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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Title: **MEETING WITH NORTHEAST NUCLEAR ON**
MILLSTONE -- PUBLIC MEETING

Location: **Rockville, Maryland**

Date: **Thursday, February 19, 1998**

Pages: **1 - 175**

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1 UNITED STATES OF AMERICA
2 NUCLEAR REGULATORY COMMISSION

3 ***

4 MEETING WITH NORTHEAST NUCLEAR ON MILLSTONE

5 ***

6 PUBLIC MEETING

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8
9 Nuclear Regulatory Commission
10 Commission Hearing Room
11 11555 Rockville Pike
12 Rockville, Maryland
13

14 Thursday, February 19, 1998
15

16 The Commission met in open session, pursuant to
17 notice, at 9:30 a.m., the Honorable SHIRLEY A. JACKSON,
18 Chairman of the Commission, presiding.
19

20 COMMISSIONERS PRESENT:

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

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1 STAFF AND PRESENTERS SEATED AT COMMISSION TABLE:

2 MIKE MORRIS, Chairman, President and CEO,

3 Northeast Utilities

4 BRUCE KENYON, President and CEO, Northeast Nuclear

5 Energy Company

6 DAVE GOEBEL, Vice President, Nuclear Oversight

7 MIKE BROTHERS, Vice President, Nuclear Operations

8 MARTIN BOWLING, Vice President, Unit 2

9 DAVID AMERINE, Vice President, Human Services

10 BRIAN ERLER, Senior Vice President, ICAVP Project

11 Director, Sargent & Lundy

12 DON SCHOPFER, Vice President and Verification

13 Manager, Sargent & Lundy

14 DAN CURRY, Vice President, Nuclear Services,

15 Parsons Power

16 ERIC BLOCHER, Deputy Project Director, Parsons

17 Power

18 JOHN GRIFFIN, Deputy Team Leader, Little Harbor

19 Consultants

20 JOHN BECK, President, Little Harbor Consultants

21 BILLIE GARDE, Consultant

22 L. JOSEPH CALLAN, EDO

23 DR. WILLIAM TRAVERS, Director, Special Projects

24 Office, NRR

25

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1 STAFF AND PRESENTERS SEATED AT COMMISSION TABLE:

2 [continued]

3 WAYNE LANNING, Deputy Director for Inspections,
4 SPO, NRR

5 PHILLIP McKEE, Deputy Director for Licensing and
6 Oversight, SPO, NRR

7 EUGENE IMBRO, Deputy Director for ICAVP, SPO, NRR

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P R O C E E D I N G S

[9:30 a.m.]

CHAIRMAN JACKSON: Good morning, ladies and gentlemen.

The purpose of this meeting is for the Commission to be briefed on the status of activities related to the three Millstone nuclear power reactors.

The Commission will hear presentations today from Northeast Utilities, Northeast Nuclear; contractors associated with both the independent corrective verification program; and employees concerns program; and the NRC staff.

Millstone Unit 1 has been shut down for over 27 months; Units 2 and 3 for approximately two years now. All three of the Millstone units were placed on the NRC's watch list in January 1996. The units were recategorized as category 3 plants in June 1996. This action necessitates Commission approval for restart of each of the units.

This Commission meeting is the fifth quarterly meeting to assess the status of activities at the sites. This meeting was scheduled two months after the last meeting in order for the Commission to better assess the results of some of the significant inspections that recently have occurred or are in process now.

In the interest of maintaining our schedule, I will keep my opening comments short. I have recently

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1 visited the Millstone site and conducted a public meeting
2 while I was there in the evening to listen first-hand to
3 comments and statements and concerns of the various members
4 of the local community and other stakeholders. I have made
5 available at the entrances to the meeting my comments from
6 this public meeting on February 2nd, 1998.

7 The Commission is interested in status updates
8 from all participants today to gauge how the licensee is
9 measuring and tracking its progress, and as I stated at the
10 last Coimmission meeting, to understand how well the site is
11 functioning as a whole.

12 Once again, all parties should feel not only
13 invited to but compelled to comment on questions asked of
14 any group. But if your turn at the table has passed, I ask
15 that you use the podium as necessary.

16 Copies of the presentation material are available
17 at the entrances to the meeting, and unless my colleagues
18 have any opening comments, Mr. Morris, please proceed.

19 MR. MORRIS: Thank you, Chairman Jackson and
20 colleagues. Thanks for being here. It's nice for us to
21 come back and give you this update. We are here to
22 represent the company. We have with us members of our board
23 of trustees as well as the chair of our nuclear committee,
24 oversight group, and we are happy that they are here to be
25 with us today. What we intend to do today with Mr. Kenyon

1 and his team is to update you on the results that continue
2 to be evaluated at the Millstone station. In fact, some
3 indicators aren't as good as we had hoped that they would
4 be, and we will talk about that. Fortunately, some
5 indicators are much better than we thought they would be,
6 and we will surely talk about that as well.

7 But as we go through this -- and I know from your
8 trip at the site, I hope that you will sense the feeling of
9 the people of this station and the positive attitude that is
10 beginning to grow at the station as we get nearer and nearer
11 what we hope to be the opportunity to bring the stations
12 back on line, Unit 3 in particular.

13 We -- I felt very strongly about one of the
14 comments you made at that meeting when you looked at the
15 people in the audience that night and said that your
16 decision, along with your colleagues', would be based on
17 results, and that the results were up to the people in that
18 audience which, as you will remember, was surely dominated
19 by Millstone people. That was an excellent comment because
20 it's those people who are going to get this job done for us.
21 And we will give you that data as quickly and succinctly as
22 we can and as straightforwardly as we can. So we appreciate
23 this opportunity to come back and give you that update.

24 With that, I will turn it over to Bruce.

25 MR. KENYON: Good morning. The purpose of our

1 presentation is to highlight the progress that has been made
2 in preparing for the restart of Unit 3, to review the
3 criteria we intend to utilize as the basis of our restart
4 affirmation, and this is new to the briefing book, to
5 discuss our most important remaining issues -- these include
6 our efforts to progress toward establishing a
7 safety-conscious work environment, and Dave Amerine, who is
8 the officer who integrates safety-conscious work
9 environment, human resources and training matters, reporting
10 to Mike Brothers, will brief you on that. And other matters
11 are approaching completion of demonstrating compliance with
12 the Unit 3 design and licensing basis, Marty Bowling will
13 brief you on this topic as well as the topic of corrective
14 action. And Mike Brothers will discuss progress toward
15 achieving Unit 3 restart readiness.

16 Certainly I want to have oversight briefly update
17 you regarding its assessment of our restart readiness, and
18 that will be done by Dave Goebel.

19 We plan to focus on Unit 3 and site issues
20 relating to Unit 3, but we are prepared to address questions
21 on other units, should you desire.

22 We have provided considerable information to you
23 in advance of the meeting, in the form of both the briefing
24 book and copies of the slides for presentation. For the
25 most part, the format and content are similar to what you

1 have received previously. We added the description in
2 considerable substance regarding the long-term improvement
3 plan. We revised a few of the indicators to more clearly
4 display our status, and in so doing, to eliminate some
5 previous apparent discrepancies between what we were
6 describing as our progress and the data as displayed by your
7 indicator. We substantially expanded the executive summary
8 with the objective of that being a much more comprehensive
9 presentation of our current state of readiness prognosis and
10 issues.

11 We did not make any changes to the slides after
12 their transmittal to you. Your admonishment from the last
13 meeting was very clear and understood, and we trust that
14 this information and these adjustments have been helpful to
15 you.

16 The balance of my portion of the presentation will
17 be devoted to highlighting certain items from the executive
18 summary.

19 This slide shows four of the eight criteria to be
20 used by NU as a basis for affirming restart readiness. Now
21 these criteria were discussed in some detail in the
22 executive summary of the briefing book, two of the four, and
23 these deal with root causes as well as self-assessment
24 corrective action. We view these as currently satisfactory.
25 The other two, compliance with the licensing and design

1 bases and safety-conscious work environment, are tracking to
2 satisfactory. These topics will be covered later in more
3 detailed presentations.

4 This next slide shows the remaining four criteria.
5 Unit and station readiness are tracking to satisfactory, and
6 will be discussed in subsequent presentations. Management
7 controls and oversight are satisfactory and, of course,
8 restart affirmation is pending.

9 Now this slide and the next summarize the progress
10 we have made in addressing the seven success objectives and
11 the associated 16 key sitewide issues. These have been
12 discussed in previous briefings and are an essential part of
13 our recovery strategy.

14 I am pleased to report that of the 16 issues, nine
15 now meet our success criteria for start-up readiness. This
16 is a net improvement of three since our last meeting to have
17 reached satisfactory for restart. And on this particular
18 slide, emergency planning, self-assessment and corrective
19 action for Unit 3 all move to a satisfactory status.

20 However, based on having identified an adverse
21 trend on procedure adherence, particularly pertaining to
22 administrative procedures, the status of procedure quality
23 adherence was reduced from satisfactory to tracking to
24 satisfactory, and we expect to have this resolved by the end
25 of the month.

1 This next slide shows the remaining issues. The
2 one significant change on this slide from last time is that
3 environmental compliance moved to satisfactory. The other
4 five issues are tracking to satisfactory for February.

5 Now I particularly want to comment on training,
6 which I had expected to reach satisfactory by the end of
7 January. Progress has not met expectations.

8 Further, as a result of a management assessment
9 followed by an investigation, it was determined that with
10 regard to in-process training for the shift technical
11 advisors, the requirements of a systems approach to training
12 were not rigorously followed, and there were instances of
13 improper documentation.

14 Now these are significant issues, we are
15 addressing these issues, management changes have been made,
16 and we are committed to achieving the proper standards, but
17 we do not expect this matter to affect the Unit 3 recovery
18 schedule.

19 Now this slide indicates what I believe are the
20 most important remaining challenges to bring Unit 3 to
21 restart readiness. Now the first is to complete the process
22 of establishing a safety-conscious work environment. There
23 is one remaining criterion, that is the timely recognition
24 and effective response to problems. This was identified as
25 a key challenge at our last briefing, and while we have

1 taken a number of important steps to strengthen performance,
2 the entire situation is overshadowed by a recent
3 high-profile event, the use of an inappropriate phrase in
4 working papers, and that situation is still in progress.

5 CHAIRMAN JACKSON: Let me stop you for a second
6 with respect to that, and ask you the following question.
7 And I realize that, as you say, it's still in progress, and
8 I assume by that you mean that you are still investigating
9 or looking into it. But given the level from which it came,
10 or the level at which it was signed off, did you ever give
11 any thought to having a work standdown to just directly
12 address the issue and to solicit your employees' thoughts
13 about that? Given that, you know, you have had the intense
14 focus on physical readiness of the plant for restart, in
15 terms of what message this might have sent to your employees
16 about your level of concern in terms of what chilling effect
17 it may have had even if it had been inadvertent?

18 MR. KENYON: What we have done, Chairman Jackson,
19 is add a number of site meetings. I don't know that they'd
20 necessarily be classified as everybody at one point in time,
21 but we responded right away with meetings, both in oversight
22 and elsewhere on the site. We got together all of
23 supervision. We communicated, not just verbally but in
24 writing, not just to our employees and the entire site work
25 force but also to the public, that that particular phrase

1 --which was not really signed out -- what this was was a
2 working paper developed to describe strengths and weaknesses
3 in the oversight organization. It was a work in progress.
4 The next step in the process was for that to be discussed
5 with first-line supervisors and above in oversight, and they
6 correctly said that phrase is inappropriate. And so that
7 was good, and we have done a review for chilling effect, and
8 we have determined that there is none, which I think speaks
9 well not just to the fact that there is not a chilling
10 effect, but it also speaks to the growing resilience of the
11 work force, and that something that can happen, and we now
12 have an environment where there's a lot greater trust than
13 what there used to be.

14 Now I am not in any way saying this wasn't a
15 serious event. We are conducting an investigation; it has
16 resulted in a verbal debrief to me yesterday. I expect a
17 written report in about two weeks. This is taking somewhat
18 longer than I would like, and that may be the basis of some
19 criticism, but I want to underscore the following --

20 CHAIRMAN JACKSON: In terms of your verbal
21 debrief, are there any preliminary conclusions that you are
22 willing to share with the Commission?

23 MR. KENYON: Chairman Jackson, with all due
24 respect, I think this is not the time and the place to
25 indicate the conclusions. This is an extremely important .

1 matter. The integrity of the organization and certain
2 people's careers are at stake. It is very important that I
3 get the facts, and while I have a verbal debrief, the issues
4 in this are complicated; it's taken longer than I thought,
5 because as the investigation was accomplished, there were
6 certain conflicts in what was said by people giving their
7 views that required a second round of interviews in some
8 cases, and even in some cases it went to a third round.

9 While I have certain thoughts in my mind as to
10 what the ultimate outcome is going to be, I feel that given
11 the importance of this, there are certain things I want to
12 see written down. In other words, the investigator who has
13 done this has -- yes, he's given a verbal debrief, but he
14 also needs to write up the investigation results with each
15 principal witness. He needs to take all that information

16 -- CHAIRMAN JACKSON: That's fine.

17 On February the 10th, the NRC sent you a letter
18 requesting within 30 days your response to several questions
19 related to chilling effect, enforcement under 50.7. You
20 intend then to fold the results of this investigation into
21 answering that under-oath-and-affirmation letter?

22 MR. KENYON: Absolutely.

23 Another challenge is to complete the process of
24 demonstrating compliance with the design and licensing
25 bases.

1 CHAIRMAN JACKSON: Let me stop you again, because
2 I feel that I want to get all the issues onto the table here
3 right from the beginning. You know, I have just read and
4 had a short briefing on -- and all of the Commissioners have
5 copies -- of an event notification on Millstone 3 that the
6 NRC has just received, and I believe, you know, we have to
7 try to be as open and straightforward about this as we can,
8 not to blind-side you, but presumably you know about it
9 since it was a notification that came from your station.

10 But the notification, at least on the surface,
11 appears troubling for numerous reasons. It states that a
12 condition could occur that could result in the failure of
13 the heat removal -- residual heat removal pump due to
14 inadequate cooling, and that since both pumps have a similar
15 design, this could lead to a common mode failure.

16 Now from my briefing, I understand that a
17 motor-operated valve on the recirc line of the RHR pump
18 senses a pressure spike on pump start which closes the
19 valve, and that an emergency work request was initiated, and
20 that a subsequent test confirmed the problem, but the issue
21 in the emergency work request was placed on the deferral
22 list, that is for work to be done post-restart, but that,
23 you know, NRC review of the deferrable items list questioned
24 this condition, resulting in further review by you, and this
25 event notification.

1 I guess I have a couple of questions I just want
2 to walk through with you, if you would.

3 When was the original testing completed?

4 MR. KENYON: I am going to have to refer to Mike
5 Brothers.

6 MR. BROTHERS: The original condition was actually
7 discovered in the 1986-'87 time frame for the cycling on the
8 alpha train.

9 CHAIRMAN JACKSON: And when were subsequent tests
10 performed?

11 MR. BROTHERS: The subsequent tests were performed
12 about six weeks ago.

13 CHAIRMAN JACKSON: And can you tell me a little
14 bit more about your reasons for placing it on the deferred
15 items list and was it reexamined after these subsequent
16 testing failures?

17 MR. BROTHERS: Yes. The condition occurs -- was
18 conservatively reported as potentially affecting both trains
19 because the logic of the arrangement is the same between the
20 two trains. It's only observed on one train primarily
21 because of the location of the orifice that develops the
22 differential pressure that inputs to this signal to the
23 recirculation valve that you correctly described.

24 The event that actually has to occur is a break of
25 particular size -- in other words, a break that stabilizes

1 at a reactor coolant system pressure, at a fairly low level
2 below the injection point of residual heat removal at about
3 450 pounds, but high enough such that you can get into a
4 cycling mode.

5 Effectively what's postulated here is that the
6 valve closes based upon a pulse across this orifice, and
7 then when it times out, and by the time it reopens, it once
8 again sees the same type of condition if the break size has
9 caused the reactor coolant system to stabilize at a
10 particular pressure.

11 We had contacted the nuclear steam system
12 supplying vendor and asked for the probability of a break of
13 this size. It is considered a very low probability that a
14 particular break of this size would in fact occur, but if
15 you postulate this particular break size, you can get into a
16 cycling mode which causes a potential of a thermal overload
17 failure, and then the valve could fail either open or
18 closed. And depending upon reactor coolant system pressure,
19 if it's a high pressure, the valve failing closed is the
20 worst case because then the pump doesn't have enough flow to
21 keep it cool. If it's a very low pressure, the valve
22 failing open is a problem because you could be robbing flow
23 that should be going into the core in this condition.

24 So depending upon reactor coolant system pressure,
25 the valve failure mode is worse, depending whether it's open

1 or closed was really indeterminate. We did go back and look
2 at it based upon questions from the Nuclear Regulatory
3 Commission and sent out the prompt report yesterday.

4 CHAIRMAN JACKSON: How would you assess this in
5 terms of significance level?

6 MR. BROTHERS: I don't yet have all the details.
7 I think it's very significant. We are in fact going to look
8 at it very hard from a process standpoint. We think it's a
9 low probability event. I believe that that would be
10 concurred upon. However, it appears that it may have been
11 narrowly assessed from the standpoint of the recirculation
12 valve cycling which we have normally seen as once. We have
13 never -- of course, we have never had a break in this
14 condition, but what you normally see is the valve cycle, it
15 was considered a nuisance, and evaluated as such. It was
16 probably too narrow of an evaluation.

17 CHAIRMAN JACKSON: Do you feel this indicates some
18 potential vulnerability in your corrective action program,
19 at least with respect to effective root cause and timeliness
20 of resolution? You indicated that the original testing was
21 back in the 1986 time frame.

22 MR. BROTHERS: The condition that I described has
23 been known for some time. It was just simply treated as a
24 nuisance. This arrangement is generic for Westinghouse
25 plants. It may be a Part 21 issue associated with

1 Westinghouse. So we knew about it, we have dealt with it
2 for some length of time on a fairly narrow basis. I think
3 from the standpoint of the deferrable items list, that we
4 need to take a look from lessons learned on this one as
5 well.

6 MR. KENYON: But just to emphasize, Chairman
7 Jackson, we are talking about a situation where a very low
8 probability event, some -- and I'm not trying to argue this,
9 but some believe it's not even a credible event, and
10 certainly once the possibility of the broader interaction
11 was identified, we have gone forward from there. So we are
12 talking about something that is low probability, but
13 certainly we want to be conservative about it, and certainly
14 once it's identified, we want to thoroughly pursue it. It's
15 not, as Mike Brothers indicated, it's not an issue that's
16 unique to us, we think. So it's something that we'll be
17 responsible about, and chase. We --

18 CHAIRMAN JACKSON: Well, I guess the issue for me,
19 and I'll just leave it on the table, is this: There is the
20 specific issue related to the specific system, with all the
21 issues of whether it's a Part 21 issue, whether it's been
22 quote, unquote, known about. But it is an issue that
23 relates to the potential inoperability of your ultimate heat
24 sink, the ECCS system. It is one that had been uncovered
25 during previous testing, and to the extent that you in fact

1 continuously say it was something that was known about, then
2 again, particularly known about for over a decade, then it
3 raises questions about the narrowness of focus in getting to
4 the root cause when there was an anomaly in the testing in
5 your ultimate heat sink. And that, I think, is the issue
6 because it's not a question of whether some people think
7 that is credible or not credible. It has to do with
8 something that could render your ultimate heat sink
9 potentially inoperable, and it has to do with narrowness of
10 point of view as well as getting to the fundamental root
11 cause in something that's been around for over a decade.
12 And so that's the message in this from my perspective. And
13 there's not a whole lot of explaining away there can be with
14 respect to those things.

15 Would you go on?

16 MR. KENYON: Another challenge is to achieve Unit
17 3 readiness.

18 CHAIRMAN JACKSON: And because it does raise
19 issues about your deferred items list, because you, you
20 know, that's been a concern, period. And now this issue
21 comes up at the zeroth hour, before this meeting, that is.

22 MR. KENYON: Another issue is to achieve Unit 3
23 readiness. We expect to achieve readiness for Mode 4 next
24 week. This will provide an important opportunity to heat
25 the unit up to normal operating temperature and pressure in

1 order to further check out systems.

2 CHAIRMAN JACKSON: Is this a system that is needed
3 for Mode 4?

4 MR. KENYON: Yes.

5 It also will allow us to close out a substantial
6 number of remaining items required for restart as part of
7 the process. We recognize the need to address this issue,
8 to address the recirculation spray system to the NRC's
9 satisfaction before entry into Mode 4, and there's -- that's
10 been a recognized issue and we have a meeting with the NRC
11 staff this afternoon to further discuss that.

12 We also recognize a challenge to manage
13 nonrestart-related work items to an acceptable level. This
14 obviously goes right into just what we've been talking
15 about.

16 We have put together a process to determine
17 whether or not an item's deferrable, and certainly that
18 process is dependent on how you look at it, and we do have
19 this question of the cycling of a valve, was that looked at
20 too narrowly. For what we understood it to be, it was
21 legitimate to defer it, for understanding it to be something
22 more than that, then it's not likely to be an appropriate
23 item to defer. And we will as a result of this look back
24 through our screening and come to some further conclusion as
25 to whether the screening has been right, but up to now we

1 have felt that we have applied appropriate screening.

2 CHAIRMAN JACKSON: Do you feel your ECCS system is
3 important?

4 MR. KENYON: Absolutely.

5 CHAIRMAN JACKSON: Okay.

6 MR. KENYON: And in response to the NRC's very
7 broad question on backlog, and of course that goes into how
8 do you define backlog, in response to how we were asked to
9 define it, we have provided a listing of items to the staff
10 which is very encompassing. It's not just those that are
11 risk and safety significant. It's not just those that
12 represent physical work. But everything that we're tracking
13 in the way of plant betterment, enhancements,
14 clarifications, drawing upgrades -- I mean, there's a lot
15 here.

16 The paperwork in process, condition reports, this
17 is all what we're tracking, and thus when you cast the net
18 that widely, you come up with what appears to be a fairly
19 sizable number. But we have assessed not just individual
20 items but we've assessed the aggregate using PRA techniques,
21 so we're comfortable that the totality of the backlog is
22 acceptable for startup.

23 CHAIRMAN JACKSON: Now my staff tells me in fact
24 that if you look at this particular situation and you look
25 at what may dominate a core damage event, that this is

1 nonnegligible in that regard. And, you know, the issue is
2 not to get into, you know, a debate specifically about this,
3 but the two points I really want to make is, this issue
4 about nonrestart backlog, the question is whether you may
5 need to reevaluate what you call nonrestart versus restart.
6 That's No. 1.

7 A second point has to do with an embedded issue
8 with respect to corrective actions has been timeliness of
9 the fix, as well as comprehensiveness of the analysis that
10 leads to it, and again, and I know the message you're trying
11 to project to us today, and we have a responsibility to
12 listen to you, but, you know, I can't reemphasize more
13 strongly the need to take this and to propagate it as a
14 lessons learned into what you do.

15 MR. KENYON: And, Chairman Jackson, we will do
16 that, so I'm struggling a little bit to deal with an issue
17 that just surfaced which we need to put through our process
18 and ask us just the same questions that you're asking, and
19 thus we need to respond to that, so I'm trying in a sense to
20 take that one issue and assure you that we're going to deal
21 with that.

22 CHAIRMAN JACKSON: Well, it's not one issue.
23 That's my point.

24 MR. KENYON: Well --

25 CHAIRMAN JACKSON: And that's what I want --

1 MR. KENYON: Ramifications --

2 CHAIRMAN JACKSON: You to understand from at least
3 my point of view.

4 MR. KENYON: Yes.

5 CHAIRMAN JACKSON: It's not one issue. It is an
6 issue, and the question is to what extent does it have any
7 generic implications.

8 MR. KENYON: And if I conveyed anything other than
9 that, I didn't mean to.

10 CHAIRMAN JACKSON: Okay. So why don't we move on.

11 MR. KENYON: Okay. To -- I guess finish my
12 comments on backlog with all acknowledgement of what you
13 just said, we do have a very broad definition of what
14 constitutes backlog. We do have a very low threshold for
15 identifying items. We have had a careful process to
16 evaluate things. We'll have to go back and check that. And
17 we think the magnitude that we have compares reasonably with
18 other plants providing they use a similar threshold and a
19 similar scope. We'll talk more about the backlog in greater
20 detail later in the presentation.

21 Another challenge is to achieve station readiness
22 to support Unit 3 restart. And the remaining issue here is
23 training, and we are going to get that resolved.

24 Now this next slide addresses important other
25 challenges in transitioning the Millstone organization from

1 a recovery organization into long-term operation. Chairman
2 Jackson, you correctly pointed out certain of these issues
3 and challenges in your recent site visit, and I also want to
4 say in addition to what Mike Morris said that your visit was
5 very much appreciated by -- and this is based on
6 considerable feedback by the community, it was appreciated
7 by the community, it was certainly appreciated by
8 management, and particularly by employees who valued and
9 appreciated the considerable time that you spent devoted to
10 talking with them. That communication was important.

11 Moving on to the challenges, there's a challenge
12 in the sense of needing to ensure sufficient separation of
13 Unit 3 operations from the continuing recovery efforts on
14 Unit 2 and the shutdown maintenance mode on Unit 1. This is
15 accomplished by having a management structure and dedicated
16 resources for Unit 3 startup and operations separate for
17 that -- separate for Unit 2 recovery, and thus this is our
18 means to ensure that there's a high degree of focus on unit
19 operations.

20 CHAIRMAN JACKSON: Where do you stand in
21 developing an integrated schedule?

22 MR. KENYON: We have an integrated schedule.

23 CHAIRMAN JACKSON: Has it been submitted?

24 MR. BOWLING: It will be on the docket this week.

25 MR. KENYON: We have shifted into the normal

1 organization for startup and operations for Unit 3, and
2 that's headed by Mike Brothers.

3 Another challenge is the need to provide
4 additional monitoring and coaching as the plant resumes
5 operation. The unit has been out for a long period of time.
6 We have to be very careful, cautious and conservative as we
7 resume operation. An important action here will be to add
8 mentoring SROs in the control room from other units in order
9 to watch and coach as necessary, and we're going to do
10 something similar with plant equipment operators.

11 There's also the need to ensure that performance
12 monitoring and reporting and oversight shifts effectively
13 into an operating mode such that we're well positioned to
14 detect any potential backsliding performance. The programs
15 are in place. We have an acceptable but not generous number
16 of personnel in oversight with operating experience, so I
17 think we're prepared to do that.

18 We need to establish a long-term improvement plan.
19 As I stated previously, achieving restart is just a
20 milestone on the road to excellence. The plan has been
21 drafted. A significant portion of that was included in the
22 briefing book and we will include the complete plan as part
23 of our next briefing.

24 Another important need is to do organizational and
25 succession planning. As we transition out of recovery mode,

1 we're going to go to a simpler organization. The needs for
2 that need to be defined. An important characteristic will
3 be to maintain good checks and balances. We will do
4 succession planning for obvious normal reasons, but also to
5 improve bench strength. We're not as deep as I would like,
6 and certainly we need to prepare for the eventual phase-out
7 of the recovery organizations. So even as we prepared for
8 restart, consideration is being given to these important
9 other challenges.

10 Unless there are further questions for me, I would
11 like to call on Dave Amerine to brief on safety-conscious
12 work environment.

13 CHAIRMAN JACKSON: Please.

14 COMMISSIONER MCGAFFIGAN: I would like to ask one
15 question since it's not going to fit in anywhere easily in
16 the briefing about Unit 2. The staff is going to present
17 slides later that show their current schedule looking toward
18 completing staff actions around the 10th of July. The last
19 time you were here, you were hoping to be one month behind.
20 Is that where you now are, three months behind in your own
21 schedule?

22 MR. KENYON: We've I think previously
23 characterized Unit 2 as being two to three months behind
24 Unit 3. The July time frame is obviously -- appears to
25 support the three-month interval. There has been some

1 impact on Unit 2 because we have been devoting so much
2 attention and resources to Unit 3, so I think three months
3 and the July time frame is right for where we are now.

4 COMMISSIONER McGAFFIGAN: And then one other
5 questions. Parsons, in one of its backup slides, is --
6 preliminarily in their discrepancy report found five Level
7 1's and one Level 2 at Unit 2. You all will have a
8 conversation, but if that holds, that will have implications
9 about your startup schedule as well.

10 MR. KENYON: We understand that.

11 Marty, how many have we responded to at this
12 point?

13 MR. BOWLING: We have responded to those Level 1's
14 and provided additional technical information that should
15 justify a reclassification of those levels. That's
16 certainly up to Parsons to confirm.

17 COMMISSIONER McGAFFIGAN: So in your judgment, the
18 Level 1's and Level 2's are 3's or 4's?

19 MR. BOWLING: That's correct, and some of those
20 have been responded to for over several months.

21 COMMISSIONER McGAFFIGAN: Several months.

22 MR. BOWLING: Yes.

23 COMMISSIONER McGAFFIGAN: Very well. I'm going to
24 ask questions later.

25 CHAIRMAN JACKSON: Okay.

1 COMMISSIONER MCGAFFIGAN: Thank you.

2 MR. KENYON: Dave?

3 MR. AMERINE: Good morning. My name is Dave
4 Amerine and I'm the Vice President of Human Services at
5 Millstone.

6 I have recently assumed the responsibilities for
7 the safety-conscious work environment there. In this
8 capacity, I report to Mike Brothers, who retains the
9 responsibilities as executive sponsor for establishing and
10 maintaining the safety-conscious work environment, but I
11 will be going through that presentation.

12 May I have the first slide, please.

13 This slide gives our six high-level success
14 criteria which we will use to ensure that we have
15 successfully established and are in a position to maintain a
16 safety-conscious work environment at Millstone Station. I
17 will discuss the first four of these success criteria. The
18 last two, the employee concern oversight panel and Little
19 Harbor Consultant validation of our efforts, are independent
20 verifications of our evaluation.

21 At the December 12th NRC Commissioners' meeting,
22 we reported that we felt we were currently meeting our
23 acceptance criteria in the first two success criteria; that
24 is, employee willingness to raise concerns and line
25 management's ability to handle issues effectively. Today, I

1 am pleased to report that we continue to meet our success
2 requirements in the first two criteria, and we now feel that
3 we are meeting our success criteria in the third area, an
4 effective employee concerns program.

5 Although in general, we feel we are tracking to
6 success in the fourth area, the ability to recognize and
7 address problem areas, as Bruce Kenyon mentioned, we have
8 had a potentially significant event which is under
9 investigation at this time. This is the recent situation
10 which occurred relative to a brainstorming session in
11 nuclear oversight during which inappropriate terminology was
12 used.

13 However, overall, we believe we have made progress
14 in all areas in establishing a safety-conscious work
15 environment and are on track to support the restart of
16 Millstone Unit 3 in this important area.

17 The first criterion I will discuss is the
18 willingness of employees to raise concerns. This criterion
19 is currently being met.

20 This graph shows our current leadership results to
21 support success criterion on employees' willingness to raise
22 concerns. As shown on the slide, our criterion is that
23 greater than 90 percent of the people are willing to raise
24 issues to their immediate supervisor. The current value is
25 approximately 97.5 percent, so this criterion is currently

1 being met.

2 This graph shows the culture survey results which
3 assess the percentage of respondents who agree that there is
4 a safety-conscious work environment in their work area.
5 Although this measurement is not yet at our long-range goal,
6 we believe the current results in the overall cultural
7 survey coupled with the percentage of people who are willing
8 to raise concerns to their supervisor meet our acceptance
9 criterion.

10 This next graph shows our confidentiality plus
11 anonymous trend. The top line is the total number of
12 concerns received per month and the bottom line is the total
13 number of concerns which are requesting either
14 confidentiality or are received anonymously. Our criterion
15 is that no adverse trend exists in this area. As you can
16 see, in both December and to a lesser extent in January, we
17 had an increase in the total number of concerns and,
18 correspondingly, an increase in number of concerns which
19 requested confidentiality or were received anonymously.

20 Although the percentage of confidential or
21 anonymous concerns actually decreased, we will be watching
22 this indicator closely to ensure that an adverse trend is
23 not occurring.

24 By February 17th, four of the twelve concerns
25 received so far this month requested either confidentiality

1 or were received anonymously. Now, if extrapolated
2 linearly, the total for February should be approximately 20
3 total concerns, which is less than both December and
4 January. There is no particular pattern in the increase of
5 concerns that has been detected, and in the same period, the
6 trend of allegations to the NRC has decreased.

7 I might add that I was responsible for instituting
8 an employee concern program at Davis Besse during their
9 restart, the recovery and restart of that unit, and also at
10 the defense waste processing facility of the Savannah River
11 site. And when you go through that initial training and
12 advertising advertising to increase employee sensitivity and
13 awareness of an Employee Concern Program, in both those
14 cases, I experienced a similar kind of increased activity in
15 the beginning of the program, which eventually tapered off,
16 so this is not unexpected, in my opinion.

17 CHAIRMAN JACKSON: You mentioned there that
18 although there is an adverse trend, that there are other
19 indicators substantiating that employees are willing to
20 raise concerns. Are those the other graphs that you are
21 going to be talking about?

22 MR. AMERINE: Yes, ma'am. Yes, ma'am.

23 CHAIRMAN JACKSON: Okay.

24 MR. AMERINE: Okay. The second criterion that I
25 will discuss is the effectiveness of line management in

1 handling issues, like the first, we are currently meeting
2 this success criteria.

3 This next graph shows the average age of our
4 Condition Report Evaluations. Our goal is not to have an
5 adverse trend in this indicator. The average time of
6 Condition Report -- from a Condition Report initiation to
7 evaluation was approximately 23 days during the month of
8 January.

9 The last three weeks the average age of the
10 Condition Report Evaluations has increased from 26 to 34
11 days. Most of those not achieving the goal are exceeding
12 the 30 day target by only a few days. This is due to the
13 priorities, our engineering work force being directed to
14 respond to the Independent Corrective Action Verification
15 Program, support the transition to Mode 4 and respond to the
16 NRC inspection activities.

17 However, for the week of February 11th, of average
18 age of completed Condition Report Evaluations dropped once
19 again to 30 days. We believe we are effectively managing
20 this metric and performance in this area is currently
21 satisfactory.

22 CHAIRMAN JACKSON: Okay. So let me make sure I
23 understand. What you are saying is that even though this
24 average length of time has gone up, you are saying that you
25 understand it because the work force that would be

1 addressing these have been diverted to other things?

2 MR. AMERINE: That is correct.

3 CHAIRMAN JACKSON: And that even with that, you
4 have dropped from the 34 days to the 30 days?

5 MR. AMERINE: In this past week, that is correct.

6 CHAIRMAN JACKSON: In the past week.

7 MR. AMERINE: Now, that took increased management.

8 CHAIRMAN JACKSON: And that's what you mean when
9 you say tracking the status?

10 MR. AMERINE: Yes, ma'am. And we were responding
11 to our trend in this case, in this performance indicator.
12 So we have brought it back down to the 30 days.

13 The next graph -- the next graph shows our current
14 Condition Report Evaluation score. This score is developed
15 by averaging all the Condition Report Evaluations which are
16 reviewed by the Site Management Review Team during each
17 month. The Condition Review -- the Condition Report
18 receives a 4 if the Evaluation is accepted without comment,
19 2 if it is accepted with comment, and 0 if it is rejected by
20 the Management Review Team. This criterion is currently
21 being met.

22 CHAIRMAN JACKSON: Now, is there a sampling of
23 these quality ratings by Little Harbor or NRC?

24 MR. AMERINE: I am not aware of that.

25 CHAIRMAN JACKSON: Okay.

1 MR. AMERINE: Okay. The next graph, this shows
2 the percentage of all Action Requests as a result of
3 Condition Reports which are overdue. The goal is less than
4 3 percent. Significant attention has been focused on
5 completing those actions necessary to Mode 4, as we just
6 discussed. As a result, the lower priority Corrective
7 Actions became overdue.

8 Now, once again, due to increase management
9 attention in response to this KPI, for the week of February
10 11th, we once again were at the goal of 3 percent, so this
11 criterion is currently being met as well.

12 CHAIRMAN JACKSON: How quickly must they be
13 assigned? You say, you talk about the number of overdue
14 assignments. When do they become overdue? I mean how
15 quickly must they be assigned in order not to be overdue?

16 MR. AMERINE: Well, we are trying to get them
17 assigned as soon as they come in the door, and then get the
18 Evaluation done within those 30 days.

19 MR. BROTHERS: There's an Evaluation, the
20 timeliness of the Evaluation is 30 days, and then the
21 overdue is based upon the approved due date once that
22 Evaluation comes out. So the overdues are looking at
23 something that has gone past the due date that was approved
24 by the Management Review Team.

25 CHAIRMAN JACKSON: Okay.

1 MR. AMERINE: Thank you. The third criterion I
2 will discuss is the effectiveness of the Employee Concerns
3 Program. We now evaluate our performance in this area
4 satisfactory.

5 The next slide shows the average age of unresolved
6 concerns. In the December 12th presentation, the success
7 criterion was that 90 percent of all investigations are
8 completed within 45 days. It was also indicated at that
9 time we were assessing the validity of this indicator, of
10 the effectiveness of our Employee Concerns Program. This is
11 because an undue focus on timeliness can result in
12 degradation of other areas of the Employee Concerns Program.

13 We have altered our criterion to look at the
14 average age of unresolved concerns to more effectively
15 assess the ability of the organization to keep up with its
16 receipt rate, without sacrificing any of the other aspects
17 of the concern processing. No adverse trend with regard to
18 this average age of unresolved concerns exists at this time,
19 so this criterion is currently being met.

20 The next slide shows the percentage of employees
21 who have used the Employee Concerns Program, that would use
22 it again if they had the need. The first three data points
23 are really Little Harbor consultant numbers since we were
24 not tracking this parameter during the early part of 1997.
25 In December of 1997, we commissioned the Employee Concerns

1 Oversight Panel to ascertain a certain value for this
2 metric. This was determined to be 75 percent, which is the
3 lighter shade bar. At the same time, Little Harbor, their
4 estimate was 83 percent.

5 CHAIRMAN JACKSON: When do you plant to do your
6 next survey?

7 MR. AMERINE: We are going to have them
8 commissioned to do that from now on. In fact, I talk about
9 that at this moment.

10 CHAIRMAN JACKSON: On what frequency, I mean?

11 MR. AMERINE: I am not sure of the frequency, but
12 it is going to be -- they are just getting into this metric
13 now.

14 CHAIRMAN JACKSON: You haven't decided what the
15 frequency will be?

16 MR. AMERINE: Yes, ma'am.

17 CHAIRMAN JACKSON: Okay.

18 MR. AMERINE: We are continuing to refine this
19 metric to determine additional factors such as the areas
20 that we would be looking, reasons for dissatisfaction and so
21 forth, and we are going to fold that into determining, you
22 know, what the answer to your question would be.

23 At this moment, though, based on both Little
24 Harbor and our initial one, we assess this metric as meeting
25 expectations and expect to gain further useful information

1 for it to become a more effective measurement as we use the
2 Employee Concerns Oversight Panel data. So, therefore,
3 right now, we believe this criterion is being met.

4 The fourth criteria is our effectiveness if
5 recognizing and remediating problem areas within the
6 Millstone organization. Although the performance in this
7 area has improved, we are not currently meeting our
8 standards.

9 The first slide here is simply a compilation of
10 our current status of training to our supervisors and above
11 at Millstone Station. We are committed to get above 95
12 percent on the first three training categories, and we
13 believe that we will have all three of those above 95
14 percent by mid-March. The other one that is shown on there
15 is our Forum for Leadership Excellence, and we will have the
16 work force above 95 percent by mid-1998.

17 CHAIRMAN JACKSON: Is this in-house training that
18 you do, or you bring in outside?

19 MR. AMERINE: It is a combination.

20 CHAIRMAN JACKSON: Combination. And tell me about
21 the Forum for Leadership Excellence.

22 MR. AMERINE: That is a program that, in fact, my
23 first two days at Millstone were spent in that Forum for
24 Leadership Excellence. And we get, at various levels, we
25 have brought together the managers and supervisors and we

1 are working our way on down through the organization, and it
2 is facilitated by an outside contractor who has done this at
3 other utilities, to basically develop communication skills
4 and techniques and team work approaches and so forth, and we
5 have found it to be very useful.

6 One of the things that I have seen that it does is
7 it starts to develop a common language across the site.

8 Okay. Next slide. This slide shows our current
9 trend of Employee Concerns alleging instances of harassment,
10 intimidation, retaliation and discrimination with 50.7
11 implications. We use a conservative classification of HIRD,
12 including not only explicitly stated alleged activities, but
13 also any inferred from the Concern Statement, including fear
14 of possible future retaliation.

15 The HIRD classification includes matters such as
16 race discrimination and sexual harassment, as well as the
17 chilling effect and adverse actions related to protected
18 activities. So we are using a conservative definition in
19 looking at this.

20 But, regardless, we have zero tolerance for all
21 HIRD instances, especially those leading to potential
22 violations of 50.7.

23 We have completed a review of 218 concerns between
24 December 1st, 1996 and January 31st, 1998, which reveal that
25 approximately 50 percent of the concerns had one or more

1 HIRD elements, and approximately 25 percent had 10 CFR 50.7
2 potential implications. These proportions are consistent
3 with previous classifications, but we are working hard to
4 bring those down.

5 Our criterion is that substantiated instances of
6 potential 10 CFR 50.7 violations are rare and are handled
7 responsibly. The top line shows the total numbers of
8 concerns received and the bottom line on the chart shows
9 those concerns with potential 50.7 implications.

10 The bar, in August 1997, represents three
11 instances of substantiated potential 50.7 violations. These
12 three were all as a result of the MOV event which occurred
13 in July-August time frame. Now, as of February 17th, these
14 are the only substantiated cases of potential 50.7
15 violations which we have had during the period of
16 May-December 1997.

17 There are additional cases that are still under
18 discussion with a third party which have the possibility to
19 be substantiated as potential 50.7 violations.

20 This criterion, we feel at this time is being met.
21 However, extensive executive involvement in any confirmed
22 case of HIRD, regardless of whether or not there are 50.7
23 implications, will ensure that Corrective Actions, up to and
24 including reassignment and removal, are effective at
25 eliminating HIRD at Millstone.

1 CHAIRMAN JACKSON: If you have zero tolerance,
2 what is your satisfactory performance criteria?

3 MR. AMERINE: Well, in the discussion that Bruce
4 Kenyon had about that before, where we are headed is to get
5 the instances of this to be very rare and the total impact
6 to be as low as possible.

7 CHAIRMAN JACKSON: I guess I'm really trying to
8 probe the thinking, I mean you have this lump-up here in the
9 November-to-January time frame, but you feel that your
10 performance is satisfactory, and is that because at this
11 stage of the game, even though you have the potential
12 concerns, they haven't been substantiated? I guess I'm
13 trying to understand these relative to the trend on the
14 graph what the definition of satisfactory is.

15 MR. AMERINE: Right. As I was saying before, this
16 looks similar and it is very similar to the previous graph I
17 had on this, and these are alleged concerns that have come
18 in, and again I believe that we're seeing this spike up,
19 which is now coming down, and if we make a linear
20 projection, February will be a 20, whereas January is 27.

21 CHAIRMAN JACKSON: Ah, you can't make a linear
22 projection.

23 MR. AMERINE: Oh, I'm not saying --

24 CHAIRMAN JACKSON: Can't do that.

25 MR. AMERINE: You're absolutely right. But if we

1 were, the number would have come down --

2 [Laughter.]

3 MR. AMERINE: But again, as I said, my experience
4 at both Davis-Besse and the Defense Waste Processing
5 Facility was that they went up and started to come back
6 down.

7 CHAIRMAN JACKSON: I understand all that. But
8 what I would suggest that you -- I think it's -- you don't
9 make linear extrapolations with something like this.

10 MR. AMERINE: No.

11 CHAIRMAN JACKSON: That's No. 1. No. 2, it is
12 better to keep the emphasis on what's substantiated and
13 what's not.

14 MR. AMERINE: Right.

15 CHAIRMAN JACKSON: And 3, if you think that there
16 are explanatory statements you can make, which is probably
17 buried in here, you know, just list them in the margin,
18 because I think that you don't want to affect your
19 credibility about statistics and talk about extrapolation
20 here.

21 MR. AMERINE: I understand.

22 MR. KENYON: Could I just -- I agree with what you
23 said, Chairman Jackson. These HIRD items, just to
24 emphasize, these are either alleged --

25 CHAIRMAN JACKSON: I know.

1 MR. KENYON: By the concerned or inferred --

2 CHAIRMAN JACKSON: Right.

3 MR. KENYON: Or just a chilling effect. I mean,
4 it is a pretty broad definition.

5 CHAIRMAN JACKSON: Right. And all I'm trying to
6 say is that it is better to talk about it that way, in that
7 way, then to talk about linear extrapolation.

8 MR. KENYON: We understand.

9 CHAIRMAN JACKSON: Right. Please.

10 COMMISSIONER DIAZ: Also, when you look at all of
11 this graph, it might be appropriate to, you know, look at
12 any one of them and say, you know, right now is not
13 satisfactory, but the trend is not declining, but some of
14 them you put a criteria and then you said well, you know, I
15 look at any one of them, you know, criteria is less than 3
16 percent, and obviously the last four months is over 3
17 percent. Without extrapolation, using some averaging,
18 you'll still be above three.

19 So you have not met the criteria, but you can make
20 an explanation if that is not significantly above the
21 criteria, and that is not trending adversely. But, you
22 know, I think making a statement that, you know, it's
23 satisfactory or we met the criteria, it doesn't track with
24 your graph. It's better to say it doesn't meet the
25 criteria, but it doesn't meet it by a little bit, and is

1 not, you know, tracking adversely. And I think that would
2 be a little better from my viewpoint.

3 CHAIRMAN JACKSON: Right. And I mean I think that
4 all of these things are consistent. But, you know, and I
5 realize you've had quite a bit of prior experience, but
6 each, you know, entity and each organization is different,
7 and therefore linear extrapolation's a very dangerous thing.

8 MR. AMERINE: Okay. If I could have the next
9 slide, please.

10 This slide shows our total number of problem areas
11 at Millstone Station. In fact, successful action plans have
12 brought the number of problem areas down from 33 to 11.
13 Four of the problem areas' action plans are nearing
14 completion, four of the 11 that are left at this time, and
15 are expected to be effective in mid-March.

16 Now a problem area is any area in which a
17 safety-conscious work environment may not exist. Problem
18 areas are identified by inputs from the employee concern
19 program, from the employee concern oversight panel, from
20 Little Harbor Consultants, or from the culture or leadership
21 surveys, or a combination thereof.

22 Our criterion is that the total number of problem
23 areas not indicate an adverse trend. While we meet that
24 criterion, we have not yet demonstrated the ability to
25 proactively identify and remediate problems prior to them

1 becoming obvious problems.

2 The nuclear oversight problem discussed by Bruce
3 Kenyon notwithstanding, we have several examples of
4 proactive responses to potential problem areas in the recent
5 past. In other words, we have successfully prevented some
6 potential areas from becoming problem areas by effective
7 intervention. We expect this performance level to continue
8 to improve and the organization's ability to identify and
9 prevent problem areas to take precedence over our ability to
10 remediate problem areas which have been allowed to occur.
11 Increased senior human resource management and legal
12 presence on site is helping in our responsiveness.

13 Returning to our six success criteria as we
14 reported during the December 12 NRC Commissioners meeting,
15 we are meeting our criteria for employees' willingness to
16 raise concerns and line management's effectiveness in
17 dealing with issues raised by employees. We have made
18 significant and meaningful progress towards establishing an
19 effective employee concerns program. Today we feel we're
20 meeting the success criteria in that area.

21 The fourth success criteria, our ability to
22 recognize and address problem areas, is where we still need
23 to improve to meet our success criteria. Significant
24 progress has been made over the last few months. This area
25 will continue to be our focus going forward.

1 The remaining two success criteria, employee
2 concerns oversight panel and Little Harbor Consultant
3 concurrence, are under way and expected to support the Unit
4 3 restart schedule.

5 Now speaking of going forward, our next focus in
6 the area of safety-conscious work environment is the
7 development of the plan that Mr. Kenyon mentioned. As we
8 have consistently stated, our overall recovery strategy is
9 the startup and then power ascension, and then the long-term
10 performance improvement plan. Mike Brothers is also the
11 executive sponsor for the long-term performance improvement
12 for Millstone station, as well as the safety-conscious work
13 environment, which is a subset of that.

14 Included in this plan are some plan enhancements
15 to our processes which will support the safety-conscious
16 work environment. These include but are not limited to
17 clarification of employee concern program responsibilities,
18 long-term organizational alignment within the areas that I'm
19 responsible for, first-line supervisors' handbook, and a
20 safety-conscious work environment manual. This plan should
21 be finalized in late February or early March.

22 CHAIRMAN JACKSON: Thank you.

23 MR. AMERINE: If there are any other questions,
24 I'll pass the baton to Marty Bowling.

25 Thank you.

1 MR. BOWLING: Good morning.

2 Before I begin, let me clarify my response to your
3 question, Commissioner. In terms of the five Level 1s and
4 the one Level 1 -- Level 2 on Unit 2, we have responded to
5 three of the Level 1s and the one Level 2, and that was done
6 in '97. The responses for the remaining two Level 1s are in
7 final preparation and will be provided shortly to Parsons.

8 In my August and December briefings to you I
9 discussed the status of corrective actions at Millstone.
10 Today I want to update you on our progress.

11 In general terms it's my view that the corrective
12 actions continue to be on track to fully support both Unit 3
13 restart and the continuing recovery of Unit 2. We have a
14 program that is designed to industry standards. This
15 program has been implemented, personnel trained, and
16 self-assessments of both the process and the quality of
17 results are being performed. I think this is the key
18 attribute, in that it's not a perfect program, but when we
19 find we've made a mistake, we're looking at it in its
20 broadest extent to understand the extent of the problem and
21 making sure that we get that fixed. And this issue that
22 you've brought up will go right into that process.

23 Also, nuclear oversight is providing weekly
24 independent surveillance of the program.

25 This slide shows the four major programmatic

1 elements and the supporting attributes of corrective action
2 in the broadest sense. This slide, which focuses on Unit 3,
3 is color-coded to represent the current status toward
4 restart readiness for Unit 3.

5 My purpose is to give you a balanced sense of the
6 robustness of our corrective actions at this stage of the
7 recovery. The first two elements, problem identification
8 and problem evaluation, were discussed last December and
9 continue to be satisfactory. As you will note, the two
10 elements of problem resolution and corrective action
11 effectiveness are not yet satisfactory, but are on track.
12 Indicators are provided in the issue book for most of these
13 areas, and include both restart and postrestart items.

14 With respect to problem resolution and corrective
15 action effectiveness, the principle issues that I will focus
16 on are the restart backlogs and configuration management
17 effectiveness. Both Mike Brothers and I will also discuss
18 postrestart backlogs. Mike will also discuss repetitive
19 issues and Unit 3 organizational readiness.

20 The restart backlog or remaining tasks required
21 for restart of Unit 3 are shown in this slide. These
22 remaining tasks include all of the items required to restore
23 compliance with the design and licensing basis for safety
24 and risk-significant systems as well as NRC regulations. As
25 you can see, this indicator is showing steady progress and

1 it's tracking to satisfactory. As of February 17, 684
2 restart tasks remain.

3 CHAIRMAN JACKSON: How many, 683?

4 MR. BOWLING: 684.

5 CHAIRMAN JACKSON: 684. And that's as of the
6 7th -- 17th.

7 MR. BOWLING: Yes.

8 This slide and the next give a better perspective
9 of the remaining tasks required to restore compliance. As
10 Bruce indicated in his remarks, progress continues on the
11 key organizational and programmatic issues. This slide
12 shows that most of the significant items, that is, those
13 issues that could affect the operability and functionality
14 of safety and risk-significant maintenance rule equipment,
15 have been addressed.

16 In addition, substantial progress has been made in
17 responding to the NRC's significant-item list relating to
18 manual chapter 0350 process.

19 Finally, we are meeting our commitments to the
20 NRC. Just to update you where we are as of yesterday on the
21 significant items with 50.54(f) it's 252 items remaining for
22 the MC0350 significant items list there are six.

23 CHAIRMAN JACKSON: You had indicated in your
24 executive summary that you would expect that all the
25 significant items list packages to be submitted to the NRC

1 by mid-February. Did you -- were you able to meet that?

2 MR. BOWLING: There are still six.

3 CHAIRMAN JACKSON: Oh, that's what you mean when
4 you say there's six.

5 MR. BOWLING: Yes. Yes.

6 CHAIRMAN JACKSON: Okay. I understand.

7 MR. BOWLING: I will discuss our responses in more
8 detail. That number's substantially less. And for open NRC
9 restart commitments, it's at 77.

10 The next slide.

11 This slide shows the corrective action resulting
12 from the NU-performed reviews to restore compliance to
13 design and licensing basis. As you can tell, a substantial
14 number of the corrective actions have been completed.

15 The next slide, please.

16 Now moving to the second element, corrective
17 action effectiveness, I want to concentrate on configuration
18 management program effectiveness.

19 The program for reviewing the Millstone Unit 3
20 design and licensing basis was developed in the spring of
21 1996. The methodology used was to perform a diagnostic
22 review of key design and licensing basis documents. Based
23 on the diagnostic results which were provided to the NRC in
24 July of '96, the scope of the configuration management
25 project was determined. In summary, this was a graded

1 review based on risk and safety significance. Still, it was
2 comprehensive in scope with 88 maintenance rule covered
3 systems, 19 topical areas, environmental qualifications,
4 energy, line break, fire protection, and portions of
5 approximately 60 other technical programs. Also, the FSAR
6 and technical specifications were reviewed to determine if
7 they were being complied with.

8 CHAIRMAN JACKSON: Let me ask you, you have a
9 meeting this afternoon --

10 MR. BOWLING: Yes.

11 CHAIRMAN JACKSON: -- with the NRC staff on the
12 recirculation spray system, and it's a system, you know,
13 that I happened to look at when I was there, and to a large
14 extent, you've reconfigured that system during your
15 shutdown. Can you describe the problems you've had and how
16 you assure yourselves that the system now is operable?
17 Would you just kind of walk through that in a succinct
18 fashion?

19 MR. BOWLING: Okay. And I may ask Mike Brothers
20 for some help here as well.

21 CHAIRMAN JACKSON: Sure. Okay.

22 MR. BOWLING: In initial startup, there were flow
23 stability problems through the heat exchangers of that
24 system which required restrictions on flow, and the various
25 analysis has been to assure that the flow stability is

1 acceptable, and that has required both reconfiguration of
2 the lineups in terms of injecting into the reactor coolant
3 system directly as well as supporting other ECCS pumps, and
4 it has also required physical modification such as orificing
5 in order to get the flows right.

6 Also there was a timing issue in terms of
7 operators being able to do lineups in the required amount of
8 time, and that time was extended to give them the adequate
9 time to perform these evolutions.

10 Mike?

11 MR. BROTHERS: Yes. I would break the problems
12 with the recirculation spray system up into, as you
13 described, the original problem, too much flow through the
14 heat exchangers when we went into the injection mode, which
15 was changed in 1985 and called into question in our process.

16 When we shut down, we identified fluid temperature
17 problems with a failure of service water which resulted in a
18 fluid system excedent, ambient temperature problems, and the
19 fact that we treated the containment temperature profile
20 during a large break LOCA as a transient event, that was
21 called into question.

22 We had water hammer events that came from the
23 generic letter as a result of the Haddam Neck problem that
24 they had had on their containment air recirculation fans.
25 It wasn't in the same system, but it was a water hammer

1 event.

2 We had the ECS valve erosion event, the single
3 most significant event we had, an industry event, which says
4 that the valves were throttled down so far that if you can
5 imagine a line going to the break, the loop that the break
6 is in, that the position of that valve being throttled is
7 supposed to eliminate or reduce the amount of flow that's
8 being robbed and going to the break, but the valves were
9 found by EPRI to be in the cavitating range and they fail
10 quickly. Orifices were installed for that as well as the
11 air entrainment issue that was identified in the tier 1
12 inspection.

13 So all those in addition to the original design
14 problem of too much flow were in the recirculation spray
15 system.

16 CHAIRMAN JACKSON: Okay.

17 MR. BOWLING: We have put on the docket a fairly
18 comprehensive discussion of how the system is performing
19 today versus its original licensing basis and all the --
20 explaining all the changes.

21 CHAIRMAN JACKSON: Thank you.

22 MR. BOWLING: As I stated, the configuration
23 management effort was graded based on risk and safety
24 significance. Initially, the scope was focused on the areas
25 of weakness identified in a diagnostic review; however, we

1 recognized that self-assessment would be critical. Simply
2 stated, we know that we must be able to find our own
3 problems and fix them before they become more significant.

4 In addition, the ICAVP review process has resulted
5 in findings that have also required us to determine the need
6 for additional reviews. In a number of cases, we have
7 performed the necessary additional work to provide added
8 assurance that we have identified all of the important
9 issues.

10 This slide shows the additional areas that have or
11 are currently being addressed. A number of issues have been
12 identified by these reviews, but none individually have had
13 high safety significance or have resulted in a reportable
14 event under 10 CFR 50.73.

15 Two of these reviews cover areas recently
16 addressed in a pre-decisional enforcement conference. The
17 principal concern was for the potential for air binding of
18 safety required pumps which was identified by the NRC in
19 their Tier 1 out-of-scope SFFI and was mentioned by the NRC
20 in the December Commission meeting with you as a potential
21 high safety significant issue.

22 At the January 13th pre-decisional conference
23 which was open to the public, we provided the NRC staff with
24 information demonstrating that this issue posed no safety
25 impact and that the Millstone ECCS systems were operable and

1 functional. We are also providing the NRC staff the
2 technical information we relied upon so they can
3 independently review our conclusions.

4 The other issue concerns the use of operating
5 experience, especially NRC information notices. The Unit 3
6 configuration management effort did utilize a significant
7 amount of operating experience, but the scope did not
8 explicitly require a review of NRC information notices. As
9 a result, despite several opportunities, we missed the RSS
10 air-binding issue.

11 To address the extent of the potential for air
12 binding as well as any other operating experience issues
13 that relate to system-to-system interactions, we expanded
14 our reviews to an integrated system functional review. This
15 review, which drew heavily upon operating experience, looks
16 specifically at system interfaces and system-to-system
17 interactions.

18 The team consisted of a multi-discipline group of
19 engineering, operating and operating experienced personnel
20 and has been in place since late October of last year. The
21 team is also performing reviews of the FSAR with a
22 particular focus on the interface between the AE and the
23 NSSS design safety system functions.

24 Additional reviews of NRC information notices is
25 also currently taking place to ensure that our scope has

1 been adequate. With respect to the other items on this
2 slide, reviews and any needed corrective actions are being
3 pursued. You will note that several of these items are
4 consistent with the preliminary ICAVP contractor DR trend
5 results to be presented later by Sargent & Lundy.

6 CHAIRMAN JACKSON: Has your management team in any
7 way been surprised at the amount of work necessary for you
8 to regain your assurance of conformance with the design and
9 license basis?

10 MR. BOWLING: I don't know if surprise is the
11 right word. Clearly, we have learned a lot as we have gone
12 through this process, and I have to say that it started --
13 the process started with an organization that was not at the
14 level of performance that we have today or that met a
15 standard, so it's a process of increasing standards.

16 The other aspect of this which I think is
17 important is that I mentioned several times that we did a
18 graded safety review. In other words, this review stopped
19 when conformance to design and licensing basis was
20 confirmed. The ICAVP review goes deeper in the sense that
21 it's looking at essentially all calculations and drawings
22 that relate to the systems that are in scope. I think this
23 is the explanation for a lot of the Level 4's.

24 CHAIRMAN JACKSON: Let me ask you one last
25 question given what you just said. You know, when I was on

1 site, I met a number of contractors.

2 MR. BOWLING: Yes.

3 CHAIRMAN JACKSON: You know, I was walking around
4 to meet employees, and I did that, I met a number, but I
5 also met a lot of contractors, and I guess -- what is your
6 assessment today? One has to do with standards, but the
7 other actually has to do with actual capabilities, of the
8 strength that the organization has in engineering, you know,
9 given that a lot of these kinds of issues, at least, that we
10 are discussing at the moment, depend on that area, and one
11 of these days, the contractors are going to be gone.

12 MR. BOWLING: Right. Certainly, the knowledge
13 transfer is a critical issue for us. I would say that in
14 our system engineering area that we are less reliant on
15 contractors, and they have been involved heavily in the
16 process. In addition, we have done a lot to document with
17 design basis summaries of the key safety-related functions
18 and systems so that we have that record.

19 CHAIRMAN JACKSON: Okay.

20 MR. BOWLING: We are also looking at the ICAVP
21 Discrepancy Reports, DRs, and although, individually, most
22 are not safety significant, in aggregate, they may indicate
23 an area requiring program enhancement. We will make these
24 enhancements upon confirming that the DRs and the trends are
25 valid.

1 The trends that we are currently evaluating do not
2 indicate any programmatic weakness or breakdowns, but will
3 likely afford an opportunity to improve.

4 With respect to the DRs, we are on track to
5 respond to all that have currently been received from the
6 ICAVP contractor by the end of February. We currently have
7 212 remaining to respond to.

8 As of February 11th, we have responded to 634,
9 subsequently we have responded to more, as I indicated.

10 The single level 2 DR for Unit 3 relates to a
11 number transposition error and a degraded voltage
12 calculation. This error was in a non-conservative
13 direction, but sufficient voltage is available for the
14 effected safety-related equipment to perform its safety
15 function and the design basis was met. We have responded
16 with the technical information to support a level 4
17 reclassification of this issue, which we believe the ICAVP
18 contractor will confirm.

19 Again, the remaining DRs are scheduled to be
20 responded to by the end of February.

21 CHAIRMAN JACKSON: Let me ask you, you know, and I
22 know the focus has been on Unit 3, but from where you sit,
23 is there a difference, or a detectable difference in the
24 threshold for calculating level of significance between
25 Sargent & Lundy and Parsons?

1 MR. BOWLING: Yes.

2 CHAIRMAN JACKSON: Would you speak to that for a
3 second?

4 MR. BOWLING: I am not sure I can give you the
5 answer that you are looking for. I do see a difference in
6 the determinations of significant levels, but I think maybe
7 the NRC staff would be better able to answer that.

8 CHAIRMAN JACKSON: Okay.

9 MR. BOWLING: If I could have the next slide.
10 Based on the 634 responses that we have made through
11 February 11th, and recognizing that only about 30 percent
12 have been closed by the ICAVP contractor, we can generally
13 conclude that the Unit 3 reviews have identified most of the
14 design and licensing basis issues. To date, NU has
15 confirmed that only seven of 634 DRs are of level 3
16 significance, which is a design and/or licensing basis
17 issue, but does not affect or operability or functionality,
18 and which has been characterized to be of low safety
19 significance.

20 This slide shows the safety significance of what
21 has been identified during the Millstone Unit 3 reviews and
22 the ICAVP inspections. It is important to note that no LERs
23 have resulted to date from any of the over 600 ICAVP DRs
24 that we have reviewed to date. This provides a strong
25 indicator that the Unit 3 reviews to restore conformance to

1 the design and licensing basis were effective in identifying
2 significant safety issues.

3 With respect --

4 CHAIRMAN JACKSON: What percentage did you tell me
5 were closed?

6 MR. BOWLING: Thirty.

7 CHAIRMAN JACKSON: Thirty percent.

8 MR. BOWLING: Approximately. With respect to the
9 NRC inspections, a number of potential violations have been
10 identified, as well as several issues that have been
11 determined by us to be reportable, and from yesterday, that
12 has gone up to four items.

13 These issues and potential violations also have
14 not been of high safety significance, at least the three
15 that I have on my slide. Nonetheless, as previously
16 discussed, we have already taken both the NRC preliminary
17 findings and the ICAVP contractor DRs into account in our
18 self-assessments to determine the need for additional
19 reviews.

20 As you know, we have informed the NRC staff, in
21 response to Question 2 of 10 CFR 50.54(f), that over 4,000
22 items may be deferred to after restart of Unit 3. Question
23 2 cast a wide net by essentially asking for all items that
24 will not be completed prior to restart, irrespective of
25 either safety or business significance. Both Mike Brothers

1 and I will discuss these deferrals in our presentations, but
2 I wanted to make clear that the items required to restore
3 compliance with the design and licensing basis, as well as
4 NRC regulations, will be completed prior to restart in key
5 areas such as RSF prior to Mode 4 entry.

6 For the deferred items under Question 2, we will
7 docket our approach for managing and monitoring the
8 post-restart backlog. In our February 9th, '98 letter to
9 the NRC, we committed to the Corrective Actions for any
10 deferred level 4 DRs by the end of the next refueling
11 outage, as well as providing periodic status on the level 4
12 Corrective Actions.

13 This slide shows the number of our deferred tasks
14 resulting from both the Configuration Management Review and
15 the ICAVP Reviews. The 705 configuration management tasks
16 will be addressed and either completed, scheduled or
17 cancelled based on the value added that can be provided.

18 Examples of what is included in the deferred
19 backlog are listed. About 30 percent of the 705 relate to
20 minor drawing enhancements for labeling, pointers and
21 designators which are not relied upon by the operator or the
22 design engineer when using the drawing. Only a few,
23 approximately 12 items, are related to the FSAR and reflect
24 grammatical or editorial preference or applied to a
25 non-safety system.

1 Procedures constitute about 30 percent and include
2 enhancements which do not affect functionality. However, a
3 significant number of the procedure deferrals are
4 significant, but consist of procedures, primarily,
5 in-service inspection, in-service testing, that will not be
6 required until the next refueling outage. These will be
7 completed prior to the next refueling outage.

8 It is also worth noting that the size of the
9 backlog was originally 948 and is currently 697. Our intent
10 is to work this off as quickly as possible.

11 CHAIRMAN JACKSON: Now, the numbers you are
12 showing here, subsets of the, quote-unquote, "5,000 open
13 items," --

14 MR. BOWLING: Four thousand, yes.

15 CHAIRMAN JACKSON: Four thousand.

16 MR. BOWLING: Forty-two.

17 CHAIRMAN JACKSON: Forty-two-hundred.

18 MR. BOWLING: And Mike Brothers will discuss the
19 remainder of that.

20 CHAIRMAN JACKSON: Okay. All right. And so there
21 are other categories?

22 MR. BOWLING: Yes.

23 CHAIRMAN JACKSON: Okay.

24 MR. BOWLING: Which Mike will discuss. But I
25 wanted to discuss those that may bear to one degree or

1 another on the design and licensing basis.

2 Now, with respect to the ICAVP DRs, please not
3 that these deferrable tasks of 215 represent the DR
4 Corrective Action assignments, not the number of DRs being
5 deferred.

6 Now, I mentioned that we would docket our approach
7 to this backlog. I have several back-up slides that discuss
8 that approach and our planned commitments to the backlog, if
9 you would like to see those.

10 CHAIRMAN JACKSON: We'll go on. But let me --

11 MR. BOWLING: We are working with the staff on
12 that.

13 CHAIRMAN JACKSON: Let me ask you a question here.
14 You have a slide 62 that is further on, that says,
15 "Discipline work prioritization process applied to identify
16 items deferrable until after restart." I see the 705 on
17 that.

18 MR. BOWLING: Right.

19 CHAIRMAN JACKSON: But I don't see the 215.

20 MR. BOWLING: The 215, once they get their
21 assignments, are collectively included in the first number
22 there, the assignments. They are not further bend at this
23 point.

24 CHAIRMAN JACKSON: So they will be additive to
25 this list?

1 MR. BOWLING: No, they are inclusive.

2 CHAIRMAN JACKSON: Okay. I see. All right.

3 Okay.

4 MR. BOWLING: Again, none of these deferrals will
5 affect conformance to design and licensing basis.

6 In addition to restoring conforming to design and
7 licensing basis, we have also strengthened the programs
8 necessary to maintain the design and licensing basis going
9 forward. This required correcting longstanding issues with
10 the Design Control, Document Control, Safety Evaluation and
11 many other programs that are required to maintain
12 operational changes in conformance with the design and
13 licensing basis.

14 The tier 3 portion of the ICAVP looked
15 specifically at these programs, and it is worth noting that
16 the NRC preliminary conclusion at the Public Exit on January
17 28th was that the Millstone change control process satisfied
18 10 CFR 50, Appendix B, and would serve to maintain a design
19 and licensing basis.

20 It should be noted that this NRC inspection also
21 identified several issues which will need to be corrected
22 prior to restart.

23 In our August 6th meeting with you, I discussed
24 two new and innovative organizations that we have added, a
25 Configuration Management organization for each unit and an

1 Engineering Assurance function. These organizations which
2 increase our confidence that future changes will be made in
3 conformance with the design and licensing basis are now
4 staffed and functioning for both Units 2 and 3.

5 In addition, there is a dedicated Nuclear
6 Oversight Surveillance of the configuration control change
7 process and we have completed most of the specialized
8 configuration management training for over 1200 personnel in
9 Unit 3 and the groups that support Unit 3. Unit 2 training
10 is currently ongoing.

11 Finally, self-assessment and performance
12 monitoring is being utilized to evaluate the effectiveness
13 of the Configuration Management Programs.

14 In summary, the actions that have been taken to
15 date to restore and maintain conformance to the design and
16 licensing basis, and to address longstanding safety,
17 programmatic, organization, human performance and technical
18 issues are being effective. Still, we recognize that all
19 Corrective Actions necessary to restore full compliance have
20 not yet been completed. However, the work completed has
21 been substantial and to acceptable standards.

22 The remaining work to support the restart
23 readiness is on track and will restore conformance with the
24 design and licensing basis and NRC regulations. The
25 organizations, programs and processes are also in place to

1 maintain conformance.

2 The ICAVP Reviews to date indicate that Millstone
3 3, Configuration Management Review and Programs have been
4 effective in identifying almost all of the issues of safety
5 significance, including those issues necessary to restore
6 compliance with the design and licensing basis. In saying
7 this, I recognize that the entire Millstone organization
8 must continue in its pursuit of a healthy respect for
9 regulations from both an intent and compliance standpoint,
10 and that we must continue to demonstrate timely and
11 effective Corrective Actions.

12 In conclusion, I do believe that our overall
13 Corrective Actions approach is robust and that we have the
14 programs and organizations in place to now support the
15 conduct of safe operations.

16 If there are no --

17 CHAIRMAN JACKSON: Thank you.

18 MR. BOWLING: If there are no further questions, I
19 will turn it over to Mike.

20 MR. BROTHERS: Good morning. The purpose of my
21 presentation today is to discuss the readiness of Millstone
22 Unit 3 to return to power operation. My assessment of
23 Millstone Unit 3's readiness is as follows: The Unit is
24 tracking as satisfactory with regard to readiness to support
25 power operation. This assessment is made up of four broad

1 areas, physical readiness, regulatory readiness,
2 organizational readiness, and operational readiness.

3 The start-up and power extension plan in
4 supporting organization support is satisfactory to support
5 restart. This is currently satisfactory. The Unit backlogs
6 are tracking as satisfactory to support restart.

7 The metrics presented on the next slides are
8 designed to support these conclusions. One overall point to
9 make is that the slides that you have are up-to-date as of
10 February 6th, 1998. Because we are rapidly readiness to
11 enter Mode 4, these small numbers of remaining items are
12 decreasing rapidly. I will give you the current numbers in
13 my presentation today.

14 CHAIRMAN JACKSON: Can I get you to slow down a
15 little bit?

16 MR. MORRIS: You're working on the same issue we
17 are working on.

18 MR. BROTHERS: There's a contrast between me and
19 --

20 CHAIRMAN JACKSON: Mr. Bowling set you up.

21 MR. BROTHERS: Next slide. Under the topic of
22 physical readiness, this slide shows the number of
23 modifications which remain to support restart. As of
24 February 13th, 1998, there were five modifications
25 remaining, of which one is working in the field. The four

1 are engineering modifications that don't require physical
2 work.

3 It should be noted that the total number of
4 modifications required for restart that have been performed
5 to date is 216. The five remaining modifications bring the
6 total to 221 modifications required for restart. This does
7 not include the potential mod required to resolve the RHS
8 MOV 610 and 611 cycling problem that we discussed earlier.

9 CHAIRMAN JACKSON: Do you have emergent mods? I
10 mean when was the last new mod added? Are there ones that
11 are popping up?

12 MR. BROTHERS: Yes. We had a mod added on
13 Saturday that was associated with a DWST, demineralized
14 water storage tank uncertainty. It is not a physical mod,
15 but it's a modification to support the calculation. So they
16 are coming up, and they get assessed per our PI 20 criteria
17 as to whether or not they're required for restart.

18 This metric is tracking a satisfactory.

19 Continuing on our physical readiness, this slide
20 depicts our current status of online orders. The total
21 number of work orders remaining as of February 11 is 665.
22 All of these work orders have been individually assessed as
23 meeting our deferral criteria. We are on track to work the
24 existing numbers down to our goals of 500 power block and 50
25 maintenance rule or PRA significant work orders prior to

1 resuming power operation. In my discussion of backlogs I
2 will give a more detailed breakdown of the 665 remaining
3 work orders. This metric is tracking a satisfactory.

4 Now shifting to regulatory readiness, Marty talked
5 earlier about the completion rate of NRC commitments
6 required for restart. To recap what he said, we currently
7 have 77 remaining commitments to address prior to restart,
8 none of which are overdue. The total number of commitments
9 which have been addressed up to now is 691. This metric is
10 tracking a satisfactory.

11 CHAIRMAN JACKSON: And you don't anticipate asking
12 to defer any of these?

13 MR. BROTHERS: That's correct.

14 Also under regulatory readiness this slide shows
15 our current significant items list status. As of February
16 12, 1998, we had six packages remaining to submit out of a
17 total of 216. This list corresponds to the 86 zones in the
18 NRC's Millstone 3 specific attachment to manual chapter
19 0350. We are on track to have all the packages submitted
20 for review and closure to support unit restart. We believe
21 that the quality of packages continues to be good. This
22 metric is tracking a satisfactory.

23 This slide shows our current status on the 5054F
24 significant items required for restart. As Marty said, as
25 of February 17, 1998, we have 252 items remaining to be

1 closed out of a total of 4,284 items. The 4,284 is
2 different than the 3,876 shown on a previous slide. The
3 reason for that is because of the way as Bruce characterized
4 the net being cast as TRs come in and they do in fact become
5 automated work orders, they become deferable or
6 nondeferable. So that is a moving number. So we have 252
7 out of 4,284 items. These items are also on track to
8 support Millstone Unit 3 restart. This metric is tracking a
9 satisfactory.

10 This slide shows our current LER submittal rate
11 for Millstone Unit 3. The solid portion of the bars are
12 current LERs, and the cross-hatched portions are historical
13 LERs. This slide shows that we are below the industry
14 standard of approximately two LERs per month, although we do
15 acknowledge that the fact that we are in Mode 5 makes this a
16 non-like-to-like comparison. In addition, the 5072 prompt
17 report that went out yesterday will be an LER.

18 The historical LERs being reported shows that our
19 low threshold and questioning attitude continues to be
20 fostered at Millstone station. As we return to power
21 operation we will monitor our performance in this area.
22 This monitoring, however, will be on a strictly benchmarking
23 manner to preclude the adverse consequences of trying to
24 directly improve this indicator. This metric is
25 satisfactory.

1 The third broad topic under unit readiness is
2 organizational readiness. This slide shows our
3 organizational readiness assessment as of February 10, 1998.
4 This methodology complements the nuclear oversight restart
5 verification plan by assessing departmental readiness,
6 whereas the nuclear oversight restart verification plan
7 assesses the issue of programmatic readiness.

8 An easy distinction between the two assessments is
9 to contrast this assessment of the corrective action which
10 addresses the departmental effectiveness of the correction
11 action department versus the nuclear oversight restart
12 verification plan assessment of corrective action which
13 addresses the broader implications of the effectiveness of
14 the corrective action program at Millstone Unit 3.

15 With the above explanation in mind, let me discuss
16 the organization is assessed as not yet a goal but tracking
17 a satisfactory for Millstone Unit 3. As of February 10 the
18 operations department is assessed as tracking a satisfactory
19 based upon training that is required for Mode 4 and not yet
20 being complete for all shift personnel. As of today that
21 should be in fact done.

22 This will be completed prior to Mode 4 and the
23 operations department will be satisfactory prior to entry
24 into Mode 4.

25 Work planning outage management is assessed as

1 tracking a satisfactory based upon schedule adherence not
2 yet being at our operational goal of 75 percent of planned
3 activity starting on time and 70 percent of those planned
4 activities completing on time. Our current percentages are
5 62 percent and 55 percent respectively. This is not
6 expected to be a goal before entry into Mode 4, but will be
7 a goal prior to entry into Mode 2.

8 Maintenance planning is assessed as tracking a
9 satisfactory based upon the restart backlog goals not yet
10 being a target, but all the items are tracking a
11 satisfactory. These goals are also Mode 2 goals.

12 Training is assessed as tracking a satisfactory
13 based upon the fact that we have not yet completed our
14 evaluations as to the extent of the systems approach to
15 training problems within training and the Millstone Unit 3
16 shift technical advisor program status. Both of these two
17 areas will be satisfactory for Millstone Unit 3 prior to
18 entry into Mode 4.

19 Licensing is assessed as tracking a satisfactory
20 based upon the continued need to extend an excessive
21 percentage of commitments. This is expected to be evaluated
22 as satisfactory for Millstone Unit 3 prior to entry into
23 Mode 4.

24 Finally, management is assessed as tracking a
25 satisfactory based upon greater than five percent of CR

1 evaluations taking longer than 30 days. As discussed by
2 Dave Amerine in his discussion on CR evaluation timeliness,
3 the average age of evaluations is less than 30 days, and the
4 quality of evaluations continues to remain high. Increased
5 attention is being applied to this area, and we will assess
6 overall management effectiveness as satisfactory prior to
7 entry into Mode 4.

8 In summary, we expect all departments with the
9 exception of work planning, outage management, and
10 maintenance planning to be assessed as satisfactory prior to
11 entry into Mode 4. In addition, all of the departments will
12 be assessed as satisfactory prior to entry into Mode 2.

13 This slide under the overall topic of operational
14 readiness shows our current number of temporary
15 modifications which are installed on Millstone Unit 3. Our
16 goal is to have less than 15 temporary modifications
17 installed prior to entry into Mode 2. We currently have 18
18 temporary modifications installed, three of which are for
19 outage support. We are on track to meet this goal prior to
20 entry into Mode 2. This metric is tracking to satisfactory.

21 Continuing under operational readiness, this slide
22 shows our current status on control room and enunciator
23 deficiencies. Our goal is to have less than ten
24 deficiencies prior to entry into Mode 2. As of February 11,
25 1998, we have nine deficiencies. This metric is

1 satisfactory.

2 This slide shows our current number of operator
3 workarounds at Millstone Unit No. 3. Our definition of an
4 operator workaround is based upon industry standard
5 definition. Our goal is to have less than ten operator
6 workarounds prior to entry into Mode 2. As of February 8,
7 1998, we have eight operator workarounds. This metric is
8 satisfactory.

9 This slide shows our percentage of low
10 significance or precursor events as a percentage of all
11 human error events. It is desirable to have a high
12 percentage of low-significance errors to total errors to
13 allow for the implementation of corrective action at a lower
14 threshold, thereby preventing more significant events. An
15 example of a precursor event will be a tagging error caught
16 by the individual performing the second check of the tag.

17 A higher level event or near-miss would be the
18 same error missed by the second checked but caught by the
19 worker prior to commencing work. A breakthrough event would
20 be a failure of all the barriers, the initial tagger, the
21 second checker, and the worker, and then work actually being
22 performed on an incorrectly tagged component.

23 We have set an extremely high percentage goal in
24 this area of greater than or equal to 95 percent of all
25 human errors being classified as low significance precursor

1 errors. Although in December we fell to 92 percent, in
2 January our performance was once again at goal, and as this
3 slide shows, our general performance exceeded goal for the
4 last seven months.

5 During that same time, there have been no
6 breakthrough events in which all the barriers failed or
7 significant consequences have occurred. This metric is
8 satisfactory.

9 This slide shows our current errors per 1000 hours
10 worked for technical and administrative procedures at
11 Millstone Unit 3. We show an increase in both the technical
12 and administrative error rate in December. As Bruce pointed
13 out in his summary remarks, this caused us to change our
14 assessment from satisfactory to tracking to satisfactory in
15 the area of procedure compliance.

16 January's levels returned to approximately our
17 previously low historic values, but continued good
18 performance in this area is required before we once again
19 rate procedure compliance as satisfactory for Millstone Unit
20 3.

21 CHAIRMAN JACKSON: Why do you feel you have the
22 problems in the administrative procedures area this far down
23 the line?

24 MR. BROTHERS: We have taken a look at that. I
25 think what you had was the same type of thing we

1 demonstrated in the timeliness evaluation during the January
2 time frame. The December period of work at Millstone Unit 3
3 was the most extensive period of work that we had for the
4 last two years, and I think we saw the corresponding --

5 CHAIRMAN JACKSON: You said because of the
6 concentration of the work?

7 MR. BROTHERS: Yes, the physical work and driving
8 to complete the integrated leak rate test in the beginning
9 of January was compressing, and in our view was what caused
10 things to happen.

11 This metric is tracking to satisfactory.

12 This slide shows an overview of our heat-up,
13 start-up and power ascension program. I have seven points
14 to make here.

15 We have an approved procedure which governs a
16 heat-up, start-up and power ascension of Millstone Unit 3
17 which takes into account the fact that we have been in cold
18 shutdown for approximately two years. We have a dedicated
19 start-up organization which has been in place since January
20 12th, 1998, to provide integration and management support as
21 the unit returns to power operation.

22 We currently have in place shift mentors for
23 operations which we will expand with NU and non-NU senior
24 reactor operators as the unit returns to service.

25 Our operating crews are visiting operating plants

1 and have observed plant start-ups during the last few
2 months.

3 Specific heat-up and start-up training will be
4 provided to all operating crews. Training on modifications
5 has been largely completed and will be completed for all
6 crews prior to entering mode four.

7 Finally, the dates and the days given here are to
8 provide a framework for planning only. We will conduct a
9 measured and controlled return-to-power operation, taking
10 whatever time is required. Unit management will not rush to
11 return this unit to service. My unit and engineering
12 directors will recommend to me and receive permission from
13 me prior to making any mode change as the unit is sequenced
14 back to power operation.

15 This slide shows the current numbers for the seven
16 broad areas which make up our deferrable items. I have
17 previously discussed the corrective maintenance, operator
18 work-arounds, control room deficiencies, and temp mods, and
19 Marty has discussed the configuration and management items
20 in his presentation.

21 The remaining items, corrective action
22 assignments, corrective maintenance, and engineering
23 backlogs have been individually reviewed by our management
24 review team and expert panels.

25 The next three slides further characterize our

1 current progress in the areas of corrective action
2 assignments, corrective maintenance and engineering backlog.

3 This slide gives a breakdown of our deferrable
4 corrective action assignments. Roughly half of these items
5 fall into the area of minor procedure or documentation
6 improvements. None of these, or any of the remaining
7 deferrable items, affect the design or licensing basis of
8 Millstone Unit No. 3.

9 A review by our probabilistic risk assessment
10 group has been conducted on all of these assignments. This
11 review first screened the 2260 items to look at only
12 maintenance rule items. As you know, the maintenance rule
13 includes systems which are risk and safety-significant,
14 systems which are risk or safety-significant, and systems
15 which are in scope, but are neither risk nor
16 safety-significant.

17 This screen reduced the 2260 items to
18 approximately 1000 items. These 1000 items were
19 individually reviewed by a team in our PRA group. This
20 review identified approximately 250 items which required
21 additional information to verify that they were in fact
22 deferrable.

23 Additional information was provided on those 250
24 items, and the final result was the identification of 11
25 items out of the original 2260 for further consideration by

1 line management. This consideration is under way.

2 I do want to point out that this review has not
3 yet been conducted on the engineering backlog that you see
4 in two more slides. Within that engineering backlog was the
5 RHS issue that we discussed earlier. That review will
6 occur, however, prior to entering mode two.

7 I consider this an excellent cooperative effort
8 with our organization that gives us added assurance that our
9 deferrable items are properly characterized.

10 This slide shows our breakdown of our corrective
11 maintenance backlog. Approximately 52 percent of this
12 backlog is associated with maintenance rule systems, and
13 none of these items affect system operability.

14 Let me just describe what these headings mean. An
15 example of a non-functional component which does not affect
16 system operability would be a non-functional local
17 temperature indicator on a piping system. The system is so
18 operable with a non-functional temperature indicator. It
19 should be emphasized that this classification cannot be
20 applied to any component directly covered by technical
21 specifications or used to ensure continued operability for
22 any technical specification, component or system.

23 Equipment which is functional characterization
24 covers minor degradation which does not in any way affect
25 component or system operability.

1 The remaining 48 percent of our power backlog is
2 associated with non-maintenance rule systems, so they are
3 not risk, not safety-significant, and not in scope.

4 This slide characterizes our current engineering
5 deferrable items. 65 percent of this backlog is associated
6 with enhancements or modifications which have been screened
7 by unit management as appropriate for future consideration,
8 but unnecessary to perform at this time. 20 percent of the
9 engineering backlog is devoted to component level
10 engineering in which, for some reason, an exact replacement
11 part is not available.

12 The remaining 15 percent is made up of items such
13 as administrative actions or organizational/programmatic
14 enhancements. As I described earlier, our corrective action
15 assignment backlog has been screened for individual and
16 aggregate impact by our PRA group.

17 As we approach mode two, we are continuing to work
18 down all of our deferrable item areas. As such, we will
19 perform another assessment of the aggregate impact of all
20 deferrable items shortly before entering mode two.

21 It should also be emphasized that we have
22 benchmarked ourselves against recent industry experience for
23 all the metrics I have presented today. Millstone Unit 3's
24 goals, when stacked against these goals, compares favorably
25 to units which have recently started up after extended

1 outages.

2 In summary, we believe that Millstone Unit 3 will
3 shortly be ready to enter mode four and begin the controlled
4 sequence which will lead us to meeting all our goals and
5 satisfying the prerequisites for mode two by late March of
6 1998. Millstone Unit 3 is on track to return to power
7 operation with the unit ready from a physical, regulatory,
8 organizational and operational standpoint.

9 Our start-up and power ascension program is in
10 place and ready to support the unit. Our backlogs are at
11 reasonable levels and have been screened both internally and
12 externally, from an individual and aggregate impact
13 standpoint, to fully support our plans to be ready in all
14 aspects by late March of 1998 to return to power operations.

15 If there are no questions, I'll turn it over to
16 Dave Goebel to discuss nuclear oversight's current
17 assessment.

18 COMMISSIONER DIAZ: Yes, if I might go back to
19 your figure on Table 62 of slide 62, I'm sure that Mr.
20 Morris saw this and understood very well every one of these
21 items, but I didn't. And I know that now you have gone and
22 explained it. This figure, when I saw it yesterday, you
23 know, created some concerns because, you know, we started
24 with a series of 6000 issues, and then we classified them.
25 I would recommend that, you know, when you get back in here,

1 you take this and do like what you did in your quick
2 presentation, you know, like saying there are only 11 of
3 2260 items that are being considered. That narrows the
4 scope down significantly. If not, it looks like an
5 insurmountable task to be done, you know. And clearly, you
6 know, there are differences in here that need to be reviewed
7 to determine the risk significance, and obviously you have
8 been doing all of those things, and I hope you keep doing
9 it. But it's not obvious from this table when you look at
10 it. And I strongly recommend it, please. You know,
11 separate them, even when you put them in a table that, you
12 know, it's not clear at all what the meaning of these things
13 are.

14 MR. BROTHERS: Thank you.

15 MR. GOEBEL: Good morning. Today I would like to
16 present the current status of the nuclear oversight restart
17 verification plan for Unit 3. The data is shown on this
18 slide.

19 I would like first to review what the slide
20 depicts. There are 21 issues; each is listed on the
21 left-hand side of the slide. These were taken from the 16
22 in the summary book which we provided you, and selected
23 other issues which I feel are important.

24 One item in the latter category is materials, and
25 another is engineering.

1 Attributes are evaluated for each issue, and those
2 attributes are derived from the NRC's manual chapter 0350,
3 INPO guidance, in particular 96-006, and other relevant
4 documents. The attributes are evaluated throughout a
5 two-week period and the summary scores derived. A roll-up
6 of the scores in a given area resulting from this look is
7 then related to a color, either red for significant, yellow
8 for improvement needed, or green for satisfactory. Those
9 colors are then displayed on this slide.

10 In general, for an issue to change color, two
11 evaluation periods at the new level are needed.

12 Since our last meeting, there is leadership,
13 corrective action, configuration of management, regulatory
14 compliance, conduct of operations, and environmental
15 monitoring have turned green, while procedure quality and
16 procedure adherence has gone from green to yellow, as
17 problems once fixed have resurfaced, and this has been
18 discussed previously.

19 You will note a green dot adjacent to the
20 emergency preparedness area. If all goes well, this area
21 will turn green this week. At the last evaluation two weeks
22 ago, it had exceeded the limit to move into the green area.

23 There are three key areas which are in yellow that
24 are impacting our moving forward. There are others that are
25 yellow, but today I am comfortable with their status. The

1 three areas which require increased management attention are
2 procedure quality adherence, training, and work control and
3 planning, and those have been discussed by other gentlemen
4 at this table earlier.

5 I would like to discuss each area as each is
6 clearly defined activities which require improvement. It is
7 my opinion that if these activities are completed, these
8 areas will achieve a green status and be ready for restart.

9 The first is procedure quality, procedure
10 adherence. Procedure quality has improved since the last
11 briefing, but adherence issues have resurfaced. Those areas
12 which require increased management attention include
13 increased coaching by the first-line supervisor. You recall
14 the last time I stated that increased first line supervision
15 time in the field is the most beneficial change we can make
16 in this area.

17 Another area requiring attention is providing
18 feedback to all affected workers on problem areas, and the
19 third is holding people accountable for adherence problems.

20 Additionally, we need to prioritize and complete
21 the remaining procedures which are required for restart. I
22 don't see this as a problem, but additional work must be
23 done in this area.

24 In the area of work control and planning, which is
25 another area requiring increased management attention, we

1 need to improve our schedule adherence, and Mike Brothers
2 has mentioned that.

3 The primary sources of schedule adherence
4 difficulties are work package quality, work release start
5 times, work prioritization, and schedule development
6 assumptions.

7 Among the issues in this latter category -- that
8 is schedule development assumptions -- we need to improve
9 the coordination between operations and the various work
10 groups in establishing a schedule.

11 Additionally, we need to obtain management support
12 and accountability for accomplishing this schedule as it is
13 laid out.

14 In the training area, the training area is one of
15 great importance to the organization and has been discussed
16 previously, as the others have.

17 Increased attention is required in several areas.
18 Complete the qualification of systems engineers prior to
19 final system verification of readiness for start-up must be
20 done. We need to ensure that the system's approach to
21 training is functioning for Unit 3 as it was designed. We
22 need to ensure that items from the corrective action plan
23 which resulted from the shutdown of training are properly
24 closed, and on a longer term basis we need to verify that
25 the proper staffing skills are present within the

1 organization.

2 As I said, these three remaining areas provide the
3 biggest barrier to near-term success, and additional effort
4 is needed to ensure that success.

5 Subject to any questions, I'll pass it back to
6 Bruce for his closing remarks.

7 CHAIRMAN JACKSON: Tell me again about the
8 emergency preparedness area that's been tracking steadily
9 yellow.

10 MR. GOEBEL: Right. At the last session, which
11 --and I hold these sessions -- the people do the work on a
12 daily basis. We have a roll-up on a two-week basis, and at
13 the last roll-up two weeks ago, it will be reviewed again
14 today and tomorrow, but two weeks ago, with a score that
15 could drive it into the green area as being a 70 cut-off, it
16 received a score of 80. So for a two-week period preceding
17 that, it was essentially green, but we have an internal
18 process where we don't change the color because we want it
19 to sustain and hold; we just don't want a fluke up or down.
20 So if it goes well this week, then I expect it to sustain
21 and stay at that level, and my information from my people
22 who are doing this week are the indications that it will
23 stay there, it will go up. I need to wait and get the
24 score.

25 CHAIRMAN JACKSON: Okay.

1 MR. KENYON: Chairman Jackson and Commissioners,
2 we appreciate the opportunity to brief you regarding our
3 progress. Certainly as a result of recent events and this
4 meeting, we recognize the need to deal with the RHS valve
5 cycling issue. We will do that. We will look at it for its
6 implications, and we certainly understand that we need to
7 test that against what it means for the credibility of our
8 deferred items list, and we will do that.

9 We also have what I have referred to as the
10 oversight event playing out, and I need to get the remaining
11 information there, but I want to assure you that I will take
12 appropriate action in due course and with every intention of
13 demonstrating that this organization can and will handle,
14 with careful deliberation, even of a serious event such as
15 this, and this really should set the stage for an
16 understanding of how this organization -- it's not that we
17 never have an event, but it's when we have one, we know how
18 to handle it and handle it responsibly.

19 We have an understandable concern on your part on
20 the nature of the backlog, and Commissioner Diaz, we
21 understand the need to make our -- whereas we are
22 comfortable, we have a responsibility to portray the
23 information in a way that's clear as to what's outstanding.
24 We need to do it in a way that makes a clearer statement as
25 to its relevance, its significance, and we will do that.

1 Having said all that, I think we are close. We
2 have a manageable amount of work remaining. I think that
3 performance indicators show that, and certainly I look
4 forward to our next briefing, and the work force and the
5 leadership team is starting to get excited after a long
6 haul.

7 Mike, do you want to add?

8 MR. MORRIS: I would just close with one comment,
9 Chairperson Jackson. You asked a question about whether we
10 were surprised on the amount of effort that it's taken to
11 get to where we are today, particularly with the license and
12 design bases. I think we are impressed with what it has
13 taken, deeply impressed with what it has taken, and by that
14 I mean to say that we understand what it would be like, I
15 think, to be on the other side of this gap again, and I
16 think this team is prepared, from the comments that you have
17 seen today and the data that you have seen today, that if
18 you believe with us that we are ready to come back on line,
19 we understand what it is going to take to stay there,
20 because we never want to have to do this again. It is an
21 impressive amount of work.

22 Thank you.

23 CHAIRMAN JACKSON: Well, thank you.

24 Normally I would wait till the very end to make
25 some comments to you, but I will, and they are in the way of

1 reinforcing some things that in fact Mr. Kenyon has already
2 spoken to.

3 You know, we have a responsibility in making our
4 decisions with fairness, and that creates a very narrow line
5 that we end up having to walk, and many times the question
6 is raised of, well, if any other unit or licensee in the
7 country had the degree of scrutiny that you folks have had,
8 would not these kinds of issues have turned up then? And
9 wouldn't we find some lack of conformance with design or
10 licensing basis issues? Would we not find some of the kinds
11 of employee concerns, difficulties, et cetera, that the
12 licensee has had? And, you know, I tend not to get into
13 those discussions, and I will tell you why: fundamentally
14 because we can't do that, because we are where we are, and
15 that's what we end up having to deal with in the end. And
16 even though most of you who are the incumbents in the
17 position today were not in these positions when at least
18 this latest episode began, the organization got to where it
19 is because of its historical problems and historical
20 patterns and the longevity of those problems, and a history
21 of perhaps pencil-whipping problems away, and in some sense
22 you come to a point where in a way that something that you
23 are struggling with is the issue of if we can't have
24 confidence relative to the little things, it raises
25 questions about the confidence with respect to big things.

1 And that's what the results in the end have to demonstrate,
2 that it is a comprehensive approach to dealing with things,
3 such that, yes, at any given time there can be items that
4 pop up, items that are unresolved.

5 The obvious confidence one is going to have is
6 particularly the things that have the greatest safety
7 significance are addressed, but that is undergirded by an
8 approach and a philosophy and a way of doing things that
9 says one aggressively goes after issues and gets to the root
10 of them, and therefore, in looking at how deferred items are
11 evaluated, how they are addressed, what you do ends up
12 having to be evaluated in that regard. It's not -- it may
13 not make you happy, but in the end it does come to that, and
14 that's why the recent issue -- and we all recognize that it
15 has to be fully evaluated and all of its implications drawn
16 out -- but why it is troubling with regard to everything I
17 have laid out. Because of its implications for
18 self-discovery of problems, robustness of evaluations. And
19 so it is very important that it get reviewed, not just for
20 the issue-specific clarification or, yes, if it's a Part 21
21 issue, then we are going to have to deal with that from the
22 broader perspective.

23 But you have to look at it from both its generic
24 implications, but it's important that you give everything,
25 whether it's 4200 or 5000, whatever the number is, a

1 complete scrub, obviously with respect to safety
2 significance. That's the base line.

3 But one really does have to ask the question of if
4 there are historical items, then you are kind of on the spot
5 as to say why, particularly if they are in a
6 safety-significant system, but just generally because of
7 what I said. If it's historical, why should you continue to
8 defer it? And I'll say more at the end. And I appreciate
9 the comment -- I think it's implicit in something you said,
10 Mr. Brothers, about having the total review of all of the
11 engineering items. And so the question is, as you go
12 forward to do that, then you have to ensure that you don't
13 miss things like this, because we are where we are.

14 MR. MORRIS: We fully understand that. We will
15 tighten the mesh on our screen and rerun. We understand
16 your point. Thank you.

17 CHAIRMAN JACKSON: Thank you.

18 We will now hear from Sargent & Lundy.

19 As is structured, we are going to hear from
20 Sargent & Lundy, and then from Parsons Power.

21 MR. ERLER: As we have done before, Sargent &
22 Lundy will provide some lead-in to cover both overall review
23 process and then the details on Unit 3 review that it
24 completed. I am Brian Erler, the project director for the
25 ICAVP for Unit 3 for Sargent & Lundy, and Don Schopfer, the

1 project manager for the review team. Don will present the
2 summary.

3 MR. SCHOPFER: Good morning.

4 The first slide we have is again it's sort of a
5 refresher of the structure of the ICAVP, and I'll go through
6 these rather briefly. I know you have seen them before.

7 The structure of the ICAVP is broken down into
8 three tiers as required by the Commission paper 97-003.
9 Tier 1 is the system verification to confirm that the system
10 selected meets the licensing and design basis, and system
11 functionality.

12 Tier 2 is the accident mitigation system review to
13 determine that those systems that design parameters meet the
14 requirements in the FSAR.

15 And Tier 3 is the programmatic review, or the
16 review to verify that configuration control processes have
17 not introduced changes into the licensing and design basis.

18 CHAIRMAN JACKSON: Now you can always depend upon
19 me to do this. If I look two slides down the road at these
20 tiers, you marked them complete. Now when you say that, do
21 you conclude that you have made the verifications that are
22 laid out in each of these tiers?

23 MR. SCHOPFER: We have.

24 CHAIRMAN JACKSON: Or does it mean something else?

25 MR. SCHOPFER: It means that we have completed the

1 discovery process and the reviews, and have identified all
2 of the discrepancy reports, preliminary discrepancy reports
3 from those tiers. Now the resolution of those preliminary
4 DRs has not been completed yet, but the review process and
5 the discovery process and identification of any
6 discrepancies is complete for those items.

7 CHAIRMAN JACKSON: Okay. So discovery, review and
8 identification of the DRs --

9 MR. SCHOPFER: Correct.

10 CHAIRMAN JACKSON: -- is what you mean when you
11 say complete?

12 MR. SCHOPFER: Correct.

13 CHAIRMAN JACKSON: Okay. Thank you.

14 MR. SCHOPFER: The scope of the Tier 1 system
15 review is as shown here. It lists the 15 maintenance rule
16 group 1 and 2 systems that comprise our grouping of four
17 systems which we have used the shorthand designation at the
18 bottom of the page in bold that describes service water,
19 RSS, HVX, which we termed the ventilation systems,
20 supplemental leakage collection and release system is what
21 SLCRS stands for, and the aux building ventilation
22 safety-related portion of the aux building ventilation and
23 the emergency diesel generator room ventilation system. And
24 then the DGX system consists of the diesel generator and all
25 the associated auxiliary systems supporting the diesel

1 generator and the electrical 4160 volt distribution system.

2 As four, I'd like to mention that the scope of the
3 review for these systems also includes the review of the
4 electrical power feeds from each component in these systems
5 up to the first motor control center, and then a load path
6 review from that motor control center to the diesel
7 generator. Also the I&C signals that interface with these
8 systems from other systems are included in the review
9 process.

10 CHAIRMAN JACKSON: I see.

11 MR. SCHOPFER: And any supporting systems from a
12 mechanical standpoint also.

13 CHAIRMAN JACKSON: So let me ask you a question
14 about the RSS. What is your assessment of the difficulties
15 that the licensee has had with the recirculations crisis?

16 MR. SCHOPFER: I am not sure I understand the
17 question, Chairman Jackson.

18 CHAIRMAN JACKSON: Well, it seems that it has
19 taken a long time to kind of, you know, come down the line,
20 pin the problems down, get, you know, comprehensive fixes,
21 et cetera. But I don't want to say it, I want you to talk
22 to me.

23 MR. SCHOPFER: Well, there have been a number of
24 issues and problems associated with that, and Mike Brothers
25 identified those.

1 CHAIRMAN JACKSON: So you basically agree with his
2 assessment?

3 MR. SCHOPFER: Well, I agree with -- you asked
4 what the problems were, and there were a number of those.
5 And it has -- there have been a number of modifications made
6 to this system after we started the review. And, in fact,
7 as you will see on the next slide, there are some additional
8 modifications that the staff has asked Sargent & Lundy to
9 look at that have just been completed or are being
10 completed. So -- which came out of some of the earlier
11 reviews of the previous mod. So it has been a continuing
12 process for the RSS system in particular.

13 The basic system review in Tier 1 and the Tier 2
14 and Tier 3 reviews, as we discussed a few minutes ago, is
15 complete from the standpoint of discovery being complete,
16 and the Discrepancy Reports being issued. The two items
17 remaining from -- associated with Tier 1 is these additional
18 recirculation spray systems modifications that were given to
19 us for review in late November of '97 and we have completed
20 that first set of reviews.

21 We also have these additional four modifications
22 that the staff has asked Sargent & Lundy to look at, and
23 those were just completed this past week or the week before.
24 We are in the process of receiving those packages, that
25 calculations, those modification documents and completing

1 that review. We expect to get those documents this week and
2 we will complete our review in about two weeks after we
3 receive everything.

4 CHAIRMAN JACKSON: Was the RSS system -- RS system
5 operable before these modifications?

6 MR. SCHOPFER: I guess -- I don't know the answer
7 to that. They are modifications that are improvements,
8 certainly, to some of the cycling of the valves that were
9 occurring in the changes they made. The other changes go
10 back to a direct injection system into the vessel that was
11 one of the original design and sort of undoes one of the
12 changes, and I think the licensee had determined recently
13 that that was an unreviewed safety question, so there were
14 significant issues.

15 I guess I don't know the answer.

16 CHAIRMAN JACKSON: I am going to ask the staff
17 that, so I am giving you a heads up.

18 MR. SCHOPFER: The second issue of items that are
19 being completed is the Tier 1 Corrective Action
20 Implementation Review, and that is there was a Corrective
21 Action Review as part of the Tier 1 system of some 1500
22 Corrective Action documents. We selected and screened and
23 came up with about 250 to 260 specific Corrective Action
24 documents that the staff wanted us to look, I'll say at more
25 detail in the implementation, not just the Corrective Action

1 plan, but what the results of those Corrective Actions were
2 in terms of, again, engineering activities, analyses,
3 evaluations, calculations and those sorts of things.

4 We are still obtaining some of those documents
5 from Northeast Utilities and expect those this week and next
6 week and, again, have about a two week completion date after
7 we receive those documents.

8 The final report, as noted here, is already in
9 preparation. We expect to be able to issue that final
10 report approximately the end of March, based on the current
11 schedule of completion the resolution of the Discrepancy
12 Reports that we have issued and NU's comments earlier about
13 their schedule for completing their responses to us.

14 Just a brief, again, lesson or reminder of how our
15 Discrepancy Report process works with the -- with both
16 Sargent & Lundy and Parsons, and then I will address the
17 comment -- the question you made about the difference
18 between Sargent & Lundy and Parsons, threshold, perhaps, if
19 I can.

20 CHAIRMAN JACKSON: All right.

21 MR. SCHOPFER: The NRC staff and Sargent & Lundy
22 and Parsons have developed this common process for reporting
23 the findings identified during the review process. An
24 individual reviewer initiates a preliminary DR. It
25 undergoes an internal review process within Sargent & Lundy

1 or Parsons. Upon completion of that process, the
2 preliminary DR is issued to Northeast Utilities, the NRC and
3 the NEAC, the state of Connecticut agency, and is posted to
4 the web site.

5 Northeast Utilities evaluates the preliminary DR
6 and submits a response, and we review that response and
7 either return it with additional comments or questions, or
8 close the DR. That DR --

9 CHAIRMAN JACKSON: Let me ask you a question.
10 Closure -- is closure based on the response, or if it
11 involves a physical non-conformance or something that has to
12 be done, is it closure after that which has to be done is
13 done? Is that what closure --

14 MR. SCHOPFER: Closure, in our process, means that
15 we have reviewed their response, accepted their Corrective
16 Action plan and, in some cases, we do wait to see that
17 action, if it is an engineering action. If it is a
18 significant engineering action, I guess I should say. We do
19 not, if they say they are going to correct the FSAR, we do
20 not hold that open until they correct that FSAR. That will
21 go into their Corrective Action process and make sure that
22 that happens. But if they need to make a calculation change
23 or a drawing change, or a licensing document change, and
24 they commit to doing that, that allows us to close the DR
25 from the standpoint of the ICAVP.

1 The response from NU is expected to include
2 whether the condition identified as a discrepancy, whether
3 they had previously identified this issue in their
4 Configuration Management Plan, what action has been or will
5 be taken to correct the deficiency -- the discrepancy,
6 whether they agree with the significance level that we
7 established and assigned to the DR, if there is any impact
8 on plant hardware and, in the case of generic or
9 programmatic issues, the response should also address the
10 extent of condition.

11 The DR may be closed based on acceptable response,
12 and it is categorized as a confirmed DR, meaning that they
13 agree that it is discrepancy that they had not previously
14 identified, or it may be identified as something that they
15 did previously identify during their process, or it may be
16 considered non-discrepant based on additional information,
17 technical information that has been provided by NU and we
18 agree with that.

19 CHAIRMAN JACKSON: Now, looking ahead again, your
20 last slide indicates that your preliminary conclusions
21 include that you have -- it was judged that calculation
22 control and radiological calculations are weaknesses. So
23 does that mean that besides individual DR closures, that you
24 actually trend and assess the more programmatic weaknesses?

25 MR. SCHOPFER: Yes, we do.

1 The next slide does show the significance level,
2 the DR significance levels that have been assigned, created
3 by the NRC staff and both Parsons and Sargent & Lundy use
4 this criteria to assign significance level. To address your
5 comment, the question that you had earlier, is there a
6 difference in threshold, I will answer to the extent that I
7 can in terms of how we do it.

8 The criteria is not so specific between level 3
9 and level 4 that there are -- there can frequently be some
10 level of opinion whether something should be a level 3 or
11 level 4. The criteria between level 1 and level 2, or
12 between a level 1 and level 2 versus a level 3 is more
13 clear, and I think that is probably where your comments were
14 directed, is at level 1 and 2 versus level 3 and 4, but that
15 is a guess on my part.

16 The level 1 or 2 means that the system, based on
17 the finding, the discrepancy, was not able to perform its
18 design function, either one train or both trains. And our
19 approach has been, if we are able to determine that via the
20 review and say that, then -- then we classified it as such.
21 If we were -- if there was a discrepancy that needed
22 evaluation by NU to determine the extent, we classified it
23 as level 3 with words to, in the Discrepancy Report, asking
24 them to evaluate this so that the final significance level
25 can be determined, and that's the approach that we have

1 taken.

2 If we are able to say it doesn't function, from
3 our review, we don't do the calculations or evaluations to
4 determine the final outcome, that is NU's responsibility and
5 we ask them in our DR to evaluate that so that a final
6 significance level can be determined.

7 CHAIRMAN JACKSON: So if it requires some
8 additional analysis, you essentially -- the default position
9 is level 3?

10 MR. SCHOPFER: Correct.

11 CHAIRMAN JACKSON: And so the ultimate
12 categorization depends upon this additional analysis?

13 MR. ERLER: They must complete the analysis in
14 order to establish a significance.

15 CHAIRMAN JACKSON: And then as part of your
16 closure, you go back and evaluate that that analysis has
17 been done, and that the proper -- and you concur that the
18 level assignment is what is suggested?

19 MR. ERLER: That is correct.

20 CHAIRMAN JACKSON: That you accept it or reject
21 it, is that correct?

22 MR. SCHOPFER: Yes.

23 CHAIRMAN JACKSON: Okay. But the default position
24 is level 3. I didn't know that, that's interesting.

25 MR. SCHOPFER: That's the position that we have

1 taken to the processes.

2 CHAIRMAN JACKSON: And you are going to speak to
3 how you do that, when you --

4 MR. CURRY: Yes, ma'am, I can't make a comparison,
5 but I can talk about how --

6 CHAIRMAN JACKSON: Please.

7 MR. SCHOPFER: The next slide shows the Summary
8 Table of the Discrepancy Reports that have been issued. The
9 first column is the number of -- total number of Discrepancy
10 Reports that have been issued, broken down by the
11 significance level. These numbers will be different, or are
12 different than the numbers you saw on the Northeast
13 Utilities slide because they are taken as of a different
14 date. These are as of Monday of this week. I think the NU
15 numbers were from a different date.

16 The second column is their responses and, as Mr.
17 Bowling said, these numbers change now very rapidly. Their
18 number is well over 700 now, and our number of responses in
19 the system and evaluations are going up. Also, as the next
20 slide will show. But NU, as of this date, had responded to
21 approximately 75 percent of the DRs that had been issued as
22 of that date, and we have evaluated approximately 40 percent
23 of those submitted.

24 We have been utilizing face-to-face meetings and
25 conference calls in accordance with established protocol to

1 resolve the more difficult technical Discrepancy Reports and
2 --

3 CHAIRMAN JACKSON: What does resolution involve?

4 MR. SCHOPFER: Resolution, if their response
5 doesn't address all the issues that I laid out as what we
6 expect on a response, if they have a technical response that
7 our reviewers don't agree with, or don't have sufficient
8 information to agree with, then, usually, a conference call
9 or a meeting will be held to lay out those concerns, from
10 our standpoint, for them to provide any responses to
11 questions that we may have about their response.

12 We had a series of meetings last week at Millstone
13 where we did it by topic, where the HVAC filter unit, we had
14 a number of discrepancies written on that, and we had a
15 meeting that discussed about 12 or 15 individual DRs on that
16 subject, so that we had the right people there and provided
17 the information, and the basis for why we thought it was a
18 particular issue, not in compliance with a requirement, and
19 they gave their response to that.

20 CHAIRMAN JACKSON: So let me make sure I
21 understand the statistics. You say that NU has responded to
22 75 percent of the DRs, and that you have reviewed 40
23 percent.

24 MR. SCHOPFER: Forty percent of --

25 CHAIRMAN JACKSON: Of the 75 percent. So we are

1 talking 30 percent?

2 MR. SCHOPFER: Thirty percent of the total.

3 CHAIRMAN JACKSON: Of the total. Okay.

4 MR. SCHOPFER: The next slide is a graph of the
5 response, the submittal and response rate, and for the
6 people in the -- here are the copies that were handed out.
7 Unfortunately, the color section, the yellow doesn't show,
8 but it does on the screen here somewhat, and that shows the
9 fact that NU has turned up the response rate dramatically on
10 the Discrepancy Reports, as you can see, and our evaluation
11 rate will follow this curve with about a two week lag to it,
12 for us to receive the information, put it into our system
13 and put it through the review process.

14 CHAIRMAN JACKSON: So you are saying you are going
15 to be able to keep up with this, with NU's response rate
16 with about a two week lag?

17 MR. SCHOPFER: Pretty close. We have started
18 turning it up, as you can see from the blue line, and this
19 week it has gone up dramatically also. So I expect we will,
20 yes.

21 We expect to resolve the majority, the great
22 majority of the DRs by about the first week, or early in the
23 second week of March, that's our current plan based on NU's
24 comment to complete the response by the end of February.

25 A summary of the closed or confirmed Discrepancy

1 Reports is provided next. Of the 211 DRs that have been
2 accepted and closed, there have been 111 confirmed DR
3 discrepancies. Forty-two were previously identified by NU
4 and 58 were considered non-discrepant after their response
5 and Sargent & Lundy's review of that response.

6 Of the 111 confirmed discrepancies, five have
7 categorized as level 3 and 106 as level 4. There are also
8 four pending discrepancies and I should note that pending is
9 that we have accepted their Corrective Action Plan, they
10 agree that it is a discrepancy. We have accepted their
11 plan, but there is some engineering document that we want to
12 see before we call it closed, an evaluation, a calculation,
13 some action that they needed to take that we want to see
14 that result before we close it again because the
15 significance level may be affected by the results of that.
16 But their Corrective Action Plan on resolving it was
17 satisfactory.

18 CHAIRMAN JACKSON: Can you talk about the most
19 significant of the level 3, the five level 3 confirmed
20 discrepancies?

21 MR. SCHOPFER: I'll talk about all eight, because
22 there three pending --

23 CHAIRMAN JACKSON: Okay.

24 MR. SCHOPFER: -- and I have some information
25 about that, or at least seven of the eight. They are in

1 various areas, and you can see on the next slide, actually,
2 how they are broken down. But those, we had one under
3 Design Control, one level 3 under Design Change Process,
4 that was basically a use of unverified information and
5 procedures, and NU accepted that and has made a procedure
6 change to make sure that they don't have the ability to use
7 unverified information in procedures. That was a level 3
8 from a procedural Design Control standpoint.

9 There were three or four calculations; four shown
10 here. One was an embedment plate that was overstressed
11 because the loads were -- certain loads were not considered.
12 There was a calculation for ventilation in the pump house
13 for the service water pumps that did not consider two-pump
14 operation. That one is actually in the pending category and
15 they're doing that calculation to see that it would or would
16 not have been more significant.

17 There was a calculation on auxiliary building
18 ventilation system filter unit bypass leakage calculation
19 that did not consider everything that it needed to consider.

20 There was two in the corrective action areas that
21 there we judged their corrective action not adequate,
22 meaning that they're on different issues, but their
23 corrective action process was not complete or not adequate.
24 One issue dealt with control of vendor information used in
25 procedures, and the other was the environmental

1 qualification of terminal blocks.

2 And the one that shows up as component data on the
3 next slide was an auxiliary building ventilation fan
4 basically not meeting its design and licensing equipment
5 requirements for vibration design.

6 Those are at least I believe seven of the eight
7 that we've identified as Level 3s.

8 The slide that shows the again confirmed and
9 pending DRs that should add up to the 215 are distributed
10 across various configuration control processes and products
11 as we've identified here and categorized them at the
12 beginning of the job.

13 The notable trends here are that the number of
14 discrepancies in calculations, there have been minor drawing
15 errors, and I'm looking more at the -- we've talked about
16 the Level 3s. I'm talking more to the numbers of Level 4
17 discrepancy reports on calculation issues, drawing errors --
18 minor drawing errors -- differences between the design and
19 as-built configuration, which is categorized or called
20 installation implementation. Licensing documents would be
21 FSAR inconsistencies, handling of corrective actions, and
22 components not in compliance with their design specification
23 or their licensing commitment. That's the type of what
24 these have shown for the confirmed DR so far.

25 And the last slide I have is the preliminary

1 conclusions slide that you mentioned earlier. Based on --
2 and I've termed this preliminary conclusions because we in
3 fact have looked at about a third of the -- or a little
4 less, perhaps -- of the responses, and conclusions really
5 won't be drawn until we've completed that DR resolution
6 process, but that based on the numbers of findings that have
7 remained Level 3 are determined to be significant to Level
8 3, we have a preliminary conclusion that the effectiveness
9 of their CMP was relatively good in determining design and
10 license basis deficiencies because of the minimum number of
11 those things that we have found based on the total number of
12 things that we've in fact looked at.

13 The conclusions about configuration management
14 going forward, we have reviewed their design control manual
15 and we think it will be able to provide configuration
16 control in the future. There are some aspects of their
17 modification process that we have discussed with NU and the
18 NRC that could be improved, but they have not resulted in
19 issues that were unacceptable, that are improvements or
20 enhancements to their process.

21 Programmatic issues that have jumped out at us are
22 calculation control, and we've discussed these issues again
23 with both the NRC and NU. They have a -- and they have
24 programs in place to deal with that, but we found it very
25 difficult to deal with the calculations, what is the

1 calculation of record for a particular system and aspect of
2 a system, what -- which calculations used as input to others
3 and superseding of calculations that may have been used as
4 input. So there are a number of issues like that related to
5 calculation control.

6 And we also found some issues in general with
7 radiological calculations that were not of the same quality
8 and control of the calculations as the other calculations
9 done recently on site. The radiological calculations are a
10 little bit more difficult to deal with. They have not shown
11 as good of conformance to the licensing basis. So those are
12 two of the issues that again we have discussed with NU and
13 the NRC.

14 CHAIRMAN JACKSON: Thank you.

15 MR. CURRY: Good morning, Chairman Jackson.

16 CHAIRMAN JACKSON: Good morning.

17 MR. CURRY: My name's Stan Curry, and I'm the
18 project director for the Unit 2 ICAVP, and with me today is
19 Eric Blocher, my deputy. I'm very pleased for this
20 opportunity to talk about Unit 2.

21 As you see from the agenda, we'll get -- on the
22 third bullet there we'll get down to discrepancy reports,
23 and I'd like to cover those issues that have been previously
24 mentioned at that point.

25 Our Tier 1 review is continuing as similar with

1 Sargent Lundy, we have four major systems have been selected
2 which also encompass significant numbers of additional
3 systems which are touched as interfaces or as major
4 components that have been added to define a single system.

5 Our high-pressure safety ejection, today we have
6 finished our discovery in following on with the definition
7 given previously. That means that we've finished our
8 discovery. We're finalizing the discrepancy reports to
9 submit on that particular system. And then the corrective
10 action review is indeed ongoing in that particular area.

11 The auxiliary feed water system is on hold as
12 we've indicated there, and we expect based upon NU's
13 information to start receiving some information to allow us
14 to restart our efforts in that particular area in the
15 mid-March time frame.

16 CHAIRMAN JACKSON: Now there were changes made to
17 that system. Is that the --

18 MR. CURRY: There were additional calculations
19 that needed to be redone. In order to establish the design
20 and licensing basis and to make it efficient for our reviews
21 it did not seem prudent to proceed until those were
22 complete.

23 On the two other Tier 1 systems we are proceeding
24 in the design and licensing basis. As indicated there our
25 work is in progress and we're going through the normal

1 process of a Tier 1 inspection on those two systems.

2 Our Tier 2, which again is the accident analysis
3 review, we've gotten our critical design characteristics
4 approved. The 29 events are in review. As you notice, the
5 major bullet there that we will reevaluate the ten events
6 that Northeast Utilities is currently working on to
7 reanalyze. We have a process that will allow us to work
8 around those for a period of time. Those other analyses are
9 not affected by the reanalysis work.

10 And then we have a process which allows us to take
11 placeholders but will require us to come back and validate
12 once they have completed their calculations on Tier 2.

13 Our Tier 3 proceeds. There is the one outstanding
14 area of vendor manuals as far as the selection of the sample
15 that we will be reviewing. The other is progressing well
16 and we're 75 percent complete with that tier.

17 Discrepancy reports. Just to review what's
18 currently on the slide before I proceed for some other
19 comments. As you see, similar in definition, 57 discrepancy
20 reports are closed, are confirmed pending, and of the 39
21 that have been confirmed as discrepancies, and again those
22 are in a manner that we have agreed with the licensee on the
23 particular issue and the action that will be taken. Closed
24 indicates that we have seen their final piece of paper that
25 would allow us to agree, and if they've not yet implemented

1 it, we would close it, and it would move to the corrective
2 action portion of our review.

3 To follow up on the earlier questions that have to
4 do with the elevated discrepancy reports. Mr. Bowling has
5 already made a remark about the actual number that we
6 received, and I'd like to discuss a little bit the process
7 we've developed to utilize on what we call elevated DRs,
8 anything that are in Category 3, 2, or 1 in particular, with
9 specific emphasis on 1s and 2s.

10 And as you can imagine, most of these are not just
11 open a book and find the issue. These were fairly complex
12 issues. And because of that we and the licensee and the
13 staff and the State of Connecticut have developed a process
14 by which we sit down and discuss any one of these to make
15 sure that everyone understands what those issues are.

16 This process was not in place before we issued the
17 initial elevated DRs. We are now using those. And to
18 the -- I think to the credit of the licensee they're
19 bringing significant amounts of staff to those meetings to
20 make sure that they understand those issues before they
21 begin to respond.

22 Again, these issues in many cases are driven out
23 of the accident analysis reviews rather than simply the
24 systems that they have across the plant implication, so it's
25 not just a single system issue. And I have seen from them a

1 very sincere desire to understand and make sure that we
2 fully appreciate what their response will be and why we can
3 accept that response.

4 In many cases again as we've discussed in the past
5 there are -- this is an older plant, and sometimes you reach
6 the point where the data provided does point you to an
7 elevated definition or would be met, and then further
8 research may turn up additional information which may allow
9 all parties to agree that indeed the situation is
10 nondiscrepant. And clearly that's some of the things that
11 we're seeing coming out of those.

12 CHAIRMAN JACKSON: Do you have the comparable
13 default position in terms of --

14 MR. CURRY: We do, but I should tell you, I mean,
15 we certainly do, and I think Mr. Schopfer adequately
16 discussed that. When it's indeterminate, we indeed send it
17 back to them and indicate at this point without us redoing
18 calculations and that's not part of our scope. It is
19 indeterminate what's the exact level, but we believe it is
20 as a minimum of three.

21 Now again sometimes the information provided does
22 meet the criteria to identify it at that time as a potential
23 Level 1 or Level 2. As I've mentioned, sometimes that
24 potential goes away when more information is provided. But
25 you deal with the information that you have at the time when

1 the licensee provides all information that he thinks he has
2 to address that issue. As we've seen in the past, there was
3 one particular item that we were unaware and did not receive
4 an LER from the licensee. Upon receipt of that LER, that
5 starts helping us understand where they are on that
6 particular -- resolution on that particular item.

7 These meetings have resulted on the elevated DRs
8 and they have taken the opportunity to go back and, on three
9 of those particular items, do a further evaluation and they
10 will be shortly getting back to us as far as what they have
11 seen to evaluate the potential, whether or not there is a
12 problem or not.

13 Again, I would like to emphasize that they have
14 shown significant commitment to me as far as making sure
15 they were bringing the right people to the table. There has
16 been no lack of their dedication in that area.

17 Were there other questions about DRs that -- our
18 schedule, as we show here, we have coordinated these dates
19 with the staff to make sure that, as we currently have
20 indicated here, that they will support the staff's
21 inspection of our work on both Tier 2 and Tier 3 as well as
22 in Tier 1 and the corrective action review.

23 CHAIRMAN JACKSON: So given the date you have for
24 the HPSE, does the high-pressure safety injection system
25 meets its design and licensing basis?

1 MR. CURRY: At this point, our discovery is
2 complete. We obviously have several outstanding DRs related
3 to that system, and you have to wait until you get those
4 answers.

5 CHAIRMAN JACKSON: Okay. So you're waiting for
6 what?

7 MR. CURRY: We have several outstanding
8 discrepancy reports on HPSE and also on the corrective
9 actions to be performed on HPSE, and there's a significant
10 number of corrective actions the licensee has identified
11 that they will be performing.

12 CHAIRMAN JACKSON: Okay. So this feedback process
13 and the re-review has not been done.

14 MR. CURRY: That's correct, yes, not yet been
15 done.

16 Our current target, based upon our current
17 knowledge of what we're doing and certainly the Northeast
18 Utility's current schedule, providing us the information
19 that I discussed earlier, some of the design basis
20 calculations and the accident analysis, based upon those
21 schedules and a process, a normal proceeding of resolutions
22 for discrepancy reports and corrective actions, we look to
23 have a July the 10th date for our final report.

24 CHAIRMAN JACKSON: Okay.

25 Any questions? Yes?

1 COMMISSIONER MCGAFFIGAN: The Level 1's that you
2 tentatively identified, five Level 1's, what is the nature
3 of some of them? Apparently NU has responded on three of
4 them, and you're presumably looking at their response, but
5 what is the nature of some of these Level 1's?

6 MR. CURRY: Eric, would you like to characterize
7 those for me?

8 MR. BLOCHER: Right. The elevated DRs that exist
9 to date, one of the Level 1's deals with water intrusion
10 into the diesel fuel storage tank that would render both
11 trains inoperable. There is another Level 1 DR that deals
12 with the RC flow, RPS trip set point being in a
13 non-conservative direction and certainly would violate or
14 potentially violate a fuel integrity limit.

15 There is an issue dealing with enclosure building
16 integrity, both from a pressurization, and overall leakage
17 point of view.

18 The fourth one deals with steam generator narrow
19 range level trips point dealing with potential cause of
20 drawing inconsistency resulting in an over-leak,
21 under-conservative trip set point.

22 Then there is the fifth Level 1 DR deals with the
23 containment sump valves, potential vulnerability to pressure
24 binding and pressure locking, therefore rendering them
25 inoperable.

1 Our one Level 2 DR deals with accumulator tank, an
2 air supply that provides backup air to safety injection
3 discharge valves, and the mounting of that accumulator tank
4 is in question.

5 MR. CURRY: I again would say that, again, those
6 are potential DRs at this point.

7 CHAIRMAN JACKSON: Anything else?

8 Thank you very much.

9 We'll now hear from Little Harbor Consultants.

10 Let me see if my Commissioners would like a break.

11 No? Keep going?

12 [Pause.]

13 CHAIRMAN JACKSON: Good morning.

14 MR. BECK: Good afternoon.

15 CHAIRMAN JACKSON: It is afternoon. It was
16 morning when we started.

17 MR. BECK: I'm John Beck, president of Little
18 Harbor and team leader of the independent third-party
19 oversight program at Millstone, and I have with me this
20 morning -- this afternoon John Griffin, who is a deputy team
21 leader, and Billie Garde, a member of our oversight team.

22 Our presentation today will be very similar to
23 that we gave in December. Since then, we have presented an
24 interim report to Northeast Utilities and the NRC staff in a
25 public meeting on January 27 at Millstone. Today's

1 evaluation of NU's success criteria was conducted earlier
2 this week and is thus very current and represents the
3 consensus opinion of the LHC team.

4 Before we report on the NU success criteria, I
5 would like to briefly discuss the evaluation system we use
6 to measure each of our safety-conscious work environment
7 attributes. While our evaluation system which we discussed
8 in December remains the same, we have modified this
9 particular slide to more clearly define our criteria.
10 Specifically, we have indicated that a green evaluation
11 means world-class performance. Previously this was labelled
12 "meets expectations" and left unsaid that the expectations
13 referred to were meant to represent ideal performance or
14 world-class performance.

15 CHAIRMAN JACKSON: This is not a re-normalization

16 MR. BECK: It is not a re-normalization.

17 We have also added a line to show, as we discussed
18 in December, what level of performance we consider to be
19 acceptable for restart. These changes, as well as the
20 addition of positive and negative factors which I will get
21 to in a moment, were made based on feedback we received from
22 members of the public following the December meeting.

23 Our oversight plan defines twelve attributes of
24 the safety-conscious work environment, and we have mapped
25 these twelve attributes into the four success criteria

1 utilized by Northeast Utilities to measure the
2 safety-conscious work environment. We evaluate each of our
3 twelve attributes, discuss the facts gathered and observed
4 in our work, and then strive to reach a team consensus on
5 the evaluation for each of those attributes.

6 CHAIRMAN JACKSON: And do each of those attributes
7 all have to be above the line individually in order for you
8 to make an acceptable determination?

9 MR. BECK: For all practical purposes, I would say
10 yes, although there could be an exception. I don't believe
11 there is at this time, and certainly we would point it out
12 and justify why, if it didn't quite meet the line, that
13 would be the case. But I don't believe it is as we stand
14 here today.

15 CHAIRMAN JACKSON: So I want you to, again, to
16 state for the record, when you said earlier it meets
17 expectations, you were saying implicit in that was meets
18 world-class expectations, so it's not a re-normalization?

19 MR. BECK: For the green rating, that's correct,
20 it is not a re-normalization.

21 Within roll-up, our twelve attributes into the
22 four NU --

23 CHAIRMAN JACKSON: Excuse me.

24 COMMISSIONER DICUS: On this slide in question,
25 what would yellow declining mean? Put the slide back up a

1 minute. You've got these different categories and you show
2 whether it's improving or declining, but what if you had a
3 yellow declining? Is that the same thing as yellow
4 negative?

5 MR. BECK: No. If it were a middle yellow or a
6 neutral yellow declining, that would not meet our acceptance
7 criteria for restart of the unit.

8 COMMISSIONER DICUS: Okay.

9 MR. BECK: It has to be at least neutral yellow
10 holding steady. If it were declining, that would not meet
11 our criteria.

12 CHAIRMAN JACKSON: So minus means it's declining
13 and plus means it's improving?

14 MR. BECK: No. The arrow indicates improving,
15 steady, or declining.

16 CHAIRMAN JACKSON: Did you get the answer to your
17 question? Okay.

18 COMMISSIONER DICUS: Close enough.

19 CHAIRMAN JACKSON: Okay.

20 MR. BECK: We're trying to keep a very close
21 finger on the pulse.

22 We then roll the --

23 CHAIRMAN JACKSON: Let me back you up --

24 MR. BECK: Sure.

25 CHAIRMAN JACKSON: -- since you're showing

1 performance indicators.

2 MR. BECK: Yes.

3 CHAIRMAN JACKSON: What does plus mean relative to
4 the arrows at the bottom of the page? What do plus and
5 minus mean?

6 MR. BECK: Plus -- the absence of a plus or minus
7 or the middle yellow and the minus yellow are three
8 gradations in that yellow range, plus, neutral or minus.
9 The arrows indicate a trend --

10 CHAIRMAN JACKSON: I see. Okay.

11 MR. BECK: -- at that gradation level.

12 COMMISSIONER MCGAFFIGAN: Where is yellow minus
13 improving? Yellow minus with an up arrow, is that above or
14 below the line?

15 MR. BECK: Below.

16 COMMISSIONER MCGAFFIGAN: It's below. Okay.

17 MR. BECK: You could look at it, although we try
18 to stay away from it, as A, B, C, D and F.

19 As stated earlier, the information we're about to
20 present was developed by Little Harbor in meetings held
21 earlier this week and represents our consensus.

22 The first of the success criteria is to
23 demonstrate a willingness to raise concerns. We have
24 evaluated this criterion as neutral, yellow and improving,
25 or an up arrow. We consider this criterion to be acceptable

1 for restart and it represents an improvement from our last
2 evaluation.

3 This slide shows the five Little Harbor attributes
4 which will appear as Slide 29 in your handout package, which
5 roll up into the first of these NU success criteria. And
6 you can see by examining those five attributes, each of them
7 would meet the acceptance criteria at this point, if you
8 looked at them on an individual basis.

9 This next slide lists the factors that we
10 considered in our evaluation. For example, the event that
11 occurred in January in Unit 3, mechanical maintenance, the
12 second bullet in the left hand column, made both the
13 positive and the negative lists. It was negative because of
14 the perceptions about the event.

15 CHAIRMAN JACKSON: Why don't you give us a quick
16 summary?

17 MR. BECK: Sure. In this particular case, a
18 change in a manager's assignment was being made, and it was
19 reacted to very vigorously by the people who were
20 responsible to this individual, and by others in the
21 maintenance department, as they felt that it was an
22 inappropriate thing to be done. They had a lot of trust in
23 this individual and they, frankly, did not want to see him
24 reassigned to other duties.

25 The action was taken on New Year's Eve day and it

1 was quite a strong reaction on the part of the individuals
2 affected by it, and the potential existed for a chilling
3 effect. But -- and those certainly were negative aspects of
4 it.

5 On the positive side of the equation was the fact
6 that the employees involved and affected by it were willing
7 to stand up and question the decision by management which
8 they believed was wrong for the company. Management's
9 reaction to that challenge was relatively swift, and by the
10 end of the first week in January, the decision to reassign
11 this individual was reversed. A new understanding was
12 reached about the standards expected by people in the
13 maintenance department by all, management and the employees,
14 and it had, frankly, a very rapid and happy ending.

15 Moving on to the second criterion, and this is to
16 demonstrate that issues are being effectively resolved by
17 line management.

18 CHAIRMAN JACKSON: Excuse me, what is the ERB
19 review process?

20 MR. BECK: Executive Review Board is a board the
21 company has set up to review any potentially adverse
22 personnel action being taken at the Millstone site, whether
23 it be an employee or a contractor. It is at a high level
24 and it considers all aspects of potential adverse employee
25 or contractor personnel actions and is intended as a final,

1 high level review, and they have been catching a number of
2 circumstances that might have not been properly handled.

3 It has also been, not only is a catch for these
4 things, but it has had, I think, an effective --
5 effectiveness in precluding things that might have happened
6 in another day. It is serving its purpose.

7 The second criterion is to demonstrate that issues
8 are being effectively resolved by line management, and this
9 corresponds to the Corrective Action Program at Millstone.
10 We have evaluated this criterion as neutral, yellow and
11 improving. This evaluation shows an improvement since our
12 December meeting, and we find the criterion to be acceptable
13 for restart, as we did in December, and it corresponds to
14 our Attribute No. 10.

15 We will begin next week a detailed review of the
16 effectiveness of the Corrective Action Program. Our review
17 so far has been more of a programmatic nature. Do they have
18 all the essential elements that you would expect to see in a
19 Corrective Action Program?

20 Criterion 3 is to demonstrate that the Employee
21 Concerns Program is effective. Our evaluation of this
22 criterion has also improved from December. You may recall
23 in December we evaluated this criterion to be unacceptable
24 for restart, based on seemingly high levels of
25 dissatisfaction by users of the Employee Concerns Program.

1 Since that time we have interviewed over 30
2 employees who have recently used the program and determined
3 that 83 percent of those interviewed would use the ECP again
4 should the need arise. These results compare favorably with
5 evaluations conducted independently by Northeast.

6 Our current evaluation is neutral, yellow and
7 improving, which we find to be acceptable for restart. We
8 will be conducting additional reviews of recent Employee
9 Concerns Program activity over the next few weeks to
10 determine the effectiveness of Corrective Actions which are
11 intended to address and resolve the negative factors on this
12 slide.

13 CHAIRMAN JACKSON: Do you -- if you interview
14 employees who have used the Employee Concerns Program, and
15 you have asked them if they would use it again, do you ask
16 them if -- is that the question they are asked, or are they
17 asked if they felt the issue they raised was satisfactorily
18 resolved?

19 MR. BECK: The specific question that we developed
20 for this contained about 10 or 11 questions, if I recall.
21 We asked them to characterize the concern and then walked
22 them through the entire process from the day they walked in
23 to the Employee Concerns. How were you treated? Did the
24 intake person understand your concern? All the way down to,
25 Where you satisfied with the resolution? How were you

1 treated during the process? Et cetera. So we got a pretty
2 comprehensive review.

3 COMMISSIONER DICUS: You said this was done by
4 survey?

5 MR. BECK: No, this was done by individual
6 contact.

7 COMMISSIONER DICUS: Individual.

8 MR. BECK: We contacted in excess of 30 people
9 that had recently used the program.

10 COMMISSIONER DICUS: Okay.

11 MR. BECK: And talked to them directly.

12 COMMISSIONER DICUS: So it is 83 percent of?

13 MR. BECK: I don't -- we were struggling this
14 morning to remember the exact number. It was over 30, I
15 just don't recall the exact number.

16 COMMISSIONER DICUS: Out of how many potential
17 people did you have to interview?

18 MS. GARDE: When we first did the survey -- I do
19 not mean survey instrument. When we first called people,
20 that covered over a hundred files, which were the older
21 files that we had looked at, files that were open when we
22 first arrived, and then began to be developed. This group
23 would come out of about 60.

24 COMMISSIONER DICUS: Okay. But -- all right.
25 Because you are showing a change in the trend, and I am

1 trying to figure out where that came from.

2 MS. GARDE: It is from a different group of
3 people, so that the last group that we called were from
4 people who had open concerns within, I think since --

5 MR. BECK: Six months.

6 MS. GARDE: Yeah, within the last six months.

7 COMMISSIONER DICUS: Okay.

8 MS. GARDE: May.

9 CHAIRMAN JACKSON: Did you go back at all to the
10 earlier group?

11 MS. GARDE: In the second batch. If their case
12 was closed during the new time period, yes, they would have
13 been within that second group.

14 MR. BECK: The final NU success criterion is the
15 ability of management to recognize and effectively deal with
16 alleged instances of harassment, intimidation, retaliation
17 or discrimination, including potential chilling effect on
18 the Millstone work force.

19 In December we evaluated this criterion as a
20 significant weakness, red, and unacceptable for restart.
21 Our current evaluation still classifies this criterion as a
22 significant weakness and unacceptable for restart.

23 Since December, we have seen some improvement in
24 this area and have indicated this improvement by an up
25 arrow. We believe that this issue continues to be the most

1 significant challenge for Northeast relating to the safety
2 conscious work environment.

3 The next slide shows --

4 CHAIRMAN JACKSON: Before you go to the next
5 slide.

6 MR. BECK: Yes.

7 CHAIRMAN JACKSON: What do you mean when you say
8 inconsistent handling of HIR&D allegations and 50.7
9 analysis?

10 MS. GARDE: I completed a review of all of the
11 files that raised a potential 10 CFR 50.7 issue up through
12 the first week of December, and what I found within those
13 files was somewhat varied approaches by the different
14 investigators that were handling the cases in terms of what
15 they -- how they individually approached a particular
16 allegation of retaliation. And that was one of our findings
17 in our last presentation, and I believe the ECP is working
18 on trying to bring some consistency so that any file and any
19 investigator will work to the same criteria in reaching
20 determinations in that area.

21 CHAIRMAN JACKSON: Does guidance exist for them?

22 MS. GARDE: There's not written guidance now, but
23 I hope that there soon will be.

24 CHAIRMAN JACKSON: So there's no written guidance
25 for the investigators?

1 MS. GARDE: No. There are very detailed
2 procedures, but within those procedure, there is not a
3 written guidance that sets out how retaliation is to be
4 investigated.

5 CHAIRMAN JACKSON: And what about training for the
6 investigators?

7 MS. GARDE: They are going to get training in that
8 area. They have already received quite a bit of training in
9 other areas. This training has to be further developed.

10 CHAIRMAN JACKSON: Okay.

11 MR. BECK: The next slide shows the five Little
12 Harbor attributes which roll up into the Northeast Utilities
13 criterion.

14 As I just mentioned, we have seen some improvement
15 in the criterion. If we could have the next slide? And
16 this one represents some of the positive factors and events.
17 The executive review board, which we discussed a few minutes
18 ago, has been especially effective in preventing events from
19 occurring, and in recent weeks, Northeast has made
20 significant progress toward resolving several longstanding
21 issues of concern with the Quality Control Department.

22 On the next slide, however, you will see that
23 there continue to be negative high profile events and
24 untimely resolution of some incidents. We have been
25 following closely management's handling of the recent event

1 and oversight, noting both positives and negatives. Our
2 next report will contain conclusions about this ongoing
3 matter. Bottom-line composite of these factors result in
4 our judgment that considerable effort is still required in
5 this area.

6 CHAIRMAN JACKSON: Tell me about this management
7 oversight relationship. This is -- what are the problem
8 areas?

9 MR. BECK: This springs from a relationship
10 between maintenance and the quality control inspectors that
11 dates back a couple of -- three months at this point, and
12 it's an issue that frankly festered for some time until it
13 received more management attention. I think it is
14 definitely on a trend of improvement at this juncture, but
15 it does represent a significant area for improvement.

16 Billie, you might want to add to that.

17 MS. GARDE: I think that there was a lack of
18 understanding between the maintenance organization and the
19 quality control-quality assurance department that led to
20 some interdepartmental behaviors that we wouldn't expect to
21 see at a site in a restart mode. I think, frankly, the
22 maintenance event that John referred to earlier probably
23 brought some of those things to the forefront and is one of
24 the areas that they have been addressing more recently and
25 more aggressively.

1 CHAIRMAN JACKSON: Do you systematically go back
2 and check or monitor the progress? For instance, when you
3 were talking about the HIR&D and you indicated that there
4 wasn't the kind of guidance that there needed to be, you go
5 back to see if, in fact, that has happened or that it's
6 scheduled to happened? I mean, how --

7 MR. BECK: Yes.

8 CHAIRMAN JACKSON: You do a systematic backtrack?

9 MR. BECK: Yes. We have a -- we have developed a
10 matrix of all recommendations that we've provided to date
11 and we status each of those recommendations periodically.

12 CHAIRMAN JACKSON: Okay. Very good.

13 MR. BECK: John would like to respond to a
14 question you raised earlier with Northeast, Chairman
15 Jackson.

16 MR. GRIFFIN: As I understand, the question was
17 whether Little Harbor periodically samples the data that
18 leads into their performance indicators. The short answer
19 is yes, we do. We either independently verify the data
20 itself or we conduct independent data collection to verify
21 or validate that information. With probably two exceptions
22 on the corrective action program, as John indicated, we had
23 -- well, we had looked at that program in the fall, we have
24 not looked at it over the last several months, so we haven't
25 looked at the most recent data. We will begin a

1 reevaluation on Monday and we will sample that data at that
2 time.

3 The other variance from our agreement with their
4 performance indicators would be in the area pertaining to
5 the fourth performance criteria of the HIR&D, and as I think
6 Mr. Amerine had indicated, there are ongoing discussions
7 over the classification of concerns that fall into the HIR&D
8 area and into those that fall to the potential 50.7
9 violations. We're still discussing those.

10 CHAIRMAN JACKSON: Why don't you go on.

11 MR. BECK: That's it. That concludes our
12 presentation this morning. We did not intend to go through
13 each of the LHC attributes. If there are no further
14 questions --

15 CHAIRMAN JACKSON: Actually, I do have a few. Let
16 me look at the safety-conscious work environment attribute
17 status. Now, the licensee actually performs six-month
18 surveys. Do your independent surveys indicate similar
19 things, and how extensive are your surveys?

20 MR. BECK: If you recall, we did an extensive
21 structured interview session last June and July.

22 CHAIRMAN JACKSON: Right.

23 MR. BECK: We are going to finish tomorrow
24 interviewing 298, I believe, individuals at the site who
25 have been selected to be representative of the site

1 population and asking them the same questions that were
2 asked last summer, so we'll have another data point
3 available. Those results will be compiled next week and our
4 presentation prepared, and it will be given March 3rd at the
5 Millstone site in a public meeting to NU management and the
6 NRC staff. The results will speak for themselves. I
7 haven't done the evaluation yet, so I have no predictions to
8 make.

9 CHAIRMAN JACKSON: Let me look at attribute 3 --

10 MR. BECK: Sure.

11 CHAIRMAN JACKSON: -- having to do with senior
12 management providing training to all managers and
13 supervisors, et cetera.

14 Has Little Harbor commented on the adequacy of
15 this training?

16 MS. GARDE: Yes, Chairman. First, we commented on
17 the inadequacy of the training that they had in place when
18 we first arrived and they made a number of changes within
19 their ongoing training programs, additional pieces that they
20 put into their programs.

21 They also added -- actually specifically developed
22 and presented in the late fall -- training to all their
23 supervisors and managers on 10CFR 50.7, what that means, how
24 to comply with it, how it's implemented. That training
25 covered three different training programs, so there were

1 actually three different sessions that people attended.
2 They have also had a number of sessions off site with all
3 their mid-level managers that included training in that
4 area. So we have watched it, we have observed it, and it
5 has been continual since I would say early fall.

6 CHAIRMAN JACKSON: Now, if I look at attribute 4,
7 and that's the slide you have where you talk about negative
8 factors, you seem to be primarily event driven. Do you have
9 other ways that you arrive at the conclusions that you
10 reach?

11 MR. BECK: Yes. Structured interview specifically
12 probes that area, and there will be results available March
13 3rd on that subject that will add to our specific
14 event-driven observations.

15 CHAIRMAN JACKSON: And that -- but in arriving at
16 this yellow steady, at the moment, that is event based?

17 MR. BECK: That's correct. That's right.

18 CHAIRMAN JACKSON: Okay. So it could go up if the
19 survey is different?

20 MR. BECK: That will certainly have an impact in
21 this area.

22 CHAIRMAN JACKSON: Okay. You mentioned and we had
23 talked earlier about the maintenance and oversight
24 relationship.

25 MR. BECK: Yes.

1 CHAIRMAN JACKSON: Does any other group have
2 interface problems with oversight? Have you looked at that

3 MR. BECK: We certainly looked at it, and right
4 now, I can't -- I don't recall any -- remember any issues
5 that would rise to the level of the oversight QC maintenance
6 issue, no.

7 CHAIRMAN JACKSON: Have you looked at it in a
8 systematic way?

9 MS. GARDE: We haven't looked at it in a
10 systematic way other than when we're looking at the problem
11 areas, the identified problem areas, which looks at why you
12 have a problem area. Other than that, it should come out in
13 the context of the structured interviews because there's
14 questions specifically designed to look at that.

15 CHAIRMAN JACKSON: Looking at Attribute 5, you
16 talk about the lack of trust. I mean, in your view, how can
17 this best be regained, and is there an aspect, in fact, to
18 the "isolate the cynics" memo that is undergoing review,
19 that, in fact, pointed to trying to regain a team
20 atmosphere?

21 MR. BECK: There will be input from the structured
22 interviews on this whole question of lack of trust. And,
23 certainly, there are aspects of the oversight event that
24 will impact it.

25 CHAIRMAN JACKSON: But I am saying, are there

1 aspects -- are you going to be looking at what may be
2 positive as well as negative aspects of that event?

3 MR. BECK: Yes, we are. Yes, we are.

4 CHAIRMAN JACKSON: Okay. Let me look at Attribute
5 6. In your view, is this an area then where the licensee
6 has made a significant amount of progress?

7 MR. BECK: Yes. Absolutely. Without question.

8 CHAIRMAN JACKSON: Okay. Attribute 7, this
9 positive recognition, the catch of the day. Is this a
10 formal recognition process?

11 MR. BECK: Yes, it is.

12 CHAIRMAN JACKSON: Okay. All right. Attribute 8,
13 looking at incidents leading to allegations of HIR&D rarely
14 occur and management is timely ineffective in taking action.

15 What do you look at most strongly? Is it -- are
16 you looking at number of allegations or the effectiveness of
17 the Corrective Action primarily? I mean where do you put
18 the weight?

19 MR. BECK: The simple answer is both. It is
20 quality of the issue, or the seriousness of the issue that
21 may or may not have occurred. The frequency, is it
22 declining as the work force and management become more
23 sensitive to these very important relationships. And as far
24 as management's timely addressing of the issues, that is
25 certainly a matter of importance to us.

1 Billie, do you want to?

2 MS. GARDE: I think -- I agree with what John
3 said, and I also would like to say something we said the
4 first time that we came here, and that is that it is
5 unrealistic to expect that there will never be an incident.
6 This is a human work force, it's a dynamic work force. You
7 could have a supervisor start today that didn't attend any
8 of the training, and one of the things we want to make sure
9 is that that training is captured for new supervisors.

10 So, although we certainly would not expect to see
11 increasing incidents, there should be levels to catch it,
12 both below and above, and we are seeing that catch system
13 develop. They may happen. Incidents like this can occur.
14 And that is where you have to weigh and balance. And,
15 actually, an incident could occur that could have a timely,
16 effective, immediate response and would only show up on our
17 plus side because of that reason. So it really is a balance
18 between numbers and why it occurred and how it is handled.

19 CHAIRMAN JACKSON: And my last question for you is
20 on Attribute 8, where you talk about a negative factor being
21 manpower. What does this mean?

22 MS. GARDE: There was an incident involving some
23 contract employees who -- employment was terminated. The
24 issues that they raised a concern about were not 10 CFR 50.7
25 issues, that is, they didn't deal with nuclear safety, but

1 they did deal with personnel safety issues. They were let
2 go. The issue went to -- came to the attention of the
3 Executive Review Board, which originally approved the
4 terminations, mainly because they believed they were going
5 to go right back to work in another position. They were not
6 for-cause terminations.

7 CHAIRMAN JACKSON: Okay. So what you really mean
8 is Human Resources or personnel policy?

9 MS. GARDE: It was a personnel -- no, not Human
10 Resources. Personnel safety.

11 CHAIRMAN JACKSON: Personnel safety.

12 MS. GARDE: That is the issues that they raised.
13 In any event, they were immediately put back on the payroll,
14 but it took over six weeks to really come to closure on the
15 issue in a satisfactory way. So, although the people didn't
16 lose salary, the condition festered for too long, and it
17 should have been resolved more promptly. And that grew and
18 it caused it a bigger problem than it needed to be.

19 CHAIRMAN JACKSON: Okay. Any other comments or
20 questions?

21 [No response.]

22 CHAIRMAN JACKSON: Thank you very much.

23 MR. BECK: Thank you.

24 CHAIRMAN JACKSON: Last but not least. I think we
25 will take a five-minute break.

1 [Recess.]

2 MR. CALLAN: Chairman, we will be on our scheduled
3 start time, but as you have repeatedly admonished the Staff
4 that when it comes to Millstone, we should be immune to
5 schedule or pressure, so in that spirit, we will --

6 CHAIRMAN JACKSON: That just shows if you tell
7 people things, they will use it against you.

8 MR. CALLAN: That's right.

9 [Laughter.]

10 MR. CALLAN: With me at the table I have the
11 Director of the Office of Special Projects, Bill Travers,
12 and he has with him also his three deputies; Wayne Lanning,
13 who is the Deputy Director for Inspections; Gene Imbro, who
14 is the Deputy Director for ICAVP Oversight; and Phil McKee,
15 who is the Deputy Director for Licensing and Employee
16 Concerns Program Oversight.

17 And with that, Bill Travers will be our principal
18 presenter. Bill.

19 MR. TRAVERS: Good afternoon.

20 Could I have the first slide, please? I am just
21 going to jump in.

22 The staff is continuing to carry out its oversight
23 responsibilities at Millstone using the guidance listed in
24 Manual Chapter 0350, and, as you know, we used this guidance
25 to develop a Millstone Review Plan that we submitted to the

1 Commission in 9703 and it was within just a few months of my
2 becoming Director of the special organization.

3 We have for each Millstone Unit developed a
4 Restart Assessment Plan which documents the issues that the
5 staff has identified required resolution prior to coming
6 before the Commission with any restart recommendation for
7 any of the units.

8 This slide sort of lays out the structure of those
9 Restart Assessment Plans. Importantly, some of the key
10 orders that have been issued to date in ICAVP and Employee
11 Concerns Program, Safety Conscious Work Environment, are
12 encompassed within this Restart Assessment Plan for the each
13 of the three units. The Restart Assessment Plan also
14 identified the specific NRC inspection reports that are
15 being used to document closure in specific issues, so it is
16 really a good template for assessing the progress that we
17 have been making in our reviews to date.

18 As I have done in previous meetings, I will
19 emphasize a continuing commitment that I think we are
20 meeting, and that is a commitment to make this process as
21 open as we possibly can. We have coordination with the
22 public in the context of evening meetings that we hold every
23 four to six weeks. We have been holding most of the
24 technical meetings and exchanges that we have in the
25 licensee and the contractors in the area of Millstone, and

1 we have been keeping organizations like the state chartered
2 Nuclear Energy Advisory Council apprised of the status of
3 our activities.

4 In fact, as it regards to NEAC, we have a
5 Memorandum of Understanding with them, they are actually
6 participants as observers in many of our ICAVP activities,
7 and we have recently expanded that MOU to include our 40500
8 Corrective Active Inspection and the Operational Safety Team
9 Inspection as well, if they choose to participate as
10 observers.

11 Before turning to a more detailed discussion of
12 status, I would like to make just a few comments about our
13 overall assessment of the licensee's recovery program and
14 their progress. As I indicated in December, the staff's
15 overall assessment is that NU is continuing to make progress
16 in its broad scope effort to fix problems at Millstone. The
17 NRC staff has been observing and documenting in NRC
18 inspection reports, licensee progress in essentially all of
19 the elements of our Restart Assessment Plans for Units 3 and
20 2.

21 Although we have closed and documented specific
22 items identified in those Restart Assessment Plans, we have
23 not yet completed our evaluation of any of the key
24 programmatic issues that are the foundation of some of the
25 key problems at Millstone. And before we can complete our

1 action in areas such as Corrective Action Program, licensing
2 design basis conformance, Employee Concerns, quality
3 assurance oversight, the licensee must determine for itself
4 that their Corrective Actions are complete and effective.
5 As such, our program is one that is necessarily back-ended
6 and several important inspections, some of which have been
7 postponed by the licensee, must be completed before we can
8 finish our review in these programmatic areas.

9 Currently, at Unit 3, of a total of eight team
10 inspections, five are complete, one is in process, and two
11 are planned. In a few minutes, I will present a detailed
12 listing and schedule of the remaining NRC staff inspections
13 related to Unit 3.

14 Fundamentally, of course, our program is focused
15 on a thorough evaluation of the issues, and on no particular
16 schedule. We recognize that it is the issues and their
17 resolution that drive our examination and closure.

18 Can I have the next slide, please?

19 An important element of our Restart Assessment
20 Plan is the evaluation of improvements to the Employee
21 Concerns Program and Safety Conscious Work Environment, and
22 the Commission has heard a number of pieces of information
23 relative to the status of Little Harbor's review and the
24 licensee's own appraisal of its status.

25 The staff's plan for assessing these improvements

1 in these areas was provided as an attachment to our December
2 Commission paper, and that plan presents the staff's
3 methodology for determining if the licensee has made
4 sufficient improvements in their Employee Concerns Program
5 and Safety Conscious Work Environment to support a restart
6 at Millstone.

7 The plan purposely makes a distinction between
8 Employee Concerns Program and Safety Conscious Work
9 Environment. The Employee Concerns Program refers
10 specifically to the licensee's organization and programs
11 that address concerns raised by employees outside the normal
12 line organization. Safety Conscious Work Environment is a
13 broader term and that refers to a work environment in which
14 employees are encouraged to raise concerns and where
15 concerns are promptly reviewed and resolved, with timely
16 feedback to the originator.

17 The October 24th, 1996 Order issued by the
18 Director of NRR required Northeast to develop and submit to
19 the staff a comprehensive plan for reviewing and
20 dispositioning safety issues raised by its employees. That
21 Order also required Northeast to propose for NRC approval an
22 independent third-party oversight program organization to
23 oversee implementation of Northeast's plan to assess
24 licensee performance.

25 The Order further required that the third-party

1 organization, once selected, develop and submit for NRC
2 review and approval, an oversight plan. Currently, all of
3 these elements of that Order have been completed.

4 Consistent with the Order, Little Harbor, as you
5 know, is charged with important oversight responsibilities,
6 and the staff, as part of its overall conclusions regarding
7 the adequacy of ECP and SCWE, expects to utilize input for
8 LHC as a significant element in our decision making.

9 CHAIRMAN JACKSON: Do you have your own criteria
10 against which you assess LHC's evaluations, as well as any
11 either incidental or direct inspections that you do, or
12 reviews that you do?

13 MR. TRAVERS: Yes, we do. I was just about to
14 emphasize that, in addition to our reliance, as I just
15 mentioned, on Little Harbor and its expertise and findings,
16 we are carrying out rather extensive activities on our own,
17 independent of Little Harbor, but certainly related to what
18 they are doing.

19 Those activities, Chairman, as you point out,
20 include an assessment of Little Harbor's effectiveness,
21 because, obviously, in order to rely on what it is they are
22 doing, we need to come to an independent conclusion on their
23 effectiveness.

24 But what I have listed on the bottom section of
25 this Slide No. 3 is just a summary listing of the activities

1 that the NRC staff is carrying out in connection with these
2 issues at Millstone. And they include, very briefly,
3 continued staff on-site monitoring of both the utility and
4 the Little Harbor activities at Millstone.

5 They include recently completed team evaluations
6 of Employee Concerns Program and Safety Conscious Work
7 Environment. That team evaluation also was directed
8 directly at an assessment of Little Harbor and its
9 effectiveness. We are continuing right now to carry out
10 another inspection, the 40-500 that is focused on a broader
11 concept of corrective action programs. We have included an
12 additional team member to look at SCWE and ECP as it
13 directly focused in the area of corrective action. So we've
14 added a specific team member to augment that inspection team
15 to -- sort of in recognition of the importance of having an
16 adequate corrective actions program and the effect that
17 could have on the safety environment and the employee
18 concerns program.

19 CHAIRMAN JACKSON: Let me just ask again, though,
20 are your criteria in that area LHC's criteria, or do you
21 have additional -- any additional criteria that you --

22 MR. TRAVERS: I'm going to ask Phil to address it,
23 but --

24 CHAIRMAN JACKSON: Okay.

25 MR. TRAVERS: We have laid out in our plan that we

1 submitted to the Commission basically our own performance
2 measures and criteria.

3 Do you want to --

4 MR. McGEE: I'll just add that in our plan we
5 identify for the most part their process and programmatic
6 issues that we're looking at, and we've done that as part of
7 our team evaluation and the activities that Bill described.

8 But also when you use that to compare that with
9 Little Harbor, but we've identified some additional measures
10 and issues that we want resolved in a status that we want to
11 see for acceptance for restart, and they do mesh with Little
12 Harbor's criteria in a way, and also the licensee's
13 criteria.

14 And that includes items such as looking at their
15 corrective action program, and as we mentioned the
16 additional members seeing that issues raised by individuals
17 in that program are resolved, are resolved promptly, and so
18 forth. And also elements in the employee concern program
19 also, timeliness of case resolution. And when we do that,
20 we're looking at what the licensee has found, and also
21 Little Harbor's assessment in that area.

22 MR. TRAVERS: Just to talk a little bit further
23 about some of the measures we are using, in the next slide
24 the plan that we're using specifies some of the broad
25 acceptance measures for determining whether or not adequate

1 program improvements to support restart in fact have been
2 made. We've indicated an expectation really that the
3 licensee needs to reach a judgment in this area and that
4 we're as we mention relying to an extent on Little Harbor's
5 activities as well.

6 But some of the areas in looking at the adequacy
7 of the employee concerns program are listed in terms of
8 staffing, training qualifications, how they implement their
9 program, documentation, and so on and so forth. We have
10 much more specific things that we look at we have on a
11 backup slide, but these are sort of a broad treatment of
12 some of the measures that we include in our program for
13 assessing these issues.

14 CHAIRMAN JACKSON: How many of these areas have
15 you measured to this point, and are there any preliminary
16 assessments or conclusions that you --

17 MR. TRAVERS: Yes, in fact there are. We've as I
18 mentioned completed team evaluations which covered both the
19 licensee's programs in both ECP and SEWE as well as Little
20 Harbor's effectiveness in carrying out their oversight
21 responsibilities.

22 The way we've documented the results of these team
23 evaluations to date is via a quick-look letter. A
24 quick-look letter is a letter that's public, it documents
25 the preliminary team evaluation findings. It's transmitted

1 to the licensee. We've provided it to your offices as well,
2 relatively recently, I must admit, but nevertheless it's up
3 there. So this is the mechanism that we use just prior to
4 documenting in a formal inspection report.

5 CHAIRMAN JACKSON: The Commissioner said 9:29 this
6 morning.

7 MR. TRAVERS: That's pretty recent. Yes.

8 CHAIRMAN JACKSON: Well, given that quick look,
9 why don't you give us a quick summary of what's in the quick
10 look.

11 MR. MCGEE: Okay. On the quick look we --
12 actually there were two reports, and we're going to come out
13 with final reports in two areas. One would be to the
14 licensee, Northeast, describing our evaluation in those
15 areas, and one to Little Harbor Consultants. In summary are
16 looking at the licensee's programs. We looked extensively
17 at the employee concern program aspect because those
18 programs were more developed and established.

19 I think for the most part in summary we found
20 similar to what you heard from Little Harbor Consultants'
21 summary that the activities and the efforts, how they're
22 dealing with intake of issues, resolution of issues, and
23 timeliness, that that process and programs and employee
24 concern program is working well and effectively.

25 And the safety conscious work environment, that's

1 a more difficult area, and we're going to get that
2 additional piece when we are doing our follow-on on the
3 corrective action program which I personally think that's a
4 very important piece. But we did look at a number of
5 elements in that area as far as the licensee's dealing with
6 I think they term it their problem areas, organizational
7 areas where there's issues. And we had some findings and
8 issues there that will require -- I think Little Harbor
9 mentioned a few of them -- followup and need some additional
10 attention.

11 And also looking at their training I think as you
12 heard before that the training in some of the training
13 sessions that our staff attended as part of the evaluation
14 we thought was good and effective, but we did find another
15 area as far as long-term planning, what are they going to do
16 in the long term, some deficiencies in that program. And I
17 believe I heard Northeast Utilities say that there are plans
18 to give a more detailed plan in that area, in the safety
19 conscious work environment.

20 But we're still out a little bit on the corrective
21 actions and how those issues evolve, because we've got some
22 ongoing activities in that area.

23 CHAIRMAN JACKSON: Commissioner McGaffigan.

24 COMMISSIONER MCGAFFIGAN: On the slide that you
25 had up a moment ago, the postrestart elimination of

1 third-party oversight, which restart are you talking about?
2 Would they stay on board through 2, and if they reoperate
3 1-1 or how do you see that playing out?

4 MR. TRAVERS: Well, I put this on to be inclusive
5 of everything that's in the order, as it's currently
6 written, and the order as written anticipated the need for
7 sustained performance and demonstration given these issues
8 are not ones that turn around overnight and are quickly
9 resolved.

10 Certainly the order as it's interpreted by us in
11 any case we've put in our plan an expectation that's for at
12 least six months after restart of at least the first unit we
13 would expect the third-party oversight organization to be in
14 place. That was a guess on our part. We had to pick a time
15 frame that might seem reasonable for that kind of sustained
16 performance to be evidenced, but the order simply specifies
17 that sufficient -- how is it put? -- the sufficient
18 performance sustained needs to be at evidence for the staff
19 to come to a conclusion that the third-party oversight is no
20 longer required. So in a sense that's the only element of
21 the order, strictly speaking, that remains in the most
22 formal sense.

23 As I indicated within the RAP, within our restart
24 assessment plan, the conclusions that the staff has to reach
25 in ECP and SEWE are still at issue, and we need to come

1 before the Commission.

2 The last bullet, or the second-to-last bullet on
3 this slide is meant to capture that we intend to do that by
4 writing a safety evaluation report that covers both of these
5 issues and provide that to the Commission prior to restart.
6 And right now Unit 3 of course is the one that looks to be
7 the nearest term.

8 CHAIRMAN JACKSON: Have you found -- Mr. McGee,
9 maybe you can answer this -- similar issues with the
10 oversight and maintenance and oversight of other operating
11 organizations that Little Harbor spoke to?

12 MR. MCGEE: We are aware -- and it's rather unique
13 for us to get -- and a lot of these involve personnel
14 actions and personnel issues and disciplinary issues, and
15 they are quite apparent when they come up at the site and
16 I'll do the sensitivity and we have -- are monitoring with
17 our staff following along with -- I know Little Harbor gets
18 the same information following those activities. And there
19 are a number of those events and issues, and we are the most
20 part in an observation role and looking at the licensee's
21 process for dealing with those issues. But our findings in
22 the events are consistent I think with what Little Harbor
23 described in presenting their attributes.

24 MR. TRAVERS: Can I have the next slide, please?
25 It would be slide No. 5.

1 CHAIRMAN JACKSON: So these quick-look reports are
2 publicly available?

3 MR. TRAVERS: Yes, they are.

4 CHAIRMAN JACKSON: Okay. Yes.

5 MR. TRAVERS: Maybe I'll just list the fact that
6 in addition to the ones we've sent up the program
7 expectation is that for each inspection, at least the team
8 inspections that we complete from now till the end of the
9 project we would expect to issue such quick-look reports so
10 that we can give more timely -- maybe even more timely than
11 9:00 o'clock at the Commission meeting -- information to
12 people who are interested in our team evaluations.

13 The next slide is meant to give you a quick
14 compilation of the things that we've completed since our
15 last Commission meeting in December. One item that's not on
16 the slide but the Chairman made reference to earlier is the
17 fact that we've issued a letter recently that is a demand
18 for information letter on the isolating the cynics issue
19 that requires Northeast to provide us with information on
20 their evaluation of the issue and handling of the issue and
21 whether they think any of what happened involves a violation
22 of 50.7 requirements.

23 Other than that, we have continued to meet with
24 both the Licensee and Little Harbor periodically in public
25 meetings near Millstone. As I mentioned, we have completed

1 our team evaluations and issued quick-look letters. We have
2 ongoing and continuing site monitoring of their activities,
3 both the licensee's and Little Harbor by NRC staff and
4 contractors whom we have working with us, and the 4500
5 inspection is ongoing.

6 Right now, similar to what you heard from both the
7 licensee and from Little Harbor, the Staff's assessment of
8 employee concerns program status is that by virtue of things
9 like staffing and training, numbers of people working in
10 that department, the timeliness of resolution of issues, the
11 quality of resolution of issues, the feedback to the
12 originators, we find that that program is running at an
13 acceptable level. We are going to, of course, continue to
14 monitor that situation and document it in our report to the
15 Commission, but at the current time we wanted to provide you
16 the benefit of our thinking, that this is an acceptable
17 level of performance on the part of Northeast.

18 In the broader question of safety-conscious work
19 environment, our activities are continuing to assess that
20 and, again, similar to what you heard from both Northeast
21 and from Little Harbor, we think there is some additional
22 work that needs to be done, basically in the areas that you
23 have already heard about.

24 Through April, we have projected at least that we
25 would certainly continue to meet on a periodic basis to

1 discuss status and monitor the situation at Millstone. We
2 expect to issue the formal team evaluation report, this
3 follow-on, the quick-look, and that we would in all
4 likelihood, depending upon whether or not the issues are
5 resolved and completed, develop the safety evaluation that
6 would document our conclusions with regard to both ECP and
7 SCWE.

8 Of course, I put through April, but this will be
9 when it will be, and it's just sort of a projection, a
10 planning tool right now for estimating when we might be
11 done.

12 Next slide, please.

13 The restart assessment plan for each of the
14 Millstone units includes our NRC significant items list
15 which identifies the individual and programmatic issues that
16 are at issue, and we are now presenting these in a fashion
17 similar to what you have already seen to make it clear, at
18 least fairly clear, where we stand relative to the total
19 issues and packages that need to be submitted.

20 NU is providing submittal packages for most of the
21 significant items list issues, and together with our
22 inspection reports -- rather, our inspection activities, our
23 review of these packages are being used to close out these
24 individual issues as we go forward. And as you can see, of
25 the total 216 packages, we have closed out 168 and are

1 documenting our closure in inspection reports issued
2 periodically by the Staff.

3 We have heard today that there are six packages as
4 opposed to nine that are now remaining to be submitted.
5 That's an update. And we have under review essentially all
6 of the ones that haven't been completed.

7 CHAIRMAN JACKSON: Are there any items that are of
8 more concern than others, particularly in the categories of
9 remaining to be submitted or --

10 MR. TRAVERS: I'm going to ask Mr. Lanning to
11 address a couple of them.

12 MR. LANNING: Well, there are some very critical
13 issues remaining to be addressed by the licensee. A couple
14 of more important ones are the submittal packages for
15 Appendix R of vendor interface, inclusion of vendor
16 information into procedures, are two examples of key issues
17 yet to be addressed by Northeast.

18 CHAIRMAN JACKSON: Okay.

19 MR. TRAVERS: Next slide, please.

20 The ICAVP, which was required by an NRC
21 confirmatory order, is intended, of course, to confirm that
22 the NU collective actions have been effective in
23 establishing that the units conform with their licensing and
24 design basis. The ICAVP is, in our view, an extraordinary
25 effort. In addition to the independent contractor

1 activities, the NRC staff is also carrying out a series of
2 team inspections, and four of five of those inspections have
3 now been completed at Unit 3. We have issued the formal
4 inspection reports for two of those. Again, quick-look
5 letters are being issued for the remaining. We have
6 actually issued two quick-look letter reports for two of the
7 inspections, and our fifth inspection, the corrective action
8 inspection that is going to look at the corrective actions
9 resulting from findings in ICAVP space, is scheduled.

10 Together with the Sargent & Lundy reviews, the
11 ICAVP effort involves a detailed evaluation in tier 1 of 15
12 of the 88 systems reviewed by NU, and additionally, in tier
13 2, and tier 3, as you have heard before, the ICAVP will
14 examine critical design characteristics of some 20-odd other
15 systems. So it's quite an encompassing review and --

16 CHAIRMAN JACKSON: How many people are we talking
17 about here?

18 MR. TRAVERS: Typically on each of the team
19 inspections, the five inspections the NRC is carrying out,
20 we have about seven people, and the inspections --

21 CHAIRMAN JACKSON: And how long do the inspections
22 last themselves?

23 MR. TRAVERS: Typically they are four weeks on
24 site?

25 MR. IMBRO: Four or five weeks -- yeah, four weeks

1 on site. Two with a week off, and then back for another
2 two.

3 MR. TRAVERS: Next slide, please.

4 The results of the completed NRC team inspections
5 are presented on the next few slides. The first inspection
6 that we completed -- and I have actually discussed at
7 previous Commission meetings -- involved our implementation
8 inspection of Sargent & Lundy's performance against the
9 NRC-approved audit plan that Sargent & Lundy is using to
10 carry out its programs. This involved a fairly early-on NRC
11 assessment and we have had others since, and I will talk
12 about those in a moment, but largely this inspection
13 confirmed that Sargent & Lundy is carrying out its program
14 in accordance with that approved audit plan.

15 The first system safety functional inspection that
16 we carried out, one of two, was completed in September, and
17 we talked to the Commission about the results of that
18 inspection last time. Basically from that inspection, which
19 focused on the ECCS mode of the chemical and volume control
20 system operation at Millstone 3, we identified 16 ICAVP
21 significance level 3 issues. Last time when I came to the
22 Commission, I identified a potential significance level 1, a
23 fairly significant issue. Currently, based on information
24 that the utility has provided to us in a predecisional
25 enforcement conference, as well as information that we are

1 getting on the docket, this finding appears to be more
2 appropriately classified as a level 3 in the context of our
3 scheme for ICAVP level significance determinations.

4 Let me go on to the next inspection. The next
5 inspection that we completed in January involved the look at
6 both tier 2 and tier 3. In terms of tier 2, we are looking
7 at accident mitigation systems and again in the context of
8 tier 2, we are looking at plant change processes.

9 This inspection had another component of
10 evaluating the performance of Sargent & Lundy, and in that
11 context, the inspection concluded again that Sargent & Lundy
12 is performing their process and program adequately to
13 support using their conclusions in our program for assessing
14 the overall conformance with the licensing and design basis.

15 We did identify some issues, however, with Sargent
16 & Lundy. They have taken on those issues and they have
17 corrected or at least carried on some more activities in
18 response to the concerns that were raised by that inspection
19 team.

20 Again, we did identify some level 3 findings in
21 this ICAVP -- in this case, six, and we can categorize or
22 classify those further if you wish.

23 Last inspection that we have completed is a tier 1
24 In-scope SSFI. This is a system by In-scope that Sargent &
25 Lundy has also examined, the RSS system.

1 We have also looked at the emergency diesel
2 generator and the supplemental leakage collection and
3 release system. Again, the component here relating to S&L
4 performance, since it is an In-scope system that they looked
5 at, we looked at their performance by measuring what we
6 found against what they found, and again our conclusion is
7 that S&L performed their program adequately.

8 Again, though, we did identify some issues, and
9 they have taken on some additional reviews in response to
10 those issues, not just for this system, but for other
11 systems that they have reviewed in the context of their
12 ICAVP reviews. So it is both a specific finding and a more
13 broadly applied Corrective Action, if you will, on the part
14 of Sargent & Lundy.

15 Again, the six preliminary ICAVP level 3 findings
16 are identified in connection with this inspection.

17 Next slide, please.

18 Thus far, the most significant findings resulting
19 from our NRC ICAVP inspections, and, in fact, from Sargent &
20 Lundy's activities, as well, are at level 3. Although we
21 are not -- although we are still in the process, really, of
22 finalizing a number of these findings, and we have not yet
23 initiated the ICAVP Corrective Action Inspection, the
24 results today indicate that the licensee CMP, while not
25 perfect, has generally been effective in establishing

1 conformance with the Unit 3 licensing and design basis.

2 In order to reach a final determination on this,
3 of course, we are going to need to complete the program.
4 You have heard that only about 30 percent, or 20 percent,
5 depending on how you count the items being identified by
6 Sargent & Lundy, have been run through the process. But I
7 did want to give you an indication, based on where we think
8 we are today, both from a standpoint of our assessment of
9 what is coming out of the Sargent & Lundy review, and our
10 own NRC team inspections, as to where we are at relative to
11 this issue.

12 We are not at end game, but, by virtue of the lack
13 of significance of the issues, we don't -- we think that,
14 and, importantly, the review that we will ultimately
15 complete on the Corrective Actions that need to take place,
16 we think that today, at least, the findings suggest
17 reasonable conformance with the licensing and design basis.

18 In that mode, and an important element of our
19 level 3 findings, in addition to assessing the significance
20 of each finding, is our independent evaluation of the
21 licensee's Corrective Actions. For all level 3 findings,
22 the process we are using to determine whether or not to
23 expand the ICAVP scope is focused on our assessment of the
24 Corrective Action adequacy, both narrowly and more broadly,
25 and on our assessment of any trends in these findings.

1 In effect, the licensee's Corrective Actions
2 associated with ICAVP level 3 findings are resulting in an
3 augmentation to the licensee's original CMP program, and to
4 our own reviews of what they are doing. The process we are
5 using would result in an additional ICAVP review if our
6 independent evaluation determines that the licensee's
7 Corrective Actions are inadequate.

8 To date, we have not identified negative trends in
9 our inspection findings, but we have only begun our
10 assessment of Corrective Actions. So, again, we must
11 substantially complete the program before reaching a final
12 conclusion on the effectiveness of the licensee's efforts.

13 The last bullet on this slide is meant to indicate
14 that we have recently provided additional information on the
15 process we are using to make judgments about ICAVP scope
16 expansion or not. There is a lot of merit in doing that.
17 We have documented that further in additional information
18 and letters to NEAC, and you and the contractors, and we
19 have had an opportunity to discuss it at our post recent
20 public meeting. It has been an issue, and people in the
21 area of Millstone have been concerned about this process and
22 how we are applying it, so we wanted to put on the record
23 more formally the types of considerations that we are
24 working through in making these judgments.

25 Next slide, please.

1 The ICAVP activities projected to be completed,
2 again, through April, are the Unit 3 ICAVP Corrective Action
3 Inspection, which is scheduled to begin the 23rd of
4 February, on-site, the Unit 2 ICAVP Tier 1 out-of-scope.
5 This is the first SSFI team inspection at Unit 2 and we
6 expect, and this, again, depends upon where we are at, but
7 the projection, at least right now, would have us completing
8 our Restart Assessment Panel Evaluation of the Unit 3
9 findings from both Sargent & Lundy and from our own NRC team
10 inspections and documenting our conclusions relative to the
11 judgment we make regarding conformance or not with the
12 licensing basis and design basis.

13 Next slide.

14 CHAIRMAN JACKSON: Let me make sure I.
15 understanding something. You talked about one inspection
16 that was starting on the 23rd that was a four week on-site
17 inspection. Is that the same as --

18 MR. IMBRO: That's the Corrective Action
19 Inspection, you are referring to, Chairman Jackson. That is
20 really -- that, right now, is scheduled for three weeks
21 initially. We think we may have to, because the licensee
22 isn't -- well, because the DR process is still ongoing, we
23 may have to do part of the inspection and inspect what we
24 can of the work that the licensee has already done, and then
25 come back, you know, a week or so later and do the

1 inspection of the Corrective Actions in response to the
2 Sargent & Lundy generated Discrepancy Reports.

3 CHAIRMAN JACKSON: Okay. But I just want to make
4 sure I am talking about the same inspection here.

5 MR. TRAVERS: Yes.

6 CHAIRMAN JACKSON: So the one you talked about,
7 this fifth inspection, --

8 MR. IMBRO: That's it.

9 MR. TRAVERS: That's the Corrective Action.

10 CHAIRMAN JACKSON: And so these are both the same?

11 MR. IMBRO: That's it.

12 CHAIRMAN JACKSON: Okay.

13 MR. TRAVERS: I should point out one problem with
14 this slide. I have been trying to indicate the on-site time
15 in all of the dates I have been using. The second
16 inspection includes, I think, prep. and documentation.
17 There's -- it's too long a period for an on-site inspection,
18 so I will just point that out now. Sorry.

19 CHAIRMAN JACKSON: Now, I don't mean to be picky,
20 but this fifth inspection, when I asked the question, you
21 said there were seven people and it would be four weeks on
22 site.

23 MR. TRAVERS: This one, the team inspections to
24 date on the System Safety Functional Inspection, the two
25 systems, have involved seven people for four weeks on site.

1 This last inspection -- and if I misled you, I apologize --
2 the Corrective Action Inspection is right now, and it may
3 take longer, but it is right now nominally scheduled for
4 three weeks on site with -- how many people?

5 MR. IMBRO: About seven people.

6 MR. TRAVERS: About seven people.

7 CHAIRMAN JACKSON: Okay. So the first was
8 historical?

9 MR. IMBRO: Yes.

10 MR. TRAVERS: Yes. And this is the
11 follow-through. Just to give you an overall sense of all of
12 the inspections, at least the ones we have identified that
13 need to take place before we could be in a position to
14 consider a restart recommendation, we have put them all down
15 on this slide, beginning with the ongoing Corrective Action,
16 or 40500 inspection leading off. This is a seven person
17 inspection and it is two weeks on site.

18 We have inspections in motor operated valves. The
19 major team inspections listed here are the, again, the ICAVP
20 Corrective Action Inspection, the Operational Safety Team
21 Inspection, which is very much an important determination
22 for the licensee's transition from a shutdown plant to an
23 operating plant. This is an inspection that needs to be
24 tied to their entry into Mode 4 and if that slips, our
25 inspection will slip to appropriately cover the activities

1 that we need to observe in connection with those operating
2 mode and operator actions.

3 CHAIRMAN JACKSON: So it could be impacted by this
4 -- what turned up today?

5 MR. TRAVERS: That's my point, yeah. The Deferred
6 Items List, this is an important one because we have, to
7 date, conducted three inspections of the Deferred Items
8 List.

9 CHAIRMAN JACKSON: Now, is this another check of
10 the Open Items List?

11 MR. TRAVERS: That's exactly right, it's just a
12 different terminology for the same thing.

13 CHAIRMAN JACKSON: Okay.

14 MR. TRAVERS: We have been periodically received
15 detailed lists from the licensee of all of the items that
16 they consider both necessary for restart, as well as the
17 items that they intend to defer, and we have been inspecting
18 those periodically. And I think, as the Chairman pointed
19 out, we have identified an issue most recently with the
20 adequacy, in part, at least, of the most recent list.

21 CHAIRMAN JACKSON: And did that -- was that
22 surfaced through this kind of inspection?

23 MR. TRAVERS: Yes, that very inspection is the one
24 that surfaced that -- that issue. On the whole, though, I
25 have to tell you that we have, in pulling the string on some

1 of these, even though this turned up a question and it may
2 ultimately be a serious one, the inspections that we have
3 conducted against the deferred items have identified a
4 fairly low threshold for inclusion of many, many things on
5 this list and appropriate deferral of items that don't have
6 particular safety significance and are not issues that
7 affect the licensing or design basis.

8 CHAIRMAN JACKSON: Now, will you be giving
9 particular attention to issues that the licensee is adding
10 to the list late in the game?

11 MR. TRAVERS: Yes, we have one more, or depending
12 on how many days go by, weeks, we have as many as it takes,
13 but we are going to perform at least one more of these types
14 of inspections before coming to the Commission.

15 CHAIRMAN JACKSON: Please.

16 COMMISSIONER DIAZ: I have a quick question. Now
17 that my brain is starved.

18 CHAIRMAN JACKSON: The day is young.

19 COMMISSIONER DIAZ: There will be no level 3 items
20 in the deferred list, correct?

21 MR. IMBRO: That is probably true because --

22 MR. TRAVERS: Level 3 items need to be addressed,
23 and that is the agreement.

24 COMMISSIONER DIAZ: Need to be resolved before --

25 MR. TRAVERS: Resolved, I shouldn't say addressed.

1 COMMISSIONER DIAZ: And that is -- that is a clear
2 distinction?

3 MR. TRAVERS: To meet your licensing.

4 COMMISSIONER DIAZ: Level 4, that will be
5 considered, and could be or not?

6 MR. TRAVERS: Yes. Many of those --

7 MR. IMBRO: Likely would be deferred.

8 CHAIRMAN JACKSON: Depending upon what you find in
9 terms of looking for adverse trend.

10 MR. TRAVERS: Yes.

11 CHAIRMAN JACKSON: But no level 3's. That is an
12 important distinction.

13 COMMISSIONER DIAZ: That is an important
14 distinction. And I guess you now realize that we have been
15 sensitized to the Deferred Items List, so expect to see it
16 in great detail.

17 MR. TRAVERS: I think I recognize that. Each --
18 the last point I will make on it is that each of these
19 inspections cover issues that are encompassed in our Restart
20 Assessment Plan, so that that plan, again, you know, sort of
21 captures all of this and is our method for documenting
22 closure in part.

23 Licensing restart issues are identified on the
24 next slide. The two additional issues that need to be
25 submitted are issues that affect Mode 2 and not Mode 4. But

1 to a large extent, our best sense of where we are relative
2 to the ones we have under review is that they are being
3 processed reasonably, on a timely schedule.

4 CHAIRMAN JACKSON: So are they likely to be
5 critical path? Because normally there is a 30-day Federal
6 Register notice of license amendments.

7 MR. TRAVERS: That's right. In fact, if you look
8 at the schedule for the earliest possible treatment of even
9 a nonsignificant issue, it's about 45 days in terms of the
10 processes that we have to utilize, Federal Register notice
11 and so forth. So it could be, but right now the indication
12 we have from the licensee is they expect to get that in very
13 soon.

14 CHAIRMAN JACKSON: It depends on what they get in
15 and your assessment of what they get in.

16 MR. TRAVERS: Getting it in triggers the action
17 that we take in handling it.

18 CHAIRMAN JACKSON: Okay. Very good.

19 MR. TRAVERS: The last two slides are slides that
20 I have typically presented to the Commission in connection
21 with these briefings, and they are our project planning
22 schedule. They are the schedules we use to schedule our
23 resources, and it's always important to recognize that the
24 activities that are indicated on here are largely dependent
25 upon the licensee completing the actions that they need to

1 complete for us to come in and carry out an important
2 inspection.

3 CHAIRMAN JACKSON: So it's a planning tool.

4 MR. TRAVERS: It's a planning tool.

5 CHAIRMAN JACKSON: It does not presuppose any
6 particular judgment.

7 MR. TRAVERS: It certainly does not, and one thing
8 that I have changed in the presentation this time is we've
9 removed any -- because this is a planning tool and we don't
10 plan for the Commission, we've taken out the Commission
11 meeting date from this slide. We don't want to lead to any
12 misunderstandings about the significance of any date we
13 might list in such a planning tool. So we've removed that
14 from the schedules. I think you could infer when the staff
15 though will -- could at the earliest be ready to come before
16 the Commission with a recommendation.

17 CHAIRMAN JACKSON: Right. But I think in the end
18 as you say it's the Commission's meeting date, and you have
19 to come and present the case, and you have to indicate when
20 you're ready to do that.

21 MR. TRAVERS: I think the best indication of our
22 not using schedules to drive anything is the fact that these
23 schedules have changed over time, and you can go back
24 historically and look at them, and they've changed because
25 of the need on the licensee's part to complete important

1 activities to support us coming behind.

2 CHAIRMAN JACKSON: Very good.

3 COMMISSIONER MCGAFFIGAN: May I ask --

4 CHAIRMAN JACKSON: Please.

5 COMMISSIONER MCGAFFIGAN: You've effectively
6 amended the Unit 3 slide as it pertains to license
7 amendments in your last remarks, right? At the moment it
8 carries -- finish 3/6, and I interpret your last remarks to
9 mean finish around 4/1.

10 MR. TRAVERS: Whenever.

11 COMMISSIONER MCGAFFIGAN: If you get the
12 application tomorrow.

13 MR. TRAVERS: That's right. It would take 45 days
14 min.

15 Chairman, you asked us to address a question about
16 operability of RSS and if --

17 CHAIRMAN JACKSON: Yes.

18 MR. TRAVERS: I'll just do that very quickly now.

19 CHAIRMAN JACKSON: Please.

20 MR. TRAVERS: The answer from our view is that we
21 believe that the modifications that have been made to the
22 system were necessary to make that system operable. The
23 licensee itself has issued at least we believe on four
24 occasions LER reports that indicate a question about
25 functionality of that system. We documented in an NRC

1 inspection report a potential escalated enforcement issue
2 associated with operability of the -- functionality of that
3 system. So the answer simply is that we believe that that
4 system was not operable.

5 CHAIRMAN JACKSON: Before the modification.

6 MR. TRAVERS: Before the modification. Of course
7 it's required to be operable in Mode 4 and above.

8 CHAIRMAN JACKSON: Right.
9 Commissioner?

10 COMMISSIONER DIAZ: I was just going to go on
11 that. Operability meaning the capability to perform a
12 safety function according to requirements of the license.

13 MR. TRAVERS: Right.

14 CHAIRMAN JACKSON: Is that correct?

15 MR. CALLAN: Not necessarily.

16 COMMISSIONER DIAZ: No?

17 MR. CALLAN: A system can be operable -- I mean,
18 can be functional but not operable.

19 COMMISSIONER DIAZ: Correct. Correct. Correct.
20 That's what I'm saying. Operability defined as capability
21 to perform a safety function.

22 MR. CALLAN: Operability as defined by tech specs.

23 COMMISSIONER DIAZ: Yes.

24 MR. CALLAN: Right. Which does not always
25 necessarily imply --

1 CHAIRMAN JACKSON: Right. So you don't want to
2 give a universal. You're saying it's --

3 MR. CALLAN: No, no.

4 CHAIRMAN JACKSON: Relative to this particular --

5 MR. CALLAN: In fact, that's one of the reasons
6 we --

7 CHAIRMAN JACKSON: In this particular --

8 MR. CALLAN: That's why we call it a safety system
9 functionality inspection and not a safety system operability
10 inspection, because of that distinction. It's a very
11 important distinction.

12 COMMISSIONER DIAZ: I just wanted to bring it out.
13 There is a distinction. Sometimes I get --

14 MR. CALLAN: Right. And that distinction is
15 crucial. It's very important. Right.

16 CHAIRMAN JACKSON: And you don't want to go on the
17 record as saying one thing and something else is in the tech
18 specs.

19 MR. CALLAN: Right.

20 CHAIRMAN JACKSON: Good.

21 MR. LANNING: Speaking of which, may I clarify my
22 response to you on the --

23 [Laughter.]

24 MR. LANNING: Significant items list?

25 They have submitted packages to us for the vendor

1 information. That's just a critical issue that still
2 remains to be resolved with additional packages coming.
3 Whereas with the Appendix R submittal we have not received
4 any of those packages necessary for inspection of that item.

5 CHAIRMAN JACKSON: Okay. Thank you very much.

6 Any additional questions from the Commissioners?

7 We've been here a long time. I would like to
8 thank Northeast Utilities, Sargent & Lundy, Parsons Power,
9 Little Harbor Consultants, and of course the NRC staff for
10 briefing the Commission on the progress in assessing
11 readiness for restart of the Millstone units.

12 And once again I will state on behalf of the
13 Commission that we recognize how difficult it is to condense
14 the substance of the reviews performed by each of you into
15 briefings like this. And that is the primary reason that
16 the NRC in November of 1996 created the Special Projects
17 Office to provide for direct oversight of all licensing and
18 inspection activities and to tailor the NRC staff's
19 guidelines for restart approval to specifically assess
20 deficiencies at the Millstone units.

21 And as I state at each meeting and I'll state
22 here, the Commission does not presuppose that any of the
23 three plants will restart by any certain date. The
24 Commission is primarily concerned in ensuring that the
25 Millstone station is a safe station with an effective

1 corrective action program and an environment supportive of
2 the raising of and resolution of safety concerns.

3 Now with respect to the schedule for the next
4 Commission meeting on Millstone, I think it is important to
5 recognize that when a plant has been shut down for an
6 extended period of time, even under a confirmatory action
7 letter, which is more narrowly tailored typically, for
8 example, the licensee will usually establish dates to
9 facilitate its planning and scheduling of activities in
10 support of plant restart, and it is used as part of what the
11 staff may use in planning its work.

12 However, licensees quite often take longer than
13 they expect to complete their restart activities, leading to
14 concomitant adjustments or delays in the schedule for the
15 staff's reviews, inspections, and assessments of a plant's
16 readiness for restart.

17 And in the case of Millstone, given the scope,
18 complexity, and significance of the issues there, it is
19 natural to expect that the resolution of the issues may take
20 a little while longer.

21 The NRC staff, and I said this when I was in
22 Connecticut, has been directed to stay focused on doing
23 objective assessments and to call it as they see it.

24 In preparing for any subsequent Commission
25 meetings and in reports to the Commission, I would like to

1 ask the staff to give particular attention to and to provide
2 information in the following ten areas which has already
3 been transmitted to the staff through a tasking memo from me
4 to Mr. Callan, the EDO. But I will list them.

5 First, crisp, clear analyses of the issues with
6 recommendations where appropriate for the Commission. And
7 that's because you're talking to the Commission, not to
8 yourselves.

9 Second, a summary of independent NRC actions, for
10 example, inspections or any other assessments, supporting
11 staff decision making. But this requires a layout of the
12 criteria that you're using to make those assessments.

13 Third, impartial evidence that Northeast Utilities
14 has made sufficient progress and fixed the underlying
15 problems in both employee concerns and the corrective action
16 processes or not. Yet impartial evidence that the licensee
17 for instance has addressed problem identification. Root
18 cause evaluation. Resolution for the individual issue. The
19 evaluation of and resolution of any generic issues that are
20 captured by that as appropriate. And the timeliness and
21 comprehensiveness overall of problem resolution.

22 Fourth, an objective discussion of what the
23 aforementioned items indicate about the effectiveness of the
24 licensee employee concerns program and corrective action and
25 configuration management processes.

1 Fifth, a discussion of and conclusion of
2 acceptability of the resolution of any and all existing or
3 previous open items including any specific employee concerns
4 issues raised and any of the previously identified open
5 items.

6 Sixth, the strength of quality assurance and
7 management oversight.

8 Seventh, resolution of issues related to
9 enforcement, allegations, and petitions.

10 Eighth, the screening process and acceptance
11 criteria for reaching conclusions including any
12 justifications or basis for allowing any open items at the
13 time of plant restart.

14 Ninth, an appropriate staff-recommended regulatory
15 tool for enforcing a schedule for resolution of any open
16 items at restart.

17 And tenth, a discussion of issues impacting
18 operational readiness for restart, along with a discussion
19 of the stability of the organization for continued safe
20 operation upon restart in light of resources being diverted
21 to other units.

22 And so unless my fellow Commissioners have any
23 additional comments, we're adjourned.

24 [Whereupon, at 1:37 p.m., the hearing was
25 concluded.]

CERTIFICATE

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

TITLE OF MEETING: MEETING WITH NORTHEAST NUCLEAR ON
MILLSTONE -- PUBLIC MEETING

PLACE OF MEETING: Rockville, Maryland

DATE OF MEETING: Thursday, February 19, 1998

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

Transcriber: Jan del Monte

Reporter: Jan del Monte



COMMISSION BRIEFING

Millstone

February 19, 1998

RESTART ASSESSMENT PLAN (MC 0350)

- **Employee Concerns Program**
 - **Independent Corrective Action Verification Program (ICAVP)**
 - **Significant Items List**
 - **Licensing Issues**
 - **Corrective Action Program**
 - **Work Planning and Control**
 - **Procedure Upgrade Program**
 - **Quality Assurance and Oversight**
 - **Operational Safety Team Inspection**
 - **Enforcement**
 - **Personnel Training/Performance**
-
- **Public, State (NEAC), Local, Congressional, other agencies input**

SPO ASSESSMENT PLAN FOR ECP AND SCWE

- **Elements of the Order Completed**
 - **Staff Review and Comments on NNECO Comprehensive Plan**
 - **Staff Approval of Third-Party Oversight Organization**
 - **Staff Review and Approval of Third-Party Oversight Plan**
 - **LHC Oversight Reliance**
- **Scope of Staff Assessment Activities**
 - **Staff On-site Monitoring of NNECO Activities and LHC Oversight**
 - **NRC Team Evaluation of ECP and SCWE**
 - **NRC Team Evaluation of LHC Oversight Activities**
 - **Review Effectiveness of Corrective Action Programs**
 - **Review of Performance Measures**

SPO ASSESSMENT PLAN FOR ECP AND SCWE

- **Restart Acceptance Measures**
 - **Licensee and LHC Assessments of Readiness for Restart**
 - **ECP Staffing, Training, and Qualifications**
 - **ECP Program Implementation**
 - **ECP Documentation Processes and Records**
 - **Management and Employee SCWE Attitude**
 - **Line Corrective Action and Self-Assessment Functioning**
 - **Training of Management and Employees on SCWE Elements**
 - **Ability of Management to identify and deal with SCWE Organizational Issues**
- **Documentation of Staff ECP and SCWE Conclusions**
- **Post-Restart Elimination of Third-Party Oversight**

ECP AND SCWE STATUS

Activities Completed Since Last Commission Status Briefing

- **Met with LHC and Licensee on Status and Results of Activities**
- **Conducted NRC On-site Team Evaluation of Licensee ECP and SCWE, and LHC Oversight Activities - “Quick Look” Reports Issued**
- **Ongoing On-site Monitoring of Licensee and LHC Activities**
- **Participated in Team Inspection of Corrective Action Program and Oversight (IP 40500) (Focus on Assessment of SCWE)**
- **Staff Evaluation of ECP Acceptable - SCWE Evaluation Ongoing**

ECP AND SCWE ACTIVITIES PROJECTED TO BE COMPLETED THROUGH APRIL 1998

- **Continue NRC On-site Monitoring of Licensee and LHC Activities**
- **Meeting(s) with LHC and Licensee on Status and Results of Activities**
- **Issue Report on Team Evaluation of Licensee ECP and SCWE, and LHC Oversight**
- **Complete and Document Staff Evaluation of ECP and SCWE for Restart Recommendation to Commission**

MC 0350 SIGNIFICANT ITEMS LIST STATUS

(As of February 12, 1998)

	<u>UNIT 3</u>	<u>UNIT 2</u>
Total SIL Packages	216	71
Remaining to be Submitted	9	39
SIL Packages Completed by NRC	168	17
Under NRC Review	39	15

STATUS OF NRC INSPECTIONS FOR ICAVP AT UNIT 3

- **Four of Five Team Inspections Completed**
- **Two Inspection Reports Issued**
- **Two “Quick Look” Letters Issued**
- **Fifth Inspection (i.e., Corrective Actions) Begins
2/23/98**

RESULTS OF NRC INSPECTIONS FOR ICAVP AT UNIT 3

Implementation Inspection (9/19/97) - Evaluation of Sargent & Lundy (S&L)

- **S&L Determined to be Effective**
- **NRC-Identified Issues Addressed by S&L**

Tier 1 Out-of-Scope SSFI (9/19/97) - Review of the ECCS Mode of Chemical and Volume Control System (CVCS) Operation

- **Pre-decisional Enforcement Conference (1/13/98)**
- **16 Preliminary ICAVP Level 3 Findings**
- **Potential Level 1 Finding - Classified as Preliminary Level 3 Finding**

RESULTS OF NRC INSPECTIONS FOR ICAVP AT UNIT 3

Tier 2 / Tier 3 Inspection (1/9/98) - Accident Mitigation Systems and Plant Change Process; S&L Implementation

- **S&L Determined to be Effective**
- **NRC-Identified Issues Addressed by S&L**
- **Six Preliminary ICAVP Level 3 Findings**

Tier 1 In-Scope SSFI (2/6/98) - RSS, EDG and Supplemental Leakage Collection and Release System; S&L Implementation

- **S&L Determined to be Effective**
- **NRC-Identified Issues Addressed by S&L**
- **Approximately Six Preliminary ICAVP Level 3 Findings**

EVALUATION OF PRELIMINARY ICAVP LEVEL 3 FINDINGS AT UNIT 3

- **NRC Evaluates Corrective Actions for Each Level 3 Finding**
 - **Specific Finding**
 - **Broader Implications**
- **NRC Evaluates Level 3 Findings for Trends**
- **Expansion of ICAVP Scope Based On:**
 - **Corrective Action Adequacy**
 - **Negative Trends**
- **NRC Staff Provided Additional Information on Process for Decisions Regarding ICAVP Scope Expansion**
 - **Public Meeting (1/27/98)**
 - **Letters (1/30/98); NEAC, NU, ICAVP Contractors**

ICAVP ACTIVITIES PROJECTED TO BE COMPLETED THROUGH APRIL 1998

- **Unit 3 ICAVP Corrective Action Inspection (2/23/98 - 3/13/98)**
- **Unit 2 ICAVP Tier 1 Out-of-Scope SSFI* (2/17/98 - 4/3/98)**
- **Complete RAP Evaluation of Unit 3 Findings and
Determination of Licensing/Design Bases Conformation**

***At the December 12, 1997, Commission meeting these activities were projected to have been completed by March 1998.**

OTHER SITE AND MILLSTONE UNIT 3 SCHEDULED INSPECTIONS

02/09 - 02/20	IP 40500 (Corrective Action Process/QA)
02/23 - 02/27	Motor Operated Valves
02/23 - 02/27	Emergency Preparedness Dose Assessment
03/02 - 03/06	Fire Protection
03/09 - 03/12	Deferred Items List
02/23 - 03/13	ICAVP Corrective Action
03/02 - 03/13	Operational Safety Team Inspection (OSTI)
03/02 - 03/13	Training

LICENSING RESTART ISSUES

**Unit 3: 26 Completed and Closed since January 1, 1997
11 Issues Currently Under NRC Review
2 Additional Issues to be Submitted**

**Unit 2: 14 Completed and Closed since January 1, 1997
4 Issues Currently Under NRC Review
4 Additional Issues to be Submitted**

Additional Licensing Issues may be Identified as the Licensee Continues Design Bases and Licensing Bases Problem Identification.

PROJECT PLANNING SCHEDULE

MILLSTONE UNIT 3
2/18/98

ID	Task Name	Start	Finish	Qtr 2, 1997			Qtr 3, 1997			Qtr 4, 1997			Qtr 1, 1998			Qtr 2, 19	
				Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
1	CMP UNIT 3 IMPLEMENTATION *	6/3/96	7/16/97														
2	ICAVP UNIT 3 IMPLEMENTATION **	5/27/97	1/30/98														
3	NRC ICAVP INSPECTIONS	7/21/97	3/13/98														
4	NRC ICAVP IN-OFFICE REVIEW/ DOCUMENT	3/16/98	4/24/98														
5	INSPECTION PROGRAM	2/14/97	3/13/98														
6	FEMA NOTIFICATION	3/23/98	3/27/98														
7	EMPLOYEE CONCERNS PROGRAM INSPECTION	12/8/97	1/30/98														
8	LICENSE AMENDMENTS	3/5/97	3/6/98														
9	OPERATIONAL SAFETY TEAM INSPECTION	3/2/98	3/13/98														
10	RESTART ASSESSMENT PANEL REVIEW	3/9/98	3/20/98														
11	EDO/DIR NRR BRIEF	3/27/98	3/27/98														

- * Configuration Management Program (CMP) carried out by the licensee.
- ** ICAVP carried out by Sargent & Lundy contractor.

PROJECT PLANNING SCHEDULE

MILLSTONE UNIT 2
2/18/98

ID	Task Name	Start	Finish	r 3, 1997		Qtr 4, 1997			Qtr 1, 1998			Qtr 2, 1998			Qtr 3, 1998		
				Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	CMP UNIT 2 IMPLEMENTATION *	6/3/96	9/15/97														
2	ICAVP UNIT 2 IMPLEMENTATION **	7/1/97	4/27/98														
3	NRC ICAVP INSPECTIONS	8/25/97	6/26/98														
4	NRC ICAVP IN-OFFICE REVIEW/ DOCUMENT	6/29/98	8/7/98														
5	INSPECTION PROGRAM	3/3/97	6/26/98														
6	FEMA NOTIFICATION	7/6/98	7/10/98														
7	EMPLOYEE CONCERNS PROGRAM INSPECTION	12/8/97	1/30/98														
8	LICENSE AMENDMENTS	5/21/97	5/22/98														
9	OPERATIONAL SAFETY TEAM INSPECTION	6/15/98	6/26/98														
10	RESTART ASSESSMENT PANEL REVIEW	6/22/98	7/2/98														
11	EDO/DIR NRR BRIEF	7/10/98	7/10/98														

- * Configuration Management Program (CMP) carried out by the licensee.
 ** ICAVP carried out by Parsons Power Group, Inc. contractor.

Progress at Millstone Station

**Northeast Utilities Presentation
for the
U.S. Nuclear Regulatory Commission**

***NRC Headquarters
Rockville, Maryland
February 19, 1998***

Northeast Nuclear Energy

1

Mike Morris

**Chairman, President & CEO
Northeast Utilities**

Northeast Nuclear Energy

2

Bruce Kenyon

**President & CEO
Northeast Nuclear Energy Company**

Northeast Nuclear Energy

3

Agenda

- | | |
|--|----------------------|
| ♦ Station Readiness | Bruce Kenyon |
| – Safety Conscious
Work Environment | Dave Amerine |
| – Corrective Actions to
Comply With Design
and Licensing Bases
Requirements | Marty Bowling |
| ♦ Unit 3 Readiness | Mike Brothers |
| ♦ Oversight Assessment | Dave Goebel |
| ♦ Closing Remarks | Bruce Kenyon |

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4

NU's Eight Restart Affirmation Criteria and Current Status

1. Root causes for decline in Millstone performance
have been identified and corrected
SATISFACTORY
2. Compliance with the licensing and design bases
has been restored
TRACKING TO SATISFACTORY
3. Safety Conscious Work Environment has been
established
TRACKING TO SATISFACTORY
4. Self Assessment and Corrective Action
processes identify and resolve problems in a
timely manner
SATISFACTORY

5

NU's Eight Restart Affirmation Criteria and Current Status

5. Unit and support organizations are ready to
resume operations
TRACKING TO SATISFACTORY
6. Entire station is prepared to properly
support *unit operations*
TRACKING TO SATISFACTORY
7. Management controls and oversight measures
are in place to prevent significant future
performance declines
SATISFACTORY
8. Restart readiness is affirmed using a rigorous
process
PENDING

6

Success Objective Progress

<u>Success Objective</u>	<u>Issue</u>	<u>Satisfactory or When Expected</u>
♦ High Standards	•Leadership •Regulatory Compliance	Yes Feb (U3)
♦ Strong Nuclear Safety Philosophy	•Oversight •NSAB •Emergency Planning •Rad. Protection •Proc. Quality & Adhere.	Yes Yes Yes Yes Feb (U3)
♦ Effective Self Assessment	•Self Assessment	Yes
♦ Effective Corrective Action	•Corrective Action	Yes (U3)

7

Success Objective Progress

<u>Success Objective</u>	<u>Issue</u>	<u>Satisfactory or When Expected</u>
♦ Restored Licensing and Design Bases	• Configuration Management	Feb (U3)
♦ Employee Concerns	• Safety Conscious Work Environment	Feb
♦ Excellence in Operations	• Work Control • Training • Operator Readiness • Security • Environmental Compliance	Feb (U3) Feb (U3) Feb (U3) Yes Yes

8

CEO Assessment of Challenges for Restart

- ♦ **Safety Conscious Work Environment**
 - *timely recognition and effective response to problems*
 - *reducing the frequency of significant events*
- ♦ **Compliance With Design and Licensing Bases**
 - *disposition remaining DRs*
- ♦ **Unit Readiness**
 - *heatup to normal operating pressure & temperature*
 - *manage non-restart backlog*
- ♦ **Station Readiness**
 - *strengthen training*

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9

Longer-Term Organizational Challenges

- ♦ **Separation of Operations from Recovery**
- ♦ **Additional Operational Monitoring and Coaching**
- ♦ **Performance Monitoring, Oversight and NSAB Shift to an Operating Mode**
- ♦ **Long-Term Improvement Plan**
- ♦ **Organizational and Succession Planning**

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Safety Conscious Work Environment

Dave Amerine
Vice President
Human Services

Northeast Nuclear Energy

11

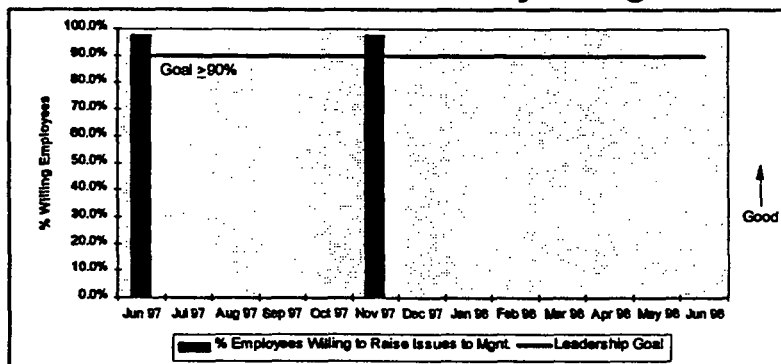
We Are Meeting our Rigorous Success Criteria for SCWE

- ♦ **Employees raise concerns**
SATISFACTORY
- ♦ **Line management handles issues effectively**
SATISFACTORY
- ♦ **Employee Concerns Program effective**
SATISFACTORY
- ♦ **We recognize and address “problem areas”**
TRACKING TO SATISFACTORY
- ♦ **ECOP and LHC concur**
PENDING

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12

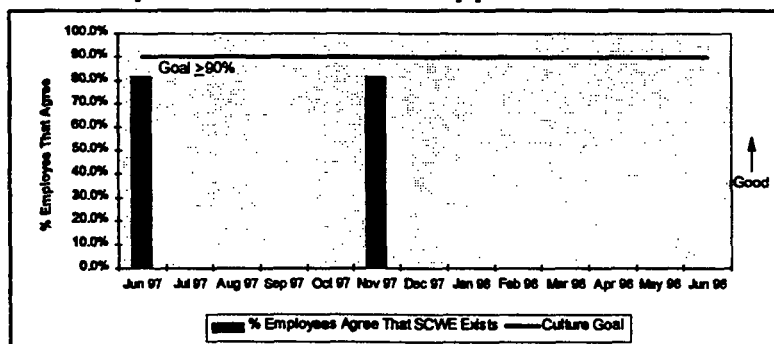
Criterion: Leadership Survey Shows $\geq 90\%$ of People Willing to Raise Issues to Their Supervisor
Status: Criterion currently being met



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13

Criterion: Culture Survey Shows $\geq 90\%$ of Total Respondents Agree There Is a SCWE in Their Area
Status: Long-term goal not being met; however, current performance does support Unit 3 restart

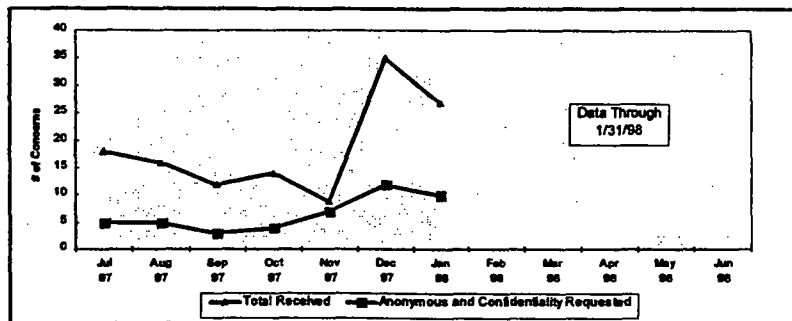


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14

Criterion: Concerns Requesting Confidentiality or Received Anonymously Do Not Indicate an Adverse Trend

Status: *Criterion currently not being met. While an adverse trend exists for concerns received anonymously, other SCWE indicators substantiate that employees are willing to raise concerns.*



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15

We Have Rigorous Success Criteria for SCWE

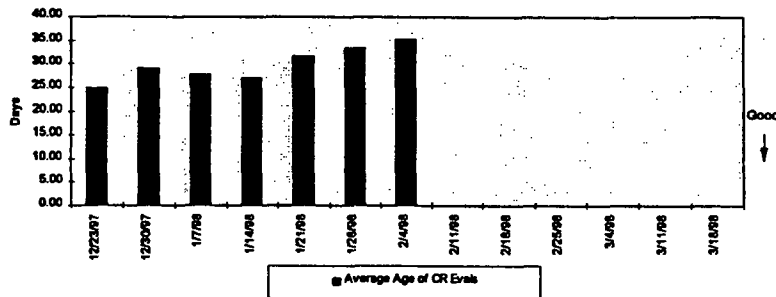
- ◆ Employees raise concerns
- ◆ Line management handles issues effectively
- ◆ Employee Concerns Program effective
- ◆ We recognize and address "problem areas"
- ◆ ECOP and LHC concur

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16

Criterion: Average Length of Time for a CR Evaluation Does Not Indicate an Adverse Trend

Status: Criterion currently tracking to satisfactory

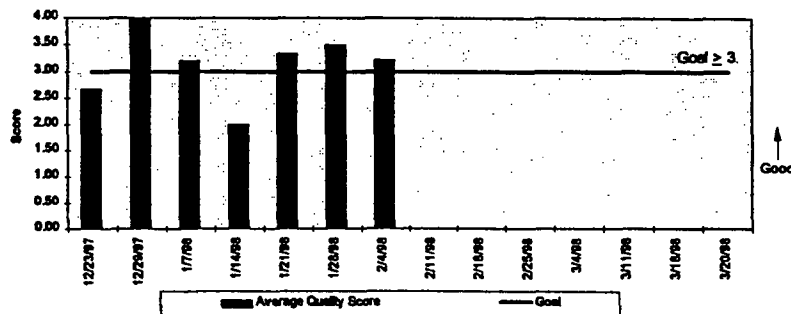


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17

Criterion: Quality of Condition Report Evaluation Is ≥ 3 on a 0-4 Scale

Status: Criterion currently being met

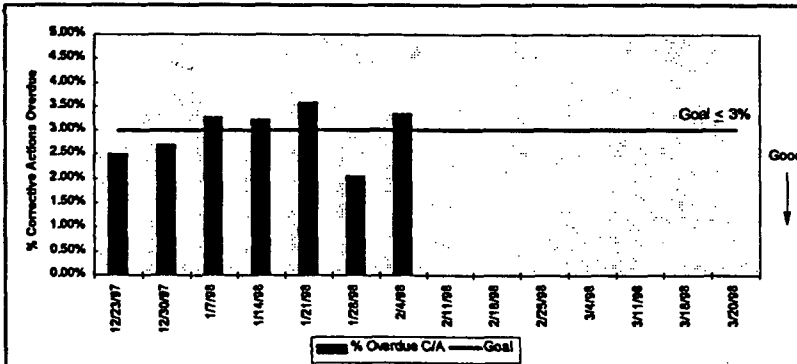


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18

Criterion: Number of Overdue Assignments is Fewer Than 3% of Total

Status: Progress is satisfactory - improvement from June 1997 (14%) to January 1998 (3%)



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19

We Have Rigorous Success Criteria for SCWE

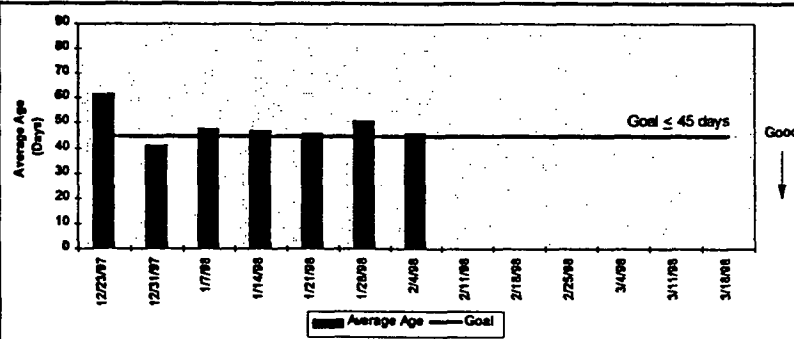
- ◆ Employees raise concerns
- ◆ Line management handles issues effectively
- ◆ Employee Concerns Program effective
- ◆ We recognize and address "problem areas"
- ◆ ECOP and LHC concur

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20

Criterion: The Average Age of Unresolved Concerns Does Not Indicate An Adverse Trend

Status: Criterion currently being met

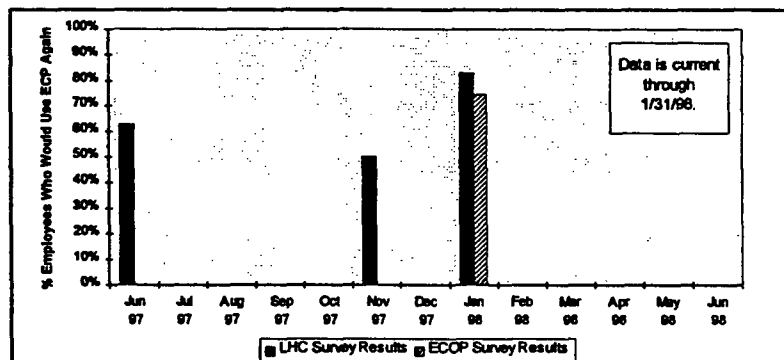


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21

Criterion: A Substantial Majority of People Who Have Used the Employee Concerns Program Would Use It Again

Status: Criterion currently being met



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22

We Have Rigorous Success Criteria for SCWE

- ◆ Employees raise concerns
- ◆ Line management handles issues effectively
- ◆ Employee Concerns Program effective
- ◆ We recognize and address “problem areas”
- ◆ ECOP and LHC concur

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23

Criterion: $\geq 95\%$ Of Supervisors Have Been Trained to Effectively Handle Employee Concerns

Status: Progress is satisfactory

Representative Activities Supporting Supervisory Training:

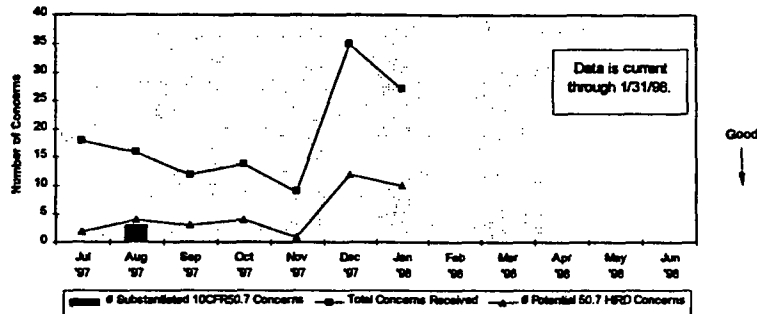
	Completion Rate
◆ Managing for Nuclear Safety	97.0%
◆ 50.7 Familiarization	98.6%
◆ Civil Treatment	92.7%
◆ Forum for Leadership Excellence	71.4%

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24

**Criterion: Substantiated 10CFR50.7
Concerns are Infrequent and Handled
Responsibly**

Status: Performance is Satisfactory

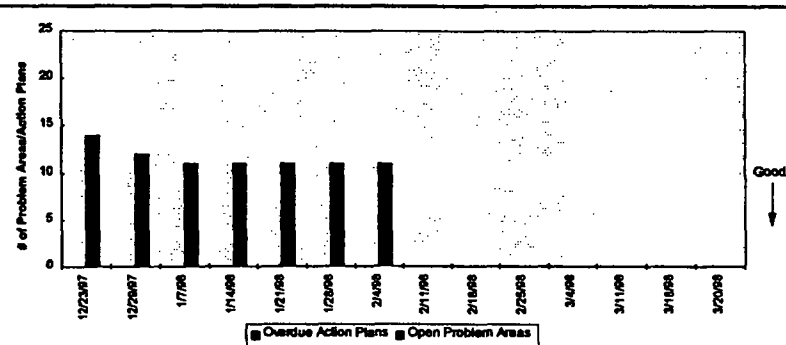


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25

**Criterion: Number of Problem
Areas Does Not Indicate An
Adverse Trend**

Status: Criterion currently being met



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26

We Are Meeting our Rigorous Success Criteria for SCWE

- ♦ Employees raise concerns
SATISFACTORY
- ♦ Line management handles issues effectively
SATISFACTORY
- ♦ Employee Concerns Program effective
SATISFACTORY
- ♦ We recognize and address "problem areas"
TRACKING TO SATISFACTORY
- ♦ ECOP concurs - **PENDING**
- ♦ LHC concurs - **PENDING**

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27

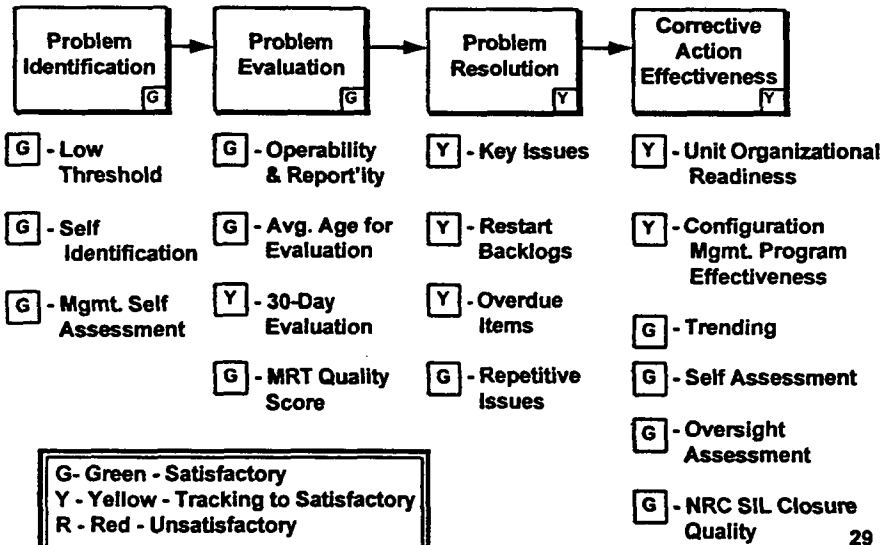
Corrective Actions to Comply With Design and Licensing Bases Requirements

Marty Bowling
Vice President
Millstone Unit 2

Northeast Nuclear Energy

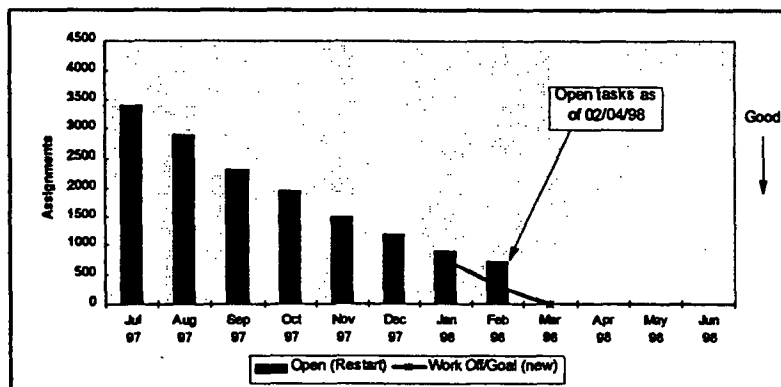
28

MP3 Corrective Actions are Tracking to Satisfactory



29

MP3 Restart Tasks are Tracking to Satisfactory



Good

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30

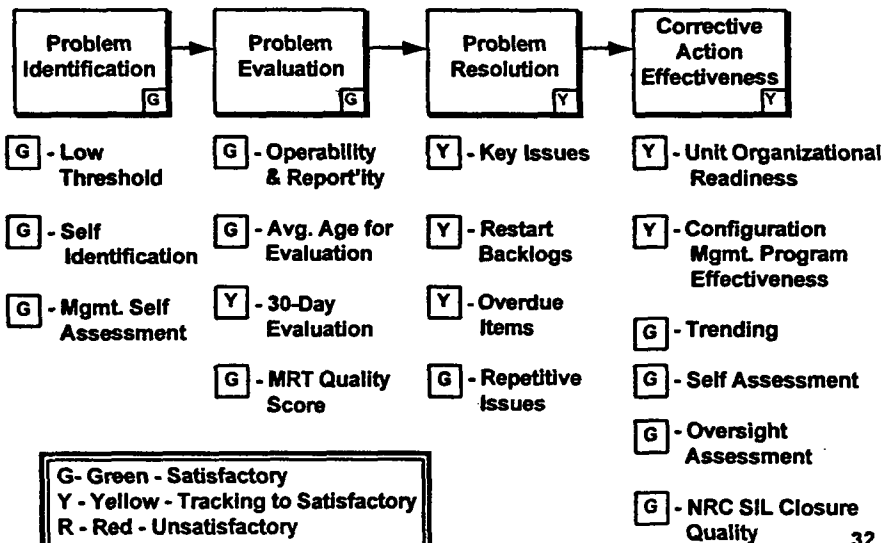
MP3 Restart Regulatory and Safety- Significant Corrective Actions Are Tracking to Completion (as of 2/11/98)

	<u>Completed</u>	<u>Remaining for Restart</u>
♦ Key Issues	9	7
♦ Significant Items (Q1 - 50.54(f))	3876	317
♦ Significant Items List (MC 0350)	216	9
♦ ICAVP DR Responses	634	285
♦ Open NRC Restart Commitments	768	93

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MP3 Corrective Actions are Tracking to Satisfactory



32

MP3 Restart Corrective Actions to Restore Design & Licensing Bases Conformances are Tracking to Completion (as of 2/11/98)

<u>Category</u>	<u>Required Changes</u>	<u>Number Remain</u>
♦ FSAR	487	17
♦ Procedures	195	5
♦ Tech. Spec.	23	0
♦ Drawings	138	8
♦ Calculations	74	5
♦ Modifications	221	8

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Reasonable Assurance Exists that Unit 3 Design and Licensing Bases Meet NRC Requirements

- ♦ Comprehensive reviews completed. Trending and assessment of results continue.
- ♦ ICAVP results to date indicate NU identified safety-significant and DB/LB conformance issues.
- ♦ Post-restart corrective actions will be managed to completion.

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**Configuration Management Efforts
Generally Have Been Effective, and
Additional Reviews are Providing
Assurances of Effectiveness**

- ◆ System Interfaces / Interactions
- ◆ Operating Experience (*NRC Info Notices*)
- ◆ Safety Evaluation Screening
- ◆ Dose Analysis
- ◆ Calculational Control
- ◆ Technical Specifications (*Section 6.0 - Admin*)
- ◆ FSAR (*NSSS/AE interfaces*)

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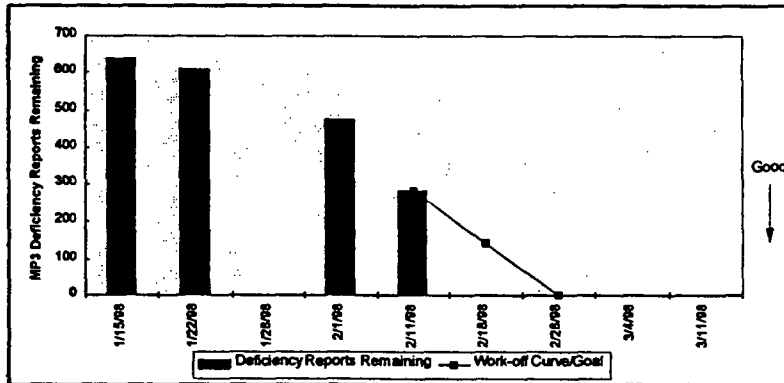
**Reasonable Assurance Exists
that Unit 3 Design and Licensing
Bases Meet NRC Requirements**

- ◆ Comprehensive reviews completed. Trending and assessment of results continue.
- ◆ ICAVP results to date indicate NU identified safety-significant and DB/LB conformance issues.
- ◆ Post-restart corrective actions will be managed to completion.

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MP3 DRs Are On Track for Completion in February



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We Have Answered Approximately Two-Thirds of ICAVP Contractor DRs (as of 2/11/98)

	Received	Answered
♦ Significance Level 1	0	0
♦ Significance Level 2	1	1
♦ Significance Level 3	314	203
♦ Significance Level 4	<u>604</u>	<u>430</u>
Total	919	634

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**Based on the 634 NU Responses to Date
-- and ICAVP Closures -- MP3 Reviews
Identified Most of the LB/DB Issues**

♦ **Breakdown of 634 NU Responses**

- 0 confirmed Level 1 DRs
- 0 confirmed Level 2 DRs
- 7 confirmed Level 3 DRs
- 330 confirmed Level 4 DRs
- 79 considered previously-identified
- 218 considered non-discrepant

**MP3 Design and Licensing Bases
Reviews Identified the
Safety-Significant Items (1/96 - 2/2/98)**

Safety Significance

50.73 LERs

- ♦ **Total (NU identified) 119**
 - low 103
 - moderate 12
 - high 4
- ♦ **3 LERs resulting from ICAVP**
 - none of high safety significance
 - none from DRs

Reasonable Assurance Exists that Unit 3 Design and Licensing Bases Meet NRC Requirements

- ♦ Comprehensive reviews completed. Trending and assessment of results continue.
- ♦ ICAVP results to date indicate NU identified safety-significant and DB/LB conformance issues.
- ♦ Post-restart corrective actions will be managed to completion.

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Corrective Action Tasks That Do Not Affect Conformance to DB/LB May Be Deferred Under Question 2 of 10CFR50.54(f) (data as of 2/11/98)

- ♦ Configuration Management 705
Discovery Deferrable Tasks
 - *non-critical drawing updates*
 - *FSAR enhancements*
 - *procedure enhancements*
 - *physical condition enhancements*
- ♦ ICAVP DRs Deferrable Tasks 215

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Reasonable Assurance Exists that Unit 3 Design and Licensing Bases Can Be Maintained

- ♦ **Configuration Management Programs**
 - *now meet 10CFR50, Appendix B requirements*
- ♦ **Unit CM Organization**
 - *established to monitor and maintain DB/LB integrity*
- ♦ **Engineering Assurance Organization**
 - *established to perform self assessment of the change process*

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Reasonable Assurance Exists that Unit 3 Design and Licensing Bases Can Be Maintained

- ♦ **Nuclear Oversight**
 - *established organization to provide dedicated independent assessment of Configuration Management*
- ♦ **Configuration Management Training**
 - *has been provided*
- ♦ **Performance Monitoring**
 - *in place to assess ongoing effectiveness*

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Millstone Corrective Action Program Will Support the Conduct of Safe Operations

- ♦ **CORRECTIVE ACTIONS** – *effectively addressing the full range of programmatic, organizational, human performance and technical issues*
- ♦ **REMAINING WORK** – *on track for completion of items to restore design and licensing bases*
- ♦ **ORGANIZATION, PROGRAMS AND PROCESS** – *in place to maintain the design and licensing bases*
- ♦ **ICAVP REVIEWS TO DATE** – *indicate that NU reviews have been generally effective in identifying safety-significant and DB/LB non-conforming issues*

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Unit 3 Update

Mike Brothers
Vice President - Nuclear Operations

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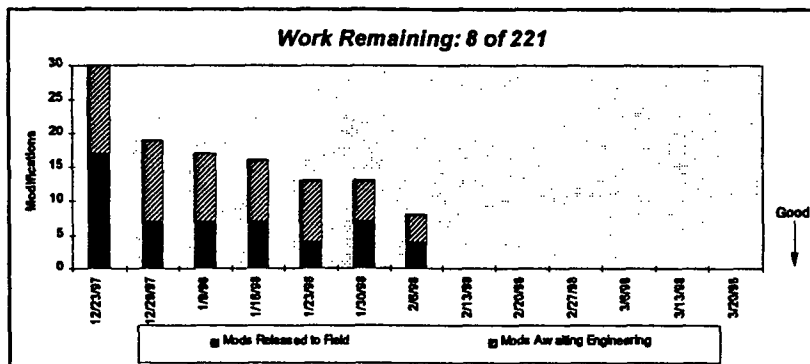
Unit 3 Officer's Readiness Assessment Standards

- ♦ Unit is fully ready for operation
TRACKING TO SATISFACTORY
- ♦ A detailed Startup and Power Ascension Plan is approved and in place
SATISFACTORY
- ♦ Backlogs have been characterized and prioritized for timely completion
TRACKING TO SATISFACTORY

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Physical Readiness Completion of Modifications is On Track to Support Restart

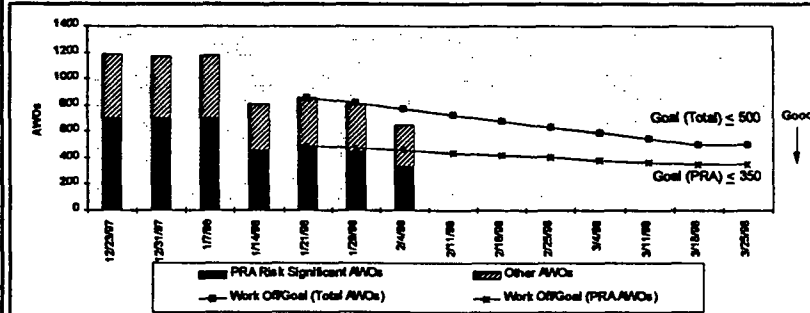


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Physical Readiness

On-Line Work Order Progress is on Track to Meet Power Block and Maintenance Rule Goals Prior to Restart

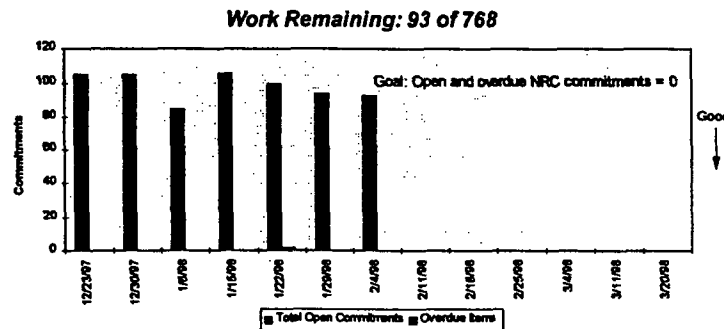


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Regulatory Readiness

Completion of Open NRC Commitments for Restart is On Track to Support Power Operations

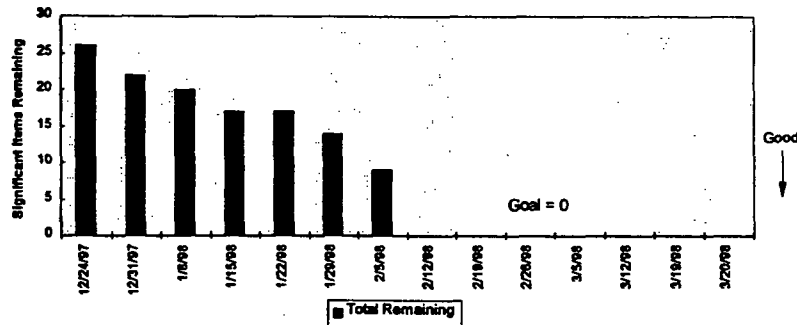


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Regulatory Readiness Significant Items List Workoff is On Track to Support Restart

Work Remaining: 9 of 216

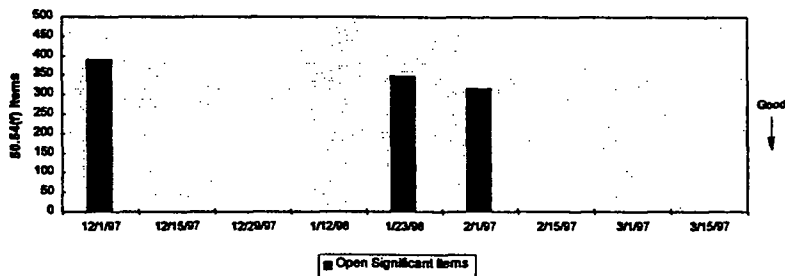


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Regulatory Readiness Completion of 10CFR50.54(f) Significant Items for Restart is On Track to Support Applicable Mode Changes

Work Remaining: 317 of 4151

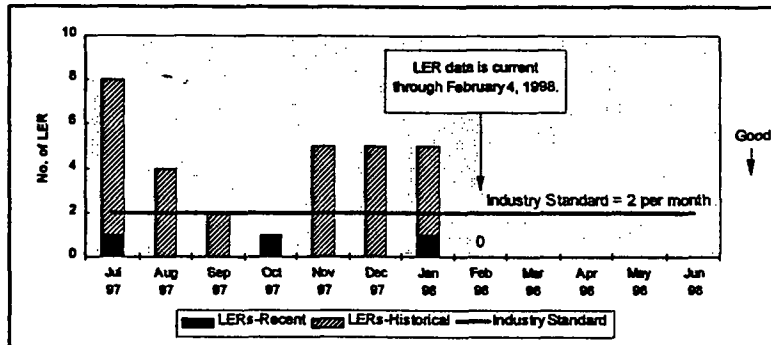


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Regulatory Readiness

Licensee Event Reports Are At Industry Standards for Current LERs



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Organizational Readiness - MP3

DEPARTMENT READINESS ASSESSMENTS – RESTART ISSUES

Yellow Operations	Green Chemistry	Yellow Training
Green Engineering	Green Materials	Yellow Licensing
Green Corrective Actions	Green Procedures	Yellow Management
Green Maintenance Mechanical	Green Radiation Protection	
Yellow Work Planning/Outage Management		
Green Instrument and Electrical		
Yellow Maintenance Planning	Yellow	

Overall Restart Readiness

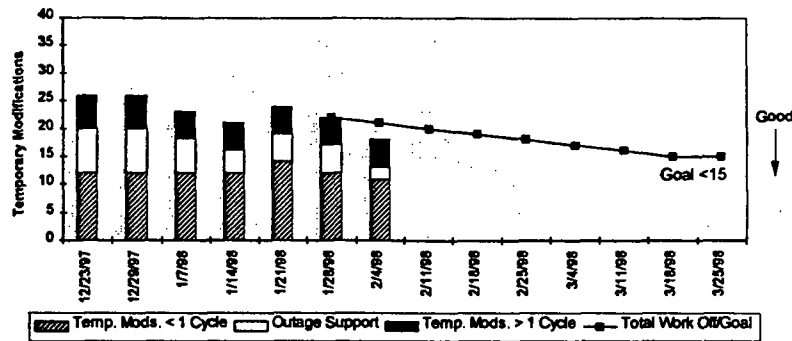
Progress toward restart is meeting management expectations

Green Satisfactory **Yellow** Tracking to Satisfactory **Red** Unsatisfactory

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Operational Readiness

Temporary Modifications Are On Track to Support Goal Prior to Restart

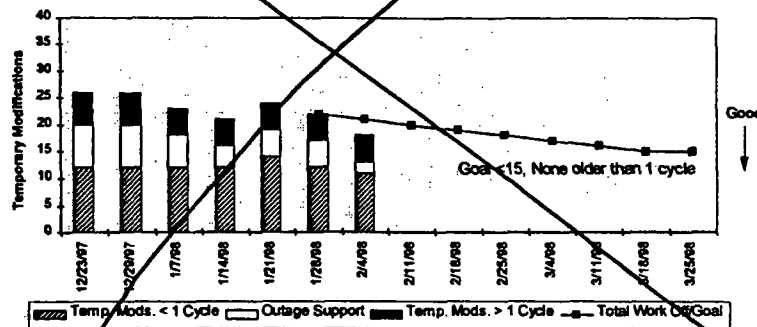


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Operational Readiness

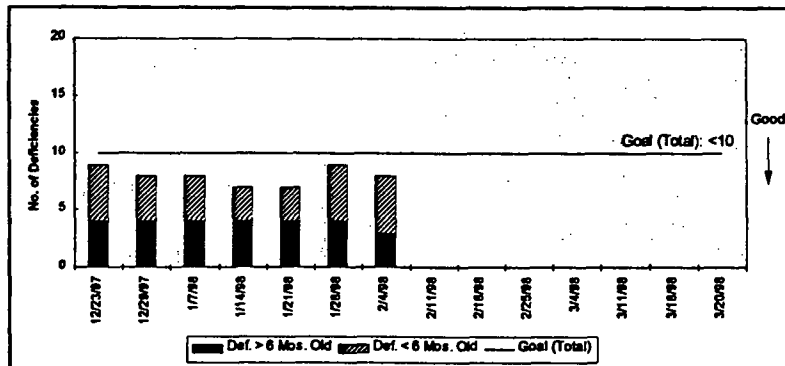
Temporary Modifications Are On Track to Support Goal Prior to Restart



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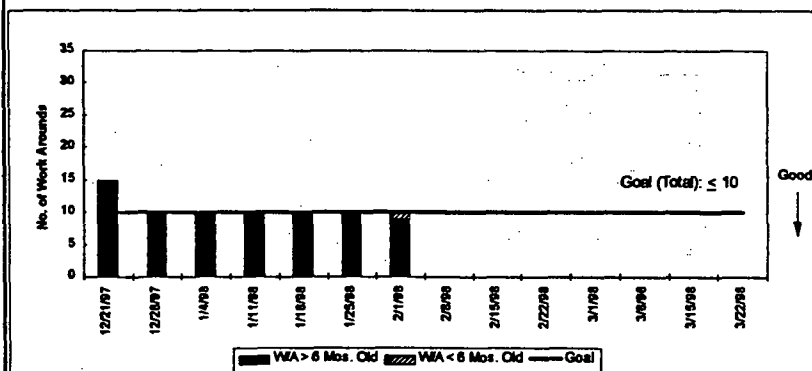
Operational Readiness Control Room and Annunciator Deficiency Levels Currently Meeting Goal for Restart



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Operational Readiness Operator Work Arounds Are Meeting Goal

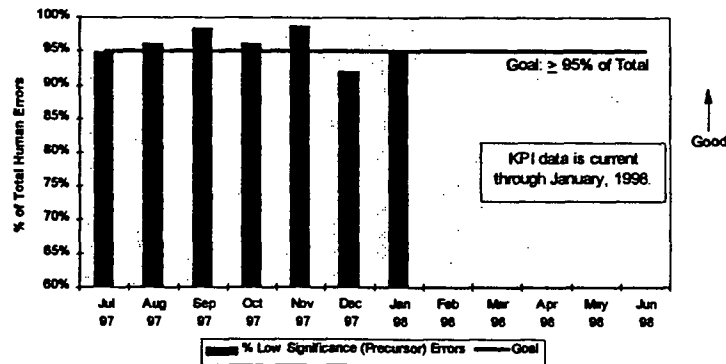


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MP3 Overall Human Performance is Tracking to Satisfactory

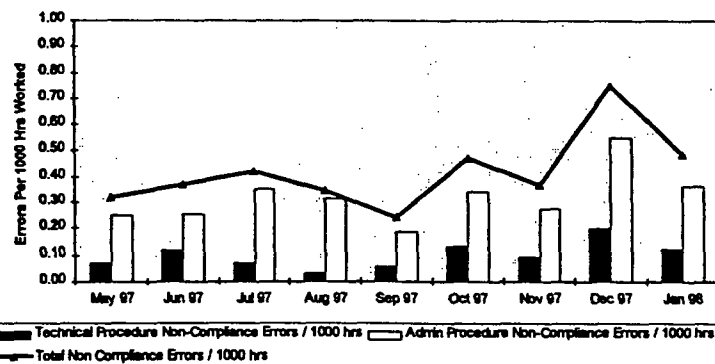
No Significant Events Resulting from Human Performance



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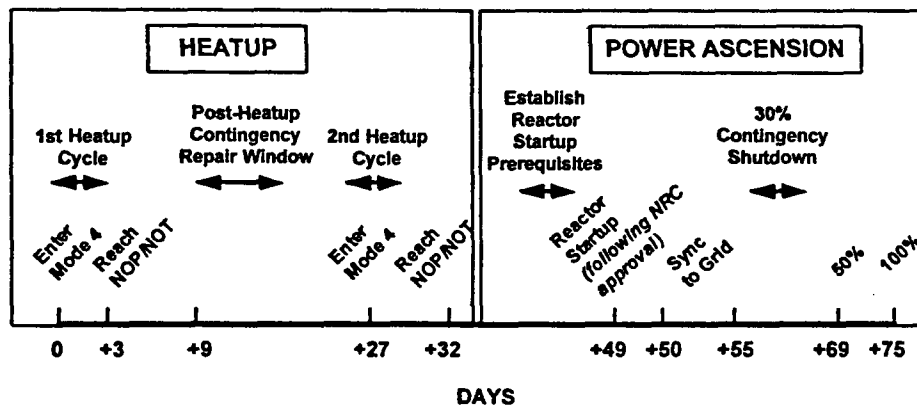
Procedure Adherence is a Focus Area for MP3



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Systematic Startup and Power Ascension Program



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Disciplined Work Prioritization Process Applied to Identify Items Deferrable Until After Restart

♦ Corrective Action Assignments	2,260
♦ Configuration Mgmt. Discovery	705
♦ Corrective Maintenance	670
♦ Operator Work Arounds	10
♦ Control Room Deficiencies	9
♦ Temporary Modifications	18
♦ Engineering Backlog	<u>574</u>
Total Deferrable Items	4,246

(As of 2/6/98)

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Corrective Action Assignment Characterization (*Total: 2260*)

♦ Minor Procedure or Documentation Improvement	46%
♦ Evaluation of Potential Improvements	14%
♦ Modifications/Upgrades	9%
♦ Minor Maintenance/Non-Safety Review	9%
♦ Administrative Close-Out	9%
♦ Other	9%
♦ General Department Improvement Item	4%

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Corrective Maintenance Backlog Characterization (*Total: 670*)

♦ Maintenance Rule Backlog	
— Equipment non-functional (<i>system operability maintained</i>)	20%
— Equipment functional	32%
♦ Non-Maintenance Rule Backlog	
— Equipment non-functional	16%
— Equipment functional	32%

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Engineering Backlog

(Total: 574)

♦ Enhancements	35%
♦ Modifications	30%
♦ Future Parts	20%
♦ Other	15%

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Unit 3 Officer's Readiness Assessment Standards

- ♦ Unit is fully ready for operation
TRACKING TO SATISFACTORY
- ♦ A detailed Startup and Power Ascension Plan is approved and in place
SATISFACTORY
- ♦ Backlogs have been characterized and prioritized for timely completion
TRACKING TO SATISFACTORY

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Nuclear Oversight

Dave Goebel
Vice President - Nuclear Oversight

Northeast Nuclear Energy

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MP3 NORVP

☐ Satisfactory ☐ Significant Weakness
☐ Improvement Needed ☐ Not Assessed

NRC 40500 Inspection Readiness										
	10/17/97	10/24/97	10/31/97	11/7/97	11/21/97	12/5/97	12/19/97	1/9/98	1/23/98	2/6/98
Leadership	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Self Assessment	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Corrective Action	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
NSAB/Oversight Recovery	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
OSTI /Startup Readiness										
Configuration Management	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Procedural Quality/Adherence	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Engineering	Eval started 11/7			Y	Y	Y	Y	Y	Y	Y
Work Control/Planning	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Maintenance/I&C	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Materials	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Regulatory Compliance	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SCWE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Emergency Prep	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Radiation Protection	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Training	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Conduct of Operations	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Chemistry	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Security	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Environmental Monitoring	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Fire Protection	Eval started 10/24		Y	Y	Y	Y	Y	Y	Y	Y
Startup & Power Ascension										
Mode Changes	Evaluation started 2/8/98									
Power Ascension	Evaluation not commenced									

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MP3 NORVP

Satisfactory

Significant Weakness

Improvement Needed

Not Assessed

NRC 40500 Inspection Readiness

	10/17/97	10/24/97	10/31/97	11/7/97	11/21/97	12/5/97	12/19/97	1/9/98	1/23/98	2/6/98
Leadership	Y	Y	Y	Y	Y	Y	Y	G	G	G
Self Assessment	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Corrective Action	Y	Y	Y	Y	Y	Y	Y	G	G	G
NSAB/Oversight Recovery	G	G	G	G	G	G	G	G	G	G

OSTI /Startup Readiness

Configuration Management	Y	Y	Y	Y	Y	Y	Y	G	G	G
Procedural Quality/Adherence	Y	Y	Y	Y	Y	G	G	Y	Y	Y
Engineering	Eval started 11/7			Y	Y	G	G	G	G	G
Work Control/Planning	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Maintenance/I&C	Y	Y	Y	Y	G	G	G	Y	Y	G
Materials	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Regulatory Compliance	Y	Y	Y	Y	Y	Y	Y	G	G	G
SCWE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Emergency Prep	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Radiation Protection	G	G	G	G	G	G	G	G	G	G
Training	Y	B	Y	Y	Y	Y	Y	Y	Y	Y
Conduct of Operations	Y	Y	Y	Y	Y	Y	Y	G	G	G
Chemistry	B	Y	Y	Y	Y	B	G	G	B	B
Security	G	G	G	G	G	G	G	G	G	G
Environmental Monitoring	R	R	R	Y	Y	Y	Y	Y	Y	G
Fire Protection	Eval started 10/24		Y	Y	Y	Y	B	Y	Y	Y

Startup & Power Ascension

Mode Changes	Evaluation started 2/6/98									Y
Power Ascension	Evaluation not commenced									

G

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Concluding Remarks

Bruce Kenyon

Northeast Nuclear Energy

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MILLSTONE UNIT 2 STATUS OF ICAVP

**Dan Curry
Eric Blocher
Parsons Power
February 19, 1998**

Agenda

- ⦿ Status of Tier 1, 2 & 3 Review Activities
- ⦿ Unit 2 ICAVP Schedule
- ⦿ Discrepancy Report Status

Tier 1 Review Status:

- ⦿ High Pressure Safety Injection (HPSI)
 - ❖ Outstanding Discrepancy Reports require response before system review can be completed
 - ❖ Corrective Action Review in progress
- ⦿ Auxiliary Feedwater (AFW) on hold until receipt of new calculations, full impact of reanalysis unknown at this time

Tier 1 Review Status:

- ⦿ Radiological Release Control (RRC)
 - ❖ Licensing Basis Definition completed - Design Basis Review in progress
 - ❖ Started review of Modifications and System Components
- ⦿ Emergency Diesel Generator (EDG)
 - ❖ Licensing Basis Definition completed - Design Basis Review in progress
 - ❖ Started walkdown of electrical systems

Tier 2 Review Scope:

CDCs Approved by NRC

29 Design Basis Events

- ❖ Analysis Review Completed - 25 Events
- ❖ Validations In Progress - 11 Events
- ❖ Validations Complete - 6 Events
- ❖ Target Completion Date - April 29, 1998

Parsons will revalidate 10 events being reanalyzed
by NNECo

Tier 3 Review Scope:

- ⦿ Sample Selection complete except for vendor manuals
- ⦿ Review completed for the following sample groups:
 - ❖ 2 of 8 areas in Engineering/Licensing Document Group
 - ❖ All areas in Parts Dedication, Substitution and Safety Classification Group
 - ❖ 6 of 9 areas in Operations and Maintenance Group
- ⦿ Tier 3 approximately 75% complete

Unit 2 Discrepancy Reports

- ⦿ 57 Discrepancy Reports Closed or Confirmed - Pending
 - ❖ 39 Confirmed Discrepant
 - ❖ 11 Previously identified by NNECo
 - ❖ 7 Determined to be non-discrepant condition
- ⦿ Of the 39 Confirmed Discrepant DR's
 - ❖ 1 - Significance Level 3 (0 closed)
 - ❖ 38 - Significance Level 4 (12 closed)

Tier Review Status (as of Feb. 13, 1998)

<u>Status</u>	<u>Review Completion</u>
☉ Tier 1	
❖ HPSI	2/19/98
❖ AFW	5/29/98
❖ EDG	5/15/98
❖ RRC	5/7/98
☉ Tier 2	4/29/98
☉ Tier 3	4/8/98

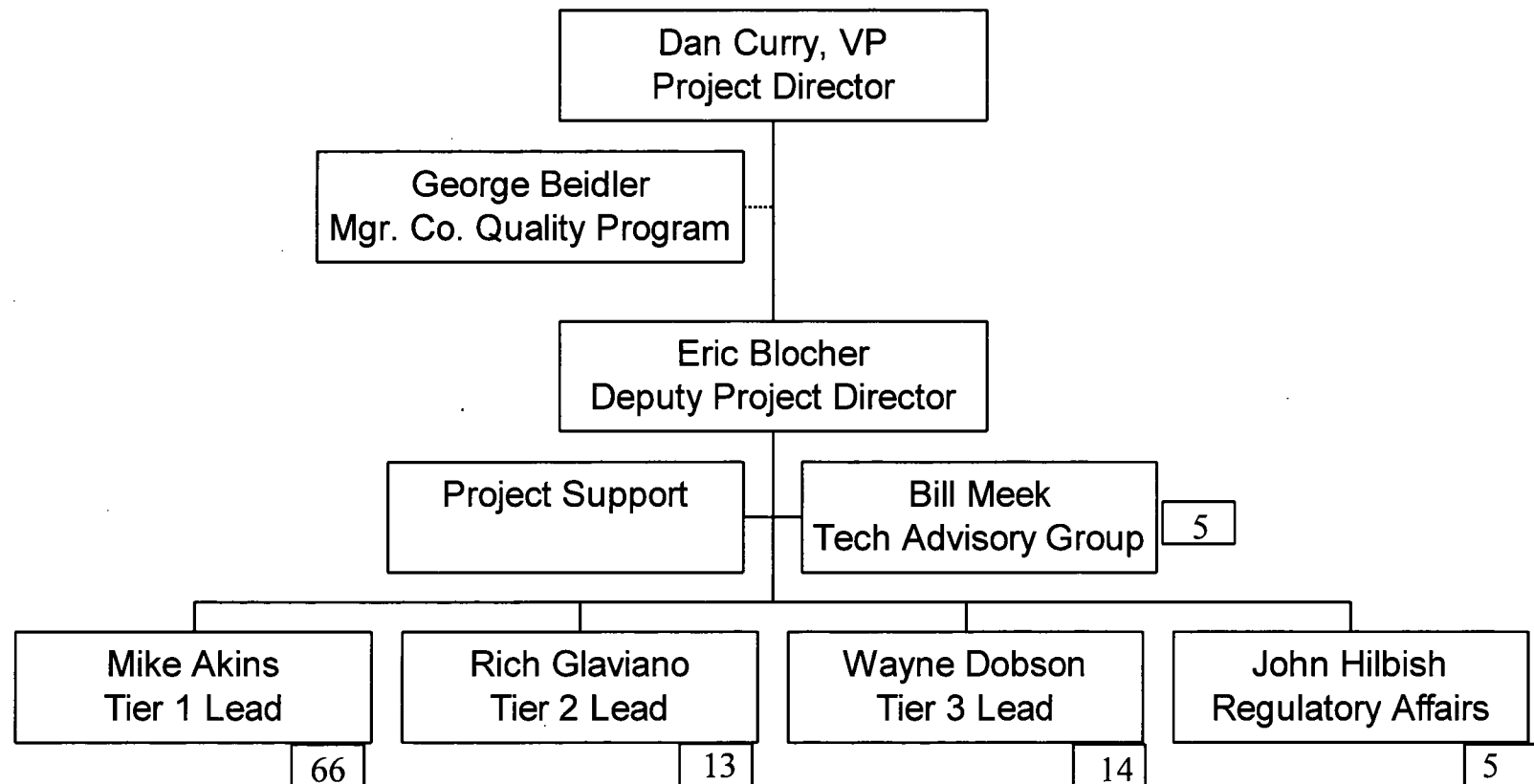
Final Report Schedule

- ☉ Target submittal date for Unit 2 ICAVP Final Report is July 10, 1998. Submittal date assumes:

- ❖ All Discrepancy Reports resolved
- ❖ Anticipated Discrepancy Report resolution process (3 to 5 week process)
- ❖ All Corrective Actions reviewed

SUPPLEMENTAL INFORMATION

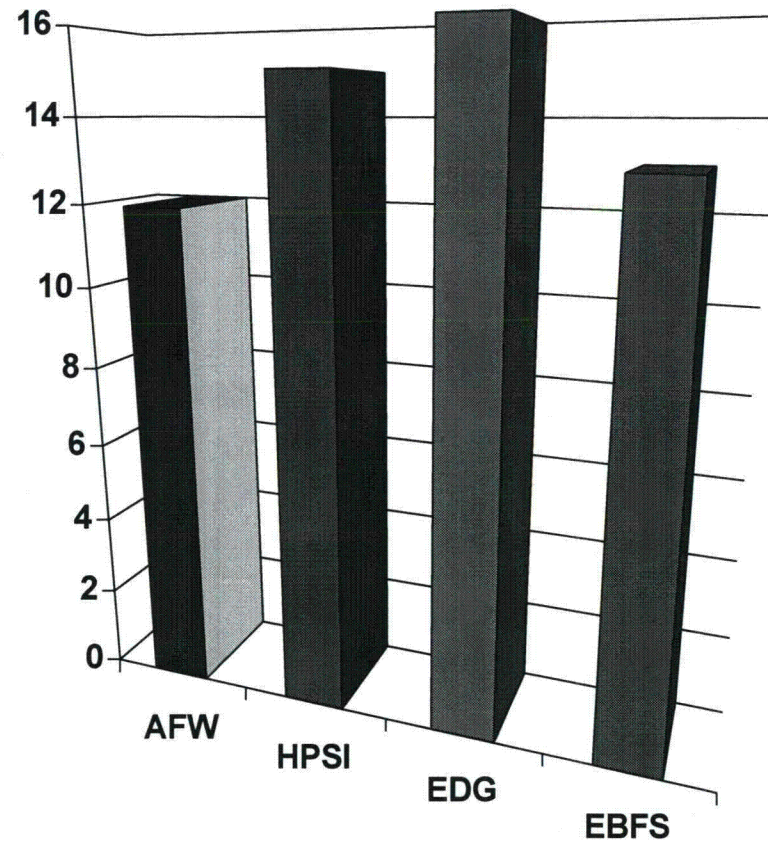
Parsons ICAVP Team



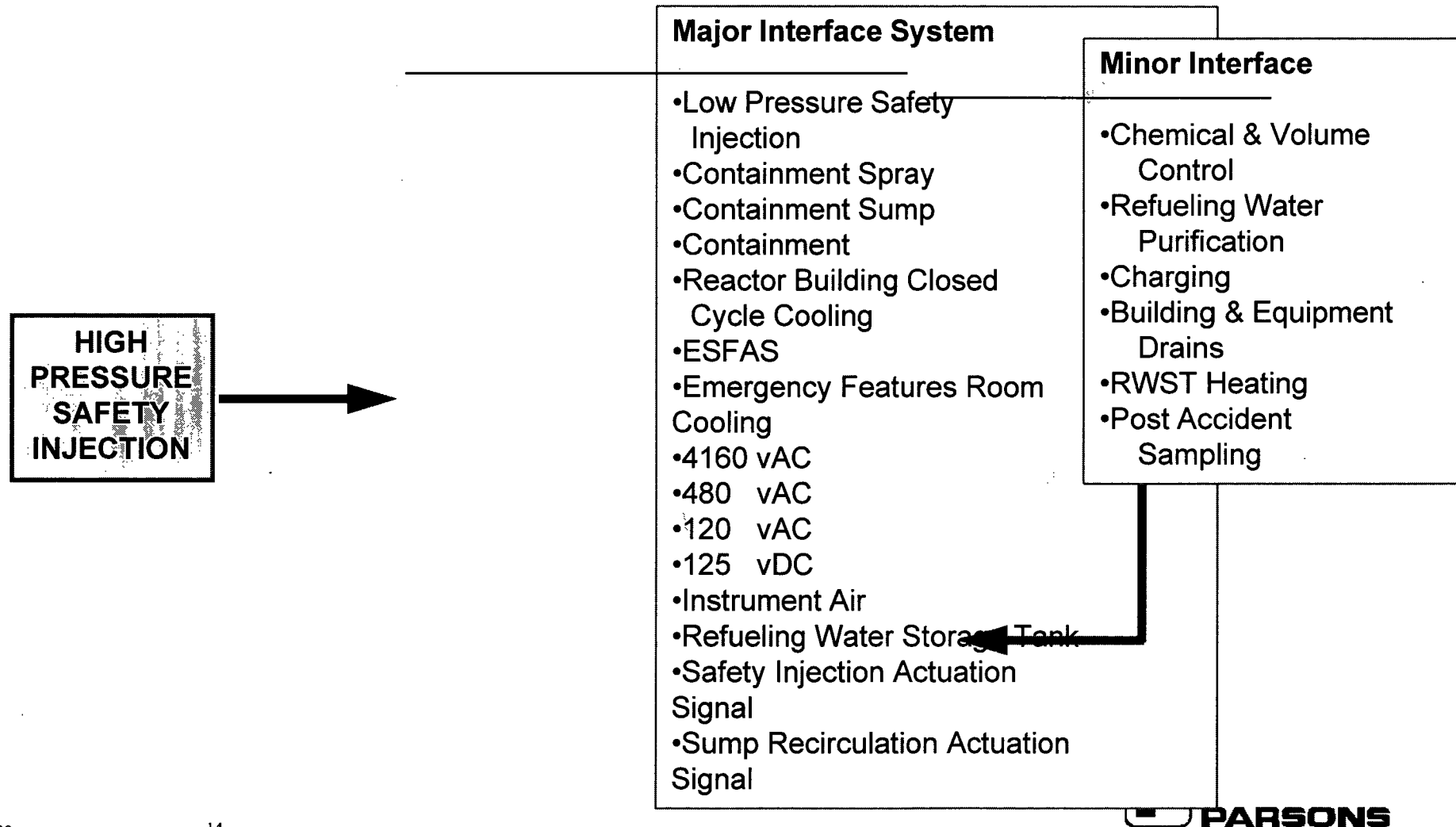
Tier Status's

System Interfaces

- Systems interfacing with the selected system



HPSI System Interface Systems



AUXILIARY FEEDWATER AND CONDENSATE STORAGE

INTERFACING SYSTEMS

INTERFACING SYSTEMS FOR AFW SYSTEM REVIEW

1. Main Steam
2. Main Feedwater
3. Fire Service
4. Condensate Storage and Transfer
5. Instrument Air
6. 4160 Volt AC
7. ATWS Initiation
8. 480 Volt AC
9. 125 Volt DC
10. Reactor Protection System
11. Auxiliary Steam
12. Heat Tracing

HIGH PRESSURE SAFETY INJECTION & REFUELING WATER STORAGE TANK

INTERFACING SYSTEMS

1. Low Pressure Safety Injection
2. Containment Spray
3. Containment Sump
4. Reactor Building Closed Cooling Water
5. Engineered Safety Feature Room Air Recirculation Units
6. Instrument Air
7. Refueling Water Storage Tank
8. Charging System (for back-up boron precipitation control)
9. 4160 Volt AC
10. 480 Volt AC
11. 120 Volt AC
12. 125 Volt DC
13. Engineered Safeguard Actuation System and Isolation
14. Safety Injection Actuation Signal
15. Sump Recirculation Actuation Signal

ENCLOSURE BUILDING FILTRATION SYSTEM (EBFS) & CONTAINMENT and ENCLOSURE BUILDING PURGE SYSTEM (CEBPS)

INTERFACING SYSTEMS

1. Fuel Handling Ventilation System and Radiation Monitors
2. Hydrogen Purge System
3. Instrument Air
4. Containment Radiation Monitoring
5. Unit 1 Stack Monitoring System
6. Condenser Air Removal
7. 125 Volt DC
8. 480 Volt AC
9. Auxiliary Steam System
10. Main Exhaust System
11. Gaseous Radwaste System (utilizes same exhaust duct to Unit 1 stack)
12. Engineered Safeguards Actuation System (ESAS)
13. Fire Protection

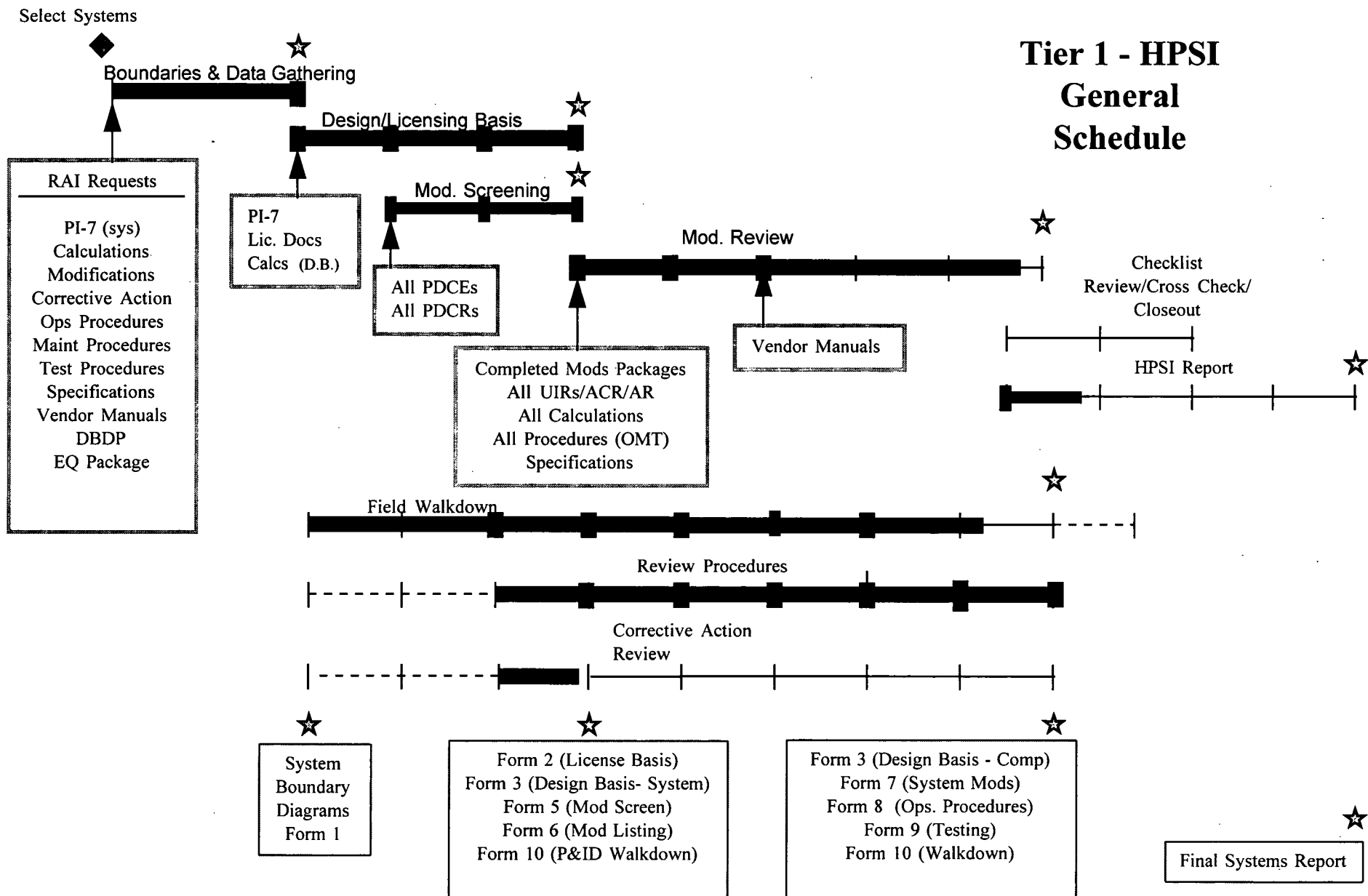
EMERGENCY DIESEL GENERATOR AND SUPPORT SYSTEMS

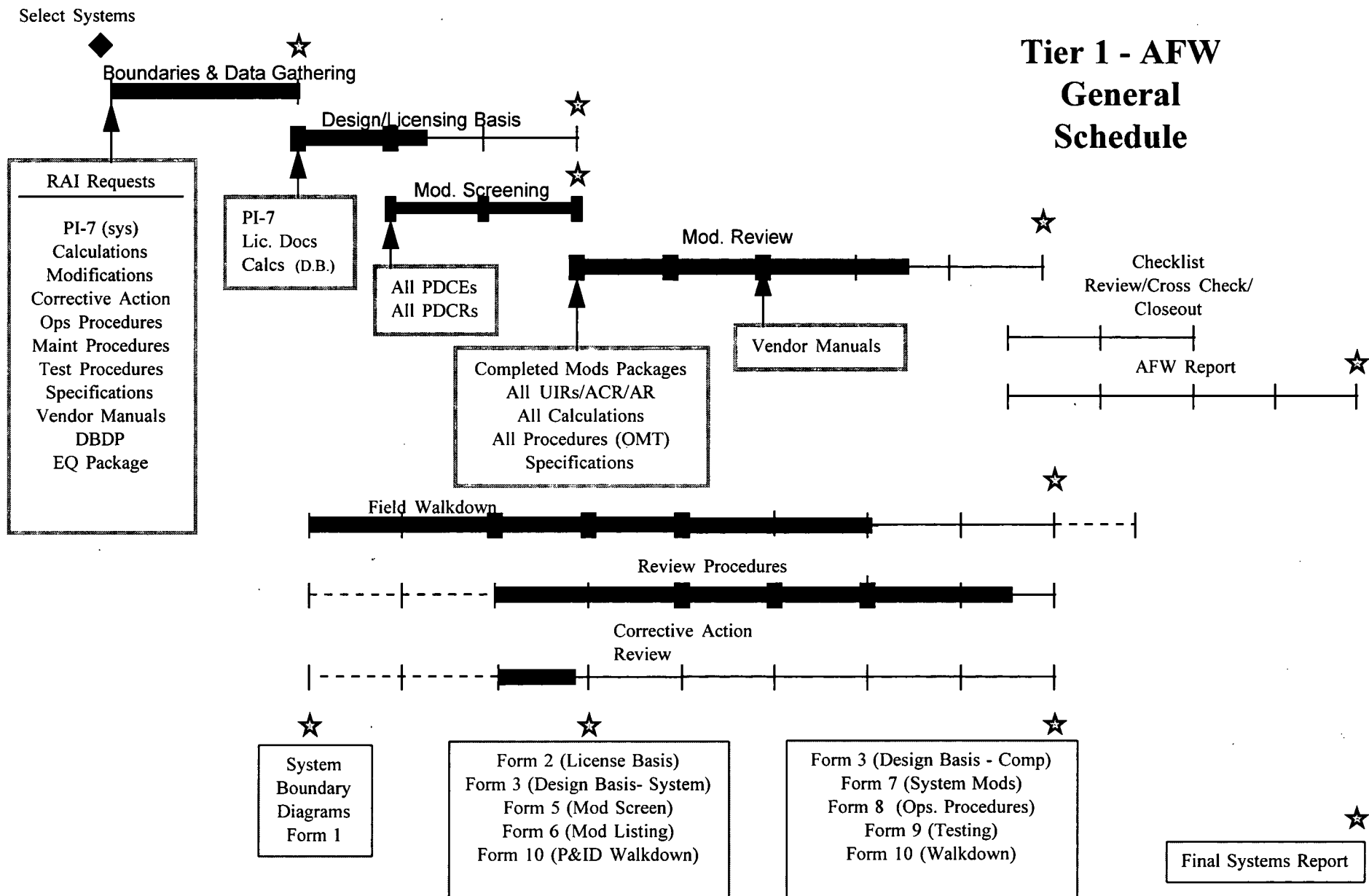
SYSTEMS SELECTED

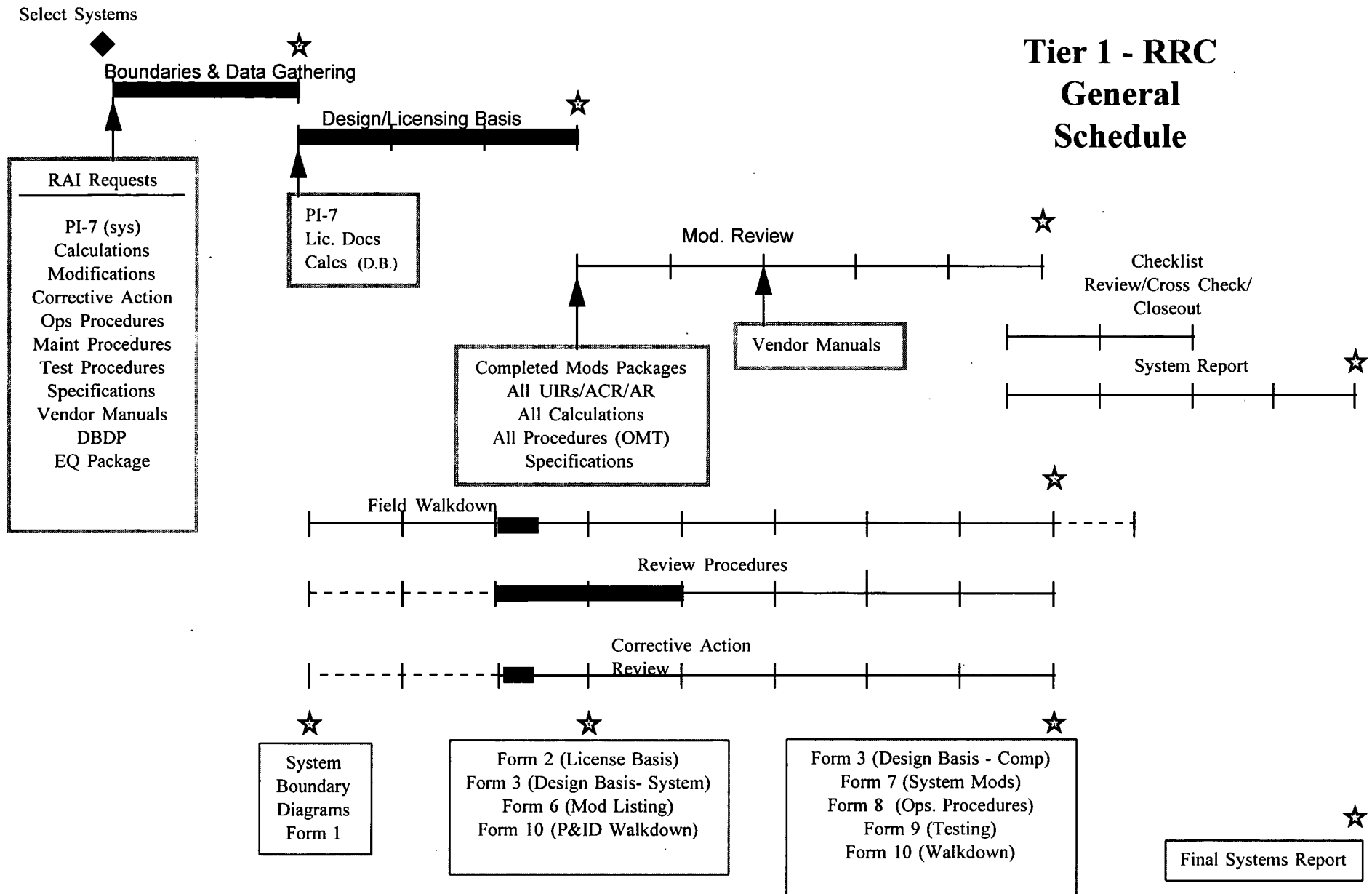
1. Emergency Diesel Generator
2. Emergency Diesel Generator Fuel Oil
3. Emergency Diesel Generator Room Ventilation
4. 4160 Volt AC and Fast Bus Transfer
5. Engineered Safeguards Features Actuation System
(Emergency Diesel Generator Load Sequence Only)

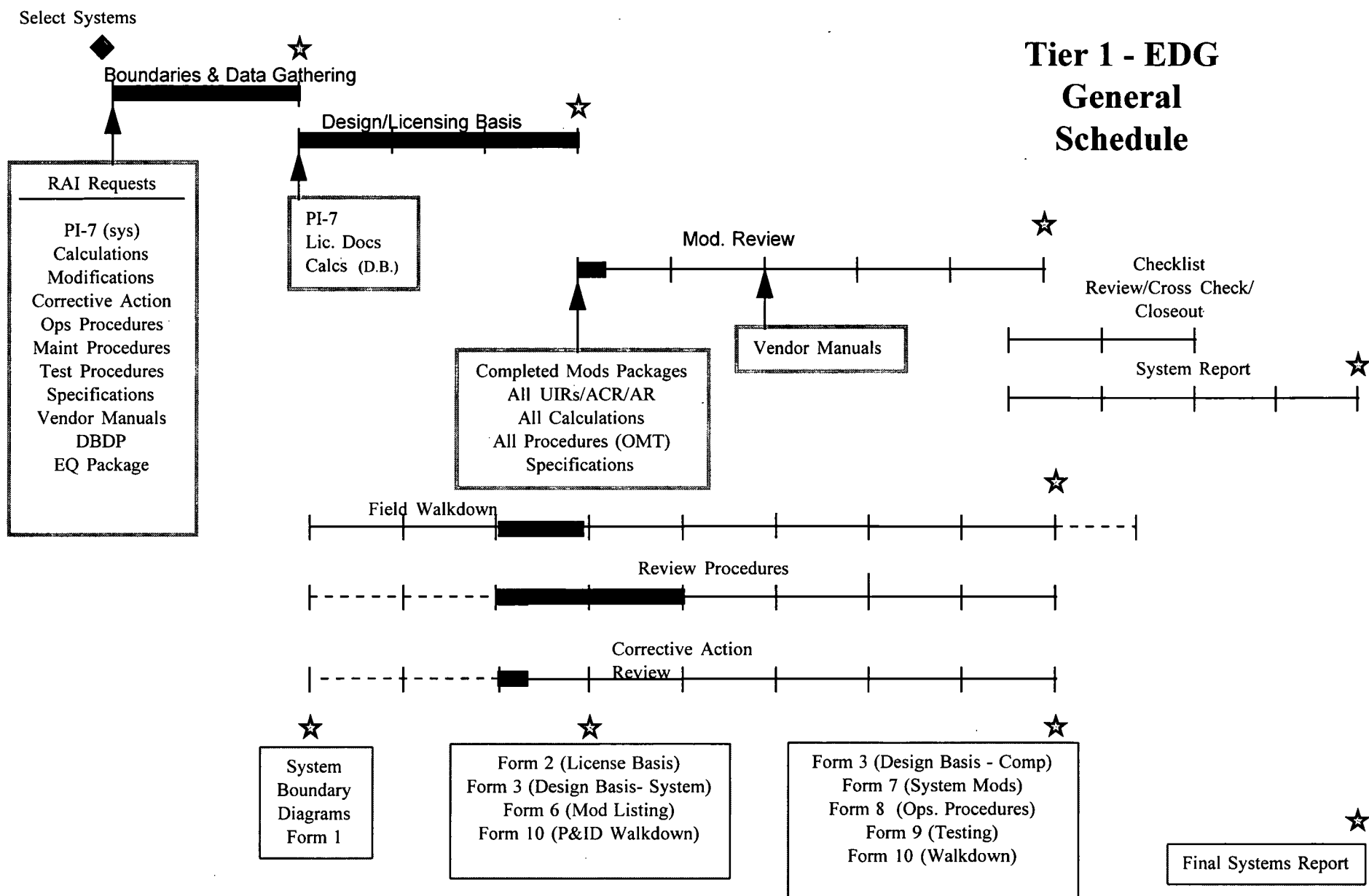
INTERFACING SYSTEMS FOR SYSTEM REVIEW

- | | |
|--|---|
| 1. 4160 Volt AC | 9. Emergency Lighting |
| 2. 125 Volt DC | 10. Computers UPS |
| 3. 480 Volt System | 11. Computer Room A/C |
| 4. Fire Protection | 12. Containment Sampling |
| 5. Service Water | 13. Post Accident Radiation
Monitoring |
| 6. Instrument Air | 14. Reactor Coolant |
| 7. Engineered Safeguard
Actuation System (ESAS) | 15. Fuel Handling Building H/V |
| 8. 120 VAC | 16. Boric Acid |

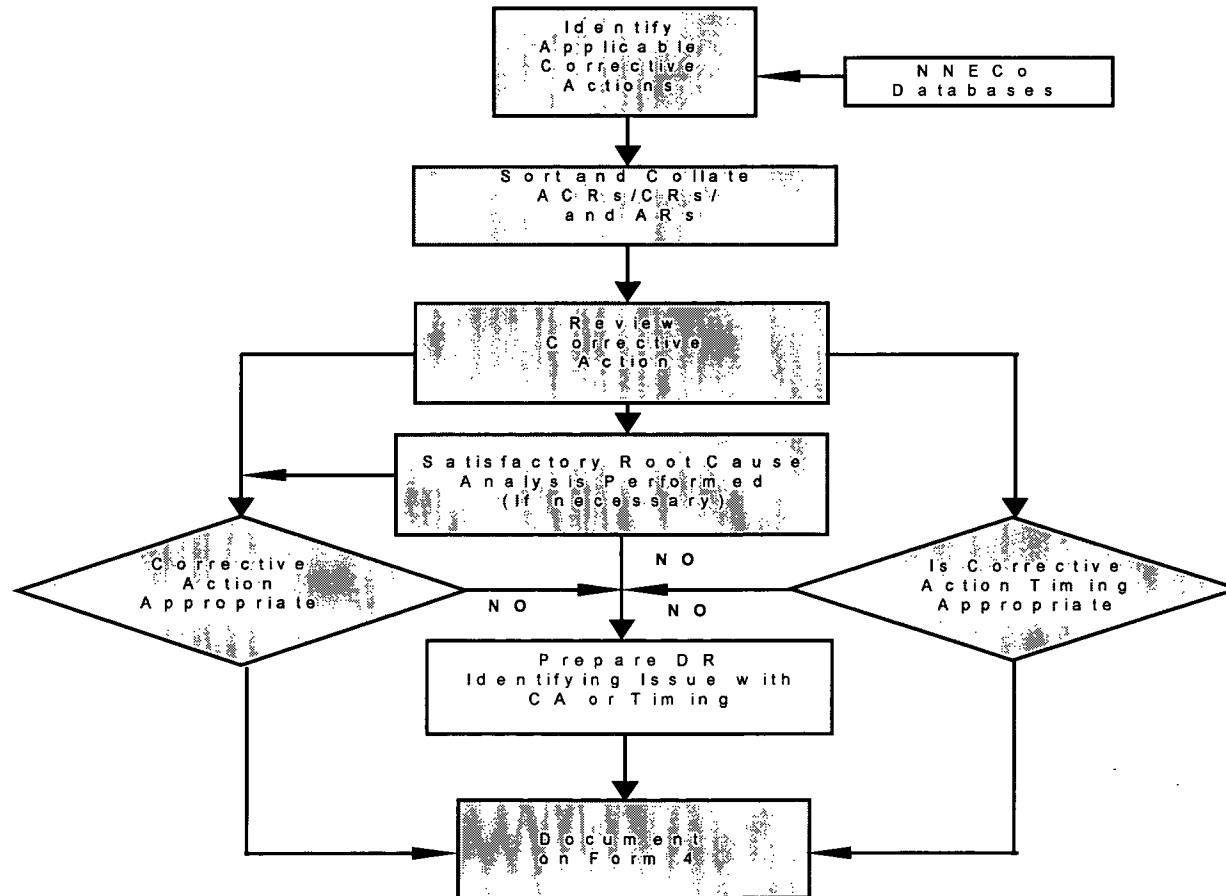




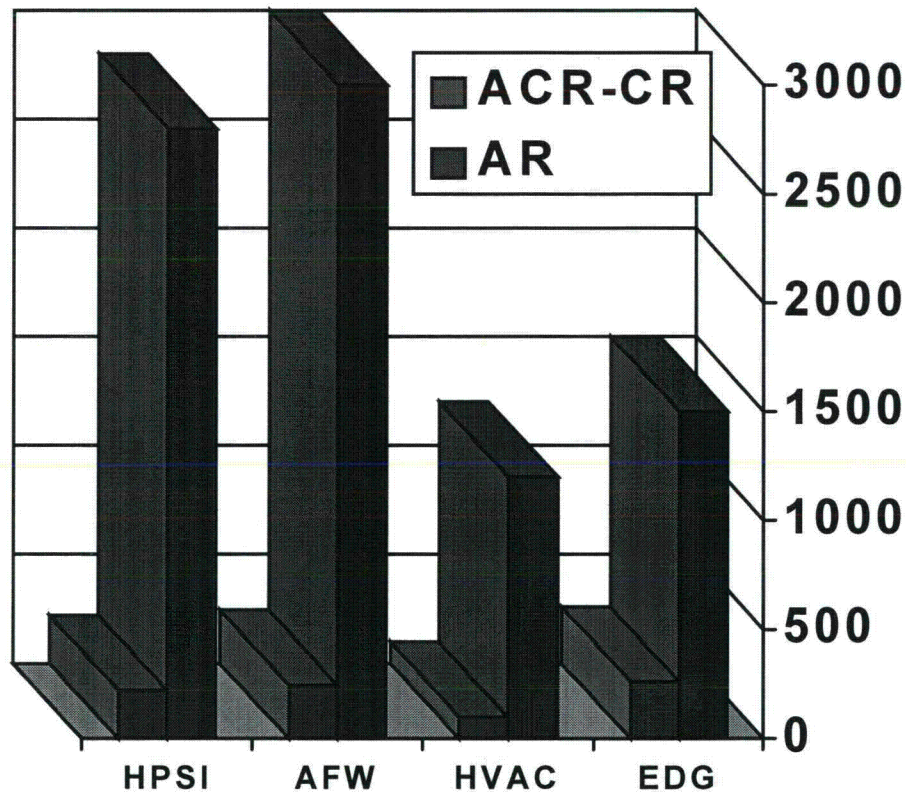




Corrective Action Review



Corrective Actions



- ⦿ ACR-CR identify issues to be resolved and contains significance level
- ⦿ AR identify general actions to be performed and identifies timing of action

Corrective Action Review

❁ Corrective Action Review Population

❖	DRs (as of February 10)	202
❖	ACRs & CRs with system identified:	
	⇒ HPSI	400
	⇒ AFW	150
	⇒ EDG	300
	⇒ RRC	150
❖	ARs average 6 per ACR/CR	
❖	Non-aligned ARs approximately	5000
❖	NRC Sample of Corrective Action Documents	80

Tier 2 - Status

- ⦿ Design Basis Event Analyses Review and Validation in Progress
- ⦿ 14 Discrepancy Reports issued based (Tier 2)
- ⦿ CDCs approved by NRC: Parsons has incorporated NRC CDC comments into Tier 2

Tier 2 - Design Basis Event (DBEv) Review

Event Category	Number of DBEv's	Analysis Review	Validation Complete	Event Reanalysis
RC Flow Reduction	2	2	2	-
Reactivity	6	6	2	1
Radioactive Releases	4	4	2	-
Overcooling	5	2	-	2
Loss of Heat Sink	4	4	-	3
RC Pressure Boundary	4	3	-	2
Containment Analysis	4	4	-	2
TOTAL	29	25	6	10

Tier 2 - DBEv Review

For each accident, identify CDCs as Validated/Not Validated

Identify “Not Validated” CDCs as:

- Preliminary Discrepancy Report (NV-DR-xxx)
- Previously Identified by NNECo (NV-UIR-xxxx)

Communicate items requiring resolution to validate the CDCs

- DRs tied to NV status
- UIRs, CRs, etc. tied to NV Status
- Place Holders (RAIs & Revised Analyses)

Tier 2 - Information Needs

- Critical RAIs for Accident Mitigation Systems Validation:

17 RAI's Submitted Based on Pilot RAI Process for AMSR Systems

- NNECo Provide Calculations Identified by Parsons - Complete
- NNECo System Engineers Review Calcs Listed on RAI's - Complete
 - ⇒ Identify Superseded and Revised Calcs
 - ⇒ Identify Additional Calcs (Provide to Parsons)

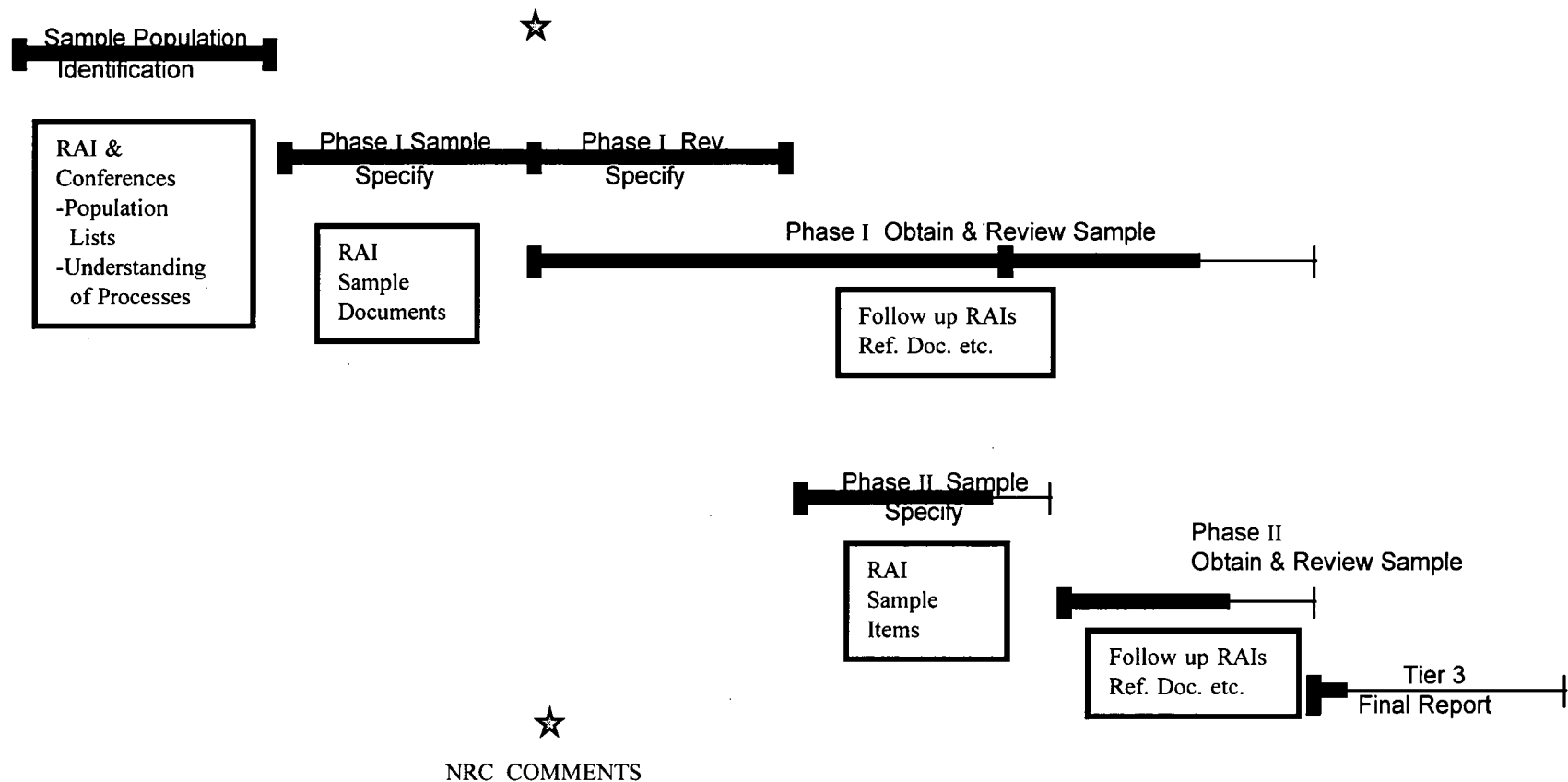
- 10 Design Basis Events Being Reanalyzed by NNECo

- ⇒ Schedule Assumes Design Inputs Available by February 13
- ⇒ MSRB/LOCA Containment Reanalysis Design Inputs Received

Tier 3 - Process Review Summary

- ⦿ Phase II sample selection complete except for vendor manuals
- ⦿ Review completed for following samples:
 - ❖ Equivalency Substitutions and Commercial Grade Dedication
 - ❖ Equipment/Parts Safety Classification Changes
 - ❖ Maintenance Procedure Revisions
 - ❖ Operations and Surveillance Procedure Revisions
 - ❖ Emergency and Abnormal Operations Procedure Revisions
 - ❖ Inservice Inspection and Testing Procedure Revisions
 - ❖ Temporary Changes/Jumpers, Lifted Leads
 - ❖ Setpoint Change Requests
- ⦿ Tier 3 Approximately 75% Complete

Tier 3 Summary Schedule Logic



Tier 3 Inspection Areas - Status

Engineering/Licensing Documents	Sample Number	Items			Remarks
		Selected	Obtained	Reviewed	
Setpoint Changes (SCR)	5	5	5	5	Sample Plan Revision
Specification Revisions	31	31	31	8	
Drawing Revisions	32	32	32	17	
Calculation Revisions	Using Tier 1 & 2 Results				Sample Plan Revision
Licensing Document Changes	19	19	19	12	
Non-conformance Reports, (NCR)	32	32	32	12	
Engineering Work Request, (EWR)	32	32	32	15	Review on Hold
Vendor Technical Information	TBD				
Subtotal	151	151	151	69	

Tier 3 Inspection Areas - Status

Parts Dedication, Substitution, & Safety Classification	Sample Number	Items			Remarks
		Selected	Obtained	Reviewed	
Commercial Grade Dedication	32	132	132	132	Report in Progress
Equivalency Substitutions	32	32	32	32	Report in Progress
MEPL Safety Classification Changes	32	32	32	32	Report in Progress
Subtotal		96	196	196	

Tier 3 Inspection Areas - Status

Operations and Maintenance	Sample Number	Items			Remarks
		Selected	Obtained	Reviewed	
Operation Procedures (4 proced. w/ min. 10 changes)	4	4	4	4	Report in Progress
Abnormal Ops (4 procedures w/ min. 10 changes)	4	4	4	4	Report in Progress
EOP (4 procedures w/ min. 10 changes)	4	4	4	4	Report in Progress
Surveillance (4 procedures w/ min. 10 changes)	4	4	4	4	Report in Progress
Maintenance (4 procedures w/ min. 10 changes)	4	4	4	4	Report in Progress
IST Procedures (4 procedures w/ min. 10 changes)	4	4	4	4	
ISI Procedures (4 procedures w/ min. 10 changes)	4	4	4	4	
ASME Section XI Repair/Replace	10	10	10	8	
Temp Changes/Jumper, Lifted Lead, Bypass	25	25	25	25	Report in Progress
Subtotal	63	63	63	61	

Project Schedule Milestones (as of February 9, 1998)

<u>Status</u>	<u>Review Completion</u>
☉ Tier 1	
❖ HPSI	2/19/98
❖ AFW	5/29/98
❖ EDG	5/15/98
❖ HVAC	5/07/98
☉ Tier 2	4/29/98
☉ Tier 3	4/8/98
☉ Final	7/10/98

Potential Schedule Impacts

- ⦿ NNECo Information Processing
- ⦿ Design Basis Availability (AFW, Piping, etc.)
- ⦿ Program/Topical Area Rework
- ⦿ Availability of 10 Updated Analyses (Tier 2)
- ⦿ Discrepancy Reports
 - ❖ Number and Complexity of Discrepancy Reports
 - ❖ Anticipated Discrepancy Report Resolution Process

Project Efficiencies

- ⦿ Twice-weekly Conference Call to discuss technical issues (NRC & NEAC Monitor) continuing
- ⦿ Bi-Weekly Progress Report and Schedule Update
- ⦿ Discrepancy Report Processing
 - ◆ Added DR Response Clarification Contact
 - ◆ Conducted 2 DR Resolution Conferences
- ⦿ Revised Tier 1 Checklists for Corrective Action Review and Modification Review

Preliminary Discrepancy Report Summary

⊗ Significance Level of 269 Approved Preliminary DR's

- 5 Level 1
- 1 Level 2
- 120 Level 3
- 143 Level 4

⊗ Summary by Tier for Preliminary DR's

- Tier 1 - 227
- Tier 2 - 14
- Tier 3 - 28

Discrepancy Report Response Summary

- ⦿ 92 Responses received from NNECo
 - 30 DR's Closed
 - 28 DR Resolutions Pending
 - 29 DR Resolutions Requiring Follow-up
 - 0 DR Responses In Progress
 - 5 DR's Awaiting Revised Responses from NNECo

Discrepancy Report Summary

- ❁ Of the 30 Valid and Closed DR's
 - 12 Confirmed Discrepancies
 - 11 Previously Identified by NNECo
 - 7 Non-discrepant

- ❁ Of the 12 Confirmed Discrepancies
 - 0 Level 1
 - 0 Level 2
 - 0 Level 3
 - 12 Level 4

**COMMISSION MEETING
FEBRUARY 19, 1998**

**MILLSTONE UNIT 3
INDEPENDENT CORRECTIVE
ACTION VERIFICATION PROGRAM
STATUS REVIEW**



Structure of ICAVP

Tier 1 - Verify system meets licensing/design bases and system functionality.

Tier 2 - Verify that system design parameters relied on to mitigate the consequences of postulated accidents analyzed in the FSAR are consistent with the performance of the current system configuration.

Tier 3 - Verify that the configuration control processes have not introduced changes that have put the unit in nonconformance with its licensing and design bases.



Scope of Tier 1 System Review

SWP

QSS

SLCRS

EDG - Engine

RSS

Aux Bldg HVAC

EDG - Gen.

RWST

EDG Rm Vent.

Fuel Oil

Lube Oil

Starting Air

Exhaust

Sequencer

4160 volt syst.

SWP

RSS

HVX

DGX



Status of ICAVP

- | | |
|-----------------------------------|--------------------|
| • Tier 1 System Review | Complete |
| • RSS Modifications | Docs + 2 weeeeks |
| • Tier 1 Corrective Action Review | Docs + 2 weeks |
| • Tier 2 Review | Complete |
| • Tier 3 Review | Complete |
| • Final Report Issue | DR Resol + 3 weeks |



Discrepancy Report Process

- Initiation of Preliminary DR
- Internal DR review process
- Issue Preliminary DR to NU, NRC, and NEAC and post to Internet WebSite
- NU evaluate DR and respond
- Review NU response

Discrepancy Report Closure Process

- DR closure based on review and acceptance of NU response and proposed corrective action
- Categories of Closed Discrepancy Reports
 - Confirmed DR (not identified by NU CMP)
 - Previously identified
 - Non-Discrepant



DR Significance Level

Level 1 - the system does not meet its LB / DB and cannot perform its intended function (affects redundant trains)

Level 2 - a single train of a redundant system does not meet its LB and DB and that train cannot perform its intended function

Level 3 - a system does not meet its LB / DB but the system is capable of performing its intended function

Level 4 - a system meets its LB / DB however there are minor errors that do not affect the results of a calculation or there are inconsistencies between documents

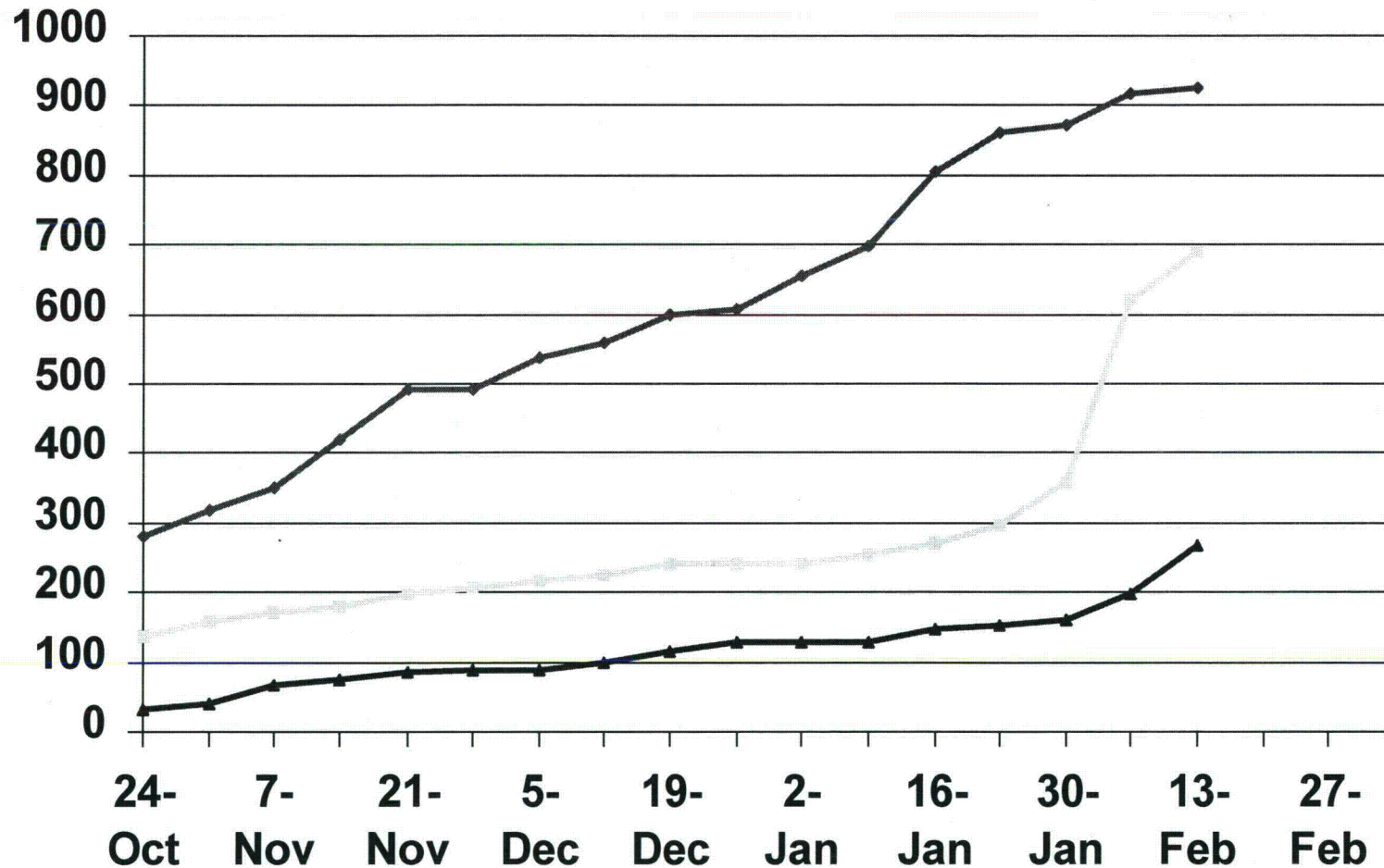


Discrepancy Report Summary

	<u>Number Issued</u>	<u>NU Resp.</u>	<u>NU Resp. in system</u>	<u>S&L Eval. Complete</u>	<u>More info Needed</u>
Level 2	1	1	1	0	0
Level 3	297	233	130	28	24
Level 4	627	456	379	187	28
TOTALS	925	690	510	215	52



DR Submittal and Response Rate



—◆— DRs Issued - - - □ - - - NU Responses —▲— S&L Reviews

Discrepancy Report Summary

- 211 Acceptable and Closed resolutions
 - 111 Confirmed Discrepancies
 - 42 Previously Identified by NU
 - 58 Non-discrepant conditions
- 111 Confirmed Discrepancies
 - 5 Level 3
 - 106 Level 4
- 4 Pending Discrepancies
 - 3 Level 3
 - 1 Level 4



DR Type & Level (Confirmed & Pending DRs)

Discrepancy Type	<u>Level 3</u>	<u>Level 4</u>
Calculations	4	29
Component Data	1	12
Corrective Actions	2	12
Corrective Action Implementation	0	1
Design Change Process	1	1
Drawings	0	14
Installation Implementation	0	14
Installation Requirements	0	3
Licensing Documents	0	11
O&M and Testing Implementation	0	1
O&M and Testing Procedures	0	6
Procedure Implementation	0	2
Testing Implementation	0	1

Preliminary Conclusions

- Effectiveness of CMP
- Configuration management going forward
 - Certain aspects of the modification process
- Programmatic issues
 - Calculation control
 - Radiological calculations

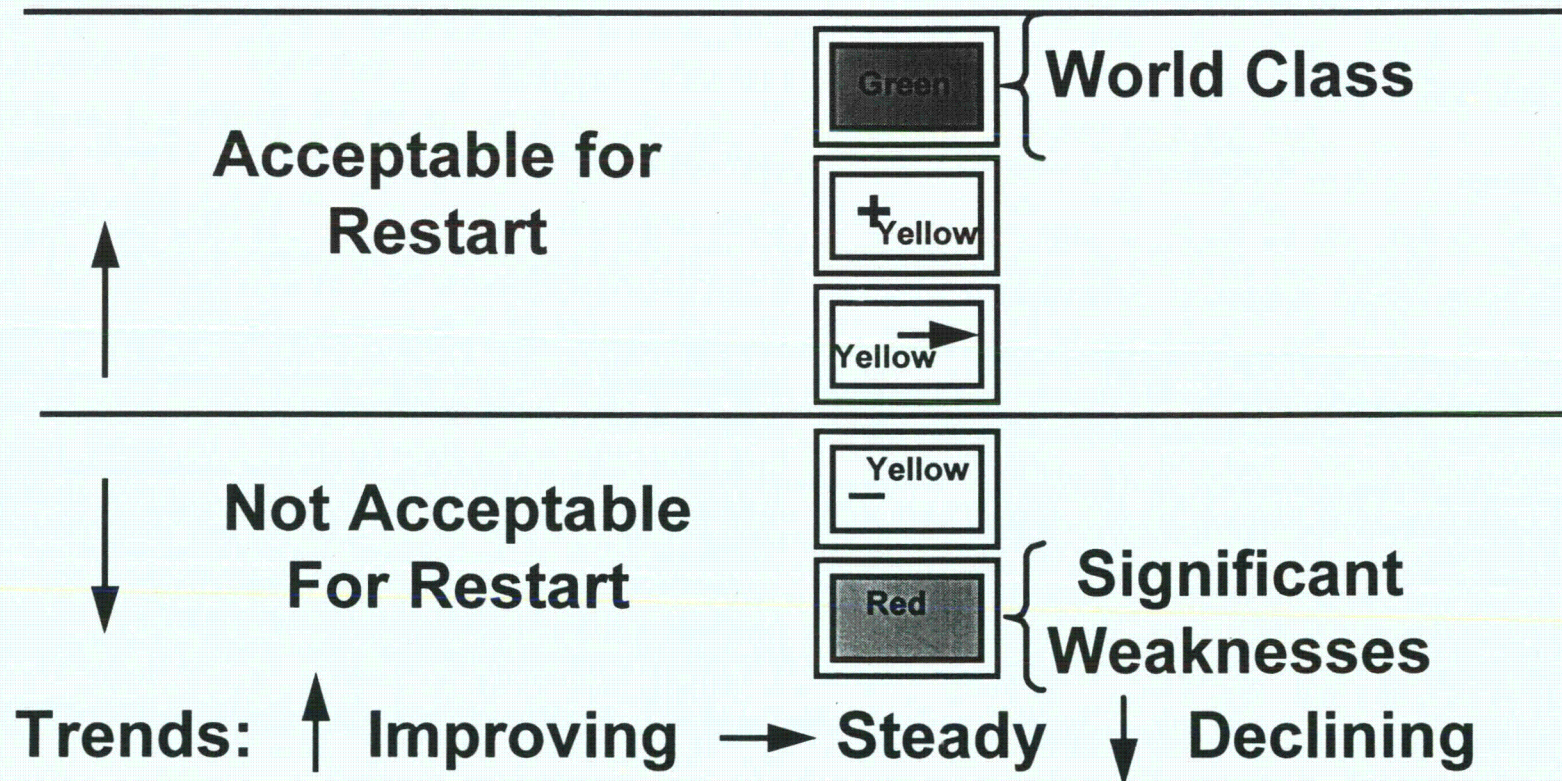


STATUS OF A SAFETY CONSCIOUS WORK ENVIRONMENT AT MILLSTONE

Little Harbor Consultants

**Presentation to
NRC Commissioners
February 19, 1998**

STATUS INDICATORS FOR NNECo's SCWE IMPLEMENTATION EFFORT

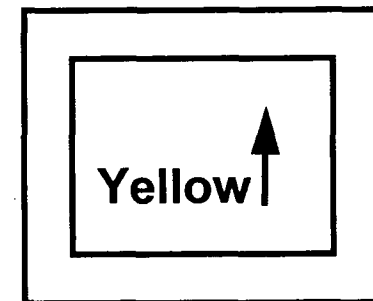


STATUS OF NNECo SUCCESS CRITERIA FROM LHC ATTRIBUTES

NNECo Success Criteria

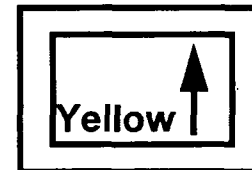
1. Demonstrate the willingness to raise concerns.

Status



FACTORS CONSIDERED IN GRADING ATTRIBUTE

1. Demonstrate the willingness to raise concerns.



Positive Factors

- ERB Review Process
- MM Event
- Oversight Event
- Training Contractor Event
- Increased Recognition/Reward

Negative Factors

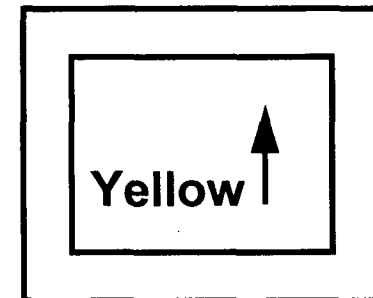
- December/January ECP Concerns
- MM Event

STATUS OF NNECo SUCCESS CRITERIA FROM LHC ATTRIBUTES

NNECo Success Criteria

2. Demonstrate that issues are being effectively resolved by line management. (Corrective Action Program)

Status

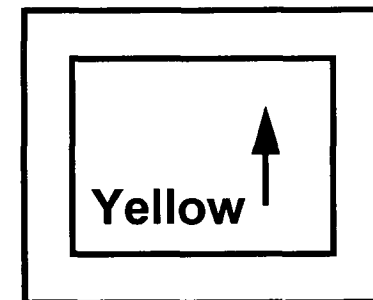


STATUS OF NNECo SUCCESS CRITERIA FROM LHC ATTRIBUTES

NNECo Success Criteria

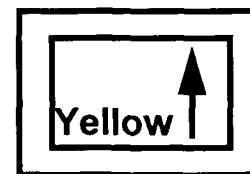
3. Demonstrate that the ECP is effective.

Status



FACTORS CONSIDERED IN GRADING ATTRIBUTE

3. Demonstrate that the ECP is effective.



Positive Factors

- Customer Satisfaction
83%
- Responsive to LHC
Recommendations
- Demonstrated
Independence

Negative Factors

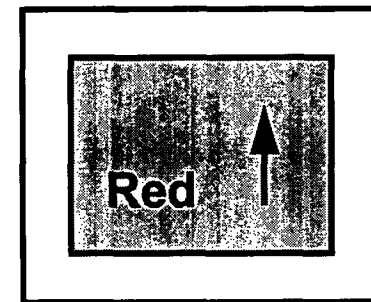
- Interpersonal Skills
- Timely and Coordinated
Response to Potential
"Chilling Effect"
- 10CFR50.7 Analysis
- Inconsistent Handling of
HIR&D Allegations

STATUS OF NNECo SUCCESS CRITERIA FROM LHC ATTRIBUTES

NNECo Success Criteria

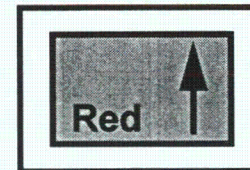
4. Demonstrate that management can recognize and effectively deal with alleged instances of HIR&D, or other circumstances which have created a chilling effect, which collectively are referred to as problem areas.

Status



FACTORS CONSIDERED IN GRADING ATTRIBUTE

4. Demonstrate that management can recognize and effectively deal with alleged instances of HIR&D ...

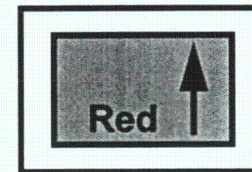


Positive Factors

- 50.7 Training
- Partnership 2000
- GET Upgrade
- ECP Input to MFNS
- Training Reorganization
- Jan 20 - SCWE Training
- MM End Results
-
-
- Organizational Effectiveness Consultants
- ERB Review Process
- SCWE Resources
- Training Contractor
- RE Group Event
- QC Inspector Efforts

FACTORS CONSIDERED IN GRADING ATTRIBUTE

4. Demonstrate that management can recognize and effectively deal with alleged instances of HIR&D ...



Negative Factors

- Partnership 2000 Lacks SCWE
- MM Event
- Maintenance/Oversight Relationship
- Dec/Jan ECP (HIR&D) Concerns
- Oversight Event
- Timely Resolution of Problems
- HR/Legal Involvement

•

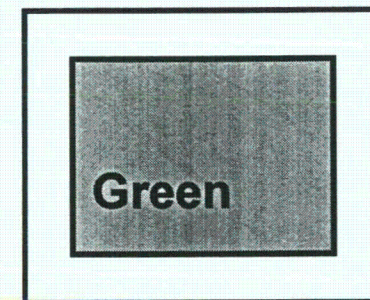
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SAFETY CONSCIOUS WORK ENVIRONMENT ATTRIBUTE STATUS

LHC Expectation

- 1. Senior management endorses a policy that places priority on nuclear safety, supports the workers' rights to raise safety issues and ensures that workers will not be subjected to harassment, discrimination or intimidation if they do so.**

Status

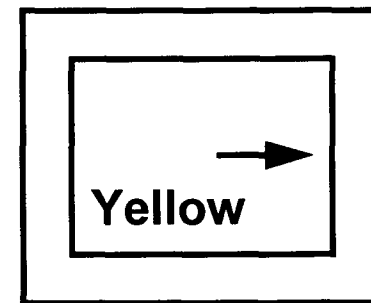


SAFETY CONSCIOUS WORK ENVIRONMENT ATTRIBUTE STATUS

LHC Expectation

2. Employee perceptions of the policy and its implementation are favorable.

Status

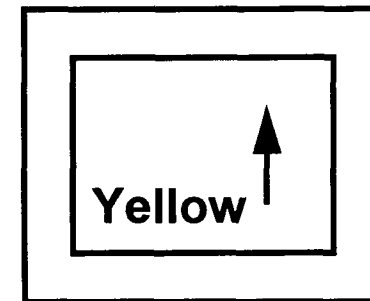


SAFETY CONSCIOUS WORK ENVIRONMENT ATTRIBUTE STATUS

LHC Expectation

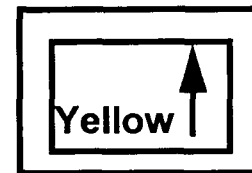
- 3. Senior management provides training to all managers and supervisors to ensure that they understand and employ good management practices when dealing with employees who have safety concerns and do so with understanding.**

Status



FACTORS CONSIDERED IN GRADING ATTRIBUTE

3. Senior management provides training to all managers and supervisors to ensure that they understand ...



Positive Factors

- 50.7 Training
- Partnership 2000
- GET Upgrade
- ECP Input to MFNS
- ECP Input to Partnership 2000
- Jan 20 - SCWE Training

Negative Factors

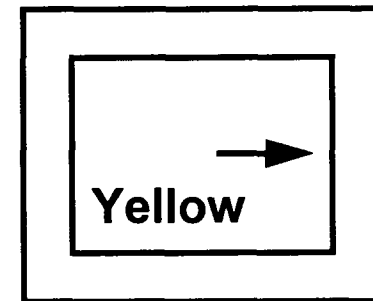
- Partnership 2000 Lacks SCWE

SAFETY CONSCIOUS WORK ENVIRONMENT ATTRIBUTE STATUS

LHC Expectation

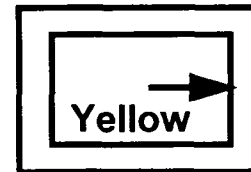
Status

- 4. Members of the workforce have a sense of identity and are committed to the publicly stated goals and objectives of the organization, have respect for each other, communicate effectively both horizontally and vertically, and feel responsible for their own behavior.**



FACTORS CONSIDERED IN GRADING ATTRIBUTE

4. Members of the workforce have a sense of identity and are committed to the publicly stated goals ...



Positive Factors

- MM End Results
- Organizational Effectiveness Consultants

Negative Factors

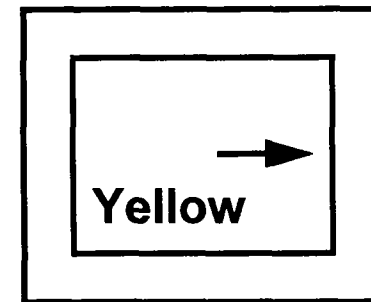
- MM Event
- Maintenance/Oversight Relationship
- Oversight Event

SAFETY CONSCIOUS WORK ENVIRONMENT ATTRIBUTE STATUS

LHC Expectation

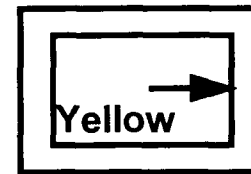
- 5. People at all levels of the organization treat each other with mutual respect.**

Status



FACTORS CONSIDERED IN GRADING ATTRIBUTE

5. People at all levels of the organization treat each other with mutual respect.



Positive Factors

- Organizational Effectiveness Consultants

Negative Factors

- Lack of Trust

SAFETY CONSCIOUS WORK ENVIRONMENT ATTRIBUTE STATUS

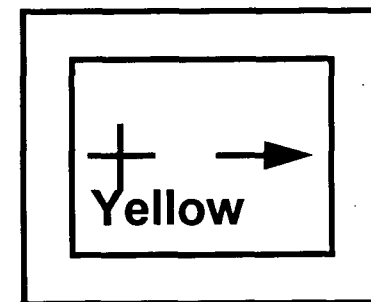
LHC Expectation

6. Employees exhibit a “questioning attitude” toward work and the work environment with respect to nuclear safety.

Positive Factors

- Sludge Assessment
- Recognition of Oversight Event
- Structured Interviews
- MM Event

Status

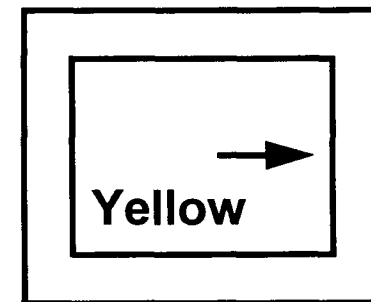


SAFETY CONSCIOUS WORK ENVIRONMENT ATTRIBUTE STATUS

LHC Expectation

7. Positive recognition is given to employees who identify safety issues.

Status



Positive Factors

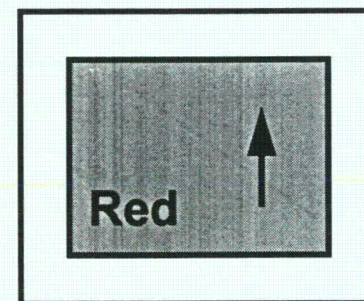
- **Sludge Assessment**
- **Catch of the Day**
- **Oversight Event**

SAFETY CONSCIOUS WORK ENVIRONMENT ATTRIBUTE STATUS

LHC Expectation

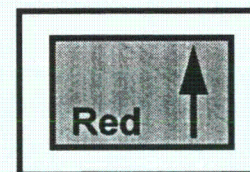
8. Incidents leading to allegations of harassment, intimidation, retaliation or discrimination rarely occur, and management is timely and effective in taking action for resolution and prevention.

Status



FACTORS CONSIDERED IN GRADING ATTRIBUTE

8. Incidents leading to allegations of harassment, intimidation, retaliation or discrimination rarely occur, and management is timely and effective ...



Positive Factors

- ERB (10% Intervention)
- SCWE Resources
- Nuclear Engineering and Support Activities
- Training Changes
- QC Inspector Issue

Negative Factors

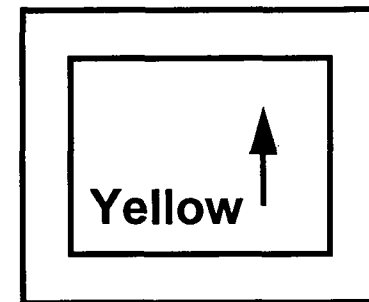
- Dec/Jan ECP Concerns--HIRD
- MM Issue
- Manpower
- Oversight Event

SAFETY CONSCIOUS WORK ENVIRONMENT ATTRIBUTE STATUS

LHC Expectation

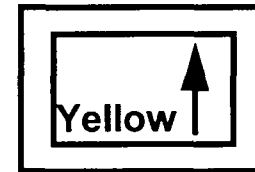
9. There is no evidence that an atmosphere exists that has a “chilling effect” on the willingness of employees to report safety issues.

Status



FACTORS CONSIDERED IN GRADING ATTRIBUTE

9. There is no evidence that an atmosphere exists that has a “chilling effect” on the willingness of employees to report safety issues.



Positive Factors

- ERB Reviews
- MM Event
- Oversight Event
- Training Contractor Event

Negative Factors

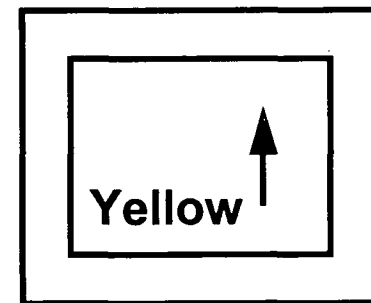
- Dec ECP Concerns (Fear of Management)
- MM Event

SAFETY CONSCIOUS WORK ENVIRONMENT ATTRIBUTE STATUS

LHC Expectation

- 10. An effective and efficient corrective action program is functioning and all employees recognize the normal (and preferred method) for addressing safety issues is through the line organization.**

Status

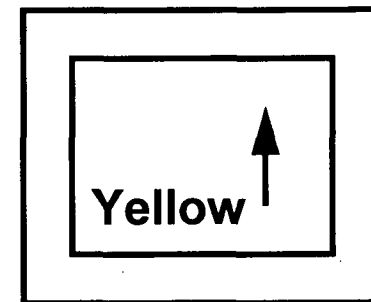


SAFETY CONSCIOUS WORK ENVIRONMENT ATTRIBUTE STATUS

LHC Expectation

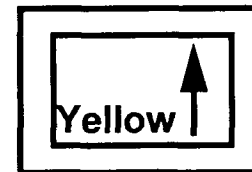
- 11. Senior management recognizes that some concerns may not be addressed through the normal line organization and has established an [effective] Employee Concerns Program (ECP) for handling such concerns.**

Status



FACTORS CONSIDERED IN GRADING ATTRIBUTE

11. Senior management recognizes ...
and has established an ... Employee
Concerns Program (ECP) ...



Positive Factors

- Customer Satisfaction
83%
- Response to LHC
Recommendations

Negative Factors

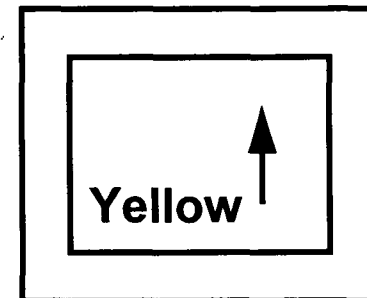
- Inconsistent HIR&D
Investigation

SAFETY CONSCIOUS WORK ENVIRONMENT ATTRIBUTE STATUS

LHC Expectation

12. Independent and self-assessments are performed periodically to monitor performance and correct identified deficiencies.

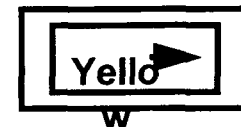
Status



LHC ATTRIBUTES CONTRIBUTING TO NNEC_o SUCCESS CRITERIA 1

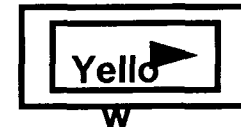
Demonstrate the willingness to raise concerns.

2. Employee perception of SCWE...



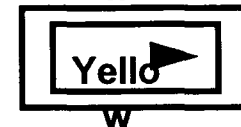
W

6. Employees exhibit a questioning attitude...



W

7. Positive recognition is given to employees...



W

9. No evidence of "chilling effect"...



W

12. Independent and self-assessments are performed...



W

LHC ATTRIBUTES CONTRIBUTING TO NNEC_o SUCCESS CRITERIA 4

Demonstrate that management can
recognize and ... deal with ... HIR&D.

3. Senior management provides training to all managers ...
4. Members of the workforce have a sense of identity and are committed to the ...goals ...
5. People ... treat each other with mutual respect.
8. Incidents leading to allegations of HIR&D...rarely occur...
9. There is no evidence that an atmosphere exists that has a “chilling effect.”

Yellow ▲

Yellow ▶

Yellow ▶

Red ▲

Yellow ▲



UNITED STATES NUCLEAR REGULATORY COMMISSION

Office of Public Affairs
Washington, D.C. 20555

No. S-98-04

PUBLIC MEETING

BY

DR. SHIRLEY ANN JACKSON, CHAIRMAN
U.S. NUCLEAR REGULATORY COMMISSION
WATERFORD, CONNECTICUT
February 2, 1998

Good evening.

I would like to reiterate some points from the opening statement I made at this afternoon's press conference. Then I will answer questions that were solicited from established groups actively involved in monitoring Millstone activities. Following these questions and answers, I will open the meeting for questions from the floor.

Before I begin, I would like to say that my being here tonight has nothing to do with any pre-established schedule, etc. I decided that it was time for me to come back and listen to you in person, again. The licensee, and the NRC, have much work left to do before coming to the Commission for any formal decision on restarting any of the Millstone units. But, I would rather visit with you earlier, than later. If I, or the staff with me, cannot answer your concerns properly tonight - we will respond in writing after this meeting.

According to the tentative (and I repeat tentative - for planning purposes) time line, the Commission will have at least two Commission meetings before voting on Millstone Unit 3 restart. I have asked the Secretary of the Commission to "block off" a portion of time during the Millstone Commission meeting which would occur prior to the Commission's formal vote on restart. The Commission plans to allow selected representatives from groups that have been monitoring Millstone activities to provide their views at that Commission meeting.

{PRESS CONFERENCE OPENING STATEMENT}

As you know, all three Millstone reactors are currently shut down because of safety concerns, and our concerns with respect to the pervasiveness of the licensee's non-conformance with regulatory requirements and the inadequacy of its corrective action programs. They also are shut down because of issues related to an ineffective Employee Concerns Program which is important because employees must feel free to raise safety concerns without fear of retaliation, especially from management.

Millstone Unit 1 has been shut down for 26 months, and Units 2 and 3 have been shut down for approximately 22 months. All three of the Millstone units were placed on the NRC's Watch List in January 1996, as "Category 2" plants requiring increased NRC attention. By action of the Commission, the units were re-categorized as "Category 3" plants in June 1996. This action necessitates Commission approval for restart of each of the units.

It was during my last visit here, on August 6, 1996, that I informed the management of Northeast Utilities that before the Millstone Station reactors could restart, the NRC would require an independent corrective action verification conducted by an independent third party. As I said over a year ago, we initiated these measures because of NRC concern about licensee management effectiveness in correcting problems, and the magnitude and scope of NRC findings as well as licensee identified deficiencies.

On October 24, 1996, the NRC issued a second order -- directing that before restarting any unit, the licensee develop and submit to the NRC a comprehensive plan for reviewing and dispositioning safety issues raised by its employees -- and ensuring that employees who raise safety concerns can do so without fear of retaliation. The order also directed the licensee to retain an independent third party to oversee implementation of the licensee's plan.

In November, 1996, the Commission established the Special Projects Office -- to provide for direct oversight of all licensing and inspection activities separate from NRC regional management, and to tailor and implement the NRC's "Staff Guidelines for Restart Approval" (the Manual Chapter 0350 Process), to specifically assess deficiencies at the Millstone Units.

Throughout 1997, the Commission has had "Quarterly Public Meetings" to assess the status of activities at the site. These meetings have included discussions with the licensee, independent contractors, and NRC staff. The Commission is knowledgeable of the significant number of public meetings (about 30) held by the NRC staff of the Special

Projects Office in the Waterford, CT area. The Commission has stressed the importance of taking the time and effort to ensure that the public remains fully informed.

The next Commission meeting is scheduled for February 19, 1998. This meeting was scheduled two months after the last meeting in order for the Commission to better assess the results of some of the significant inspections that are occurring now, or that are scheduled for the near future. I have asked the Special Projects Office to update the Commission on a more frequent basis as NRC inspection activities have increased recently. This is being done in monthly written reports.

I have reminded the NRC staff, and the licensee, not to be driven by schedule -- but by the primary task of determining whether the Millstone organization is functioning with the proper perspective and methodology for safe operation.

As I state at each Commission meeting, the Commission does not presuppose that any of the three plants will restart by any certain date. I understand that plant employees are excited as they see what they believe is the light at the end of the tunnel. I understand the public anxiety surrounding the potential restart of any of the units...anxiety that could be summarized with the following question: "If they have had to be shut down for so long, how can I be sure that they are safe to restart?"

The Commission is sincerely interested in -- and does "hear" -- the public's concerns, whether they are expressed in the media, public meetings, discussions with the NRC staff, or in correspondence to the NRC. I am here this afternoon, and tonight at the public meeting, once again, to hear them first hand.

I spent the day touring the plant, hearing assessments first hand from our inspectors, and meeting with plant employees, first line supervisors, as well as local officials and representatives from interested parties monitoring Millstone activities.

In summary, the NRC staff, and the Commission, are committed to ensuring that the Millstone Station is a safe station, with an effective Corrective Action Program, and an environment supportive of raising and resolving safety concerns.

Now - I would like to respond to questions solicited in advance. Groups that have been actively monitoring Millstone activities were provided the opportunity to submit questions in advance in an effort to ensure that those groups have their important questions heard and

addressed at this time. My staff informs me that the Nuclear Energy Advisory Council (NEAC) has been particularly involved in all aspects of this process; however, I thank you all for your interest and participation.

NEAC #1) Among the root causes of the problems that have lead to the current situation at Millstone Station is shortcomings in the oversight and enforcement activity by the Nuclear Regulatory Commission (NRC). The May 1997 Government Accounting Office (GAO) Report on Nuclear Regulation presents ample and specific evidence of the deficiencies and ineffectiveness of the NRC. What action has the NRC taken to address and correct the root causes that contributed to the shutdown of Millstone Station, and how can we be assured that the NRC will effectively ensure public health and safety and prevent the current situation from reoccurring at nuclear power plants in Connecticut?

In response to the events at Millstone and other related activities, the NRC conducted a broad-based review of NRC programs and guidance in the areas of inspection, licensing, enforcement and licensee reporting. This review, referred to as the "Millstone Lessons Learned" considered, in part, Millstone and Haddam Neck inspection results, Millstone employee concerns review, the results of the fuel pool cooling and core off-load procedures review, and the results of Updated Final Safety Analysis Report (UFSAR) inspections conducted at all nuclear power plants. This effort involved individuals who were not part of the day-to-day oversight of Millstone, so that an impartial assessment of the situation could be obtained. This review was completed, and the Commission was briefed, last February.

A number of changes have already come out of this, and related reviews, aimed at strengthening our oversight and licensee performance of activities in each of these and other areas.

NRC managers currently responsible for review efforts associated with the Millstone Lessons Learned will be held accountable to take the actions necessary to ensure that weaknesses in the NRC's oversight activities have been addressed and that the lessons learned from this experience are used to strengthen the NRC's overall programs.

The GAO report of May 1997 provided three recommendations to the NRC for enhancing licensees' accountability. I responded to the GAO's recommendations in a letter last August. I stated that the NRC had: implemented a number of enhancements and (was) already working on a number of initiatives that directly related to issues discussed in the GAO report. These actions included extensive evaluation and enhancement of the senior management meeting process, development and issuance of improved guidance regarding the content and accuracy of

each licensee's safety analysis report, and development of a process to improve the NRC management and verification of licensee commitments. In addition, the strategies adopted in our strategic plan are aimed at correcting previously identified problems and findings in internal and external audit and investigative reports.

Let me provide more context in three areas. First, the Millstone "Lessons-Learned" Review, and concurrent reviews of the use and updating of the Final Safety Analysis Report (FSAR) and of 10 CFR 50.59 (the very extensively used NRC regulation governing plant changes for which a licensee does not have to come to the NRC beforehand), at the Commission's direction, have been combined into an overall comprehensive review of these areas. The Commission has before it, and is acting on, a paper containing recommendations and options aimed at clarifying regulatory requirements, and strengthening our oversight of all of these areas. But changes already have occurred to strengthen our tracking of licensee commitments, to ensure the proper updating of each licensee's safety analysis report, to direct our inspectors to review the FSAR before inspecting a licensee's facility, and to be more vigilant to signs of a "chilling" environment, and to properly disposition allegations which come to us. Secondly, we have undertaken several explicit initiatives to strengthen the Senior Management Meeting to make it more objective, scrutable and fair.

The Commission has now tasked the staff to undertake a comprehensive and integrated review of our complete reactor assessment process and to come back with a new paradigm that more explicitly and clearly lays out all of our regulatory requirements, inspects against them, assesses licensees' performance in the most objective way possible, and ensures that prompt, effective regulatory action is taken to address the problems that are found, in a way commensurate with their safety and regulatory significance. Thirdly, all of this is taking place against the backdrop of a major reorganization of the NRC which the Commission approved one year ago. The new structure groups line regulatory programs in a way to enhance synergy and to help build in line accountability. We have created a new Regulatory Effectiveness organization which groups and draws upon the strengths of the offices of Research, Analysis and Evaluation of Operational Data (AEOD), Investigation, and Enforcement, to allow the NRC to more properly track and trend licensee performance in key areas, to do this outside the day-to-day regulatory program areas, but to feed into them. We have a number of regulatory effectiveness and regulatory excellence initiatives underway to strengthen how we conduct our business in all areas from inspection, to licensing, to enforcement, to the development of regulations. Finally, essentially all of our Senior Management Team is new, within the last year and a half. All of them are committed, and are being held accountable through performance

standards and performance appraisals to ensure that our regulatory program works, and accomplishes its intended objectives, and thereby engenders public trust. In fact, our new Executive Director for Operations, Joe Callan is here with me today. He has the responsibility to ensure that our day-to-day regulation is strong, and that the various initiatives underway come together to strengthen further our regulatory program. He and the management team he directs are committed to this.

In summary, the NRC has evaluated and assigned corrective action responsibilities, as necessary, and has taken other actions to address the shortcomings found by the GAO staff regarding the NRC's processes for licensee oversight.

NEAC #2. The volume of Deficiency Reports generated by Sargent & Lundy at Millstone 3 is of serious concern, even though the number of Level 3 and high safety related items has been relatively small. The findings of the Out-of-Scope Safety System Functional Inspection (SSFI) and their causes are equally troubling. What criteria will you/have you used to decide whether or not to expand either the Third Party Corrective Action Verification Program (ICAVP) and the NRC SSFI program. If no expansion has or will be directed, how can we be assured that the NU CMP has and will protect public health and safety?

The NRC is fundamentally using acceptance criteria linked to conformance, or identified nonconformance, with the plant licensing/design bases for evaluating any possible expansion of ICAVP scope. The criteria lay out four significance levels being used by the NRC staff to categorize the ICAVP findings. Specifically, Levels 1-3 involve findings of nonconformance with the licensing/design bases, and Level 4 involves relatively minor findings which do not result in nonconformance.

The NRC staff, at a meeting with the public last week, and, in recently-issued correspondence to NEAC, the ICAVP contractors and the licensee, recently has provided additional discussion on acceptance criteria, the findings and possible ICAVP scope expansion. The recent letter states that the ICAVP oversight plan, as currently established, allows the NRC staff to make informed judgments based not only on an assessment of the individual issues, but also on the licensee's corrective actions for that issue including the identification of root cause(s) and causal factors associated with the issue, the proposed resolution of the issue, the applicability of the issue to other systems, and broader programmatic and operational issues. As such, an important element in the ICAVP process is the NRC staff's or ICAVP contractor's independent verification of corrective actions being taken by the licensee in response to ICAVP

findings. This independent verification of the adequacy of corrective actions results in additional ICAVP evaluations of the plant's licensing and design bases.

For example, even for Level 4 findings, which do not involve nonconformance with the licensing/design bases, the staff will evaluate them for any trends which might raise a question about the license/design bases and which should require additional ICAVP review.

The ICAVP, with or without any expansion of the original scope, must be judged as effective in confirming the plant's licensing/design bases before restart. If additional action by the licensee, the ICAVP contractor or the NRC staff is required to conclude, with confidence, that the plant is in conformance - those actions will be taken before any Commission-approved restart.

NEAC #3. (a) What actions will the NRC take to ensure that the health and safety of the public is protected during the decommissioning of Connecticut Yankee? (b) Does the NRC intend to modify the existing regulations?

(a) The NRC will continue to provide significant oversight of the decommissioning at Connecticut Yankee. The resident inspector will remain onsite for the beginning of the decommissioning, and there will be specialist inspections performed by Region I, and Headquarters staff. We have a defined inspection program that covers all major aspects of the decommissioning. Regional responsibility for the site is with a branch that is solely responsible for decommissioning projects, to further emphasize the importance of a safe and expeditious cleanup.

Contacts will be maintained with state and local groups as the decommissioning proceeds.

(B) During recent public meetings, our regulations were criticized in that they do not require the opportunity for a hearing until the end of the process, when the licensee submits the License Termination Plan. The public wants a hearing earlier, when the Post-Shutdown Decommissioning Activities Report (PSDAR) is submitted. By regulation we must hold a public meeting within 90 days of receipt of the PSDAR, and accept public comments. Unless the NRC objects, the licensee can proceed with major decommissioning activities, at the end of this 90-day period. The public meeting is explicitly intended to allow public input with respect to the PSDAR. The hearing opportunity at the end of the process is meant to allow public input and appropriate intervention before the license is formally terminated.

There are no rulemaking changes being initiated by the staff at this time.

CAN #1) Given the fact that a reactor has suffered a partial melt down and you did not revoke its license; given the fact that a licensee has lied to the NRC and you did not revoke its license; and now, at Millstone, you are faced with a situation of gross and systemic mismanagement that has been life threatening to the workers and the public, what will it take for the NRC to revoke a license to operate a nuclear reactor?

I cannot speak to all of the considerations that may or may not have gone into any earlier decisions with respect to possible license revocation. However, the NRC would revoke a nuclear power plant license, if, in the opinion of the Commission, continued possession of the license would be inimical to the common defense and security or to the health and safety of the public. In other words, the Commission would have to conclude that the licensee is not capable of protecting the public, in any plant condition, before a nuclear reactor license would be revoked. Normally, public health and safety can be adequately protected by ensuring a licensee maintains its facility in a shutdown condition until the significant problems are corrected (along with increased NRC oversight of the facility). Thus far, the Commission has not found it necessary to revoke a license of a nuclear reactor operator.

CAN #2) Little Harbor Consultants established 14 attributes associated with an effective Safety Conscious Work Environment. LHC believes that "requiring management action" is acceptable for the restart of the Millstone reactors even though NU has a decade long history of harassment and retaliation. A) Will you reject LHC's recommendation and hold Millstone accountable to meaningful requirements such as "meeting expectation?" B) If you refuse to hold Millstone accountable to meaningful requirements, will you impose, so as to protect the health and safety of workers and the public, a 6 month dry-run period prior to start up for NU to demonstrate that they will not harass and/or fire workers who raise safety concerns?

The NRC believes the recommendations presented by Little Harbor are meaningful. Therefore, they will be an important part of the Commission's deliberations regarding restart of any Millstone facility. When the NRC's October 24, 1996, order was issued, the NRC recognized that it would take a long time for employees to develop trust in a developing and evolving safety-conscious work environment (SCWE) and that it takes time for management to avoid the occasional errors and eliminate actions which may lead to a chilling effect. As specified in NRC's October 24, 1996, order, the Independent Third-Party Oversight Program (ITPOP) will continue to be implemented until

the licensee demonstrates, by its performance, that the conditions that led to the requirements of the oversight have been corrected. Factors for determining when this third party oversight program can be discontinued will essentially be the same as those required for restart of a Millstone unit except that sustained performance, without intervention, will need to be demonstrated. Demonstration of sustained performance will be assessed using the continued findings of the third party, licensee self-assessments, performance indicators, and NRC evaluations. The NRC staff has anticipated that independent oversight will need to be in place at least six months following the restart of a Millstone Unit to provide a sufficient period to assess sustained performance related to a safety conscious work environment and a capability to handle safety concerns raised by employees and contractors. Following this initial assessment period, there may be a need for periodic evaluations by this or another third-party organization to assure that programs are maintained and that they are being effectively implemented. The licensee's current extended outage provides for an initial assessment period regarding implementation of the employee concerns program and establishment of a safety conscious work environment. Therefore, the NRC staff does not believe an additional six month dry-run period is necessary to provide adequate protection of public health and safety. However, the Commission will weigh all factors presented to it with respect to employee concerns before it makes its final decisions regarding the restart of the Millstone units.

CAN #3) Given both the gross number of discrepancies and the two very serious discrepancies found when only 5 of the 88 reactor systems were inspected at Millstone Unit 3, will NRC increase the scope of the Independent Corrective Action Verification Program and inspect additional systems?

The third party contractor has reviewed 15 of the 88 risk significant or safety-related systems as categorized by the Maintenance Rule.

Thus far the ICAVP contractor review has not identified significant issues at Unit 3. Only one issue (a significance Level 3) involves a confirmed nonconformance with the plant's licensing and design bases.

All of the other confirmed discrepancies have been identified as findings which are of minor significance and do not result in nonconformance with the licensing and design bases. Although these discrepancies, individually, are not significant, the NRC staff is assessing whether trends indicate that additional ICAVP review should be required.

CRC #1) Regarding the on-going Department of Justice / Federal Bureau of Investigation, investigations into possible criminal actions at Millstone, if that investigation is not completed prior to restart, will the NRC at least establish that the investigation's scope does not cover current Millstone workers and management?

The Commission has received closed briefings regarding the status of DOJ investigations. I will insist that the NRC staff make every effort to understand the status and scope of all investigations, as part of its assessment of Millstone restart readiness. This consideration would include an assessment of the significance and potential outcome of these pending matters, and their applicability to current Millstone management and staff, with a closed briefing of the Commission prior to any restart decision.

CRC #2) In a press conference at Waterford Town Hall on August 6th, 1996, you commented in your opening statement to the press that, ". . . the NRC had not always acted as it should have regarding the activities at Millstone." What assurances do we the public now have, that the NRC is now acting properly, and how has the NRC staff changed its way of doing business to assure you, and the other members of the Commission?

As I indicated in that same press conference, I stated that I am the agency spokesperson and its principal executive officer with the responsibility for ensuring that the NRC staff is responsive to Commission Policy, and overseeing and directing how it carries out NRC's regulatory program. As Chairman, I have taken action to strengthen the regulatory process, our organization, and management, as I described earlier. We have the regulatory tools necessary to ensure public health and safety. While I cannot guarantee you that there will never be another licensee that has pervasive non-conformance with regulatory requirements and severe inadequacies of its corrective action programs; I believe that the changes we have instituted should not allow this to happen. I can provide assurance that we have taken action to strengthen our regulatory effectiveness in Region I and throughout the NRC. I will further assure you that not one of the Millstone plants will be allowed to go back on line until it is clear they can do so safely.

Let me expand briefly on my earlier comments in this regard. The NRC has initiated a number of actions and reviews aimed at improving the regulatory framework and developing comprehensive lessons-learned from Millstone. I have initiated changes to the NRC process for evaluating licensee performance, particularly the Senior Management Meeting Process. We now have improved performance indicators, which will be used to increase rigor and consistency in the SMM process. Based on Lessons Learned, I have instituted

inspection program changes for the consistent reporting and categorizing of licensees' strengths and weaknesses. The NRC has reviewed inspector training requirements and completed a Job Task Analysis for resident and other region inspectors. I also initiated a comprehensive review of program and inspection guidance for oversight of the Updated Final Safety Analysis Report and nonconforming conditions related to this document (10 CFR 50.59 and GL 91.18). All of this guidance has been or is being changed and strengthened. Inspectors are or will be trained to them, as appropriate, and expectations to follow all new guidance have been made clear, and our staff will be held accountable to them. These are just a few additional examples of the improvements that this Commission has initiated to improve the regulatory process and to serve the public more effectively.

CRC #3) In the past the NRC has not enforced NRC regulations, and has selectively imposed violations on the licensee at Millstone, in an inconsistent manner. Could you please explain why the recent civil penalty of \$2.1 million dollars is not selective enforcement, as many issues were not included in the description, and it only covered a period up to December 31, 1996? Many violations have occurred in 1997, many are very substantial, and enormous amounts include repeat violations of the previous years issues. None include action against any individuals involved in retaliation, which even NU, Little Harbor Consultants, and your agency admit occurred.

The recent civil penalty was the culmination of many inspections over a lengthy period. The enforcement action was designed to focus on the very broad deficiencies apparent from these inspections rather than on all the known individual examples of the deficiencies. Sufficient numbers of examples were included to justify the conclusions. Government agencies at all levels routinely make decisions on enforcement actions using prosecutorial discretion in order to arrive at an appropriate conclusion considering, on balance, the available evidence and the resources necessary to support the action. In the letter to the Millstone licensee accompanying the associated Notice of Violation, the NRC stated:

Finally, the violations described in the Notice are not the sum total of all apparent violations present or identified during the various inspections, but serve to represent the systemic nature of the significant regulatory problems existing at the Millstone facility. Other apparent violations described in the inspection reports referenced in the Notice are not being addressed in this enforcement action. Nevertheless, they need to be considered as part of your corrective actions.

The December 31, 1996, endpoint was an intentional decision made in order to permit the enforcement process to proceed. This did not mean that no further enforcement actions would be considered. In fact, a \$55,000 civil penalty regarding physical security violations was issued on June 11, 1997, for inspections conducted February 3-7, 1997.

The NRC is currently considering additional enforcement actions for other apparent violations identified in 1997. For example, a predecisional enforcement conference was held on January 13, 1998 at the Millstone Training Center to discuss apparent violations identified during inspections conducted on August 18-29 and September 8-19, 1997. The extent that these may be repeat violations will be considered, as always, in the enforcement process.

A number of alleged instances of retaliation and discrimination remain under review by the NRC and, as such, it is inappropriate to comment on them at this time. However, potential enforcement action against individuals, as in all wrongdoing matters, will be considered if the developed facts support such action.

I should also note that our most effective tool is the continued shutdown of the Millstone units until the Commission decides that all the various problems and issues have been adequately addressed.

Friends #1) If an ICAVP-like review were to be conducted at a SALP 1 nuclear facility, how would the results compare to the findings at Millstone Unit 3? What about a SALP 2 or 3 facility?

Anything I might say on this hypothetical case would only be speculation. However, I will point out that the design problems at Millstone have resulted in an agency decision to conduct NRC design inspections at other facilities across the nation. Although these inspections are not as extensive as the ICAVP effort at Millstone - which is truly an extraordinary effort - our team inspections almost always identify issues requiring corrective action by the licensee. Our experience with these inspections indicates that SALP ratings do not necessarily provide a good mechanism for correlating the extent of design issues. Very often it is the age of the facility - with older facilities having a greater number of inspection issues - which provides a better correlation.

This is very likely attributable to the fact that older facilities were licensed to earlier NRC requirements, and older plants have had more opportunities to modify - and possibly introduce errors into - the design.

The NRC is continuing to emphasize the importance of licensees maintaining their licensing and design bases. We also have modified our inspection focus to give more attention to engineering and design issues.

Friends #2) Please characterize the safety significance of the findings/results discovered at Millstone Unit 3, whether found by NU or the NRC or it's contractors. Was there a threat to public health and safety?

The safety significance of findings at Millstone Unit 3 varies. Some findings by both NU and NRC have a relatively high safety significance, in that they question the operability of the system or component (however, mostly during hypothesized design basis events). Examples include recirculation spray system design deficiencies, diesel generator operability during tornado conditions, and component cooling system design temperature concerns. However, these findings did not involve a direct threat to public health and safety, but represent a compromising of mitigative features provided for a design basis accident.

Although the causes of the extended shutdowns for each of the Millstone units existed before the shutdown of the facilities, the NRC considers that the plants were operating safely before they were shut down because of the protection afforded by the defense-in-depth philosophy. Stated otherwise, although there are safety equipment deficiencies at each of these units, the conservatism provided by the multiple levels of design and operating requirements reasonably assured that there was no undue risk to public health and safety. However, the resulting reductions of the margin of safety led the staff to conclude that correction of the problems was called for before the restart of the plants. Additionally, the pervasiveness of the nonconformances and the significant programmatic weaknesses found warranted correction before plant restart in order to prevent recurrence of similar nonconformance problems, and in order not to have a situation, which if left uncorrected could potentially compound to cause a threat to public health and safety.

In addition to findings having a relatively high safety significance, many findings involving relatively low safety significance have been identified at Millstone. Nearly all of the findings from the ongoing ICAVP reviews, being carried out by Sargent & Lundy at Unit 3, and Parsons Power at Unit 2, are minor errors (e.g., calculation errors) which do not impact the function of a safety system and do not result in nonconformance with the licensing and design bases.

Friends #3) Are there generic (or specific) implications and effects of the Millstone issue across the nuclear industry? Kindly speak to these implications if there are.

The NRC has initiated a number of actions and reviews aimed at improving the regulatory framework and developing comprehensive lessons-learned from Millstone. For example, the Commission issued a policy statement on "Protecting the Identity of Allegers and Confidential Sources," and "Freedom of Employees in the Nuclear Industry to Raise Safety and Compliance Concerns Without Fear of Retaliation." After issuing the latter policy statement, the Commission directed the NRC staff to focus attention on cases of alleged discrimination where there are indications of a deteriorating safety conscious work environment.

As I discussed in the previous answer to Citizens Regulatory Commission (question #2), I have also initiated changes to the NRC process for evaluating licensee performance; I have instituted inspection program changes for consistent reporting and categorizing licensees' strengths and weaknesses; and I initiated a comprehensive review of program and inspection guidance for oversight of the Updated Final Safety Analysis Report and nonconforming conditions related to this document (10 CFR 50.59 and GL 91-18). This is occurring against the backdrop of the organizational and management changes I have already described.

Regarding generic communication to licensees, the Commission approved the issuance of 10 CFR 50.54(f) letters to all Chief Nuclear Officers requiring them, under oath or affirmation, to submit detailed information regarding the adequacy and availability of design bases information at their facilities. The purpose of the request was to provide NRC added confidence and assurance that all licensed plants are operated and maintained within the design bases - and that any deviations are reconciled in a timely manner.

These are just a few additional examples of the improvements that this Commission has initiated to strengthen improve the regulatory process and to serve the public more effectively.

Thank you for listening to these questions and answers. I thought they were all very good questions, some of which I have asked the staff myself.

Now, -- very briefly -- I would like to highlight two additional questions that I want to make sure get addressed up front.

How can you even consider allowing a plant to start-up with (quote) "5000 open items" (unquote)?

and

If there is additional enforcement taken, isn't that indicative of the need for additional inspection, scope expansion, etc.?

Regarding open items...

The question of the size of the Millstone backlog is a concern to the NRC and is being taken very seriously. Although backlogs, at restart, are expected, historical problems at Millstone have included corrective action programs that were weak in ensuring comprehensive and effective corrective actions. In the past, narrowly focused corrective actions have failed to resolve all aspects of the underlying problem. Additionally, the failure to follow up on corrective actions did not ensure effectiveness.

Since the licensee has a history of not being effective in implementing corrective actions, the NRC has been closely monitoring the remediation efforts of NU to vitalize the corrective action process over the two year shutdown period. The NRC identified, in the Restart Assessment Plan (RAP), the corrective action process as one of the fundamental elements of the recovery of the Millstone Station.

The specific question of which corrective actions would be proposed for deferral until after restart was addressed in an NRC demand for information [10 CFR 50.54(f)] letter. The information requested included: (1) the list of significant items to be completed before restart; (2) the list of items to be deferred until after restart; and (3) the process and rationale Northeast Utilities (NU) is using to defer items until after restart.

The proposed deferred items are being inspected by the NRC. Thus far, the NRC has carried out two inspections, in July and October 1997, of the licensee's proposed deferred items list. The inspections include evaluation of the licensee's process for identifying deferable actions and for carrying out the corrective actions, including the timing of these actions, to ensure they are adequate and commensurate with the safety importance of the issues. As a result of the inspections, the licensee has implemented several changes. The NRC staff will carry out another inspection of the Millstone Unit 3 lists, prior to any recommendations to the Commission for consideration of restart.

Additional insights will be gained using NRC Inspection Procedure (IP) 40500, "Effectiveness of Licensee Controls in Identifying, Resolving, and Preventing Problems," inspecting closure of the

Significant Items List issues, monitoring closure of licensee event reports, and through the normal inspection program. Also, the NRC, through oversight of the ICAVP, will assess the licensee's corrective actions for degraded and nonconforming conditions. The Operational Safety Team Inspection (OSTI) will also audit portions of the corrective action process. The NRC expects that the licensee will correct all safety significant areas of noncompliance before restart.

At present, the number of items proposed for deferral at Millstone Unit 3 is a large number. Despite all of the NRC activities, which are not yet complete, it is my intention to focus the Commission's attention on the backlogs at Millstone because of the large number and the licensee's history. Even if the Commission determines that the items are appropriate for deferral, the close out of deferred items will continue to be evaluated even after restart. In addition to routine inspections, special NRC inspections may be utilized to assure that the backlogs are being reduced. The Commission also has at its disposal a number of other regulatory tools. The Commission, for example, can and will consider taking stronger action such as an Order directing specific actions of the licensee to resolve these deferred items, including the timing of these actions.

Regarding potential enforcement...

The bases for an escalated enforcement action, resulting from an ICAVP finding, may also result in an expansion of the ICAVP scope. The NRC's enforcement policy, which includes safety as well as programmatic factors, details examples where escalated enforcement would likely be taken for the types of issues specified in ICAVP Significance Levels 1 and 2. Such issues involve relatively high safety significance. As a result, for ICAVP Levels 1 and 2 findings, both escalated enforcement and expansion of ICAVP scope would be expected.

ICAVP findings categorized as Significance Level 3 - which are of lower safety significance - may also be the subject of escalated enforcement due to their programmatic or regulatory significance. For such findings, the ICAVP process requires an evaluation, including independent verification of licensee corrective action by the NRC, to determine the need for any expansion of ICAVP scope. A negative determination by the NRC on effective licensee corrective action would be expected to result in a decision to expand the ICAVP scope.

Now - I will take questions from the floor. If you would like, please identify yourself -- and also I ask you to please understand, as Mr. Sheridan has already stated, if we have to move things along in an attempt to hear from as many people as possible.