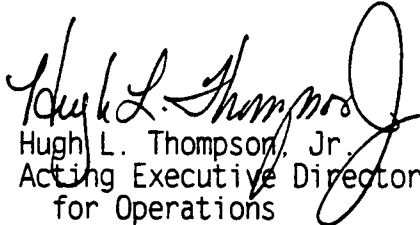
The Office of the General Counsel has reviewed this paper and has no legal objections.

This paper has been coordinated with the Office of the Chief Financial Officer which has no resource objection.

RECOMMENDATIONS:

The staff recommends that:

1. The Commission approve the staff's overall approach and its recommendations in each of the areas of licensing basis, design bases, and FSARs.
2. The Commission direct the staff to continue implementing the short-term actions in each of the areas of licensing basis, design bases, and FSARs.
3. The Commission direct the staff to develop a coordinated, integrated action plan that considers together all of the long-term actions following additional staff review.

  
 Hugh L. Thompson, Jr.  
 Acting Executive Director  
 for Operations

Attachments:

1. Millstone Lessons Learned Report, Part 2: Policy Issues
2. Associate Director for Projects Process Improvement Plan

Commissioners' comments or consent should be provided directly to the Office of the Secretary by COB Friday, February 28, 1997.

Commission Staff Office comments, if any, should be submitted to the Commissioners NLT February 21, 1997, 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.

DISTRIBUTION:

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## **Attachment 1**

# **MILLSTONE LESSONS LEARNED**

## **REPORT**

### **PART 2: POLICY ISSUES**

## ABBREVIATIONS

ACR	adverse condition report
ADPR	NRC Associate Director for Projects
AEA	Atomic Energy Act
AEOD	NRC Office for Analysis and Evaluation of Operational Data
CFR	Code of Federal Regulations
CLB	current licensing basis
EDO	NRC Executive Director for Operations
FSAR	final safety analysis report
IPAP	independent performance assessment process
LCO	limiting condition for operation
LER	licensee event report
NEI	Nuclear Energy Institute
NRC	Nuclear Regulatory Commission
NRR	NRC Office of Nuclear Reactor Regulation
NU	Northeast Utilities
OIG	NRC Office of the Inspector General
PIP	process improvement program
PPR	plant performance review
RES	NRC Office of Nuclear Regulatory Research
RG	regulatory guide
RRG	NRR Regulatory Review Group
SALP	Systematic Assessment of Licensee Performance
SMM	senior management meeting
SRP	standard review plan
TS	technical specifications

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## I. INTRODUCTION

The NRC's Office of Nuclear Reactor Regulation (NRR), in response to a request from the Chairman, established a task group to evaluate the lessons that could be learned and applied to NRC's programs from the issues raised by the refueling practices at the Millstone nuclear power plants. In September 1996, the task group issued the "Millstone Lessons Learned Task Group Report Part 1: Review and Findings" (Part 1 report). In the report, the task group described its review and findings and presented the task group's recommendations for specific agency programs and management oversight of those programs. The task group also formulated several questions on policy, which were presented in the Part 1 report.

Senior agency staff decided to discuss issues regarding agency policy in a second report following a review of the Part 1 report by senior managers and after getting feedback from the Commission on the first report. The second report presents the policy issues for the Commission's consideration with options or recommendations. It also discusses the task group's specific recommendations to clearly identify ongoing activities related to the recommendations, new recommendations, and their relationship to the policy issues. This report is the Part 2 report for the Millstone lessons learned effort.

This Part 2 report discusses various agency processes to place the policy issues and recommended actions in context with past agency deliberations and decisions. The processes were analyzed when, in 1991, the agency developed and promulgated Part 54 of Title 10 of the *Code of Federal Regulations* (CFR), "Requirements for Renewal of Operating Licenses for Nuclear Power Plants," and developed the concept of and defined "current licensing basis" in the rule. The discussion of the processes is presented from the perspective of current licensing basis because the discussion is based on the previous analysis, although the definition in Part 54 relates to license renewal.

Section IV, Actions and Recommendations, discusses actions that the agency has already taken and additional actions the agency can take. It identifies those actions that involve establishing new regulations (or modifying existing regulations) that change the directions or policies previously established by the agency. Therefore, Commission direction is needed for the staff to pursue these actions.

### A. Background

In October 1993, Northeast Utilities (NU) submitted a licensee event report (LER 93-11) for Millstone Unit 1 indicating that the unit had operated outside of the plant's design bases during refueling outages. At issue in the LER were (1) how much of the reactor core the licensee moved from the reactor vessel to the spent fuel pool during refueling operations and (2) the assumptions used in its (a) updated final safety analysis report and (b) analyses that supported a previous license amendment. The NRC followed up on the LER in several inspection reports between April 1994 and September 1995. The original LER was supplemented once on December 27, 1995. The supplement contained more detail than the original LER and showed the number of times the plant had refueled inconsistently with its updated final safety analysis report and license amendment request. By July 1995, NU had submitted a request for a license amendment that would allow the utility to off-load the full core as its normal practice. In August 1995, the NRC received a petition under 10 CFR 2.206, which included among other things a request that the agency deny the

change in the license. The petition, the LER, and other information prompted a number of reviews by the NRC, including investigations by the agency's Office of the Inspector General (OIG) and the agency's Office of Investigations.

NU assessed the root causes of problems at Millstone Unit 1 (Adverse Condition Report (ACR) 7007 issued in February 1996) and the NRC distributed the executive summary from that report to the rest of the nuclear power industry through an NRC information notice.<sup>1</sup> By February 1996, both the licensee and the NRC had undertaken a number of reviews and inspections at two of the utility's sites: Millstone and Haddam Neck. In addition to its focus on the individual plants, the agency initiated reviews of the underlying issues raised by the refueling practices at Millstone. These reviews included (1) 10 CFR 50.59 and processes for implementing the rule, (2) conformance of spent fuel pool operating practices with the description of such operations in licensing documents at all operating power reactors (survey of refueling practices), and (3) results from routine inspections that reemphasized reviews of incorporating final safety analysis reports (FSARs). Concurrently, the staff developed new guidance for enforcing compliance with regulations associated with FSARs.

In May 1996, the OIG issued a report on Maine Yankee addressing some of the same programs and processes affected by the issues raised at Millstone and that were the subject of the lessons-learned review.

In the Chairman's memorandum of November 30, 1995, the staff was asked to perform a Millstone lessons-learned review to "explore whether existing oversight processes need improvement or new processes need to be developed which would have produced earlier NRC recognition of and action on Millstone Unit 1 noncompliance with its FSAR." As the agency developed a greater understanding of issues at Millstone and Maine Yankee, several focused reviews and inspections were initiated that subsequently expanded the scope of the Millstone lessons-learned effort. The scope was to examine the results of the other reviews, inspections, and investigations to determine the implications of their findings on the NRC's programs and processes. The eventual Millstone lessons-learned approach was for the review to be conducted and reported in two parts. The first part consisted of a staff-level review with recommendations in the areas of inspection, licensing, enforcement, and licensee reporting. This second part identifies policy issues related to the staff's findings in the Part 1 report and presents actions and recommendations for addressing the issues.

The staff-level review was conducted by a task group formed of staff members from the offices of NRR, Office for Analysis and Evaluation of Operational Data (AEOD), and Region III. The task group developed a plan to identify problems or deficiencies in NRC's regulatory program for power reactors and to determine the implications of the lessons learned from the other specific reviews. The task group reported its findings and recommendations in the Part 1 report, dated September 1996.

The actions that address the specific recommendations from the Part 1 report are summarized in the appendix to this report. The appendix notes previous staff actions and new actions being planned by the staff associated with each recommendation from the

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<sup>1</sup>NRC Information Notice 96-17, "Reactor Operation Inconsistent With the Updated Final Safety Analysis Report," March 18, 1996.

Millstone lessons learned task group. The majority of the actions come from the process improvement plan developed by the Associate Director for Projects to address the specific findings of the OIG reports associated with, and issues raised by, Millstone's refueling practices.

This report presents Part 2 of the Millstone lessons-learned review effort. The objectives of Part 2 are (1) to evaluate the findings of Part 1 and to develop policy issues with actions and recommendations for Commission consideration and (2) describe the staff activities associated with the specific recommendations from the Part 1 report. Senior staff and management from headquarters, the regional offices, and the Office of the General Counsel participated in the evaluation of this report. The major policy issues are presented in this report along with options for agency action that address the issues from a perspective of licensee responsibilities and from NRC internal practices. Short-term, interim actions are identified as well as longer term actions that address underlying shortcomings in several regulations. The report also recognizes a number of ongoing actions regarding internal staff practices that have resulted from the Millstone lessons-learned effort.

The staff will develop detailed plans necessary to implement the recommendations after receiving the Commission's guidance.

#### **B. Summary of Part 1 Report**

The issues raised by Millstone's refueling practices and by findings at several other facilities indicated that some problems in the agency's licensing and oversight processes. The Millstone lessons-learned task group reviewed the findings of various NRC activities related to the issues raised by refueling practices at Millstone Unit 1. These activities included (1) processes related to and implementation of Section 50.59 requirements, (2) identifying and verifying certain licensing- and design-basis information for spent fuel pools at all nuclear power reactors, (3) special team inspections of licensing and engineering operations at Millstone and Haddam Neck, (4) reports from the NRC's Office of the Inspector General on aspects of NRC's oversight at Millstone and Maine Yankee, and (5) the results from a reemphasis on incorporating FSAR information into routine inspections. Many of the findings from these activities, as well as the experiences of staff members associated with the activities, were related to the staffs' and licensees' abilities to identify, retrieve, and properly use information on and off the docket.

In reviewing the staff activities, the task group found few examples of problems with safety significance. The staff's verification of refueling practices found that the design bases for spent fuel pools at all plants had been reviewed and approved by the NRC, although a few plants may have refueled their reactors inconsistently with their FSARs. The staff concluded from its analysis of FSAR inspection data that the large majority of the findings were of low significance and those few issues that were potentially risk important had been identified (some previously) and were within the group of issues being enforced through the agency's normal processes. Conversely, the special inspection of engineering and licensing practices at NU plants did find significant problems and confirmed problem areas previously identified by the NRC and the licensee. The experience with the Millstone and Haddam Neck plants highlights the importance of regulatory issues and their correlation to safety.

The task group concluded that (1) the concepts of current licensing basis and design bases are not clearly understood by some licensees and some NRC staff; (2) both licensees and staff have difficulty identifying and locating licensing- and design- basis documents and information; and (3) licensing- and design- basis documents are not always appropriately used in NRC licensing and inspection activities and in licensee design and facility changes. In its various reviews, the staff noted that some information which should be in updated FSARs has not been put there. It has also noted that some information, which the staff has relied on in ensuring that licensees are in compliance with new rules and in approving licensing actions or other licensing activities, is not in documents that are subject to any regulatory control for changes the licensee may subsequently make. The NRC recognized, through its dealings with current licensing basis under Part 54 (license renewal), that certain commitments were not subject to regulatory controls. In December 1995, the staff endorsed a voluntary industry commitment management process that licensees may use to change such commitments.

In accordance with Section 50.34, the FSAR is to contain the design bases for each facility, but the FSAR update rule, Section 50.71(e), has not been implemented to incorporate all new design bases into the FSAR. NRC team inspections have found that some licensees did not have sufficient documentation to adequately support their design bases for subsequent plant changes and modifications.

In the Part 1 report, the task group made recommendations to improve agency processes in the areas of licensing, inspection, enforcement, and licensee reporting. It also made recommendations in management oversight of those processes and a recommendation related to license renewal. The recommendations are presented in the Part 1 report and are repeated in the appendix to this report.

The task group also formulated several questions on policy, which were presented in the Part 1 report. Those questions were:

- What should be the licensing basis for an operating plant and in which documents should it be located so it is accessible to the licensee, the NRC, and the public?
- What information should be in the FSAR?
- What information, if any, may licensees remove from their FSARs without a corresponding change to the facility?
- Has the NRC done enough to ensure the design basis is sufficiently understood and is being used properly?
- What should be the scope and threshold of Section 50.59?
- Should the agency more formally establish its position on the actions a licensee should take after identifying degraded or nonconforming conditions?

Following their review of the Part 1 report and subsequent deliberations, senior agency managers acknowledged that the above questions of policy were issues that needed resolution. The managers also acknowledged that all of the issues had been previously considered by the agency and had resulted in the agency taking positions or actions. The

broadest issue raised by the above questions is the issue of licensing basis. The NRC extensively deliberated issues regarding the licensing basis, and analyzed the agency's oversight processes, when it promulgated the license renewal rule, Part 54, in 1991. Therefore, the discussions that follow are based on those past analyses and deliberations. The actions recommended in Section IV, Actions and Recommendations, address the above policy questions by following the general progression of the questions: licensing basis (the broadest issue), design bases (a part of the licensing basis), and FSARs (a major licensing-basis document that includes the design bases).

## **II. PROCESSES AND RESPONSIBILITIES**

The issue at Millstone Unit 1 that initiated the various reviews, investigations, and inspections by the NRC was that certain aspects of the licensee's refueling practices were inconsistent with information submitted to and reviewed by the NRC through the licensing and license amendment processes. The utility's root-cause analysis of the situation showed that (1) Millstone Unit 1's FSAR (a key licensing document) contained errors and omissions, (2) Millstone's administrative process, even if followed precisely, would not have maintained the FSAR accurately, and (3) utility staff did not fully understand how licensing and design documents were related. Investigations at Millstone and Maine Yankee by the NRC's Office of the Inspector General raised concerns with the NRC's process for reviewing and approving licensing actions and NRC's reliance on information submitted by the licensee.<sup>2</sup> Subsequent NRC reviews and inspections dealt with (1) the regulatory process for determining if changes to facilities affect the FSAR or require prior NRC approval (Section 50.59 review), (2) how well the NRC-reviewed designs for spent fuel pools are maintained (survey of refueling practices), (3) how NU identifies, evaluates, and resolves technical issues (special team inspection of engineering and licensing practices), and (4) how well facilities are conforming to their FSARs (reemphasis of FSARs in NRC inspections).

The Millstone lessons-learned task group, after evaluating these various activities, raised questions concerning the information used by licensees and the NRC in licensing and regulating operating nuclear power plants. This information has been called alternately "licensing basis" and "current licensing basis" information.

The following sections discuss the agency's processes and agency and licensee responsibilities consistent with the definition of current licensing basis in 10 CFR Part 54, "Requirements for Renewal of Operating Licenses for Nuclear Power Plants."

### **A. Current Licensing Basis**

The Commission issues an operating license to an entity under the authority of the Atomic Energy Act of 1954 (AEA), as amended, after finding, pursuant to Section 50.57, that the facility has been constructed in accordance with its design and would be operated in accordance with the operating license application, the rules and regulations of the

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<sup>2</sup>The agency took a number of actions to address the issues raised in the OIG reports. These actions included a task group to evaluate the agency's technical review process and development of the Associate Director for Projects Process Improvement Plan, which includes numerous items to strengthen and augment the agency's process for regulating nuclear power reactors.

Commission, and the provisions of the AEA, and that the activities associated with operation can be conducted without undue risk to the health and safety of the public. However, the licensing basis upon which the Commission makes this conclusion is unique to each plant and does not remain fixed for the term of the operating license; it evolves throughout the term of the license because of the continuing activities of the licensee and the NRC.

The term "current licensing basis" (CLB) appears once in 10 CFR Part 50, but is not defined in Part 50; it is, however, defined in 10 CFR Part 54, the license renewal rule.<sup>3</sup> The term evolved from the Commission's development of the license renewal rule; however, the concept is an important part of the Commission's regulatory process. The Commission bases its initial licensing decision for each licensee on the set of plant-specific design bases,<sup>4</sup> the NRC regulations applicable to the facility being licensed, and a licensee's commitments for compliance with and operation within the applicable NRC requirements and the facility's design bases at the time of licensing. Over the term of the operating license, a plant undergoes changes and the NRC adjusts its regulations from time to time to address new safety issues or areas of concern that are identified. As such, a plant's "current" licensing basis does not remain fixed, but rather evolves throughout the operating life of the plant. The differences in CLB among plants arise because plants are licensed at different times, at different sites, with different designs, and have individual operating experiences.

The CLB is comprised of the NRC rules and regulations, the license (including technical specifications, license conditions, orders, exemptions), the plant-specific design bases required to be in the updated FSAR, as well as written and docketed commitments made by licensees for ensuring compliance with and operation within applicable NRC requirements and the plant-specific design bases. The commitments that form part of the CLB may be found in a number of documents sent to the NRC by the licensees and included in the associated docket file.

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<sup>3</sup>*Current licensing basis* (CLB) is defined in Section 54.3 as "the set of NRC requirements applicable to a specific plant and a licensee's written commitments for ensuring compliance with and operation within applicable NRC requirements and the plant-specific design basis (including all modification and additions to such commitments over the life of the license) that are docketed and in effect. The CLB includes the NRC regulations contained in 10 CFR Parts 2, 19, 20, 21, 30, 40, 50, 51, 54, 55, 70, 72, 73, and 100 and appendices thereto; orders; license conditions; exemptions; and technical specifications. It also includes the plant-specific design basis information defined in 10 CFR 50.2 as documented in the most recent final safety analysis report (FSAR) as required by 10 CFR 50.71 and the licensee's commitments remaining in effect that were made in docketed licensing correspondence such as licensee responses to NRC bulletins, generic letters, and enforcement actions, as well as licensee commitments documented in NRC safety evaluations or licensee event reports."

<sup>4</sup>*Design bases* are defined in Section 50.2 as "that information which identifies the specific functions to be performed by a structure, system, or component of a facility, and the specific values or ranges of values chosen for controlling parameters as reference bounds for design." The definition states the values may be derived from "state of the art" practices or analyses based on calculations or experiments.

Managing the CLB and controlling changes to it are important because of the regulatory significance of the elements that make up the CLB. Changes to Commission rules and regulations are controlled by the Commission using a rulemaking process pursuant to 10 CFR Part 2 that provides for public participation in creating and promulgating new requirements or changing existing requirements. Exemptions to NRC rules and regulations must receive NRC's approval pursuant to various sections of the Commission's regulations, including 10 CFR 50.12. Similarly, changes or amendments to a utility's license (including the technical specifications) also must receive NRC's review and approval before the changes are implemented. Sections 50.90, 50.91, and 50.92 establish the process for such changes and cover notice and public hearing.

Through Section 50.59, licensees may make changes to their facilities and procedures as described in a plant's FSAR (and conduct tests not described in the FSAR) without prior NRC approval if the changes or tests do not affect technical specifications or do not involve an unreviewed safety question. Licensee safeguards contingency, quality assurance, and emergency preparedness plans, which are required by NRC regulations and are reviewed and approved by the NRC, also have regulatory requirements in Section 50.54 for changing them. A licensee may make changes to these NRC-approved plans without prior Commission approval as long as certain conditions are met. If the conditions in Sections 50.54 and 50.59 are not met, NRC must review and approve the changes before they are implemented. Additionally, these regulations mandate reporting these changes to the NRC after their implementation. The last component of the CLB, docketed licensee commitments, are not subject to any mandated regulatory control or management processes, although the NRC expects licensees to fulfill them. In 1996, the agency endorsed<sup>5</sup> an industry guideline for managing commitments made to the NRC by licensees.

Changes in the regulation of nuclear power plants over time have also affected the variability in the CLB among plants. As each change in the regulations was made, the agency made considered decisions about imposing the changes only on holders of newly issued licenses or also on existing licensees, and whether the changes should be only forward looking or imposed retroactively. In the 1960's, technical specifications were separated from the hazards summary report. The technical specifications remained part of the operating license and the hazards summary report became the safety analysis report. Over the next 20 years, the guidance on content and format for safety analysis reports underwent changes, and the last guidance was issued in 1978 as Regulatory Guide (RG) 1.70. Each revision of the guidance incorporated changes reflecting new developments in the industry and new Commission needs for information on which to base its findings for issuing a license. Similarly, the agency's criteria for reviewing license applications changed and was published in NUREG-0800, "Standard Review Plan," (SRP) in 1975. The standard review plan was completely revised in 1981 and is currently being revised again to reflect the considerable changes in regulating the nuclear power industry since 1981. Licensees are required to meet the agency's regulations concerning FSARs and applications, but are

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<sup>5</sup>The staff informed the Commission in SECY-95-300, "Nuclear Energy Institute's Guidance Document, 'Guideline for Managing NRC Commitments'," December 20, 1995, that it would presently notify NEI of the staff's conclusion that the guidance document was "an acceptable guide for licensees to follow for managing and changing their commitments to the NRC." NEI was notified of the staff's endorsement by letter dated January 24, 1996. The staff trained affected personnel and plans to evaluate the need for further workshops after licensees and staff gain experience with the guideline.

not required to conform with the standard format for FSARs or the SRP. Applications for an operating license after 1982 were required to include an evaluation of the facility against the SRP and evaluations of alternatives to the criteria in the SRP for differences between the license application and the SRP.

**B. Consideration of Whether To Require Compiling the CLB**

In the proposed license renewal rule,<sup>6</sup> 10 CFR Part 54 dated July 17, 1990, and further clarified in SECY-91-138, "Final Rule on Nuclear Power Plant License Renewal," the staff proposed to require applicants for license renewal to compile and submit a list of documents comprising their CLB and require the applicants to review this compiled CLB to determine the systems, structures, and components that will be evaluated for renewal. Although the industry opposed such a requirement because all documents comprising the CLB are already on file with the NRC in the plant's docket file, the staff maintained that compilation and reference to the CLB was desirable for license renewal. The staff contended that the design of many systems, structures, and components, including safety margins, was initially based on an assumed service life of 40 years. Therefore, a review of the CLB would be necessary to define and evaluate the technical limits for operation of these systems, structures, and components to ensure that operation during the renewal term would not exceed their design capabilities or safety margins. The staff concluded that CLB compilation was necessary to ensure that no obvious systems, structures, and components were omitted.

The staff considered an alternative to compiling the CLB that would still address the staff's concern that a renewal applicant's review of important systems, structures, and components was complete. The staff's alternative, which was approved by the Commission in June 1991<sup>7</sup> and adopted in the final rule,<sup>8</sup> required all license renewal applicants to formally describe and justify their method of reviewing their CLB to ensure all systems, structures, and components important to license renewal have been considered. To further address the staff's concern for potentially omitting systems, structures, and components whose design was based on a 40-year life, the alternative approach called for an explicit accounting of such systems, structures, and components. The staff's approach therefore addressed the "completeness" concern by requiring renewal applicants to describe and justify the methods used to identify from their CLBs those systems, structures, and components needing a management review of aging, as well as subjecting this methodology to staff review and acceptance. The staff's rationale for this alternative approach to compilation of the CLB was based on a licensee's CLB already existing on the docket with the NRC; that is, the CLB is available for NRC's review and audit during the course of its license renewal review; and further, this CLB documentation continues to remain subject to NRC oversight and regulatory process throughout the term of a renewed license. The staff's revised philosophy was consistent with the second principle of the license renewal rule, which is that the CLB must be maintained in the renewal term.

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<sup>6</sup>55 *Federal Register* 29060, "Nuclear Power Plant License Renewal", July 17, 1990.

<sup>7</sup>For affirmation, "SECY-91-138—Final Rule on Nuclear Power License Renewal," Secretary of the Commission, June 28, 1991.

<sup>8</sup>56 *Federal Register* 64943, "Nuclear Power Plant License Renewal," December 13, 1991.



Integral to this principle is the Commission's belief that the NRC's regulatory process (regulations, licensee implementation of those regulations, and NRC oversight) is adequate to ensure that the CLB is maintained.<sup>9</sup>

The Commission decided to explore the value of compiling the CLB for currently operating reactors because of the significant consideration given to this topic during the deliberations for the license renewal rule. In November 1991,<sup>10</sup> the Commission directed the staff to solicit industry participants for a pilot program to compile CLBs and to provide the Commission with information and recommendations concerning the usefulness of CLB compilation for all operating plants.

When no licensees volunteered, the staff audited 14 facilities to determine licensee practices for maintaining and updating CLB documentation and, as a result of these audits, recommended to the Commission that it not require compilation of the CLB for current operating reactors.<sup>11</sup> As its rationale for its recommendation, the staff stated that it found licensee processes for maintaining and retrieving CLB documentation acceptable, if proper attention was given to particular vulnerabilities and if NRC continued to provide oversight that encourages improvement of these processes. In essence, the staff reaffirmed its findings from its previous consideration to not compile the CLB for license renewal (i.e., the CLB documentation is retrievable, and the NRC regulatory process will ensure the CLB is maintained). The staff, however, did note issues related to specific elements of the CLB that warranted additional staff action. For example, although 10 CFR 50.59 sets up a controlled process for changes to the facility and procedures as described in the FSAR, the staff's principal concern was that an element of the CLB, licensee commitments that are not contained in a plant's FSAR, are not controlled by a similar regulatory process.

Additionally, a Regulatory Review Group (RRG), assembled in January 1993 by the Executive Director for Operations (EDO) to identify where efficiencies could be gained in regulatory requirements, recommended changes to the regulatory process that addressed the additional staff actions identified in SECY-92-314. The RRG recommendations included rulemaking to define "commitment" and to describe a change process for commitments in 10 CFR 50.54. Additionally, the RRG recommended clarifying the scope and depth of the term "design bases" and incorporating a definition of "current licensing basis" into 10 CFR Part 50, consistent with the definition in Part 54. In its plan for implementing the RRG's

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<sup>9</sup>56 *Federal Register* 64951, "Nuclear Power Plant License Renewal," December 13, 1991.

<sup>10</sup>NRC memorandum, "COMJC-91-003—Current Licensing Basis for Operating Plants," from the Secretary of the Commission to the EDO, November 29, 1991.

<sup>11</sup>SECY-92-314, "Current Licensing Basis for Operating Plants," September 10, 1992. The Commission returned the paper to the staff on October 15, 1993, for further consideration. Following additional reports to the Commission from the staff (OPP-92-02, SECY-94-003, SECY-94-066), the Commission voted to approve the recommendations in SECY-92-314.

recommendations,<sup>12</sup> the staff proposed exploring the endorsement of an industry commitment management guideline rather than immediately proceeding with rulemaking as suggested by the RRG. The staff also proposed to look again at the definition of CLB and design bases to determine what, if any, additional clarifications were necessary in 10 CFR Part 50.

As a part of the immediate followup actions to the concerns regarding commitments, the staff conducted additional audits of programs at seven licensee facilities to determine how licensees identify, track, implement, and change commitments. The staff concluded from its reviews that the audited licensees had developed processes for managing commitments they make to the NRC and for controlling changes to these commitments, even though licensees are not required to report changes to commitments that are not included in their license or FSAR.<sup>13</sup> Similar to its previous conclusion on compiling the CLB, the staff concluded that the licensees' conservative implementation of their administrative processes and the NRC's regulatory process, as described in 10 CFR Part 54, ensure the CLB will be maintained to provide an acceptable level of safety. However, consistent with the previous RRG findings, the staff confirmed that licensees and NRC staff do not have a clear understanding of when commitments can be changed without NRC consultation. The staff began efforts to address the issue of commitments, but additional work is necessary.

The staff, as proposed in SECY 94-003, reviewed the Nuclear Energy Institute's (NEI's) draft guidance document for managing commitments and reported the results of its review to the Commission in December 1995.<sup>14</sup> The staff informed the Commission that it had found the document an acceptable guide for licensees to follow for managing and changing their commitments to the NRC. The staff further stated that it would evaluate the need for additional actions regarding commitment management after licensees had gained experience using the NEI guideline.

The staff reexamined the definitions of CLB and design bases and documented the completion of these actions in SECY-96-024.<sup>15</sup> In this paper, the staff stated that it determined that minimal benefit, if any, would be gained by revising the definition of CLB contained in 10 CFR Part 54, or by incorporating the definition into Part 50. The paper also reported on the Office of the General Counsel's review of the statements of consideration for Part 54 and that office's support for the position that the regulatory history of the current definition of CLB points to a broad reading so as to include all licensee commitments remaining in effect that were made in docketed correspondence, and not just those necessary for ensuring compliance with legal requirements and the plant-specific licensing basis. Because the broad interpretation of the current definition is consistent with the commitment change process defined in the NEI commitment

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<sup>12</sup>SECY-94-003, "Plan for Implementing Regulatory Review Group Recommendations," January 7, 1994.

<sup>13</sup>SECY-94-066, "Evaluation of Issues Discussed in SECY-92-314, 'Current Licensing Basis for Operating Plants'," March 15, 1994.

<sup>14</sup>See footnote 5 on page 7.

<sup>15</sup>SECY-96-024, "Semiannual Status Report on the Implementation of Regulatory Review Group Recommendations," February 2, 1996.

management guideline, the staff saw no benefit to revising the definition or to incorporating it into Part 50.

The staff also stated in SECY-96-024 that the existing definition of design bases was unambiguous and no benefit would be gained from modifying it. The staff had reviewed earlier work on design bases and determined that the definition did not need to be revised.

### **C. Maintaining the CLB: The Regulatory Process**

Licensees are expected to know their licensing basis, to have appropriate documentation that defines their design bases, and to have appropriate procedures for performing necessary assessment of plant or procedure changes. Adherence to CLB is a licensee's responsibility. The NRC verifies the licensee's adherence to aspects of the CLB through its regulatory oversight program. Assurance of continued licensee compliance with its current licensing bases, therefore, rests on (1) the licensee's programs and NRC's rules and regulations and (2) NRC's regulatory oversight. Collectively, these two parts constitute the regulatory process. The key elements of the regulatory process are briefly discussed next.

#### **1. Applicable Rules and Regulations**

The NRC establishes regulations that set standards for licensees and mandate notification and reporting requirements. The required notifications and reports enable the NRC to, in a timely manner, identify issues that can potentially affect safety and to take appropriate oversight actions. One expectation the NRC has of licensees, delineated in Section 50.9, is that licensees will provide the NRC with complete and accurate information. The operating license that the Commission issues under authority of the AEA describes the facility and contains specific conditions imposed on the facility and licensee, and incorporates the technical specifications for operation as required by 10 CFR 50.36 and approved by the NRC. Other conditions, such as requirements for plans or programs dealing with quality assurance, emergency planning, and safeguards, are incorporated into the license through 10 CFR 50.54, "Conditions of Licenses." Sections 50.90, 50.91, and 50.92 establish the process for changing the license. Section 50.54(f), which is made a condition of all operating licenses, requires licensees to submit written information under oath or affirmation when requested by the Commission to determine if a license should be modified, suspended, or revoked. This rule further provides that no reason for the Commission's request need be prepared if the information is sought to verify licensee compliance with the CLB. This exception from justifying a request for information is the only use of the term "current licensing basis" in 10 CFR Part 50.

The contents of an application for an operating license are delineated in 10 CFR 50.34 and include (1) the FSAR, (2) a safeguards contingency plan, (3) a physical security plan, (4) an evaluation of the facility against the standard review plan, and (5) evaluations to show that alternative methods to standard review plan criteria are acceptable. By the same regulation, FSARs contain a description of the plant and present the design bases for the facility and limits on the facility's operation. FSARs also present the safety analysis for the facility's structures, systems, and components. A standard content and format for safety analysis reports was developed in the early 1970's and revised several times until 1978, which is its present form. This standard is published in RG 1.70, "Standard Format and Content of Safety Analysis Reports for Nuclear Power Reactors."

The term "design bases" is defined in 10 CFR 50.2, "Definitions." The definition covers the specific functions that systems, structures, and components need to perform, the parameters that need to be controlled to assure their functions, and the values that bound the design. Section 50.34(b) requires FSARs to "present the design bases" for the facility. In the late 1980's, NRC design inspections found some licensees that were not adequately controlling their design bases and that did not have a good understanding of the design bases and their relationship to the licensing basis and design margins for technical specifications. By 1990, the staff recognized that licensing documents, including the safety analysis report, did not contain all the information needed by a licensee to engineer plant modifications, but were an important repository of design-related information that is necessary for developing design-basis documents.<sup>16</sup> The agency's deliberations on design-basis issues resulted in a policy statement that recognized the importance of licensees maintaining current and accessible design information. The policy statement was based on existing regulatory processes and requirements that addressed the accessibility of design bases and control of design information. The Commission believed that licensees should assess the accessibility and adequacy of their design-basis documents and that such assessments would provide licensees with "current design documents and adequate technical bases to demonstrate" that the plant configurations were within the design bases, intended safety functions can be performed, and plants were being operated consistent with the design bases.<sup>17</sup>

Changes to a facility and procedures as described in FSARs are regulated by 10 CFR 50.59, "Changes, tests, and experiments," and 10 CFR 50.71(e), "Maintenance of records, making of reports." Section 50.59 establishes the criteria for determining if a change requires prior NRC approval. Section 50.71(e) requires licensees to periodically update their FSARs to reflect information and analyses submitted to the Commission by the licensee or prepared by the licensee pursuant to Commission requirements. The revisions to the updated FSAR are to include the effects of changes made in the facility or procedures described in the FSAR, safety evaluations for requested license amendments and determinations of no unreviewed safety question, and safety analyses conducted at Commission request to address new safety issues.

The staff evaluated how licensees update their FSARs as part of its efforts in studying current licensing basis and reported its findings in SECY-92-314. The staff found that licensees' FSAR updates "included considerably less detail than was included in the analyses submitted to the NRC and usually did not include the new licensing basis." References in updates addressing Commission requests "were usually to the NRC's initiating document, such as a generic letter or a new rule, and not to the licensee's correspondence containing the analyses or commitments." The staff also found that "at the time of licensing, [FSARs] contain most of the plant-specific design basis as defined by 10 CFR 50.2," but that "most of the new design bases and commitments made to the NRC after licensing to address generic letters, bulletins, enforcement actions, and licensee event reports (LERs) are not included in the FSARs."

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<sup>16</sup>NUREG-1397, "An Assessment of Design Control Practices and Design Reconstitution Programs in the Nuclear Power Industry," February 1991.

<sup>17</sup>57 *Federal Register* 35455, "Availability and Adequacy of Design Bases at Nuclear Power Plants; Policy Statement," August 10, 1992.

In addition to requirements for determining which changes to nuclear power plants need NRC approval, Section 50.59 contains requirements for licensees to maintain records of changes to their facilities and to periodically report to the NRC a summary of the changes and the safety evaluations performed by the licensee. Other applicable reporting regulations are Section 50.72, "Immediate notification requirements," and Section 50.73, "Licensee event report system." Both of these regulations require licensees to report to the NRC conditions that place the plant in an unanalyzed condition that "significantly compromises plant safety" or that are outside of the plant's design bases.

## **2. NRC Regulatory Oversight**

The second part of the regulatory process, which provides assurance of continued safe operation of nuclear power plants through compliance with the licensing basis, is the NRC's oversight processes. These processes involve licensing, inspection, enforcement, performance assessment, and evaluation of safety issues. It is important to understand that the NRC's regulatory oversight is intended to and does provide reasonable assurance that licensee activities are conducted in accordance with its licensing basis and does not nearly approach 100 percent coverage of licensee activities. Rather, the NRC's regulatory oversight processes have a dominant focus in areas of safety significance and in areas in which event assessment or licensee performance suggest additional emphasis should be placed so that reasonable assurance of compliance with the CLB related to these areas is provided. The agency's oversight processes assure that plant-specific licensing bases provide reasonable assurance that operation of nuclear power plants will not be inimical to the public health and safety. The processes were described in this context as part of the rulemaking for Part 54.<sup>18</sup>

### **a. Licensing**

The NRC reviews applications for construction permits and operating licenses, and requests for license amendments and exemptions from requirements. Licensees are responsible for submitting requests for licensing actions in accordance with the Commission's regulations and that contain complete and accurate information. In some cases, the NRC has promulgated regulatory guides that contain acceptable methods for preparing such applications. Licensees document their bases for these licensing actions in a safety analysis report for construction permits or operating license applications, or in safety analyses contained in their requests for license amendments or exemptions from requirements.

The Commission may require changes to a plant's licensing basis, or a licensee may seek changes to its licensing basis. These changes are subject to the Commission's regulatory controls with respect to changes, including 10 CFR 50.59, 50.90, 50.91, and 50.92. Under Section 50.59, licensees may make changes to their facilities without Commission approval if certain conditions are met, and documentation of these changes must be maintained for specified periods of time. A licensee may also request Commission approval to change its licensing basis or facility using the license amendment process in Sections 50.90 and 50.92. These regulatory controls ensure that a documented basis

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<sup>18</sup>NUREG-1412, "Foundation for the Adequacy of the Licensing Bases, A Supplement to the Statement of Considerations for the Rule on Nuclear Power Plant License Renewal (10 CFR Part 54)," December 1991.

exists and that the Commission's review and approval is obtained prior to implementation of licensee-initiated changes to the licensing basis that raise unreviewed safety questions or involve changes to the technical specifications,

**b. Inspection**

The Commission's inspection program is its principal process for collecting information related to nuclear power plant operation and performance. Through direct observation and verification of licensee activities, the program helps the agency determine whether a facility is being operated safely and whether the licensee is in compliance with the NRC's regulatory requirements and the facility's CLB. The NRC's inspection program is a sampling program and does not examine every activity or item, but is intended to verify, through carefully selected samples, whether activities are being properly and safely conducted. Additionally, although the Commission's approach to inspection in the early 1970's stressed reviewing licensee program documents for compliance with regulations, the approach evolved in the 1980's to emphasize reviewing and directly observing operational activities.

The inspection program allocates NRC's inspection resources among three types of inspections: mandatory inspections, regional initiative and reactive inspections, and special-emphasis inspections. Requirements for the three types of inspections are specified in the NRC Inspection Manual. A minimum set of mandatory inspections, referred to as the core program, are performed at each operating unit to evaluate licensee performance and identify potentially significant safety concerns. The core program inspections are performed by resident inspectors located at each facility and by regional specialist inspectors. These inspections emphasize observations and evaluation of ongoing facility operations and supporting activities affecting the safety function of facility systems, structures, and components.

Initiative and reactive inspections are conducted by the staff in response to concerns with plant safety performance or in areas the NRC believes the greatest safety benefit can be gained. The initiative component of the inspection program is used to follow up on problems identified in licensee performance during mandatory inspections, including verifying licensee actions in response to known noncompliance with regulations. The reactive component of the program allows NRC to respond to allegations, unusual circumstances, and unforeseen operational events.

Special-emphasis inspections include team inspections of selected areas of plant operations, inspections to follow up on generic safety issues, and special headquarters team inspections that are intended to address a specific area of concern regarding safe operations.

**c. Enforcement**

NRC's regulatory oversight also involves taking action against licensees for not complying with their licenses or the Commission's regulations. The Commission issues notices of violation that require licensees to correct the condition and may impose civil penalties in the form of fines for certain serious violations. The Commission also may issue orders to ensure appropriate corrective actions are taken. The sanctions imposed through the enforcement process are based on the safety or regulatory significance of the issue being

enforced. The NRC may choose to exercise discretion and either escalate or mitigate enforcement sanctions within the Commission's statutory authority to ensure that the resulting enforcement action appropriately reflects the level of NRC concern regarding the violation at issue and conveys the appropriate message to the licensee. Consistent with the staff's emphasis on operational safety performance, the Commission also may exercise enforcement discretion in cases where a "licensee's compliance with a Technical Specification (TS) Limiting Condition for Operation or with other license conditions would involve an unnecessary plant transient or performance of testing, inspection, or system realignment that is inappropriate with the specific plant conditions, or unnecessary delays in plant startup without a corresponding health and safety benefit."<sup>19</sup> In these circumstances, the NRC staff may choose not to enforce the applicable technical specification or other license condition. However, the agency exercises such discretion only in rare cases.

Licensees are responsible for correcting the conditions that led to the enforcement action and to respond to the NRC in writing describing the corrective actions and steps to prevent recurrence. The licensees' actions described in written responses to enforcement actions are considered by the agency to be commitments. The NRC expects licensees to fully comply with requirements and to fulfill those commitments licensees make that bring them back into compliance. A licensee's failure to honor such a commitment may result in the agency issuing an order that requires adherence. Inaccurate statements made to the NRC may result in enforcement action through 10 CFR 50.9.

#### **d. Performance Assessment**

The performance data of each nuclear power plant are periodically reviewed on a short-term basis to provide NRC management with a current status of plant performance. These periodic assessments, called "plant performance reviews" (PPRs), are conducted at least every 6 months and assist NRC managers in determining the focus and planning for inspection over the next 6 months.

Senior management meetings (SMMs) are held about every 6 months to review the individual performance of all nuclear power plants nationwide and to bring to the attention of the highest levels of NRC management those plants whose operational safety performance is of most concern.

The Systematic Assessment of Licensee Performance (SALP) process is used by the NRC to evaluate each nuclear power plant's long-term performance and to provide an avenue for discussion of performance between the licensee and the NRC. SALPs are performed on each plant every 12 to 24 months by the NRC staff and a SALP Board of NRC managers. The Board evaluates information reviewed and summarized by the staff from inspections, enforcement actions, the latest PPR, performance indicators, licensee self-assessments, third-party assessments, site visits by the SALP board, and management meetings with the power plant staff. NRC uses the SALP process for long-term resource allocation and to identify areas for inspection emphasis.

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<sup>19</sup>NUREG-1600, "General Statement of Policy and Procedure for NRC Enforcement Actions (Enforcement Policy)," Section C, "Exercise of Discretion for an Operating Facility."

The NRC's Integrated Performance Assessment Process (IPAP) was developed because the agency recognized the need for an independent, in-depth review of existing performance data. The IPAP was designed to verify the ongoing and short-term assessment activities of the NRC by independently reviewing nuclear power plant performance for the previous 2 years. The process also assesses the implementation of certain NRC regulatory programs and provides for the validation and correction of program-related concerns. Although originally planned to be conducted at all plants approximately every 4 years, other inspection priorities have reduced the reviews to only plants of specific concern. The need for an in-depth, integrated assessment of performance data still exists and should be accomplished without reducing the amount of inspection, which provides the majority of the data for assessing performance. The staff is evaluating the effectiveness of IPAP and will make recommendations to the Executive Director for Operations following the evaluation.

All the activities and processes described above provide information used at the SMMs. The results of PPRs, SALPS, and IPAPs (if recently conducted) are used as the primary inputs to the SMM screening meetings (held about 2 months before each SMM). At the screening meetings, nuclear power plant performance is reviewed for all plants. Generally, if the trend of a nuclear plant's performance appears to be declining significantly or if there is significant concern regarding its performance, the plant will be discussed at the upcoming SMM. After the screening meeting, NRC staff integrates information collected from inspections, enforcement data, and performance indicators, and other information that characterizes power plant operational performance. The senior NRC managers review the integrated plant information and plan actions for those plants whose performance is of concern. Those actions can include increased NRC management communication with licensee management over performance issues, increased inspections in areas of concern, sending a letter to those plants whose performance is significantly declining, and placing poorly performing plants on the "watch list." The SMM process also recognizes plants that are performing very well.

e. Evaluation of Safety Issues

The NRC has an integrated process for reviewing and analyzing operating experience to identify specific events and generic situations for which insights may lead to new safety concerns, including issues related to the design of the plants. For many safety-related operational events, NRC resident inspectors perform initial investigations under the regional office's inspection oversight. In addition, the technical aspects of potentially significant events may be studied by several NRC offices such as the AEOD, the NRR, and the Office of Nuclear Regulatory Research (RES).

The results of followup activities to operational events are presented to an NRC panel to determine if the issue (1) is generic, (2) is safety significant, and (3) requires a technical resolution or a regulatory response. For those issues requiring a regulatory response, the NRC may issue some form of generic communication, such as a bulletin or letter to all licensees, it may initiate rulemaking to issue new or modify existing regulatory requirements, or it may refer the issue to RES if its evaluation will be lengthy.

The agency requests that licensees take action when such actions or new regulatory requirements are judged to be appropriate to resolve the safety issue and when such actions are necessary to (1) bring the facility into compliance with its licensing basis,



(2) ensure the facility provides adequate protection to public health and safety, or  
(3) satisfy newly defined levels of adequate protection to public health and safety. If the NRC finds these actions should be required for any other reason, the NRC must analyze the requirements in accordance with 10 CFR 50.109 to show that there is a substantial increase in the overall protection to public health and safety or the common defense and security, and that the costs of implementation are justified in view of this increased protection.

### III. STATEMENTS OF PROBLEMS

The task group's evaluation of staff reviews and inspections found that the fundamental regulatory processes are generally effective. The experience at Millstone, Haddam Neck, and several other plants indicated the existence of some problems and weaknesses in the processes.

#### A. Rules and Regulations

As discussed in the previous sections, the regulations establish the framework for licensing reactors and for making necessary licensing changes throughout the life of the plants. The various reviews evaluated by the task group found that the existing regulations are currently sufficient for regulation of operating nuclear power plants. The task group found no regulations that require significant changes. However, changes may be warranted for some regulations to improve understanding and implementation in some areas.

The staff's review of how 10 CFR 50.59 is implemented found differences in interpretation between NRC staff and licensees and identified issues that need to be resolved in the use of 10 CFR 50.59. The staff's evaluation and positions are discussed in a separate paper, which also presents several related policy issues for the Commission's consideration.

In 1980, Section 50.71(e) was promulgated to periodically update FSARs to contain "all the changes necessary to reflect information and analyses submitted to the Commission by the licensee." The FSAR revisions are to include the effects of changes to the plant as described in the FSAR, license amendments and safety evaluations that support findings of no unreviewed safety question, and safety analyses done at the Commission's request to address new safety issues. As implemented, the agency and nuclear power industry did not interpret the rule to require adding to FSARs new design bases or commitments for new regulations, generic issues, or plant-specific events or enforcement.

The agency's survey of refueling practices identified several plants that had not updated their FSARs to reflect analyses submitted to the NRC for associated license amendments.<sup>20</sup> The emphasis placed on inspecting associated sections of FSARs over a 3-month period early in 1996 identified hundreds of discrepancies between plants and their FSAR descriptions. Several of the discrepancies were related to issues for which the

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<sup>20</sup>NRC memorandum, "Report on Survey of Refueling Practices," from EDO to the Commission, May 21, 1996.

agency took escalated enforcement actions; the majority of the discrepancies were of low safety significance.<sup>21</sup>

Both Sections 50.59 and 50.71(e) contain requirements for licensees to periodically submit reports to the agency on modifications made to the plant and changes to the FSAR, respectively. The Millstone lessons-learned task group concluded that the staff generally does not review the reports. The agency has a process for reviewing and inspecting licensees' implementation of Section 50.59 that is based on assuring plant changes are appropriately reviewed by licensees and that licensees are making the correct decision on those changes that require prior NRC approval. Therefore, the periodic reports submitted by the licensees typically have not been the focus of reviews by the NRC staff. Although the Project Manager's handbook contains guidance for project managers to review the periodic FSAR updates, it indicates that the updates should contain only information previously presented to the project manager.

#### B. Licenses, Technical Specifications, Orders, and Exemptions

Other requirements imposed on licensees are contained in the operating licenses, technical specifications, orders, and exemptions. The technical specifications form the basis for the majority of violations of requirements cited by the agency because of the close relationship of the technical specifications to daily plant operations. However, long-term noncompliance with other legally binding requirements, such as license conditions, also have been recently identified.

Operating licenses and technical specifications vary from plant to plant and can differ significantly between earlier licensed plants and later licensed plants, especially for those plants with customized technical specifications. In addition, the plant-specific nature of reviewing and approving license amendment requests has contributed to the variations in these documents. For example, following the accident at Three Mile Island, some licenses contained a condition that imposed maximum 8-hour shifts for control room operators. For some other plants, the restrictions were placed in the technical specifications. As operating shifts evolved to 12 hours in much of the industry, the restrictions at most plants were appropriately changed or deleted, but, for a few plants, the outdated license conditions were apparently overlooked, causing unintentional noncompliance with licenses, but without adverse safety consequences. After this problem was discovered at one plant, the staff reviewed all the license conditions of all plants and addressed the discrepancies and inconsistencies it identified.

Technical specifications are developed in accordance with agency regulations and are reviewed and approved by the agency; they generally do not include specifications or limiting conditions for operation (LCOs) associated with spent fuel pools. This absence of specifications reflects the relative significance of spent fuel pool systems to other plant systems. However, LCOs may be required for parameters associated with the spent fuel pool. For example, the standard technical specifications used at many plants contain an LCO for the minimum time between reactor shutdown and fuel movement. This LCO limits the consequences of an accidentally dropped fuel bundle. A similar parameter is one of many input assumptions in the design analysis of the spent fuel pool cooling systems

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<sup>21</sup>NRC memorandum, "Final Safety Analysis Report Inspection Results and Planned Improvements," from EDO to the Commission, September 17, 1996.

discussed in FSARs, and does not necessarily pertain to any accident analysis. This can lead to the situation of a plant with an LCO time for moving fuel that is significantly less limiting than the time specified in the FSAR discussion of the spent fuel pool.

Section 50.36, "Technical specifications," describes the items required to be included in a facility's technical specifications, which are part of the facility license. The items required include LCOs, which are the lowest functional capability or performance levels of equipment required for safe operation of the facility. However, the primary focus of Section 50.36 is on requirements for power operations. As a result, there is usually limited information regarding plant "operation" while shut down and typically there is no LCO for the fuel pool cooling system. Had an LCO for the fuel pool cooling system existed, e.g., heat load added to the pool must be within the heat removal capacity of the cooling system with appropriate margins and single-failure assumptions, then the design-basis considerations would have been preserved.

Spent fuel pools were considered for inclusion in the current shutdown rulemaking. The staff determined that a new fuel storage regulation cannot be supported by claiming a substantial increase in the overall protection of public health and safety. Design problems were identified through NRR's spent fuel pool action plan<sup>22</sup> and will be rectified at operating reactor plants through plant-specific backfits. The present approach in the current proposed shut down rule allows licensees to retain their present design bases or to voluntarily implement a performance-based option.

The agency has not been consistent in following up on or verifying aspects of plant-specific licensing actions. As discussed in the Part 1 report, verifying licensee commitments associated with generic licensing activities is controlled by a process and has been generally effective, although problems found at Haddam Neck and Millstone with the station blackout system and maintenance programs indicate a need for improvements in this area. However, the agency has no process in place expressly for verifying implementation of commitments made for plant-specific licensing actions or activities. Changes to technical specifications, which account for the majority of license amendments, are continually subject to verification through the inspection program because of the importance of the technical specifications to daily operations. However, new license conditions, assumptions used in the safety analysis or amendment requests, and information in the staff's safety evaluations are not expressly verified by the agency's inspection program.

### C. FSARs and Approved Plans

Several factors have contributed to the varying degree of completeness of FSARs that currently exists. Recent inspection findings also revealed a number of discrepancies

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<sup>22</sup>The staff's resolution of issues from the spent fuel pool action plan was described in NRC memorandum, "Resolution of Spent Fuel Storage Pool Action Plan Issues," EDO to the Commission, July 26, 1996. The completion of the action plan was documented in the NRR "Director's Monthly Status Report," dated October 11, 1996. Additional information and schedule regarding plant-specific actions, which remain to be completed, is contained in NRC memorandum, "Response to Staff Requirements Memorandum Dated August 27, 1996,—Briefing on Spent Fuel Pool Cooling Issues," EDO to the Commission, October 2, 1996.

between the FSAR description and the facility, indicating weaknesses in licensees' implementation of change control processes, such as 10 CFR 50.59, in licensees' updating of their FSARs, in original design engineering or construction, and in NRC's oversight. Overall, the staff has found that some licensees have failed to appropriately maintain or adhere to plant design bases, and assure that updated FSARs properly reflect the facilities.

The licensee's analysis of its refueling practices at Millstone (ACR 7007) concluded that the plant's original FSAR contained errors and omissions, that the plant's administrative processes (if followed precisely) would not have maintained the FSAR accurately, and that plant personnel did not fully understand the relationships among various documents within the licensing and design bases of the plant. The NRC's special team inspection verified the licensee's findings and found indications of similar problems at Haddam Neck.<sup>23,24</sup>

Other efforts by the staff, such as the survey of refueling practices and FSAR inspection focus, found other plants that were inconsistent with their FSARs, and noted that some FSARs contained hundreds of minor discrepancies.<sup>25</sup> The agency recognized that FSARs did not contain the complete CLB when it promulgated the license renewal rule, 10 CFR Part 54. In 1992, the staff acknowledged<sup>26</sup> that neither the NRC nor industry have interpreted the FSAR update rule (Section 50.71(e)) to require new commitments or design bases for new rules, generic letters, bulletins, enforcement actions, and event reports be included in the FSAR. In SECY-92-314, the staff concluded that revising the interpretation of the update rule to include all of the CLB was neither cost effective nor a substantial benefit to safety. The staff recommended to the Commission that it not require licensees to compile their CLB or revise Section 50.71(e) to include the entire CLB. The Commission approved the staff's recommendations on May 19, 1994.<sup>27</sup>

The agency's lack of emphasis on verifying FSARs contributed to the inadequate upkeep of FSARs by licensees. Although the update rule required periodic revisions to FSARs, the agency does not systematically review the updates or specifically include verification of FSAR updates in its inspection program for operating reactors. The program was recently strengthened, in response to the issues raised at Millstone, to emphasize the use of FSARs in preparing for inspections.

The staff's review of how Section 50.59 is implemented (discussed in more detail in Section III.A, above) also raised issues relating to FSARs. In addition to the issues previously discussed, the staff's paper on Section 50.59 also addresses whether licensees may remove information from FSARs that is not directly associated with a change to the plant or procedures.

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<sup>23</sup>NRC inspection report 50-213/96-201, "Special Inspection of Engineering and Licensing Activities at Haddam Neck—Connecticut Yankee," July 1996.

<sup>24</sup>NRC inspection report 50-336,423/96-201, "Special Inspection of Engineering and Licensing Activities at Millstone Nuclear Power Station," September 1996.

<sup>25</sup>See footnotes 20 and 21 on page 17.

<sup>26</sup>NRC memorandum, "Current Licensing Basis," from EDO to Commissioner Curtiss, December 4, 1992.

<sup>27</sup>See footnote 11 on page 9.

#### **D. Commitments in SERs, Event Reports, and Responses to Generic Communications**

The Millstone lessons learned task group noted from its evaluation of various staff reviews that the reviews had found that in some cases licensees have not fulfilled commitments recorded in documents other than the license, technical specifications, and FSAR, such as staff SERs, licensee event reports, responses to generic communications, and other communications with the agency. (Responses to notices of violations are discussed separately in Section III.E, below.) Such commitments are not binding on licensees, although the agency may issue an order to enforce implementation of a commitment. The agency has no requirements that govern commitments found outside of the operating license or FSAR, other than Section 50.9, which requires the information to be complete and accurate at the time it is given to the NRC. Therefore, the agency may be unaware of the status of some commitments because the NRC does not consistently follow up on or inspect commitments associated with plant-specific licensing actions and because licensees do not consistently inform the NRC of changes to existing commitments. Further, the large amount of paperwork associated with determining the history of specific commitments compounds the NRC's difficulty in verifying commitments. Currently, commitments are defined only in an industry guideline that the agency endorsed in January 1996,<sup>28</sup> and the agency is still in the process of evaluating the effectiveness of the guideline.

Previous guidance<sup>29</sup> to the staff noted that commitments made by the licensee, either in writing or orally, are not legally binding on the licensee and the staff should not normally rely upon such commitments for granting staff approvals. Further, commitments that the staff determined are necessary elements for supporting its approval of a licensing action should be documented by the licensee and clearly spelled out in the staff's safety evaluation report and ultimately reflected in the plant's FSAR. The guidance also indicated that, if the commitment was of such importance that it should not be changed without NRC approval, it should be incorporated into the technical specifications or made a condition of the license. At issue at Maine Yankee was the licensee not fulfilling certain conditions that the staff relied upon in approving the use of a computer code and spelled out only in the staff's safety evaluation report.

The previous guidance to the staff reminded reviewers not to rely on such commitments in approving licensing actions. Licensee commitments that were fundamental to the staff's decisions should be in documents appropriate to their importance. Commitments that should not be changed without prior NRC approval had to be in the license or technical specifications, and commitments that licensees should review before changing had to be in the FSAR. However, the agency did not perpetuate the guidance when the set of documents containing the guidance was revised and reissued in 1989, and the agency has not implemented Section 50.71(e) to add such commitments to FSARs.

As part of its response to the issues raised at Maine Yankee, the staff is currently developing new processes and guidance to explicitly identify, track, enforce, and verify implementation of commitments associated with licensing actions. The staff is pursuing an

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<sup>28</sup>See footnote 5 on page 7.

<sup>29</sup>NRR Office Letter No. 34, "Utility Commitments," from Harold R. Denton, Director of NRR, to all NRR employees, July 31, 1981; Revision 1, May 20, 1985.

option of identifying in a license condition those commitments that the staff relies upon for its regulatory decision.

#### **E. Responses to Notices of Violations**

A subset of commitments that licensees make to the NRC are those in responses to cited violations. Such commitments are subject to followup and inspection through the agency's inspection program. The inspection program includes requirements for verifying that licensees implement their stated corrective actions and are again in compliance with agency requirements. The inspection program is a sampling process—some noncompliance will occur without being identified by the NRC. Once noncompliance is documented and enforcement action taken, informed decisions can be made regarding the appropriate extent of followup verification consistent with other inspection demands. The sampling nature of the program also extends to following up on licensee actions in response to violations and, therefore, some actions either are not verified or not followed to completion. The special inspection team at Millstone and Haddam Neck found examples of uncompleted actions taken by the licensee in response to enforcement, which had been reviewed at some point by NRC inspectors in accordance with the inspection program.

The agency's enforcement process acknowledges that some "violations of minor safety or environmental concern...are below the level of significance" of warranting formal enforcement action,<sup>30</sup> and does not require inspectors to discuss these minor violations in inspection reports. The current policy regarding minor violations needs to be reviewed in order to determine if all violations of NRC requirements, regardless of their safety significance, should be documented in agency records when they come to the agency's attention. Such a policy change would (1) help to eliminate the perception that the agency tolerates noncompliance, (2) make examples of minor violations available when the agency evaluates licensee performance, (3) would allow licensees the opportunity to know all the instances of noncompliance found by inspectors and to take appropriate actions, even though the agency may not follow up on the items, and (4) would allow the NRC to oversee the categorization of lower-level violations.

Any changes the agency may contemplate making in the inspection program for following up on violations and in the enforcement and inspection programs for documenting minor violations must consider the effects of such changes on agency resources. Increases in verifying enforcement corrective actions, or recording and documenting all minor violations, will require an increase in or redirection of inspection resources, which are necessary for ensuring the current level of operational safety.

#### **IV. ACTIONS AND RECOMMENDATIONS**

The actions presented below are categorized by three major topics, i.e., licensing basis, design bases, and FSARs. The actions also are separated by those directly affecting licensees and their operations and those that principally affect NRC processes. Although the actions within each topic are presented separately, they are closely interrelated because of the correlation of the major topics. The licensing basis for plants is found in

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<sup>30</sup>NUREG-1600, "General Statement of Policy and Procedure for NRC Enforcement Actions (Enforcement Policy)," section IV, "Severity of Violations."

numerous documents in the plant's docket file, including the license application, license amendment requests, other licensee safety analyses given to the NRC, and other reports and correspondence from licensees. A key part of the operating license application is the plant's FSAR, which is required to be periodically updated after the license is issued to ensure its information is accurate, current, and complete. By regulation, the FSAR contains the design bases for the plant, which makes the design bases (as defined in regulation) a part of the licensing basis.

The actions discussed in the following sections are also separated into short-term and long-term actions. The short-term actions are those the agency can take immediately and could be interim until other longer-term actions are implemented. The staff realizes that the long-term actions could have a significant impact on licensees, but also recognizes that they may not be subject to regulatory analyses pursuant to Section 50.109, "Backfitting." The actions recommended below do not, as described in Section 50.109, cause the "modification of or addition to systems, structures, components, or design of a facility; or the procedures...required to design, construct, or operate a facility." The staff also believes that, if subjected to such an analysis, the actions would not show "a substantial increase in the overall protection of the public health and safety or the common defense and security to be derived from the backfit and that the direct and indirect costs of implementation for that facility are justified in view of this increased protection." Therefore, should the Commission endorse the recommended long-term actions, it should be with the understanding that staff resources may be used in pursuing actions that may not be justifiable under 10 CFR 50.109 criteria. The staff also recognizes that the requirements of the Small Business Regulatory Fairness Act may apply to certain actions.

#### A. Licensing Basis

The licensing basis for each operating power reactor evolved over time and, for various reasons, is unique to each plant. The specific information in the bases is found in many types of documents, although the information is not expressly identified as such. The information contained in these documents also is subjected to varying degrees of control.

The Millstone lessons-learned review of the various staff activities found that major licensing-basis documents (primarily FSARs) for a number of plants contained many discrepancies, and some plants were not complying with certain license conditions or not incorporating pertinent information into associated plant procedures. The staff's survey of refueling practices at all reactor sites found pertinent licensing information in several key types of documents.

As previously recognized and considered during rulemaking for Part 54, the lessons-learned review also showed that both licensees and the NRC had difficulty in retrieving licensing-basis information from their record sources. For the NRC, the records contain a large volume of paper for each docket number, records older than 4 years are placed into storage, and the agency's automated document management system is difficult to use and contains errors and omissions. Although it is the licensee's responsibility to know and comply with its licensing basis, difficulty in retrieving it from agency records affects NRC's ability to independently verify compliance.

The following options and recommendations are focused on assuring licensees know and properly use their licensing-basis information and on improving NRC's ability to independently identify and retrieve such information.

### **INTENDED RESULT OF ACTION**

*Provide increased assurance that licensees know and are complying with their licensing basis without imposing undue regulatory burden on them. In addition, improve NRC's systems to independently identify and retrieve plants' licensing bases.*

### **SHORT-TERM ACTIONS**

The following actions can be implemented by the staff within the current regulatory framework and do not need Commission-level decisions.

#### **Actions Affecting Licensees' Actions and Processes**

Action 1: Have licensees explicitly identify their licensing-basis commitments in future written communications with the agency. This action would clearly identify new commitments made by licensees and is the forward looking action that is complementary to Action 5. Through several items on the process improvement plan<sup>31</sup> (PIP) for the Associate Director for Projects (ADPR), the staff is currently determining the feasibility of having licensees add to their FSARs, or NRC add a license condition for, certain commitments made during licensing actions and activities as a condition of NRC's approval.

Action 2: Encourage licensees to use NEI's guideline for managing commitments made to the NRC. The staff endorsed the guideline in January 1996 and began efforts to evaluate its effectiveness. Continuing these efforts will help the NRC determine if additional guidance or rulemaking is necessary.

#### **Actions Affecting NRC's Internal Processes**

Action 3: Continue to implement the ADPR PIP. In addition to the items related to Action 1, above, the plan contains additional actions to improve the agency's licensing process for nuclear power reactors. The actions include ones to (1) better communicate licensing commitments between NRC projects divisions and inspectors, (2) clarify guidance on documents to be reviewed when processing licensing actions, and (3) develop procedures for documenting verbal communications between NRC licensing and review staff and licensees. More than one-third of all the actions on the ADPR PIP have been completed.

Action 4: The ADPR PIP contains several items on developing a process to identify and track licensing commitments made to the NRC by individual licensees. Commitments made to the NRC following the process' implementation will be included. The staff will review

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<sup>31</sup>The ADPR PIP was initially given to the Commission by memorandum from EDO to Commission, "NRR Associate Director for Projects Process Improvement Plan," October 28, 1996. The current PIP, with status for the items, is forwarded to the Commission with the Commission paper that presents this report.



selected past licensing issues to identify existing commitments and to verify their implementation, and take additional actions contingent on the results of the review.

### **LONG-TERM ACTIONS**

The following actions involve establishing new regulations (and modifying existing ones) that change the directions or policies previously established by the agency. Therefore, Commission direction is needed for the staff to pursue these actions.

Action 5: Develop a rulemaking plan to explore the need to require licensees to compile their licensing bases into either the FSAR or some other document that has comparable controls. This action would be required to note all existing licensing-basis commitments and is the retrospective action that is complementary to Action 1 (having licensees identify licensing-basis commitments in future actions).

Action 6: Develop a rulemaking plan to reevaluate whether the NRC should adopt a definition of current licensing basis for 10 CFR Part 50, and whether the definition should be similar to that in 10 CFR Part 54 or some narrower definition.

Action 7: Develop a plan for establishing required controls for licensing-basis commitments not now covered by requirements.

### **RECOMMENDATION**

The staff recommends continuing implementing Actions 1–4, which will improve the identification of new licensing-basis commitments and will establish processes for licensees and the NRC to manage them. The NRC then can inspect licensees' implementation of NEI's commitment management guidance, design control practices, and compliance with licensing-basis documents to determine if new controls need to be imposed on existing licensing-basis information and if long-term Actions 5–7 should be pursued.

### **IMPLICATIONS AND CONSIDERATIONS**

Actions 1–4 should have minimal effect on licensees. Action 1 would result in licensees only highlighting in future submittals and correspondence that information considered to be commitments. Action 2 would help standardize criteria for processes most licensees already use.

Actions 3 and 4 would principally affect NRC processes and staff, and many of the associated action items have been completed or are in progress. Developing systems to identify, track, and follow up on commitments and licensing actions could have significant implications for agency resources. The staff needs time to assess the impacts on resources for proposed systems before fully implementing them.

Actions 5 through 7 could have a significant impact on licensees by imposing new requirements resulting in licensees developing new administrative processes or having to examine their complete set of documents previously submitted to the NRC.

#### **B. Design Bases**

The inspection findings at Millstone, Haddam Neck, and Maine Yankee and the survey of refueling practices indicated that design-basis information has not been appropriately maintained and implemented at these and several other facilities. On the basis of these recent findings, the staff sent 10 CFR 50.54(f) letters<sup>32</sup> to all power plant licensees to get information on design and configuration control processes, problem identification and correction processes, and rationales for ensuring that plants and procedures are consistent with design bases.

In its 1992 policy<sup>33</sup> on adequacy and availability of design bases, the Commission emphasized that licensees are responsible for ensuring that (1) their plants' physical and functional characteristics are maintained and are consistent with the design bases as required by NRC regulations; (2) systems, structures, and components can perform their intended functions; and (3) the plants are operated in a manner consistent with the design bases.

The Commission also recognized that the regulatory framework exists to address the need for accessible design bases and control of design information. The availability of current design and licensing bases will expedite regulatory processes.

The NRC and industry, however, did not implement the FSAR update rule, Section 50.71(e), to require that the updates contain new design bases developed as a result of rules, generic communications, or actions not directly associated with new requirements. As a result of the evolution of licensing, FSARs differ for each plant and can differ significantly between earlier licensed plants (before the accident at Three Mile Island) and later licensed plants.

#### **INTENDED RESULT OF ACTION**

*Provide increased understanding of design bases and greater assurance that facilities are controlling and are in compliance with their design bases.*

#### **SHORT-TERM ACTIONS**

The following actions can be implemented by the staff within the current regulatory framework and do not need Commission-level decisions.

##### **Actions Affecting Licensees' Actions and Processes**

Action 8: Encourage licensees to explicitly identify design bases in future written communications with the NRC. This action would clearly identify new or revised design bases developed by licensees to address new safety issues raised by the Commission and would facilitate their separation from other information in FSARs. This action would be

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<sup>32</sup>NRC letter, "Request for Information to 10 CFR 50.54(f) Regarding Adequacy and Availability of Design Basis Information," from EDO to individual operating power reactor licensees, October 9, 1996.

<sup>33</sup>57 *Federal Register* 35455, "Availability and Adequacy of Design Bases at Nuclear Power Plants; Policy Statement," August 10, 1992.

part of Action 1, identifying licensing-basis commitments. It also is the forward-looking action that is complementary to Action 15.

Action 9: Provide guidance to licensees to implement Section 50.71(e) as explained in the rule's statement of consideration and to include in FSARs new design bases (as defined in Section 50.2) developed at the Commission's request. Design bases are defined in regulation (10 CFR 50.2), are required to be in the FSAR (10 CFR 50.36), and, therefore, changes to them are controlled by regulation (10 CFR 50.59 and 50.71(e)). Therefore, Actions 5 and 6, which may significantly affect FSARs and place controls on information not now controlled, would not greatly affect design bases, even though they are part of the licensing basis. This action may require an analysis pursuant to Section 50.109 as a new interpretation of the Commission's rule and also may be subject to the Small Business Regulatory Fairness Act.

Action 10: Use the information submitted by licensees on their programs in response to the 10 CFR 50.54(f) letters discussed above. The staff will use this information to assign priorities to, and to better focus, design-related inspections, and to help ensure that FSARs properly describe the associated facility.

#### Actions Affecting NRC's Internal Processes

Action 11: Provide increased attention to inspection and enforcement of licensee compliance with Section 50.71(e). The NRC recently issued a change<sup>34</sup> to its enforcement policy that contained examples of various severity level violations of Section 50.71(e). The ADPR PIP includes actions for project managers to verify FSAR updates. The inspection program has been enhanced to reemphasize using FSARs in preparing for all inspections.

Action 12: Reemphasize design inspections. The agency has begun a program of headquarters-led team inspections using contractor inspectors with current experience in nuclear plant design and is considering other design verification activities. These inspections will be in addition to the normal inspections conducted at nuclear power plants to maintain the inspection program's focus on operational safety.

Action 13: Publish guidance for staff on design bases (Section 50.2) and supporting information beyond the design bases (subject of NUREG-1397 and the 1992 policy statement on availability and adequacy of design bases) and their relationship to licensing and inspection.

#### LONG-TERM ACTIONS

The following actions involve establishing new regulations (and modifying existing ones) that change the directions or policies previously established by the agency. Therefore, Commission direction is needed for the staff to pursue these actions.

Action 14: Evaluate the need to establish requirements from the 1992 policy statement on availability and adequacy of design bases at nuclear power plants. As discussed

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<sup>34</sup>61 *Federal Register* 54461, "Policy and Procedure for Enforcement Actions; Departures From FSAR," October 18, 1996.

previously, the Commission stated in its policy that licensees should assess the accessibility and adequacy of their design-basis documents and that such assessments would provide licensees with "current design documents and adequate technical bases to demonstrate" that the configuration of the plants was within the design basis, intended safety functions could be performed, and plants were being operated consistent with the design bases. The responses to the recent 10 CFR 50.54(f) letters on the same topic will be used to help the NRC determine if additional inspections are needed and if voluntary licensee activities have achieved the Commission's expectations or new regulations concerning design-bases programs are needed.

Action 15: Evaluate the benefits of having licensees identify design bases that exist outside their facilities' FSARs and incorporate them into the FSARs. As discussed above, the FSAR update rule was not consistently implemented so that new design bases were incorporated into FSARs; therefore, some design bases exist in other docketed records. This is the historical, complementary action to Action 8.

### **RECOMMENDATIONS**

The staff recommends that Actions 8–13 be implemented to better identify and control new design bases as they are developed, and to better gauge the understanding and use of design bases at individual plants.

The information gathered through the 10 CFR 50.54(f) letters and the design team inspections can be used to determine if additional controls are necessary or if long-term Actions 14 and 15 should be pursued. These results can also be used to determine if individual plants may need to backfit design-basis information into the FSAR or design documents.

### **IMPLICATIONS AND CONSIDERATIONS**

Actions 8–13 will have minimal effect on licensees beyond the effects normally associated with team inspections. Actions 8 and 9 would result in licensees only highlighting in future submittals and correspondence certain information they already need to provide to the NRC and ensuring that new design bases are incorporated into updated FSARs. However, Actions 14 and 15 could have significant affect on licensees and their programs.

Actions 11 and 12 would effect agency resources. Increasing the requirements in the inspection program to inspect and follow up on FSAR updates could divert existing resources from their primary goal of operational safety.

#### **C. FSARs**

Decisions made on actions related to licensing basis and design bases will have an effect on FSARs because of that document's relationship and importance to licensing and design descriptions.

As part of the operating license application, the FSAR for each plant is a major part of the licensing basis for the plant, but is not the complete licensing basis. The FSAR contains the information required by regulation (10 CFR 50.34(b)), including the design bases, and is intended to be an accurate reference for certain information (Section 50.71(e))

submitted to the Commission after the operating license is issued. The ultimate authority for discrepancies still would be the original FSAR plus the plant's docket file.<sup>35</sup>As noted earlier, FSARs vary in level of detail and information contained therein.

10 CFR 50.71(e) requires periodic updates to FSARs that contain "all changes necessary to reflect information and analysis submitted to the Commission by the licensee." However, it has not been implemented to consistently add new design bases or commitments for new regulations, generic issues, or plant-specific actions. The variability in the content of FSARs also contributes to the inconsistent content of FSAR updates in two ways: (1) the updates are to be, as a minimum, at the same level of detail as the original FSAR, and (2) the updates are to include the effects of "all changes made in the facility or procedures as described in the FSAR."

Implementation of Section 50.59 also is affected by the variability in FSARs. Licensees may make changes to their facilities "as described in the safety analysis report" and may conduct tests not described in the safety analysis report without prior NRC approval if the change or test meets certain criteria. Therefore, more recently licensed plants with more detailed FSARs have plant information that is within the scope of 10 CFR 50.59 that earlier licensed plants with less detailed FSARs do not. The staff's evaluation of Section 50.59 and its positions and recommendations are discussed in a separate Commission paper.

#### INTENDED ACTION

*Ensure licensees are updating their FSARs with the appropriate information; determine if it is necessary to establish a standard level of detail for FSAR updates; determine if additional information should be added to updated FSARs.*

#### SHORT-TERM ACTIONS

The following actions can be implemented by the staff within the current regulatory framework and do not need Commission-level decisions.

##### Actions Affecting Licensees' Actions and Processes

Action 9, above, addresses implementing Section 50.71(e) as explained in the rule's statement of considerations and requiring that new design-basis information developed in response to Commission requests be included in periodic updates of FSARs.

##### Actions Affecting NRC's Internal Processes

Action 16: Continue to verify FSAR accuracy through inspections. The inspection program has been modified to reemphasize using FSARs in preparing for all inspections.

Action 17: Identify information to be added to FSARs. The staff could identify, in generic communications and in safety evaluations for licensing actions, information it finds should be included in FSARs. Establishing internal criteria for the level of change control necessary for information relied on for regulatory decisions would facilitate including that

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<sup>35</sup>Generic Letter 80-110, "Periodic Updating of Final Safety Analysis Reports," December 15, 1980.

information in a document controlled by regulations. Also, encouraging licensees to specifically identify their commitments in correspondence and repeating in safety evaluations the commitments made by them in regard to the licensing issue would make such commitments easier to identify.

### **LONG-TERM ACTIONS**

The following actions involve establishing new regulations (and modifying existing ones) that change the directions or policies previously established by the agency. Therefore, Commission direction is needed for the staff to pursue these actions.

Actions 5 and 6 address re-evaluating the need for licensees to compile their licensing basis and the need for adopting a definition for current licensing bases for 10 CFR Part 50. Adding licensing-basis information not now contained in FSARs needs to be part of those evaluations. Such evaluations will also affect decisions on the scope of Section 50.59.

Action 18: Revise RG 1.70 to include format, content, and level of detail for updates to FSARs. Standards for FSAR updates would provide greater consistency in the information added to FSARs. Such standards may require an analysis pursuant to Section 50.109 (and may be subject to the requirements of the Small Business Regulatory Fairness Act) as a new interpretation of the Commission's rule because Section 50.71(e) does not address level of detail for FSAR updates.

### **RECOMMENDATIONS**

The staff recommends implementing Actions 16 and 17. These actions, along with Actions 9 and 11, will make implementation of the FSAR update rule more consistent and will improve the NRC's verification of FSAR information. The results of design-based inspections, inspection focus on FSARs, and the 10 CFR 50.54(f) letters on the adequacy of design-basis information can be used to determine if Action 18 or additional longer term actions are necessary.

### **IMPLICATIONS AND CONSIDERATIONS**

The short-term actions that address licensing basis, design bases, and FSARs would have minimal impact on licensees. In general, these actions would not change the information licensees are already submitting to the NRC, they only highlight the information and ensure that the appropriate information is included in future periodic updates to FSARs.

Actions that identify information from licensing actions or FSAR updates for NRC verification or followup could affect the focus of existing inspection resources.

The long-term actions addressing licensing basis and design bases also could affect what information is in FSARs. In addition, decisions made on these issues, which can change the information in and management of FSARs, also could affect implementation of Section 50.59. (Issues concerning Section 50.59 are presented in a separate Commission paper.)

## **APPENDIX**

### **MILLSTONE LESSONS LEARNED TASK GROUP RECOMMENDATIONS**

#### **Introduction**

The Millstone lessons-learned task group made recommendations in the four major areas of its review: licensing, inspection, enforcement, and licensee reporting. It also made recommendations for management oversight for those agency programs and for the impact on license renewal. The task group's recommendations primarily involve implementation of the major NRC programs for power reactors. Although several of the recommendations have some connection with the policy issues discussed in the Part 2 report, they are not directly affected by decisions on those policy issues.

This appendix includes the recommendations from the "Millstone Lessons-Learned Task Group Report, Part 1: Review and Findings," synopses of management remarks from a review by senior agency managers, and staff actions that can address the recommendations. The majority of the actions listed are from the Associate Director for Projects (ADPR) Process Improvement Plan (PIP).<sup>1</sup> The ADPR PIP was developed to address the concerns and issues raised at Millstone and Maine Yankee that affected NRR's licensing process and project manager organization for power reactors.

## **RECOMMENDATION:<sup>2</sup>**

1. The planned improvements discussed in the memorandum on FSAR inspection results from the EDO to the Commission should be implemented. New inspection guidance developed as a result of the improvements should consider the variations in the level of detail found in updated FSARs. The guidance also must be consistent with the legal and regulatory standing and enforceability of the updated FSARs. [4.1.1]

## **MANAGEMENT REMARKS:**

The agency's position on the standing of FSARs within the regulatory environment has been consistent. Inspection and enforcement of FSAR issues must consider the variation in FSARs on the basis of the date of licensing.

## **STAFF ACTIVITIES:**

### **Ongoing:**

Revising core inspection procedures to include a new requirement and associated guidance for incorporating UFSAR reviews into inspections. Focus is on inspection procedures (IPs) with emphasis on plant systems.

ADPR PIP #28: Review IP 37001 (Section 50.59 programs) for further clarifications in light of recent developments with Sections 50.59 and 50.71(e).

ADPR PIP #31a: Clarify guidance for PM's review of licensee reports under Sections 50.71(e) and 50.59.

ADPR PIP #31b: Train PMs on Section 50.59 inspections and reviews of annual reports.

Incorporate FSAR inspection guidance into regional initiative procedures as the procedures come up for revision.

### **Completed:**

Interim inspection and enforcement guidance was issued to the regions in January and March 1996.



**RECOMMENDATION:**

2. The agency should establish a process for identifying and verifying those aspects of plant-specific licensing actions and activities whose implementation requires agency verification. [4.1.1]

**MANAGEMENT REMARKS:**

The effects on inspection resources need to be carefully considered in making program changes that place additional requirements on inspectors. The focus of the inspection program needs to remain on those activities with the highest safety benefit and on performance-based field observations.

**STAFF ACTIVITIES:**

**Ongoing:**

Compilation of licensing basis for Millstone

ADPR PIP #10b: Develop measures to evaluate the effectiveness of coordination between the regions and NRR PMs.

ADPR PIP #26 a-g: Develop and implement process for identifying, tracking, and verifying implementation of licensee commitments made during licensing actions and activities; including a docket review and verification of requirements and commitments for selected issues.

ADPR PIP #35: Review whether commitments contained in licensee submittals should become part of FSAR or licensing basis.

**Completed:**

ADPR PIP #10a: Coordination between the regions and NRR PMs on issues in licensing tasks

**RECOMMENDATION:**

3. Inspectors should be given more guidance in the area of performance-based inspection and in the proper nexus between strict compliance with regulations and safety. Emphasis should remain on developing performance-based approaches for new regulations and should continue on performance-based changes to existing regulations. [4.1.2]

**MANAGEMENT REMARKS:**

The agency needs to (1) determine if it should change its policy on not documenting minor violations, (2) determine the appropriate balance between its focus on operational safety

and regulatory issues, (3) promulgate that balance through its programs, and (4) monitor inspection reports for compliance and regulatory issues as well as safety issues to assure that balance is maintained.

**STAFF ACTIVITIES:**

**Ongoing:**

Maintenance Rule implementation

Inspector job task analysis

ADPR PIP #12b: PM job task analysis

**Completed:**

None

**RECOMMENDATION:**

4. The inspection program should clearly state management's expectations for identifying, following up, and closing open items. The Inspection Program Branch should assess the regions' use of the open items tracking system and the effectiveness of quality assurance-related inspections in identifying serious problems in licensees' quality assurance programs. [4.1.3]

**MANAGEMENT REMARKS:**

Management needs to determine consistent expectations for treating noncited violations within the inspection program.

The effects on inspection resources and program focus need to be carefully considered in making changes to the program that increase the inspection workload.

**STAFF ACTIVITIES:**

**Ongoing:**

None

**Completed:**

Implementation of associated recommendations from the South Texas Project Task Force

Audit of IP 40500 (resolution of and preventing problems) by NRR's Inspection Program Branch (PIPB)

**RECOMMENDATION:**

5. More focused, design-based inspection teams should be sent to plants of concern. In addition, the NRC's inspection program for engineering should be evaluated for its effectiveness in identifying deep-seated, design-based engineering issues. [4.1.4]

**STAFF ACTIVITIES:**

**Ongoing:**

Design aspect added to IPAP

Increased use of SSFIs with A/E-level contractor support

**Completed:**

Audit of engineering inspections and IP 40500 (resolving and preventing problems) by PIPB.

**RECOMMENDATION:**

6. The staff should develop processes for identifying important aspects of plant-specific licensing actions and activities and for assigning priorities for verifying implementation of those aspects. [Similar to recommendation 2.] [4.2.1]

**MANAGEMENT REMARKS:**

The effects on inspection resources need to be carefully considered in making program changes that place additional requirements on inspectors. The focus of the inspection program needs to remain on those activities with the highest safety benefit and on performance-based field observations.

**STAFF ACTIVITIES:**

**Ongoing:**

Compilation of licensing basis for Millstone

ADPR PIP #10b: Develop measures to evaluate the effectiveness of coordination between the regions and NRR PMs.

ADPR PIP #26 a-g: Develop and implement process for identifying, tracking, and verifying implementation of licensee commitments made during licensing actions and activities; including a docket review and verification of requirements and commitments for selected issues.

**ADPR PIP #35: Review whether commitments contained in licensee submittals should become part of FSAR or licensing basis.**

**Completed:**

**ADPR PIP #10a: Coordination between the regions and NRR PMs on issues in licensing tasks**

**ADPR PIP #41: Review of existing NRR guidance on implementing new regulations.**

**identify, track, and verify commitments that are important to licensing.**

**RECOMMENDATION:**

**7. The agency should reissue existing guidance on commitments and emphasize their enforceability. Also, if the NRC does not want the licensee to change the commitments without first informing the agency, the NRC should re-inform licensees where the commitments must be written down (in which documents). [4.2.1]**

**MANAGEMENT REMARKS:**

**Section VI.D. of the enforcement policy describes the enforceability of commitments and the Enforcement Manual contains guidance on enforcing commitments within FSARs and those within other correspondence on plant dockets.**

**STAFF ACTIVITIES:**

**Ongoing:**

**ADPR PIP #26 a-g: Develop and implement process for identifying, tracking, and verifying implementation of licensee commitments made during licensing actions and activities; including a docket review and verification of requirements and commitments for selected issues.**

**ADPR PIP #35: Review whether commitments contained in licensee submittals should become part of FSAR or licensing basis.**

**Completed:**

**NRR Office Letter 34 proposed as Office Letter 900.**

#### **RECOMMENDATION:**

8. The interpretation and implementation of Section 50.71(e) should be reevaluated. Notwithstanding related policy issues, the update rule as written would encompass most information the agency relies upon with minor changes to internal processes. However, decisions on policy issues related to licensing basis, design basis, and what information should be in FSARs and what can be removed from FSARs could affect the update rule or its application. [4.2.2]

#### **STAFF ACTIVITIES:**

##### **Ongoing:**

Section 50.59 work group and position paper

Revision of Regulatory Guide 1.70 (format and content of safety analysis reports)

ADPR PIP #35: Review whether commitments contained in licensee submittals should become part of FSAR or licensing basis.

##### **Completed:**

Reviews and analyses related to issuing the license renewal rule, Part 54

#### **RECOMMENDATION:**

9. The latest OGC position papers should be reviewed and understood and used to revise enforcement guidance and practices that are consistent with the positions. Should the reference to FSARs in the operating license prove to have significance, consideration should then be given to changing those licenses that do not make direct reference to the FSAR. [4.3.1]

#### **MANAGEMENT REMARKS:**

The agency's position on the standing of FSARs within the regulatory environment has been consistent and is reflected in the current enforcement policy and manual.

#### **STAFF ACTIVITIES:**

##### **Ongoing:**

Enforcement Guidance Memorandum (EGM) 96-005, "Enforcement Issues Associated With FSARs, Section 8.1.3, 'Enforcement of FSAR Commitments'," issued October 21, 1996, and associated revision to the Enforcement Manual

**ADPR PIP #17: Review generic aspects of documents referenced in licenses and technical specifications.**

**ADPR PIP #29: Review processes and policies on relocating information from the technical specifications to the FSAR.**

**Completed:**

**None**

**RECOMMENDATION:**

**10. Policy issues related to what information should be in FSARs and what information may be removed from FSARs should be resolved. [4.3.2]**

**MANAGEMENT REMARKS:**

**Resolution of such issues could eliminate much information that has little significance and could reduce FSAR-related violations that have no safety significance.**

**STAFF ACTIVITIES:**

**Ongoing:**

**ADPR PIP #29: Review processes and policies on relocating information from the technical specifications to the FSAR.**

**ADPR PIP #35: Review whether commitments contained in licensees' submittals of information should become part of FSAR or licensing basis.**

**Completed:**

**None**

## **RECOMMENDATION:**

11. The agency should determine the relevance of Section 50.59 and evaluations for unreviewed safety questions to existing or as-found conditions in plants. After determining relevancy, new guidance should be developed or existing guidance modified to clearly establish actions the agency expects licensees to take in resolving degraded or nonconforming conditions, including the role of Section 50.59. [4.4.1]

## **STAFF ACTIVITIES:**

### **Ongoing:**

Section 50.59 working group and position paper

EGM 96-005, "Enforcement Issues Associated With FSARs, Section 8.1.3, 'Enforcement of FSAR Commitments'," issued October 21, 1996, and associated revision to the Enforcement Manual

ADPR PIP #22: Review how to amend a license when a USQ is involved.

ADPR PIP #31a: Revise IMC 9900 on degraded and nonconforming conditions.

ADPR PIP #31b: Evaluate the need to provide additional training on expected actions for degraded and nonconforming equipment.

### **Completed:**

Technical guidance for Inspection Manual and associated Generic Letter 91-18

## **RECOMMENDATION:**

12. The agency should consider if it needs to do more to ensure that licensees understand the design bases and use them appropriately. The agency should place a priority on adding guidance to and issuing the latest draft of NUREG-1022. [4.4.2]

## **STAFF ACTIVITIES:**

### **Ongoing:**

SECY-96-189 on design-basis 50.54(f) letters

Increased use of SSFIs with A/E-level contractor support

Design aspect added to IPAP

**Completed:**

None

**RECOMMENDATION:**

13. NRC management should ensure that its objectives and expectations are clearly stated, understood, and complied with. Management should have systems in place that measure compliance with agency objectives. The responsibilities for staff positions should be clearly established and the guidance for meeting the responsibilities should be clear, consistently documented and perpetuated, and periodically reviewed for relevance. [4.5.1]

**MANAGEMENT REMARKS:**

Agency downsizing will reduce the number of managers and supervisors who will be available to oversee staff activities and will place greater reliance on the staff to make its own decisions. In light of downsizing, management needs to critically assess agency goals against available resources to accomplish those goals. The following staff activities should be expanded beyond project manager.

**STAFF ACTIVITIES:**

**Ongoing:**

ADPR PIP #3: Place PM's Handbook on NRR internal Web site for wider and easier distribution.

ADPR PIP #4: Revise guidance on technical interface assistance (TIA) process.

ADPR PIP #5: Clarify guidance to PMs on concurrence from technical staff.

ADPR PIP #10b: Develop measures to evaluate the effectiveness of coordination between residents and regional staff and NRR PMs.

ADPR PIP #31b: Evaluate the need to provide additional training on expected actions for degraded and nonconforming equipment.

ADPR PIP #32a: Clarify guidance for PMs on their responsibilities for reviewing Section 50.59 reports and Section 50.71(e) updates; provide necessary training.

ADPR PIP #33: Develop expectations and processes for PM's standing in for resident inspectors.

ADPR PIP #38: Clarify expectations for handling and documenting informal communications, including phone conversations and verbal agreements.

ADPR PIP #52: Develop guidance for handling formal submittals.



**ADPR PIP #53: Develop guidance on length of assignment of PMs to a plant.**

**ADPR PIP #55: Clarify the division of responsibilities between licensing assistants and PMs.**

**Completed:**

**ADPR PIP #1: Develop the ADPR Process Improvement Plan.**

**ADPR PIP #2: Place existing PM's Handbook agency local area network and develop process for changing handbook.**

**ADPR PIP #6: Revise NRR office letter on processing technical specification license amendments and guidance procedure for processing license amendments.**

**ADPR PIP #9: Revise NRR Office Letter 101 on delegating signature authority.**

**ADPR PIP #11: Clarify which documents should be reviewed during licensing actions and activities.**

**ADPR PIP #21: Develop a process to handle "honest mistakes" made by licensees and NRC staff.**

**ADPR PIP #23b: Provide expectation that PM's copy of FSAR be updated within a certain number of days after the licensee submits the update.**

**ADPR PIP #27: Clarify guidance to staff on technical specification interpretations.**

**ADPR PIP #32b: Train PMs on their responsibilities for reviewing Section 50.59 reports and Section 50.71(e) updates.**

**ADPR PIP #34: Conduct followup training for inspection staff and PMs on new guidance in IMC 2515 based on a steam generator drying out.**

**ADPR PIP #36: Disseminate Office Director's staff expectations and conduct periodic workshops for ADPR staff.**

**ADPR PIP #37: Establish guidance on staff actions for adverse information received via phone conversations with licensees.**

**ADPR PIP #39: Train staff on expectations in dealing with allegations.**

**ADPR PIP #48: Develop a process and a procedure to control surveying PMs about their plants.**

#### **RECOMMENDATION:**

14. The agency should determine if its employees with inspection and review responsibilities have all the necessary knowledge and skills to independently verify the acceptability of design-related actions, and whether that knowledge and skills base needs to be developed further. The training requirements for such personnel should be evaluated to ensure it includes the appropriate mix of formal training and on-the-job training commensurate with employees' past experience, and that mechanisms are in place to ensure perpetuation of training requirements. The formal qualification process for inspectors should sufficiently address on-the-job training. [4.5.2]

#### **MANAGEMENT REMARKS:**

The activities on training should be expanded beyond project managers.

#### **STAFF ACTIVITIES:**

##### **Ongoing:**

Job task analysis of inspectors concurrent with analysis of PMs

Revise Inspection Manual Chapter (IMC) 1245 (inspector training and qualification).

ADPR PIP #47: Develop guidance on expectations for PMs' participation on inspections.

ADPR PIP #31b: Evaluate the need to provide additional training on expected actions for degraded and nonconforming equipment.

##### **Completed:**

ADPR PIP #12: Determine status of training for PMs, examine PM functions (job task analysis), determine training requirements, establish appraisal criteria and performance plan.

ADPR PIP #32b: Train PMs on their responsibilities for reviewing Section 50.59 reports and Section 50.71(e) updates.

ADPR PIP #34: Conduct followup training for inspection staff and PMs on new guidance in IMC 2515 based on a steam generator drying out.

#### **RECOMMENDATION:**

15. Implementation of recent changes to the senior management and plant performance review processes, and determination of their effectiveness in identifying plants of concern and focusing agency attention on them, should continue. [4.5.3]

Any review of the use of the Inspection Followup System (IFS) by the Inspection Program Branch should include its use as a management tool. See the recommendation in Section 4.1.3, [recommendation 4] above.

**MANAGEMENT REMARKS:**

Recent changes to the senior management meeting and plant performance review processes have added structure and more objective criteria to those processes.

**STAFF ACTIVITIES:**

**Ongoing:**

Implementation of revised SMM process

Management analysis of SMM process

**Completed:**

None

**RECOMMENDATION:**

16. The agency should continue its efforts to produce better information databases to allow the staff to locate pertinent documents and information. [4.5.4]

**MANAGEMENT REMARKS:**

The Automated Inspection Reporting System currently being developed, will create a database for all inspection findings; and the agency is pursuing a system to upgrade the agency's overall document management database. These efforts need to meet the agency's basic need for easily retrieving accurate information in light of an environment of reduced funding, fewer managers for oversight, and fewer positions to administer the systems and assure data accuracy.

**STAFF ACTIVITIES:**

**Ongoing:**

Contracted efforts to improve quality of data in IFS and 766 System

NRR working with IRM on ADAMS

ADPR PIP #13: Ensure data in the Safety Issues Management System (SIMS) is up to date.

ADPR PIP #26c: Review the need to develop a new system to track verification of licensee commitments.

ADPR PIP #45: Consolidate controlled and other correspondence on NRR internal web site.

Completed:

None

RECOMMENDATION:

17. The agency should assess the potential impact on license renewal of the apparent deficiencies in current regulatory processes and their implementation, as identified in the Part 1 report. This evaluation should include whether additional assurance by licensees or the NRC is needed prior to license renewal with respect to the adequacy of implementation of current or future regulatory processes to assure an acceptable level of safety in those areas not subject to review under 10 CFR Part 54. [4.7]

STAFF ACTIVITIES:

Ongoing:

None

Completed:

None

Notes:

1. See memorandum from EDO to Commission, "NRR Associate Director for Projects Process Improvement Plan," October 28, 1996, for specifics on ADPR PIP items.

2. The recommendations are numbered sequentially as they appeared in the Millstone Lessons Learned Task Group Report Part 1: Review and Findings. The number in brackets is the report section in which the recommendation was made. Some of the recommendations were slightly reworded for this appendix to clearly distinguish between recommendations and management comment.

## **Attachment 2**

# ADP PROCESS IMPROVEMENT PLAN

Last Update: 01/22/97

Lead: Cindi Carpenter

ITM No.	ACTION ITEM	CONCERN	ASSIGNED	DUE DATE	STATUS	REFERENCE
32a	Clarify guidance for review of 50.71(e) and 50.59 for PMs	Clarify existing guidance on how PMs should review 50.59 SEs, annual reports and 50.71(e) submittals, how to select appropriate issues to review, and how to conduct and document. Which organization will be responsible for 50.59 reviews?	G. Marcus/ J. Hopkins/ A. Hansen	01/08/97 Latest: 01/15/97	Memo from Roy Z. to Projects. To ADP for signature. Contents in memo were discussed at 1/7/97 PM Workshop. With DRPM for comment - moving it along.	<ul style="list-style-type: none"> <li>● Effort should follow Millstone lessons learned task group and 50.59 task group recommendations</li> <li>● Build on IMC 37001</li> </ul>
33a	PM participation as Resident Inspector Backups	Develop expectations for the staff on when a PM can stand in for the resident inspector, and the process to follow.	E. Adensam	01/15/97	PM/PD Advisory Panel has reviewed and comments to originator to resolve.	
53.	Provide list of style changes for documents	Develop list of style changes for authors of ADP documents to be cognizant of and issue by note to the PDs with recommended wording choices. Markups by SES managers in ADP to documents should be sent to P. Kleene.	G. Marcus/ P. Kleene	12/1/96 Latest: 12/30/96 1/15/97	To ADP for review and issuance.	
26g	Review existing office guidance on closeout and implementation of licensing activities	Review implementing office guidance on closeout and implementation of old, open licensing activities (TMI, USI, GSI).	D. Dorman	12/30/96 Latest: 1/21/97	Memo is in concurrence. Work itself is complete. D. Wigginton reviewed for completeness and comments back to D. Dorman. Will try to resolve and complete 1/22/97.	

Item No.	Action Item	Concern	Assigned	Due Date	Status	Reference
38a	Handling of Informal Communications, including documentation of phone conversations.	Provide additional clarifying information on how to handle fax, phone discussions, e-mail. This action needs detailed guidance on what types of faxes, e-mail, phone conversations - include examples of each type, and categories, including casual, plant status, allegations, decisions, etc.  Bin certain types of examples, put into PM Handbook.	J. Stolz C. Poslusny	12/15/96 Latest: 01/21/97	Memo to PM/PD Advisory Panel 12/13/96. Comments currently being incorporated. Memo in concurrence to Varga/Roe/RPZ 1/21/97.  <ul style="list-style-type: none"> <li>Discussed in detail at PM Workshop on 5/20/96.</li> <li>Revision to Office Letter 107</li> <li>Need PM handbook input.</li> <li>Discussed entire guidance at 1/7/97 PM workshop by C. Poslusny.</li> </ul>	<ul style="list-style-type: none"> <li>Memo from William T. Russell to NRR employees dated 5/26/94, "Staff Performance Expectations and Communication."</li> <li>There is existing guidance in place in MD 3.53, "NRC Records Management Program."</li> <li>IRM's "Inside Information" brochure to NRC staff dated Spring 1996.</li> <li>Lessons Learned task group possible recommendation to record licensee commitments</li> </ul>
38b	Documentation of verbal commitments	Provide additional clarification on the documentation of verbal agreements and other important conversations with licensees.	J. Stolz C. Poslusny	12/15/96 Latest: 01/21/97	PM Handbook guidance To PM/PD Advisory Panel 12/13/96. To ET 1/10/97. Memo in concurrence to Varga/Roe/RPZ 1/21/97.  <ul style="list-style-type: none"> <li>Was discussed at 1/7/97 PM Workshop.</li> </ul>	June 26, 1996 memo from OIG (Norton) to Commission re: "Comments on Maine Yankee Letter dated May 21, 1996." NRC verbal agreement for schedule change that was not adequately documented.
61.	Investigate the causes of a premature issuance of an exemption	Investigate the causes of our premature issuance of two exemption packages (DC Cook and Byron) and propose process changes. A formal process to prevent premature issuance of exemption packages needs to be inserted in PM handbook, LA handbook and <u>all</u> Projects staff need to be informed.	J. Hickman	12/18/96 Latest: 01/21/97	PM/PD Advisory Panel had few comments, to be resolved by originator. To ET 1/10/97. Memo in concurrence to Varga/Roe/RPZ 1/21/97.	

ITM No.	ACTION ITEM	CONCERN	ASSIGNED	DUE DATE	STATUS	REFERENCE
	Factor in Maine Yankee lessons learned.	Maine Yankee Lessons Learned task group report and Commission papers (2) response should be reviewed for action items and recommendations	C. Carpenter	12/15/96 Latest: 01/30/97		Coordinate with MY Lessons Learned task group
	Factor in Millstone Lessons Learned after report issuance	The Millstone Lessons Learned should be factored into this PIP once the report is issued	C. Carpenter	12/30/96 Latest: 2/15/97	Lessons Learned will be factored in once the Millstone Lessons Learned Report Part II is issued.	Coordinate with Millstone Lessons Learned task group
15b	Transmittal letter indicate enforcement to be addressed	Transmittal letter for amendments, reliefs and exemptions should indicate that enforcement will be addressed in separate cover when it is appropriate.	J. Hannon C. Jamerson	12/15/96 Latest: 1/30/97	PM Handbook guidance; separate paragraph that indicates that separate action may be taken that led to this L*. Forwarded to PM/PD Advisory panel 9/27. OGC and OE revised the language. Forwarded to ET on 11/27/96; a comment needs resolved with OGC/OE.	
16.	Review No Sig Hazards determinations for risk	Do we need to consider risk considerations when making a no sig hazards noticing consideration?	F. Hebdon/ R. Martin	12/18/96 Latest: 1/30/97	PM resolving ADT comments.	
42.	Process to inform Associate Director of Projects of enforcement actions	Provide guidance to PMs on the process to inform the Associate Director of enforcement actions	G. Marcus/ G. Kelly	12/20/96 Latest: 1/30/97	Revised Office Letter to DISP for issuance. Paragraph to be developed for PM Handbook.	
64.	Revise guidance for issuing amendment requests when a hearing is requested.	Revise the guidance for processing and issuing an amendment request when a hearing is requested. Existing guidance was out-of-date.	C. Jamerson	1/31/97	Guidance in concurrence to Roe/Varga at this time.	



ITM No.	ACTION ITEM	CONCERN	ASSIGNED	DUE DATE	STATUS	REFERENCE
51.	Develop guidance for handling of Formal Submittals	Develop guidance for formal submittals from licensees that are for information only. Response to licensee should be neutral at best (BRP case on decommissioning plan)	J. Hannon/ L. Tran	11/30/96 Latest: 1/31/97	To PM/PD Advisory Panel 12/20/96. Comments returned to originator to resolve. PM/PD Advisory Panel meeting was held - they wanted a legal opinion reflected in last paragraph of writeup.	
52.	Guidance on PM length of time on a plant	Develop guidance for PM Handbook on PM length of time on a plant and evaluate need for objectivity criteria. Review resident inspector objectivity criteria for possible guidance.	J. Zwolinski	01/31/97 Latest: 2/28/97		
54.	Clarify the divisions of responsibility between secretaries, LA, PM and PDs.	Clarify the divisions of responsibility between the secretaries, LA, PM and PD, and ensure these are reflected in the PM Handbook and Elements and Standards and position descriptions.	J. Zwolinski	4/30/97		
9c.	Revision to delegation of signature authority?	Review Office Letter on Delegation of Signature Authority to determine if clarifications are necessary.	RZimmerman/ CCarpenter	1/31/97 Latest: 2/28/97	NRR Office Letter 101 will be reviewed to determine if further clarifications are warranted. Recommendations to ET will be made. Issue being reviewed as part of Maine Yankee task group. ADT member should participate.	Policy Will follow the Millstone lessons learned task group and Maine Yankee task group efforts.

ITM No.	ACTION ITEM	CONCERN	ASSIGNED	DUE DATE	STATUS	REFERENCE
20b	License condition survey followup	Followup on the findings found during the survey on license conditions. Determine whether results of review require additional review.	J. Luehman	12/31/96 Latest: 1/31/97	Closeout memo in preparation. ADPR concurred in a proposed IN on 12/12/96 which was sent to DRPM for processing. TSB portion is complete. Residual pieces are outside ADP. One piece to OE for disposition. The IN was written and signed by ADP and forwarded to Generic Communications. Third piece is for DISP to send note to regions instructing them to followup issuance of IN with a review of license conditions.	
50.	Request for information from the PMs on SALP writeup coordination	Request information from the PMs on SALP writeup coordination concerns, and work with the regions to resolve these issues.	J. Roe/ S. Varga	01/31/97	Effort underway in DRPW.	
55.	Historical review of past staff practices for Millstone/MY lessons learned.	What are other reasonable historical reviews of past staff practices to deal with Millstone/Maine Yankee issues (e.g., Millstone TD AFW pump issue, CU-28/29 or MY RELAP).	J. Roe	2/15/97	Also underway: <ul style="list-style-type: none"> <li>• MY lessons learned power uprate reviews</li> <li>• TS interpretations</li> <li>• Look back at commitments per action plan</li> <li>• Review of closeout of 3 TMI items per MY lessons learned.</li> </ul>	
10b	Develop evaluation measures to determine effectiveness of coordination	Develop evaluation measures to determine the effectiveness of the guidance for closer integration between the residents and the regions. Consider adding a statement in PM elements and standards.	G. Marcus TELL	12/30/96 Latest: 2/15/97	Consider whether union/partnership needs to approve or be involved.	

ITM No.	ACTION ITEM	CONCERN	ASSIGNED	DUE DATE	STATUS	REFERENCE
13.	Tracking record for USI/GSI/TMI/MPA	Ensure that the tracking record for MPA/USI/GSI/TMIs is up-to-date. Hold point to verify accuracy. Review SIMS database, and all open USI/GSI/TMIs - verify open or if closed, where/how closed and complete the implementation column.	M. Boyle	12/30/96 Latest: 2/15/97	Just received all the printouts. CCarpenter to call all regions prior to issuance of memo to let them know of our actions and what actions we'll request of them.	
47.	Periodic Briefings on status of OI investigations	Develop protocol for periodic briefings of NRR management by OI on their status of investigations.	F. Hebdon/ L. Wiens	12/15/96 Latest: 2/28/97		
57.	Review elements and standards for all Projects staff.	Review elements and standards for all Projects staff (TSB, LA, secretaries) to determine whether they reflect current expectations, including attending mandatory training, emphasis on R* and de-emphasis on L*, etc.)	C. Carpenter	02/28/97		
6a	Revise Office Letter 803	Update procedures for processing license amendments to include specific provisions to evaluate license amendments for generic implications.	C. Grimes	2/28/97	A proposed scope of changes to OL 803 will be presented to the Advisory Panel, to address both the specific issue of identifying and processing amendments with generic implications, recommended changes based on usage, any related recommendations from the Millstone Lessons Learned task group beyond that covered under Item 6b, and reference to or incorporation of the procedures for relocated TS requirements under Item 29. No action -- this task may be delayed if the objective of item #25 isn't clarified soon.	

ITM No.	ACTION ITEM	CONCERN	ASSIGNED	DUE DATE	STATUS	REFERENCE
62.	Develop Guidance on licensee drop-in visits with Commission/EDO.	Guidance needs developed or clarified on who coordinates licensee drop-ins with the Commission and EDO - the PM or licensee.	R. Wharton	3/7/97		
25.	Overall Projects/TSB workload prioritization	Need to reconsider the prioritization of workload in NRR, including advanced reactors, CBLAs, etc.	RZimmerman/ CGrimes	3/1/97	On 12/11/96, TSB proposed a set of amendment categories, as Mr. Zimmerman requested, to focus the priorities issues. A meeting to discuss the categories will be held when all of the principals are available.	
5.	Clarify PM guidance on technical staff concurrence	Clarify guidance as to when technical staff concurrence, and the level of concurrence, is necessary on licensing tasks.	C. Grimes	12/30/96 Latest: 3/1/97	Depending on the resolution of 6b, a revision to the PM handbook will be developed to clarify technical staff concurrence practices. Resolution of this issue dependent on the outcome of item #25.	
17.	Review generic aspects of documents referenced in license/TS	Review the generic aspects of documents referenced in license/TS and where licensee may no longer be in verbatim compliance with all aspects of referenced document (Zion case) such as a topical report.	B. Capra/ C. Shiraki	3/1/97	Has been discussed with OGC.	
46.	Licensee TS interpretations	Review the NRC's policy position on licensee TS interpretation books	C. Grimes	3/1/97	TSB will coordinate item 4a with PIPB's development of related inspection guidance, which was issued for comment on 12/10/96.	See also Gillespie memo to J. Taylor dated 8/23/96 on Technical Specification Interpretations.
14.	Consider list of effective TS pages	Consider developing a model for a list of effective TS pages so that it is clear what revision each TS page is.	C. Jamerson/ Peyton/ CGrimes	3/30/97	Needs further discussion. TA will set up meeting to discuss.	

ITEM No.	ACTION ITEM	CONCERN	ASSIGNED	DUE DATE	STATUS	REFERENCE
29.	Relocation of items from TS to FSAR	Need to review our processes and policies on relocation of items from the technical specifications to the FSAR.	C. Grimes/ E. Peyton	3/30/97	OGC provided, on October 22, 1996, the enforceability of commitments and conditions to NRR Director. The staff responded by memo dated November 12, 1996 that the staff had developed a method to capture commitments as a license condition. Further action includes putting out information to the Project staff. Copy of Nov 12 memo given to all PDs. This action item is awaiting a test case, which is in progress at this time (Palo Verde). If OGC concurs in test case, guidance will be put out to all Projects staff. This is also a piece of commitment management, in that commitments will be enforceable due to a license condition, and will be resolved as part of that too.	

ITM No.	ACTION ITEM	CONCERN	ASSIGNED	DUE DATE	STATUS	REFERENCE
22.	Review methods to amend license when USQ involved	Work with OGC on the question of amending the license when a USQ is involved.	E. Adensam/ E. Peyton/ OGC	3/30/97	Discussions by J. Donohew with OGC indicated their acceptance of amending the license per NRR's response to L. Chandler dated November 12, 1996. This action item is awaiting a test case, which is in progress. If OGC concurs in test case, guidance will be put out to all Projects staff. This one is tied to Item 29, and both have the same resolution. Format has been worked out; just needs the test case.	
4a.	Revise Office Letter No. 1201 on TIAs	Existing Office Letter 1201, "Control of Task Interface Agreements," will be revised to clarify staff processing of TIAs. This will include clarification on how the Office controls requests for interpretations.	M. Weston, TSB	11/29/96 Latest: 3/31/97	Based on comments on the draft revision to OL 1201 and the most recent concerns regarding licensee "interpretations," TSB has prepared a new draft revision to the OL and re-issued it on 12/02/96 for comments with a clearer statement of purpose. As of 12/13/96, additional comments on the revised OL are continuing. Because of the variety of conflicting comments and policy issues, TSB will organize the comments into a proposed plan for NRR management approval.	

ITM No.	ACTION ITEM	CONCERN	ASSIGNED	DUE DATE	STATUS	REFERENCE
31a	Revision to IMC 9900 on degraded and non-conforming conditions	Revision to IMC 9900 on degraded and non-conforming conditions to (1) resolve comments received from the workshops, (2) achieve consistency with recent agency actions (e.g., maintenance rule and PRA policy statement), and (3) reflect "Millstone" lessons learned (e.g., whatever revisions are made to 50.59, CLB).	C. Grimes	12/31/96 Latest: 3/31/97	A proposed reply from ADPR to ADT is awaiting ADP signature; until issued, TSB cannot update the status.	Memo from CIGrimes to RPZimmerman and ACThadani dated 8/21/96.
60.	Develop process to inform PMs of process for 2.206 petitions	Develop a process - either add to PM handbook or develop/revise office letter describing the 2.206 process and the petition manager's role in that process.	J. Kennedy	4/30/97		
4b.	Instructions/guidance to Regions on handling of TIAs	Guidance will be provided to the regions on processing of TIAs.	C. Grimes, TSB	12/31/96 Latest: 4/30/97	Upon completion of 4a, forward OL 1201, Rev. 1 to the regions with whatever additional guidance is necessary, if any, for the regions to adopt conforming changes to their procedures.	
31b	Evaluate the need to provide additional training on degraded equipment	Evaluate the need to provide additional training and/or guidance to the staff on actions to be taken when information on safety issues potentially impacting equipment operability is received by the staff.	C. Grimes	1/31/97 Latest: 4/30/97	Dependent upon the results of 31a.	Quad Cities DET item 10a.

ITM No.	ACTION ITEM	CONCERN	ASSIGNED	DUE DATE	STATUS	REFERENCE
3.	PM Handbook on NRR Internal Home page	PM Handbook will be completely updated to include previously issued, applicable staff guidance, current practices and expectations. On the Internal Home page, it will be word searchable and able to link to other documents.	G. Marcus/ R. Laufer	6/1/97	Several meetings have been held with contractor, Sciencetech, Inc. Work commenced week of 10/14/96. Contractor has developed a list of procedures and documents that should be included in the document. Contractor has provided an outline and sample writeup- PM/PD advisory panel met on 12/16/96 to decide on format. Contractor will now prepare handbook. Discussions ongoing as to resources to review entire revision.	
45a	Controlled correspondence on NRR internal home page	Initiate effort to consolidate controlled and other correspondence on NRR home page for central reference and retrieval.	M. Boyle	06/30/97	Beginning. Searching for Controlled Correspondence to place on system. All distribution lists have been changed so that electronic copies of all TIAs and controlled correspondence go to M. Boyle to place on home page.	
45b	Put TIAs into a word searchable database	Put TIAs, similar to TS interpretations, into a centralized database. Includes going backwards to capture issued TIAs. Consider putting on NRR internal home page so all NRC staff can access.	M. Boyle/ T. Harris	06/30/97	Beginning. Searching for TIAs. Just added. All distribution lists have been changed so that electronic copies of all TIAs and controlled correspondence go to T. Harris. Toni needs taught how to place text on home page.	



ITM No.	ACTION ITEM	CONCERN	ASSIGNED	DUE DATE	STATUS	REFERENCE
12d	Conduct Job Task and Functional Analyses for PM	To examine various aspects of the PM function in carrying out agency's mission.	Bob Pulsifer	06/30/97	LPM identified and effort in headquarters will commence in October. LPM is working on SOW contract with Los Alamos. Work is anticipated to run 01/01/97 - 10/31/97. Money has been identified.	
49.	Provide Chairman/Commission with December 1996 report	Provide the Chairman/Commission with a separate status report in December 1996 identifying the improvements made by the staff in responding to 2.206 petitions in a timely manner.	J. Kennedy	8/31/97	This item was superseded by new yellow ticket. Memo will be issued to the Commission upon completion of a 6 month pilot program describing improvements in the timeliness of 2.206 responses.	Commitment made in memo to Chairman from EDO (WITS 9600099) regarding tracking of 2.206 petitions.
12e	Determine general training requirements for PMs	To revise current guidance on what overall training should be required for the PM job. Should follow in series with JTA of item above.	C. Carpenter	10/30/97	This effort will follow the JTA so as to not get out ahead of it. Existing guidance exists in May 30, 1989, "Implementation of NRR Generic Technical Training Program" memo to staff from J. Snizek.	Policy Existing training requirements delineated in May 30, 1989 memo from J. Snizek to PDs/BCs
12f	Establish Performance appraisal criteria and performance plan	Performance appraisals and performance plans should be reviewed and revised as appropriate based on the JTA.	C. Carpenter	09/30/97	Effort needs to follow the JTA effort above.	
25b	Consider re-looking at NRR Office prioritization memo	Consider an Office wide re-look at the 1993 Dr. Murley Prioritization memo based on new directions in the office.	M. Reinhart G. Edison (Tell)			
26a	Develop Commitment Identification Form/Licensing Action Closeout Form	Form will identify commitments and requirements in licensing tasks, and identify those that need to be verified as implemented. Technical staff will concur on which commitments need to be verified.	J. Donohew	12/30/96 @ Latest: 1/31/97	Form has been prepared; however, it needs to be coordinated with Millstone lessons learned task group recommendations.	

ITM No.	ACTION ITEM	CONCERN	ASSIGNED	DUE DATE	STATUS	REFERENCE
26b	Review whether changes are needed to licensing action/activity forwarding letters	Review whether L*/R* forwarding letters to licensees should include a requirement that NRC approval is contingent on inclusion of certain commitments in FSAR	DISP/ J. Donohew	12/30/96 @ Latest: 1/31/97		
26c	Review need to develop Commitment Tracking System	Is another commitment tracking system to track which commitments will be verified, and which ones do not need to be verified needed? Will WISP/MIP2/IFS do?	J. Donohew	12/30/96 @ Latest: 2/28/97	WISP will be used until the AIRS system is operational and modified.	
26d	Evaluate whether there is adequate licensing action commitment followup for pending and completed items.	Evaluate whether commitments/requirements on Licensing Action Closeout Form are adequately evaluated for implementation (Inspection program - possibly develop inspection procedure or evaluate use of existing one)	J. Donohew	12/30/96 @ Latest: 3/30/97		
35.	Review whether commitments contained in licensee submittal should become part of FSAR licensing basis/FSAR? Closely coordinate with OGC. Also review 50.71(e).	Should certain commitments and decisions in staff SER/licensee submittals for licensing actions/activities become part of FSAR?  Needs close coordination with item 26.	J. Donohew	12/30/96 Latest: 3/30/97	<ul style="list-style-type: none"> <li>• May need to revise OL 803 guidance on how to do license amendments if this proceeds.</li> <li>• If certain commitments are to become part of FSAR, item 26 is the step to change the forwarding letter to licensees.</li> </ul>	
26e	Review of closed licensing actions and activities to identify commitments and requirements	Review selected number of licensing actions and activities issued for each plant, identify significant commitments and requirements and verify implementation.	J. Roe/ S. Varga	03/30/97 @ Latest: 9/30/97	Recommendations on best way to proceed should be provided.	Policy/Implementation <ul style="list-style-type: none"> <li>• Maine Yankee OIG Report Finding</li> <li>• Effort should follow Millstone lessons learned task group</li> </ul>

ITM No.	ACTION ITEM	CONCERN	ASSIGNED	DUE DATE	STATUS	REFERENCE
26f	Verify significant licensing task commitments have been implemented.	On the one year (or other determined time) look back at closed licensing actions and activities from 26e, develop criteria to determine which commitments will be verified, and verify those commitments/requirements have been implemented.	J. Roe/ S. Varga	06/30/97 @ Latest: 9/30/97	This requires clarification of inspection program guidance. On hold pending recommendations from Millstone Lessons Learned task group	Policy/Implementation  Effort should follow Millstone/HN lessons learned task group.
26h	Provide training sessions on managing commitments	Provide training sessions on managing commitments to project managers, resident inspectors, other inspectors and technical staff (SECY-95-300 and SECY-96-024). This is item 7(1) of the remaining RRG actions, memo dated November 14, 1996.	ADPR, DISP/PIPB  J. Donohew for ADPR	12/30/97	Just added	
26i	Modify inspection procedures regarding inspection follow-up of licensee corrective actions	Modify inspection procedures regarding inspection follow-up of licensee corrective actions and implementation of commitments (SECY-95-300 and SECY-96-024). This is item 7(2) of the remaining RRG actions, memo dated November 14, 1996.	ADPR, DISP/PIPB  J. Donohew/ C. Carpenter	12/31/97	Just added. Due date will allow implementation of new managing commitments guidance, and time to assess its effectiveness (one year). This appears to go along with 26j.	
26j	Evaluate the effectiveness of NEI's guideline	Evaluate the effectiveness of NEI's guideline (SECY-95-300 and SECY-96-024) and reassess the need to develop rulemaking after experience has been gained in the implementation of the guideline. This is item 9(3) of the remaining RRG actions, memo dated November 14, 1996.	ADPR  J. Donohew/ C. Carpenter	3/31/97	This appears to be the inspection procedure developed by the CBLA group (Imbro/Reckley). This will allow time to implement PM guidance and inspection procedure, and assess licensees programs.	
56.	Develop an SRP chapter for power uprate	Review existing staff guidance in area of power uprate, and develop a SRP for power uprate. Are there other improvements that can be made in power uprate reviews?	F. Hebdon			

ITM No.	ACTION ITEM	CONCERN	ASSIGNED	DUE DATE	STATUS	REFERENCE
58.	Evaluate appropriateness of schedular exemptions	Evaluate the appropriateness of giving schedular exemptions in responding to violations of the regulations. Work with OGC/TSB/OE/Zimmerman. What guidance do we need as to when should we issue schedular exemptions when a regulation is not being met.	F. Hebdon		Work with OE, Grimes, OGC, Zimmerman.	
59.	Provide additional guidance and training on all types of licensing actions	Provide additional guidance and training on all types of L*, including the nuances in processing difference types of license amendments, exemptions, reliefs, etc. Revise Office Procedures and LA and PM Handbooks as appropriate.	H. Berkow K. Jabbour		Will this impact TSB's OL803 task (6a)?	Commitment to Commission in response to an SRM concerning the exemption process and the adequacy of 50.12.
62.	Contact SECY on negative consent papers	Add to PM handbook or some other NRR procedures that SECY needs to be contacted on negative consent Commission papers before the staff acts to ensure no responses were received.	C. Grimes		This action should be assigned to someone else. TSB confirmed that the dispatching delays were SECY/EDO errors, but TSB also recommended that the PM handbook should be updated to include a reference to the Correspondence procedure and confirmatory checks for negative consent actions. These aspects are beyond TSB responsibilities.	
63.	Develop goals for licensing activities and re-evaluate licensing action goals	Develop goals for licensing activities similar to those developed for L*. Re-evaluate goals for licensing actions, and ensure those documents were referenced are changed.	C. Carpenter		Just added.	

ITM No.	ACTION ITEM	CONCERN	ASSIGNED	DUE DATE	STATUS	REFERENCE
64.	Need to review and upgrade some licensing boilerplate documents.	Need to review and upgrade boilerplate documents such as exigent amendment conditions. This arose from an Oconee FR issue where 14 days is sufficient for a comment period, where 30 days exist for a hearing request and this appears to be confusing.	H. Berkow/ P. Tam		Needs an LA assigned.	
1.	Develop ADP Process Improvement Plan	Plan captures issues and commitments, and implementation of actions	C. Carpenter	Complete 10/4/96	Action items will continue to be added as they are identified. ADP PIP was transmitted to the Commission by memo dated October 28, 1996.	
2a.	Establish PM/PD Advisory Panel	To provide peer review of guidance and changes that are developed in order to ensure reasonableness and workability.	C. Carpenter	Complete 6/14/96	Panel of 4 PMs and 2 PDs from DRPW/DRPE established on 6/14/96. DRPM has one branch chief participating.	Members are: B. Capra, H. Berkow, D. Wigginton, J. Hopkins, G. Wunder, R. Croteau, C. Jamerson, S. Weiss
2b.	Establish charter for PM/PD Advisory Panel	Charter will establish function/purpose of PM/PD Advisory Panel, and what constitutes a quorum.	C. Carpenter	Complete 6/15/96	Charter developed for PM/PD Advisory Panel. Needs added to the PM Handbook. Charter amended to include term of membership and forwarded to panel.	
2c.	PM Handbook, Rev 1 on the LAN	To ensure central repository of information and clarifying information to the staff.	C. Carpenter/ T. Harris	Complete 6/24/96	PM Handbook available on Agency-Wide LAN 6/24/96.	Commitment per response to Chairman tracking item on public responsiveness.
2d.	Develop process to make changes to PM Handbook on LAN	Develop a controlled process to make changes to the PM handbook, and notify the staff of the changes.	C. Carpenter	Complete 7/3/96	Formal process was approved by PM/PD Advisory Panel and ADP, and was E-mail to staff on 7/3/96. Added to PM Handbook.	

ITM No.	ACTION ITEM	CONCERN	ASSIGNED	DUE DATE	STATUS	REFERENCE
2e.	Develop memo to disseminate purpose of ADP Process Improvement Plan	To disseminate to Executive Team the actions underway and being developed with respect to the PM Handbook and other ADP Process Improvement Plan actions	C. Carpenter	Complete 7/31/96	Letter to ET, with Division Directors on concurrence explaining ADP actions on ADP PIP issued 7/31/96	
6b	Guide for Processing License Amendments	Should the Guide for Processing License Amendments attached to OL 803 be included in PM Handbook or highlighted elsewhere?	F. Hebdon	Complete 10/17/96	PM/PD advisory panel agreed that guide should remain in OL 803. By memo to J. Zwolinski dated 10/17/96, this item was closed by the Lead PD with Deputy Director approval. PM Handbook will be revised to reference OL 803.	Possible recommendation from Millstone Lessons Learned task group
7.	Coordination of Exemptions with Chairman's Office	Incorporate into PM Handbook the recent EDO guidance on coordination of exemptions with Chairman's office.	G. Marcus/ R. Laufer	Complete 7/2/96	Notification with full text of change was sent via E-mail to all Projects Staff on 7/2/96. Incorporated into PM Handbook.	June 13, 1996 Blaha to Russell Memo
9a.	Revision to NRR Office Letter 101 on Delegation of Signature Authority	This effort is to revise NRR Office Letter 101 to reflect that ADPR PMs and ADT staff should not also concur for the supervisor on their own work when acting for the supervisor.	C. Carpenter	Complete 8/9/96	Office Letter revised on 8/9/96. Also incorporated into PM Handbook in Section 3.3.1.4.	
9b.	Revision to NRR Office Letter 101 on Delegation of Signature Authority	Revise NRR Office Letter 101 to reflect that delegated signature authority for exemptions (item 12 to OL) is to be Office Director.	C. Carpenter/ R. Ingram	Complete 8/9/96	Change approved. Included in 9.a. effort above. Office Letter revised on 8/9/96. PMs notified of change.	
10a	Coordination between regions and NRR/PM on issues in licensing tasks	To ensure closer coupling between residents and project managers, and ensure residents and the regions are aware of issues and commitments in SERs. Clarify expectations	G. Imbro/ C. Carpenter	Complete 10/11/96	Change was inserted into PM Handbook, and full text e-mailed to all Projects staff and regions. <ul style="list-style-type: none"> <li>• PM Workshops</li> <li>• ADP SES meetings</li> <li>• Consider regional counterpart meetings to convey message</li> </ul>	

ITM No.	ACTION ITEM	CONCERN	ASSIGNED	DUE DATE	STATUS	REFERENCE
12a	Determine current technical training status of PMs	Determine the current technical training status of PMs with respect to the series courses.	J. Kennedy/ M. Boyle	Complete 9/19/96	Memo issued.	Memo from J. Kennedy to J. Roe dated September 19, 1996 detailing the plant type and type of training the PMs have taken. DRPE has also done this.
12b	Determine technical training needs of PMs	Determine technical training needs of PMs with respect to assigned plant (series courses)	J. Kennedy/ M. Boyle	Complete 10/29/96	Complete Technical training taken by PMs was reviewed against plant type assigned to, and additional training identified. All PDs were informed of current training status of each PM versus the plant type each PM is on. Action is now for PDs to get with PMs.	Memo from J. Kennedy to J. Roe dated October 29, 1996. Also, per M. Boyle
15a	Verify ongoing agency actions prior to issuance of L* and R*	Should PMs formally verify, perhaps on licensing routing sheets, that PMs have checked ongoing agency actions on a facility, such as hearing requests, enforcement actions or dialogue with owners groups prior to issuance of a licensing task? Notify stakeholders, including public as a courtesy before issuing licensing amendment.	H. Berkow/ K. Jabbour	Complete 11/8/96	Memo signed by R. Zimmerman to all PMs and PD dated 11/7/96 and forwarded to NRR staff. Inserted into PM Handbook 11/8/96 and disseminated to Projects staff 11/8/96.	● Discussed at PM Workshop on Sept. 3
18.	Priority Determination for NRR Review Efforts	Place the June 6, 1993, memo "Priority Determination for NRR Review Efforts" in the PM handbook to ensure its ready reference.	C. Carpenter	Complete 10/10/96	Inserted in PM Handbook as new section 5.25 and staff informed.	

ITM No.	ACTION ITEM	CONCERN	ASSIGNED	DUE DATE	STATUS	REFERENCE
19.	Use of Risk Insights for Plant-Specific Licensing Actions	Incorporate the recent memo, August 21, 1996, "The Use of Risk Insights for Plant-Specific Licensing Actions," from A. Thadani to ADT into the PM handbook.	C. Carpenter	Complete 10/2/96	Overwhelming consensus of the PM/PD Advisory Panel was that this was not appropriate for the PM Handbook. The memo was used to address a specific question that arose on a plant. Since our policy on use of PRA and risk insights is still evolving, it is premature to include this in the PM Handbook at this time.	
20a	License condition survey	Request project managers to review their plant license conditions, and based on their personal knowledge of plant activities and practices, determine if there were any obvious license conditions for which the PM suspected there might be discrepancies between the conditions of the license and actual plant practices.	C. Carpenter	Complete 8/30/96	Results of review by the project managers of plant license conditions versus plant knowledge provided to RZimmerman 8/30/96 by memo.	
23a	Verify the PM's copy of the FSAR has been updated.	Verify that the project manager's copy of the FSARs has been updated with the exception of those changes received within the past 30 days.	B. Beckner/ T. Polich	Complete 10/4/96		
27.	Technical Specification Interpretations	Clarifying guidance to TSB staff necessary to ensure staff understands the need to document interpretations. Formal clarification will be handled as part of Office Letter on TIAs (see item 4a)	C. Grimes	Complete 6/13/96	Informal guidance provide to TSB staff and PDs. Formal guidance will be developed in conjunction with the Office Letter on TIAs.	



ITM No.	ACTION ITEM	CONCERN	ASSIGNED	DUE DATE	STATUS	REFERENCE
36a	NRR Staff Performance Expectations	To disseminate to NRR Staff Office Director's performance expectations for the NRR staff in areas such as safety, professionalism and promptness in dealing with licensees and the public, oversight of licensees, the need to ensure our regulation is transacted publically, and need for open and candid communications.	C. Carpenter	Complete 6/11/96	<ul style="list-style-type: none"> <li>• NRR Staff Performance Expectations Issued 6/6/96</li> <li>• PM Workshop held on 5/20/96 where Associate Director discussed his expectations</li> <li>• ADP SES meeting held on 6/11/96 to discuss expectations</li> </ul>	
36b	PM Workshop	To ensure continuing dialogue with PMs and ensure dissemination of management's expectations.	M. Fields/ C. Carpenter	Complete 5/20/96 9/3/96	<ul style="list-style-type: none"> <li>• Second workshop held September 3, 1996. First held May 20.</li> <li>• Next workshop scheduled for December 9.</li> </ul>	
36c	ADP SES meeting	Need for periodic meetings between ADP and the SES managers to emphasize guidance and expectations.	RZimmerman/ C. Carpenter	Complete 6/11/96	<ul style="list-style-type: none"> <li>• ADP SES meeting held on 6/11/96.</li> <li>• Periodic meetings will be scheduled</li> </ul>	
37.	Staff actions upon receipt of phone call from licensees with potentially adverse information	To clarify the importance of following up on phone calls from licensees.	J. Stolz/ C. Poslusny	Complete 8/30/96 •	<ul style="list-style-type: none"> <li>• Discussed at PM Workshop on 5/20/96 and 9/3/96</li> <li>• Discussed at ADP SES meeting held on 6/11/96</li> <li>• Office Letter 107 revised to reflect guidance in this area.</li> </ul>	• Needs to be included in PM handbook when Office Letter revised.
39.	Allegations	Sensitivity Issue. This was covered by the NRR expectations memo issued on June 6, 1996. Also, Allegations training was conducted for the NRR staff in April 1996.	E. Baker/ J. Lee/ B. Grimes	Complete 9/1/96	<ul style="list-style-type: none"> <li>• NRR Staff Performance Expectations memo dated 6/6/96 discussed this area</li> <li>• Allegations refresher training conducted for all staff April/96.</li> <li>• ADP SES meeting conducted 6/11/96</li> <li>• PM Workshop on 5/20/96</li> <li>• Allegation trng for management staff planned</li> </ul>	<ul style="list-style-type: none"> <li>• MD 8.8, "Management of Allegations" revised 5/1/96</li> <li>• Office Letter 1003 and Regional instructions revised to be consistent with MD 8.8</li> </ul>

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40.	Drop In Visits	Guidance to staff on how to schedule drop-in visits.	V. Nerses/ H. Berkow/ C. Carpenter	Complete 7/19/96	<ul style="list-style-type: none"> <li>• Memorandum from W. Russell to NRR staff issued on July 19, 1996 on Licensee Drop-in Visits</li> <li>• Incorporated into PM Handbook on 8/22/96 and disseminated to staff 8/22/96</li> <li>• Discussed at ADP staff meetings</li> <li>• Division Directors discussed with their staff</li> </ul>	
44.	Clarify the need to maintain copies of draft material for record purposes	MD 3.53, "NRC Records Management Program" requires the preservation of working files, such as preliminary drafts and rough notes, etc. for purposes of adequate and proper documentation. Additional clarification is necessary.	B. Bateman/ K. Thomas	Complete 10/4/96	Approved through the process and inserted into PM Handbook on 10/4/96. E-mail sent to all ADP staff and regions informing them of change 10/4/96.	
8.	Continuing dialogue with licensees on NRR policies	To ensure staff continues to dialogue with licensees with respect to ongoing issues.	B. Capra	Complete 11/30/96	By memo from S. Varga and J. Roe dated November 8, 1996 to all PDs. Also memo from J. Roe to R. Zimmerman dated November 26, 1996.	
33b	Guidance for Participating in Regional Inspections	Develop guidance for the PMs on how to handle requests for participation in inspections	E. Adensam	Complete 11/25/96	Guidance approved by R. Zimmerman, and disseminated to the staff on 11/25/96 by E-mail. Provides guidance on requests by regions for PMs to participate in regional inspections, as to what training and process to follow for PM to be allowed to participate.	

ITEM No.	ACTION ITEM	CONCERN	ASSIGNED	DUE DATE	STATUS	REFERENCE
24.	Develop report for trending of incoming license amendments for plants that convert to ISTS	Develop a report, to be issued every 6 months, to determine if licensing actions are trending down as a result of ISTS conversions. This completes feedback loop for lessons learned. This item can be closed when first report is issued, but report is to be issued every 6 months.	D. Johnson/ TSB	Complete 11/26/96	First report issued 11/26/96 providing Post-Conversion Amendment Trends.	
12c	Identify when training will be done	Based on technical training needs of the PMs identified in 12b, identify when the training will be taken.	J. Hickman/ J. Kennedy/ DRPE	Complete 11/26/96	Memos were prepared in DRPW and DRPE with list of plant type and training needs of each of the PMs. These training needs were identified to the PDs for their review and action. For DRPW, memo issued from JRoe to RZimmerman delineating training needs.	
43.	Review NRR guidance available on transitioning from rulemaking to implementation plan	Office Letter 116, "Procedures for Implementation of New Regulations," provides that staff responsible for implementing new rule will develop implementation plan. How is lead PM assigned, and who develops implementation plan? Do we need additional NRR guidance to adequately transition from rulemaking to implementation?	H. Berkow	Complete 12/4/96	Revised Office Letter issued 12/4/96.	
23b	Provide PM expectation that FSAR be updated within 30 days of receipt of the FSAR	Provide PM guidance that FSAR should be updated within 30 days of receipt by the PM of new updated pages from licensee. Also need to revise PM elements and standards to reflect new expectation.	B. Beckner/ T. Polich	Complete 11/30/96	Being folded into A. Hansen effort on 50.71(e). Is included in the letter of expectations to the PMs. E-mail sent to all project staff on 11/27/96.	

ITM No.	ACTION ITEM	CONCERN	ASSIGNED	DUE DATE	STATUS	REFERENCE
21.	Develop a process on administrative errors	With OGC, develop a process to handle administrative errors made by licensees and NRC staff on licensing amendments.	S. Bloom/ OGC	Complete 11/15/96  Complete 01/16/97	Memo from ADP to ADP divisions issued 1/16/97 to provide guidance for determining what action is necessary to correct administrative errors in TSs.	SECY-96-238 dated November 19, 1996 forwarded to inform the Commission of the staff's intent to issue administrative memo to provide guidance to staff members to determine actions necessary to correct administrative errors in TSs.
48.	Develop procedure for PMs to conduct surveys	Develop a procedure/process on handling of surveys by the PMs to control the process	E. Adensam/ J. Kennedy	Complete 12/30/96	Office Letter 505	
32b	Training on conduct of 50.59 inspections and reviews of annual reports	This issue identified in PM survey on 50.71(e).	G. Marcus/ J. Hopkins/ A. Hansen	Complete 01/08/97	Training was conducted at PM workshop on 1/7/97.	<ul style="list-style-type: none"> <li>• This effort needs to ensure coordination with Millstone lessons learned task group, and follow the final report in this area.</li> <li>• This effort should also review the 50.59 task group efforts.</li> </ul>
41.	Guidance on Meeting Attendance	Provide written guidance on what meetings ongoing in regions, such as meetings on 50.59, 50.71(e) should PMs attend?	B. Bateman/ S. Bloom	Complete 1/13/97	To ET 11/26/96. Approved by PM/PD Advisory Committee.	
11.	Provide clarification on what documents should be reviewed when performing licensing review.	Enhance existing guidance in this area. Examples would include FSAR, SRP	B. Beckner/ D. Wigginton	Complete 1/13/97	General existing guidance is in place in OL 803 and PM Handbook. Approved by PM/PD Advisory Panel, no comments received from ET.	<ul style="list-style-type: none"> <li>• OL 803</li> <li>• PM Handbook</li> </ul>
30.	Guidance on addition of individuals/organization to service lists	Need to develop guidance on the protocol/position of adding individuals and organizations to the cc: and service lists.	B. Bateman E. Peyton J. Stone	Complete 1/16/97	Memo titled "Mail Distribution Lists" dated 1/16/97 issued to all PMs/PDs and regional DRP division directors.	

ITM No.	ACTION ITEM	CONCERN	ASSIGNED	DUE DATE	STATUS	REFERENCE
34.	Followup training for Inspection Staff/PMs	The staff needs to be trained on procedure changes that contain the guidance now incorporated in IMC 2515 on the 1994 Oconee Steam Generator Dryout event.	C. Carpenter/ M. Boyle/ TSB	Complete for DRPW 11/19/96  Complete for DRPE 01/14/97	Training will be done at the next scheduled division meetings. B. Haag will discuss IMC 2515 changes.  Complete for DRPW - 11/19/96	By memo dated Sept 12, 1996, "Followup Training for the Inspection Staff," the Oconee SG dryout event review group recommended staff be trained on the revision to IMC 2515 regarding NRC conduct in the control room during an event.
28.	Review IMC 37001, "10 CFR 50.59 Safety Evaluation Program"	Review IMC 37001 for further clarifications in light of recent developments on 50.59 and 50.71(e).	G. Marcus/ J. Hopkins A. Hansen	Complete 12/3/96	PM has reviewed IMC 37001 and determined no changes are needed at this time to the Inspection Manual Chapter. Memo dated 12/3/96 from JWR to RPZ closing out this item.	● Comment from survey on 50.71(e) by lessons learned task group.

@ These dates are pending resolution of policy issues associated with the Millstone Lessons Learned Task Group Report, Parts 1 and 2 associated with identification, tracking and verification of commitments associated with plant-specific licensing actions.