

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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

Location: **Rockville, Maryland**

Date: **Wednesday, August 6, 1997**

Pages: **1 - 147**

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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

7 ***

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

13 Wednesday, August 6, 1997
14

15 The Commission met in open session, pursuant to
16 notice, at 9:33 a.m., the Honorable SHIRLEY A. JACKSON,
17 Chairman of the Commission, presiding.
18

19 COMMISSIONERS PRESENT:

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

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1 STAFF AND PRESENTERS SEATED AT COMMISSION TABLE:

2 STEPHEN G. BURNS, Associate General Counsel

3 JOHN C. HOYLE, Secretary

4 BRUCE KENYON, President and CEO, Northeast Nuclear
5 Energy Company

6 BUZZ CARNS, Senior Vice-President and Chief
7 Nuclear Officer

8 JACK McELWAIN, Recovery Officer, Millstone Unit 1

9 MARTIN BOWLING, Recovery Officer, Millstone Unit 2

10 MIKE BROTHERS, Vice-President and Recovery
11 Officer, Millstone Unit 3

12 DAVE GOEBEL, Vice-President, Nuclear Oversight

13 JAY THAYER, Recovery Officer, Nuclear Engineering
14 and Support

15 BRIAN ERLER, Senior Vice-President, ICAVP Project
16 Director, Sargent & Lundy

17 DAN CURRY, Vice-President, Nuclear Services,
18 Parsons Power

19 DON SCHOPFER, Vice-President and Verification
20 Manager, Sargent & Lundy

21 ERIC BLOCHER, Deputy Project Director, Parsons
22 Power

23 JOHN GRIFFIN, Deputy Team Leader, Little Harbor
24 Consultants

25 JOHN BECK, President, Little Harbor Consultants

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1 STAFF AND PRESENTERS SEATED AT COMMISSION TABLE:

2 [continued]

3 BILLIE GARDE, Consultant, Little Harbor

4 Consultants

5 JOSEPH CALLAN, EDO

6 WILLIAM TRAVERS, Director, Special Projects

7 Office, NRR

8 PHILLIP MCKEE, Deputy Director for Licensing and

9 Oversight, SPO, NRR

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

11 WAYNE LANNING, Deputy Director for Inspections,

12 SPO, NRR

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P R O C E E D I N G S

[9:33 a.m.]

CHAIRMAN JACKSON: Well, 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 powerplants, nuclear reactors. The Commission will hear presentations today from Northeast Utilities, Northeast Nuclear in particular, contractors associated with both the Independent Corrective Action Verification Program, the ICAVP, an employees concerns program, and the NRC staff.

Millstone Unit I has been shut down for 21 months, and Units II and III have been shut down for approximately 16 months. All three of the Millstone units were placed on the NRC's watch list in January 1996. The units were recharacterized as category 3 plants in June 1996. This action necessitates Commission approval for restart of each of the units.

The NRC in November of last year created a new organization, the Special Projects Office, with the responsibility for all NRC licensing and inspection activities at Millstone necessary to support our decision on the restart of the Millstone units.

This Commission meeting is the third quarterly meeting to assess the status of activities at the sites.

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1 The Commission is interested in the licensees' achievements
2 realized from its recovery process, how the licensee is
3 ensuring that the root cause deficiencies are being
4 corrected, and how the licensee is measuring and tracking
5 its progress. In addition, the Commission is very
6 interested in the updates from the contractors tasked with
7 providing an independent assessment of the corrective action
8 programs at the stations, as well as the third party
9 associated with the independent oversight of employee
10 concerns. Finally, we are very interested in hearing the
11 NRC staff's views regarding not only the effectiveness of
12 the licensee's progress to date, but an assessment of how
13 well the program, meaning the mix of independent contractors
14 and interactions between them, the licensee, the Special
15 Projects Office, and the rest of the NRC staff is working.

16 If changes are desired in this process to more
17 effectively or efficiently monitor performance so that the
18 Commission has a clear picture when it comes time to take a
19 decision, the Commission desires that feedback today from
20 any and all of the participants.

21 I understand that copies of the various
22 presentations are available at the entrances to the meeting,
23 and that we will hear first from Northeast Nuclear Energy
24 Company, and so unless my colleagues have any opening
25 comments they wish to make, Mr. Kenyon, please proceed.

1 MR. KENYON: Okay. Thank you, Chairman Jackson.
2 Good morning. I'm Bruce Kenyon, president and CEO of
3 Northeast Nuclear, and we're pleased to have this
4 opportunity to update you on the progress that we're making
5 in recovering the Millstone units.

6 The agenda for our portion of the meeting is as
7 listed on this slide. We sent you a detailed briefing book
8 in advance of the meeting. In that briefing book there are
9 a number of issues, approximately 15, that we think are very
10 significant from the perspective of restoring performance at
11 Millstone. For each issue, we gave you how we define the
12 issue, the success criteria that we are using to judge
13 whether or not we are where we need to be in order to close
14 the issue from our perspective.

15 We indicated the recovery approach. We indicated
16 the major accomplishments that we have achieved thus far,
17 what we believe are the remaining important actions, and a
18 conclusionary statement as to where we think we are on the
19 issue at this point in time. We also included numerous
20 performance indicators either as part of the issue writeup
21 or as part of the specific KPI sections.

22 So I hope the briefing book met your needs.
23 Because the briefing book provides you with a lot of
24 detailed information, we have limited our presentation to a
25 fairly high-level review of the indicated topics, and our

1 hope is this will afford you ample opportunity to ask
2 questions about these and other matters.

3 To summarize and give you my overall assessment,
4 I'm generally pleased with the progress that we're making
5 toward restart, and I think there are many very positive
6 accomplishments to highlight, but rather than dwell on the
7 positive, I think it's important for the purposes of this
8 meeting to focus on certain areas where current progress, at
9 least at this point, does not meet my expectations.

10 I want you to know those areas that I continue to
11 be concerned about. These are summarized on some slides
12 which I'll use as part of my concluding remarks, but I
13 wanted at the start of the meeting to indicate those areas
14 of concern. Thus, areas which are not meeting my current
15 expectations are portions of the following, and we're
16 clearly working on all of these issues.

17 The first is oversight. Now we had a recent
18 independent assessment that told us that line management and
19 oversight did not have a reasonably common expectation
20 regarding roles and responsibilities. So that's one area of
21 concern.

22 Whereas I had previously had some concern
23 regarding the overall quality and usefulness of certain
24 oversight products, in the last month the quality of these
25 products, the usefulness of these products, has jumped to a

1 very acceptable standard, but we only have about a month's
2 worth of data here, so that's still open in my mind.

3 Next is the corrective action program. I think
4 we've been doing a good job in identifying issues. What I
5 am not yet satisfied with is that we have not established a
6 sufficient track record of fixing problems, and ensuring
7 that the corrective actions taken are effective in
8 preventing future problems. So that's an area that we work
9 on.

10 Next is a safety-conscious work environment. I
11 think we have done a good job of improving the general
12 environment, and I believe you'll hear that from Little
13 Harbor. But while averages are good, there clearly are
14 pockets that we need to work on. And while the Employee
15 Concerns Program is functioning, it's not functioning in a
16 sufficiently rigorous way, and it needs to be more effective
17 than it currently is. But it's coming along.

18 I also want to mention that we took some very
19 significant and visible disciplinary action with regard to
20 individuals in or associated with training. This was in
21 keeping with our success objective of high standards and
22 clear accountabilities. We anticipated it would cause
23 concerns among the work force, and it has. We take these
24 concerns seriously. We do not want these concerns to be a
25 setback to the substantially improved environment that we've

1 established, and last week in a meeting with NRR we reviewed
2 the actions we are taking to address employee concerns
3 arising from this necessary disciplinary action.

4 It was announced yesterday afternoon, and thus
5 it's in the papers this morning, that part of what we are
6 doing here is an independent review, mostly to satisfy our
7 own employees. The individual who is heading that up is
8 former Commissioner and Vice Admiral Carr --

9 CHAIRMAN JACKSON: And former Chairman.

10 MR. KENYON: -- and former Chairman, yes. And
11 obviously an individual with very high credibility and
12 knowledge of regulations and the importance of training and
13 the importance of proper submittals. He is starting his
14 review as of this morning.

15 The next area is work controls. We have not yet
16 established a uniform work control process for the site; we
17 are working on that. And our work accomplishment success
18 rate is not where it needs to be. Now a key event for us is
19 shifting to an outage mode, where you are really
20 accomplishing a lot of work on a very scheduled basis, and
21 that will occur on unit 3 starting next week.

22 Our training. I'm not satisfied with where we are
23 in training. There are a number of problems. I have
24 mentioned the disciplinary actions, and I think we have a
25 lot of work to do to get training back on track.

1 And, finally, the other area of concern to me is
2 operational readiness. We have had several recent operating
3 events of varying significance, but collectively they
4 clearly indicate that the conduct of operations at Millstone
5 is not where it needs to be. We have been giving a lot of
6 attention to the 50.54(f) effort, other engineering issues,
7 various sitewide issues, and not as much attention to
8 operational readiness.

9 Now over the next several months, we will be
10 giving a lot more attention to this area than we have been
11 previously.

12 So those are approximately the five areas that I
13 am not satisfied with our progress. Other areas, I think we
14 are doing quite well.

15 The names and titles of the Millstone officers
16 participating in the presentation, all of whom you have met
17 before, are listed on this slide. I do want to acknowledge
18 the presence of George Davis, who chairs the nuclear
19 committee advisory team, NCAT, which advises the nuclear
20 committee of the board, and there are a number of other
21 members of NCAT in the audience.

22 And as a final point, we recognize the importance
23 of continuing and having extensive dialogue with the public
24 regarding the status of our recovery efforts. This slide
25 shows our principal public outreach activities. We believe

1 they are leading to an improved public understanding of our
2 recovery effort, and at this point, unless there are any
3 questions for me, I'd like to call on Buzz Carns to address
4 the issue of leadership.

5 MR. CARNS: Good morning. It is no secret that
6 leadership was really the root cause of our problems, and
7 that it will also be the force that restores credibility to
8 Millstone operations.

9 There are three basic core values that our leaders
10 are instilling in the organization, and these are do the
11 right thing; respect individual dignity; and establish team
12 work at all levels of the organization.

13 The opinions of our employees and our contractors
14 are an effective measure of our progress in restoring
15 leadership credibility. In this regard, there are two
16 principal measurements:

17 One is that the leadership team achieve a minimum
18 of a 15 percent improvement in our leadership assessment
19 scores.

20 The other is that the organization achieve a
21 target score of 13 as measured in the Millstone cultural
22 survey.

23 I think we have some encouraging results that we'd
24 like to share with you today. On the leadership slide, you
25 can see that we have had progress in every area. In fact,

1 we have had an aggregate increase of approximately 21
2 percent over the score from last year's assessment. This
3 measurement tool was brought to Northeast Utilities by Bruce
4 Kenyon from South Carolina Electric & Gas, and it has indeed
5 been developed and it has its roots in a survey done by
6 Federal Express Corporation.

7 MR. KENYON: If I can just comment at this point,
8 you know, we use this survey at SCE&G across the company,
9 and obviously in nuclear. The scores that you see on the
10 screen are good scores. I would have been happy with those
11 at SCE&G.

12 CHAIRMAN JACKSON: Let me ask you a question. You
13 know, you mentioned in your opening remarks the problems
14 that you have had with training. Do you think that this
15 area, you know, the vulnerability there, could have been
16 identified through a careful study of leadership assessment
17 results?

18 MR. KENYON: Well, first, the training issues at
19 Millstone are longstanding issues. Training has been a
20 problem for years, and there have been various attempts
21 along the way to strengthen training. We did, shortly after
22 I got here, shortly after the new leadership team was here,
23 we made a change at the senior level in the training
24 organization. We changed others in the training, so we have
25 significant new leadership in training, and I believe the

1 leadership we have now is leadership that can recover the
2 program.

3 So had the leadership assessment been used back in
4 time before we got here, I think that it is likely that it
5 would have shown leadership problems in the training area,
6 but you know, that's somewhat speculative, but that's what I
7 believe.

8 CHAIRMAN JACKSON: And so your view today is that
9 the training problems that you have seen hark back to the
10 longstanding problems, and do not show vulnerabilities with
11 respect to leadership in that area today?

12 MR. KENYON: That's correct. I think the current
13 leadership we have -- and we are supplementing that
14 leadership with some others from outside who are on loan or
15 borrowed, but I believe the current training leadership can
16 get the job done, although we are giving them additional
17 help.

18 CHAIRMAN JACKSON: And are any of these areas that
19 you show on the graph, are you tracking any more of them
20 more closely than any of the others? Or do they all have
21 equal weight?

22 MR. KENYON: I think they have equal importance.
23 Certainly if I had seen an area that -- you know, all these
24 scores are between 5 and 6; those are all good scores. And
25 if I had seen one in the 4 range still, then we would be

1 spending a lot more time. So what we are doing now is doing
2 a lot of leadership training, and we are also continuing our
3 process to weed out those who really don't have what it
4 takes to be a good leader. So I expect we are going to do
5 another survey -- I may be getting into Martin's area -- but
6 we are going to do another survey in the October-November
7 time frame, because I want to have one more set of data to
8 support the December meeting.

9 CHAIRMAN JACKSON: Okay. Let me just ask you one
10 last question along this line, and I will yield to
11 Commissioner Dicus.

12 You have outlined some key areas where you are not
13 satisfied with everything, and results to date, some
14 concerns. A question becomes if you are going to do a
15 follow-on leadership assessment, will you in fact use these
16 areas and performance in these areas as metrics vis-a-vis
17 leadership assessment?

18 MR. KENYON: No, and let me explain. What the
19 leadership assessment does is ask subordinate employees
20 questions, and the employees can answer the question, and if
21 the question is stated in a positive way, does your
22 supervisor do the following, good communication, provide
23 vision, and so forth, safety-conscious work environment --
24 there's a set of questions there. Does your supervisor do
25 this well? And the employee can answer from strongly agree

1 to strongly disagree.

2 The questions are not on specific leadership
3 tasks, they are on the broad aspects of leadership. Now
4 obviously if the employees think that a supervisor is not
5 doing his job well, it's going to show up in these
6 questions, but to do what you're indicating would require
7 customizing the leadership assessment survey to various
8 areas of the organization that have differing
9 responsibilities. Then I lose the ability to make
10 comparisons across the site and that's important to me.

11 CHAIRMAN JACKSON: No, and I understand your point
12 now, but I would just like to leave you with the thought
13 that in the end, the areas that you are talking about, the
14 ones where you yourself have admitted that you have concerns
15 are the ultimate metric of how well your leaders perform.

16 MR. KENYON: Yes.

17 CHAIRMAN JACKSON: And to the extent that that is
18 either affected by or tracks into the worker-leader
19 relationship, it would strike me that you would need to get
20 some input for yourself in those regards because leaders can
21 have nice qualities but if they don't get done what they
22 need to get done --

23 MR. KENYON: Don't get the job done. Yes, ma'am.

24 CHAIRMAN JACKSON: -- to your satisfaction, and
25 there's still something hanging in the balance.

1 MR. KENYON: I understand your point and I think
2 it's good and we will give that some thought. Thank you.

3 Commissioner Dicus.

4 COMMISSIONER DICUS: Some of what I was interested
5 in has already been addressed in your comments in the
6 exchange that was useful, but this does represent all of
7 your plants?

8 MR. KENYON: The data that you have is Millstone
9 only data.

10 COMMISSIONER DICUS: Well, right, but all of the
11 units are --

12 MR. KENYON: Yes.

13 COMMISSIONER DICUS: Okay. Was there an outlier?
14 I mean was there one unit that perhaps would cause this to
15 change quite a bit if it was --

16 MR. CARNS: Well, what we have done, I gave you an
17 aggregate of a 21 percent increase. We are in the process
18 now of breaking that down by individuals and by different
19 departments. We have got a lot more analyzing to do.

20 I think what that tells us is that the core values
21 that we really believe in, that's a good measurement for the
22 core values. The other part of it I think goes back to the
23 Chairman's remarks that I think we also need to get
24 ownership, and if you have the core values and you have
25 ownership of everybody's responsibility, then I think you

1 will have success, steadily improving.

2 So this basically requires some more analysis.

3 MR. KENYON: But just to add to what Buzz has
4 said, I fully expect to see significant variation among
5 individuals and I expect to see variation among the
6 differing organizations, maybe not so much at a unit level,
7 although there may be modest differences, but an
8 organization over here that is part of a unit versus an
9 organization that is over here that's part of a unit.

10 We are going to see, we should see beyond the
11 averages, which are good, we should see pockets of problems
12 and we intend to use this data. We intend to use what comes
13 out of our employee concerns program, we intend to use data
14 that Little Harbor can share with us, we intend to use the
15 cultural survey that Buzz is about to talk about as ways to
16 focus in on where are --

17 CHAIRMAN JACKSON: Right.

18 MR. KENYON: -- even if the averages are good, now
19 where are the pockets in the organization where there's not
20 good --

21 COMMISSIONER DICUS: That's a good point.

22 MR. KENYON: That's our focus for the next couple
23 months is dealing very aggressively with those pockets.

24 CHAIRMAN JACKSON: See, you anticipate me.

25 I have a thing, a question here that says

1 "Although all categories showed improvement, that does not
2 mean that you don't have pockets where performance may need
3 more review."

4 But why don't you go on?

5 MR. CARNS: And frankly if we were looking at it
6 from today's standpoint, just recently Jack and I have to
7 spend more time on Unit 1 because they feel somewhat
8 neglected, with all the emphasis on Unit 3 and Unit 2. The
9 people feel like we are not paying enough attention, so we
10 have a challenge out there in front of us.

11 We do intend to take the people who score toward
12 the bottom of the management assessment and have individual
13 plans for them, to bring them along to make sure that they
14 can be successful in this environment.

15 A second indicator that demonstrates an improving
16 trend is the results we have achieved from a cultural
17 survey. Now this cultural survey is one that Dr. Chiu has
18 used basically on a national basis and when you look at the
19 survey we thought that if we could get the score of 13 on
20 that we would be successful.

21 We are very, very close to that. I think 12.88 is
22 where we are today, but this survey has been used by 44
23 plans and we are right in the middle of the pack with 15
24 other plants, but we have had an improving trend of about 11
25 percent since the last survey and we are heading up towards

1 that group of eight plants which are in the category where
2 there is reasonable expectation that they will have
3 continued improvement and they really understand excellence
4 in operations, so we are moving in that direction.

5 We are with the 15 right now, in the middle of the
6 pack, and our goal is to get up there with the elite eight.
7 They were basically used as benchmarks for the industry.

8 As with the leadership assessment, this survey is
9 providing us with information from which we can adjust our
10 performance to resolve and identify weaknesses. The next
11 survey for the cultural issues will be conducted in
12 November.

13 The next slide is a listing of our milestones, and
14 as you look at this slide you can see that on 5-27 and 6-30
15 we respectively met the commencement dates for the ICAVP for
16 Unit 3 and Unit 2. We met the completion of discovery on
17 July 14th for Unit 3, and I would also like to point out on
18 this slide that there are some changes from the last
19 briefing that we had here.

20 We have cleaned up the terminology somewhat. We
21 put down when we expect to be ready for Mode 4 in Unit 3,
22 which will be just around Thanksgiving timeframe, and then
23 we put down when we would be ready if we meet all our
24 milestones for the Commission to consider voting on our
25 restart.

1 There are some specific dates in there that Mike
2 Brothers will talk more about for Unit 3 and he will talk
3 about some of the challenges that exist.

4 COMMISSIONER DIAZ: I'm sorry, but what do you
5 mean by completion of CMP discovery?

6 MR. CARNS: that is the point where the discovery
7 has been complete for the Wave 1 systems and Wave 2, Mike,
8 all the Wave 2?

9 MR. BROTHERS: Yes, it's complete for maintenance
10 rule Group 1 and Group 2, which is risk and/or significant
11 systems completed on July 16th discovery.

12 MR. CARNS: It doesn't mean that we won't find
13 other things as we prepare for starting up --

14 COMMISSIONER DIAZ: That is what I was concerned
15 about.

16 MR. CARNS: It's the specific effort that was
17 dedicated to the 5054(F). the other thing that you will see
18 on that slide is that we have dates up there on Unit 1 now
19 that makes Jack's folks a lot happier over there when they
20 see that there is a schedule.

21 With that, I would like to --

22 CHAIRMAN JACKSON: Before you turn -- I would like
23 to ask you a couple of quick questions.

24 You have aggressive schedules, and we talked about
25 schedules once before, but, you know, in looking at the

1 performance indicators -- and thank you for providing
2 them -- I was looking at some of the ones for Millstone Unit
3 3 in particular -- on pages A-2, A-6, and A-7, in particular
4 looking at task completions, and this tracks into some of
5 the things you talked about earlier, Mr. Kenyon, task
6 completions required for restart -- that was on A-2. Open
7 NRC commitments -- that's A-6; and significant items list,
8 particularly -- that's A-7. If you look at the type of work
9 off that you would need, it seems that you're going to need
10 to have a very steep work off in several categories -- these
11 are three that are particularly highlighted -- and perhaps
12 the majority.

13 Can you speak to that a little bit, and have you
14 shared, you know, your most realistic and most worst case
15 dates with the Special Projects Office here? But I would
16 actually like you to talk about the realism of being able to
17 work off the steepness of these.

18 MR. BROTHERS: Right. In my presentation, I'm
19 going to be talking about each of those. In fact --

20 CHAIRMAN JACKSON: You will.

21 MR. BROTHERS: -- four challenges that are to our
22 September 30th day I'll be talking about specifically.

23 CHAIRMAN JACKSON: Okay. But I guess, then, the
24 broader question -- I'll ask you, Mr. Carns -- do you feel
25 that you're appropriately balancing scheduler concerns with

1 comprehensive resolution of issues? Because, you know, the
2 worst case scenario would be that you meet your schedule but
3 the issues are not resolved.

4 MR. CARNS: Exactly. And we are very concerned
5 about people focusing on a schedule, and frankly, the
6 schedule is just a measurement of how professionally we're
7 doing the rest of things, like planning and work control and
8 corrective action. If you go back to the -- July 14th was
9 the schedule date for completing discovery for Unit 3, we
10 did not meet that, we met it on July 16th, because there
11 were some issues, and we had to meet a certain standard
12 before we would say we'd meet it. So the standards are
13 really the focus.

14 We have not shared a worst-case scenario with the
15 project office, and frankly we haven't developed a worst-
16 case scenario. We have a very aggressive schedule and we're
17 looking at that on a weekly basis and we'll make adjustments
18 as necessary. I think Mike Brothers will also give you a
19 commitment of what our communication will be as we go
20 forward and get into this outage mode to see whether or not
21 we're making our work off curves. But that is a significant
22 challenge.

23 MR. KENYON: The only other general comment, to
24 answer your question, is if you looked at the indicators
25 that led up to achieving the previous milestones, you would

1 have had the same concerns. Things don't get completed in a
2 linear fashion. There's a lot of work in process. It all
3 tends to come to conclusion, and we're all nervous about the
4 indicators, and then they all, you know, they all came in.

5 Now, that's not to say that we don't have
6 challenges in meeting these other indicators, but, you know,
7 I understand the question perfectly. We look at it
8 ourselves, our board looks at it, can you really do this?
9 And we are saying standards first and schedule second. But
10 a lot of work comes together right toward the end and the
11 amount of work outstanding takes this kind of nosedive as
12 opposed to a linear work off.

13 But we share the observation that the schedule we
14 have is a challenging schedule, but the schedule we have had
15 has been a challenging schedule, and we've met -- even
16 though it was July 16th versus July 14th, I count that as
17 close enough to say that we've met -- we're three for three
18 on the last major milestones.

19 CHAIRMAN JACKSON: And you talked about the
20 culture survey, safety conscious work environment, employee
21 concerns. Can you measure in any way this stress on your
22 managers and employees of balancing the scheduler issues
23 with comprehensive resolution of the issues?

24 MR. CARNS: I think the answer is indirectly, we
25 get phone calls through the hotline or through the employee

1 concerns program if people think that we're being
2 unrealistic, and I expect we'll probably have more of those
3 conversations as we go down the road because at this point,
4 we've been kind of doing things in a bulk method, and as you
5 start focusing on incrementally finishing systems and
6 finishing work, the schedule starts tying together in more
7 different places, and I think there will be more concerns
8 expressed. So I think we just need to deal with them.

9 I don't have a good way to measure that right now
10 other than just being out there with the people and being
11 available to them so that they can express their concerns.

12 CHAIRMAN JACKSON: Commissioner McGaffigan I think
13 had a question.

14 COMMISSIONER MCGAFFIGAN: Just a very brief one,
15 and it may be one of these cases where it's close enough.
16 But the staff is going to later tell us that they're
17 planning for Unit 2 a Commission briefing on March 13th.
18 You have in this chart that we just had up February of '98.
19 That's maybe within two weeks of each other, depending on
20 which date in February you had in mind. Is there any
21 disconnect there or are you all --

22 MR. CARNS: I think one of the things we need to
23 do, and maybe Marty will speak too, but I think if we do
24 everything in the left-hand column, we would come forward
25 and say we're ready in the middle column.

1 COMMISSIONER McGAFFIGAN: Well, you're ready for
2 your operational safety on the --

3 MR. CARNS: On the first of December.

4 COMMISSIONER McGAFFIGAN: On the first of
5 December.

6 MR. CARNS: Right.

7 COMMISSIONER McGAFFIGAN: What I noticed for Unit
8 3 is that we're going to come in about two weeks after
9 you're ready to start that inspection, and then we have a
10 restart panel that comes in after that. If the team isn't
11 going to be there at Christmas, then they start in January,
12 and maybe that's the two weeks. I don't know what --

13 MR. CARNS: That was kind of an indirect reference
14 to my point. Well, let me have Marty take me out of it.

15 MR. BOWLING: It simply reflects our expectation
16 on when we will be ready, and it's not intended to schedule
17 the NRC but to signal to the project team when we think
18 we'll be ready so that they may then schedule.

19 CHAIRMAN JACKSON: Okay. Why don't you go on.

20 MR. CARNS: Well, at this point, I would like to
21 introduce Dave Goebel, who is in charge of the oversight
22 organization, and he is not pressured by schedule, but he
23 has an awful lot of work to do at the end of these milestone
24 readiness processes.

25 Dave?

1 MR. GOEBEL: Good morning.

2 Nuclear Oversight is improving its capability to
3 focus on areas which are key for the successful restart of
4 the Millstone units. In past meetings, we have been asked
5 to provide examples of the types of findings Oversight is
6 making, and the first slide is intended to help answer that
7 question.

8 We are concentrating very heavily in the area of
9 configuration management. From the very start of the
10 Millstone effort in this area, there has been a team of
11 dedicated oversight personnel monitoring the process and
12 procedure development undertaken and providing critical
13 comments in support of a standard of technical thoroughness.

14 As the procedures were implemented, we monitored
15 the end product by conducting a series of vertical slices to
16 verify rigor of application. It was our conclusion that to
17 date, the units have been well prepared and there have been
18 no significant findings.

19 A June 1997 audit conducted in the nuclear
20 training area uncovered significant deficiencies in the
21 application of systems approach to training which then led
22 to the training department electing to shut down all
23 training. Corrective actions are ongoing and Oversight is
24 assessing the results from those corrective actions. A May
25 1997 audit in the equipment qualification area found that

1 the program was not developed, documented or implemented on
2 any unit to the proper standard. Very few resources were
3 being applied at the time of the audit. This has improved
4 specifically with regards to Unit 3, whose program now looks
5 much more solid.

6 Codings have received a lot of attention,
7 specifically at commercial grade product applied to minimize
8 corrosion and/or erosion inside servicewater piping.
9 Incorrect application can permit pieces of material to flake
10 off and potentially clog the heat exchangers. This has been
11 a difficult area for oversight since we do not have any one
12 qualified to conduct the actual acceptance tests and must
13 rely on a vendor. Oversight is evaluating actions intended
14 to resolve the problems in this area as they occur.

15 Corrective action program effectiveness is key to
16 Millstone's recovery. Oversight reviews corrective action
17 program effectiveness as a normal part of performing audits
18 and other reviews that we do. Additionally, the safety unit
19 actions report complete for evaluating for the effectiveness
20 of their closure.

21 To date, the results have not been good. Closure
22 rates are slow and some actions taken as a result of prior
23 audits and/or surveillances have yet to be completed or were
24 ineffective. This area requires a significant effort to
25 meet the required guidelines. An audit to assess

1 effectiveness of program implementation is scheduled for
2 mid-August for both Units 2 and 3.

3 So, in summary, I think oversight is focusing on
4 the key areas required for restart and we are beginning to
5 make a greater contribution.

6 The line and support organizations have
7 established work observation and self-assessment programs to
8 identify and correct problems. Self-assessment programs are
9 now fully established. The rigor and quality of their
10 efforts is improving. Training and mentoring are being used
11 to help people improve their work observation and self-
12 assessment skills and therefore their ability to identify
13 issues.

14 Units 2 and 3 have systems in place to review
15 their self-assessments for effectiveness. Oversight has
16 provided an independent assessment of their results. Within
17 oversight, we have adopted a numerical grading system to
18 assist in the evaluation of the self-assessments and provide
19 this data monthly by means of inclusion in our monthly
20 report.

21 Work observations are now occurring on all units.
22 Unit 1 has made particularly strong use of this program by
23 conducting over 3,000 so far in 1997. Unit efforts in these
24 areas have resulted in quality becoming an increasingly
25 important way of life at Millstone.

1 CHAIRMAN JACKSON: How have you measured the
2 quality of the self-assessment?

3 MR. GOEBEL: We take each of the self-assessments
4 that we look at and we don't look at every one of them but
5 we look at a large percentage of what they do and we go
6 through a grading system by looking at whether or not they
7 covered all the salient points, the depth to which they
8 covered those points and the types of things that they are
9 finding relative to the material that we have from other
10 sources and that goes through a grading matrix. We just
11 fill out a sheet and keep it tabulated and we, on a monthly
12 basis, come up with a score and evaluate how they are doing
13 and feed that back.

14 So each unit gets -- will get a grade from us.

15 CHAIRMAN JACKSON: How many self-assessments have,
16 in fact, been performed so far and will each organization
17 have performed a self-assessment before startup?

18 MR. BOWLING: In my part of the presentation, I am
19 going to cover self-assessment, but --

20 CHAIRMAN JACKSON: We can wait, then.

21 MR. BOWLING: Over 150 throughout the organization
22 and I will go into a little more detail.

23 CHAIRMAN JACKSON: Thanks.

24 COMMISSIONER DIAZ: If I may say so, sometimes
25 when you actually have numbers on the things, even if they

1 are relative, just a relative increase will tell us why you
2 say they are improving or changing, whatever it is. It is a
3 delta. Delta is possible for whatever metrics you are
4 using. It might not be a bad idea if you just say, we
5 approximately, you know --

6 CHAIRMAN JACKSON: Are you going to be giving some
7 numbers in your presentation?

8 MR. BOWLING: On the quality as the line rates are
9 corrective action, I will give some numbers.

10 CHAIRMAN JACKSON: Well, from the oversight
11 perspective --

12 MR. GOEBEL: Yes, and I can give you the latest
13 data. The latest data on a scale of 20, where 20 is
14 excellent, the Unit 3 self-assessments are at about 15, the
15 Unit 2 self-assessments are at about 12. Oversight self-
16 assessments are at about 11. I mean, so there is --

17 CHAIRMAN JACKSON: I think it would be helpful the
18 next time around to actually have more specific numbers and
19 to say what your quality factors are, because that tells you
20 how you arrive at a judgment.

21 MR. GOEBEL: Okay.

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

23 MR. GOEBEL: We recently commissioned an
24 independent review of the effectiveness of the oversight
25 organization. The review was led by Jack Martin, former

1 Regions Three and Five administrator. The team found that
2 the oversight organization had made progress in the previous
3 months but also found that improvements were required in
4 several areas. They also found that receptivity of the rest
5 of the sight to oversight comments negatively impacted
6 oversight's effectiveness. Some of the efforts for
7 improvement are included on the next slide.

8 CHAIRMAN JACKSON: What goals have you actually
9 established?

10 MR. GOEBEL: Goals for oversight?

11 CHAIRMAN JACKSON: Correct. What short term and
12 metrics for demonstrating progress?

13 MR. GOEBEL: Well, we have -- I've got a series of
14 goals. Goals for improvement in the end product that we
15 produce, either audit surveillance, audit team reports,
16 whatever, so that again, based on the value of the actual
17 report itself to the end user, the quality of the data, what
18 you find, how it is communicated. What we have
19 discovered --

20 CHAIRMAN JACKSON: Well, again, I am going to add
21 this. You have a group of analytical people here so, you k
22 now, you need to lay out, you know, generalized statements
23 are not helpful. You need to lay out what specific goals
24 you have, what your metrics are for showing progress against
25 them in a very succinct form and therefore what your

1 progress is against them.

2 MR. CARNS: One of the goals from a line
3 management standpoint is to have more involvement on the
4 front end of audits and on the back end so that we have
5 agreement that what the product is, is something that is
6 going to be very useful.

7 CHAIRMAN JACKSON: Right, okay.

8 COMMISSIONER DIAZ: No, I have no questions.

9 MR. GOEBEL: Some of the efforts for improvement
10 are included on the next slide. The team did not see
11 oversight playing a role in affecting the standards change
12 at Millstone, something that they considered crucial. Some
13 of this they attributed to attentiveness on the part of
14 oversight and some to the lack of a clearly accepted role
15 for oversight in this area. They pointed out that oversight
16 is too compliance-driven. Although compliance is essential,
17 it is not enough. The team pointed out oversight was
18 insufficiently concentrated on performance and results
19 within the envelope of compliance.

20 The team felt that teamwork was inadequate within
21 oversight, which resulted in not getting the maximum benefit
22 from the full integration of our various products. They
23 cited communications between oversight and the lines
24 requiring improvement and urge us to continue to make
25 improvements in our products.

1 All of these deficiencies are being worked. In
2 particular oversight has shifted to focus areas in an effort
3 to better concentrate our resources. Our teamwork has
4 improved and we have established more formal methods of
5 followup. We're modifying our exit methodologies to provide
6 better dialogue and feedback from audits and Independent
7 Review Team reports.

8 The Nuclear Safety Assessment Board had been
9 previously cited as weak and not making a meaningful
10 contribution to the safe operation of the Millstone site.
11 This organization has undergone significant change, and the
12 expectations for the membership are clearer. The Board now
13 consists of nuclear officers and four outside consultants.
14 Discussions are frank, and action items are being assigned
15 and carried out.

16 The Board has made particularly strong
17 interventions in the areas listed on this slide. The
18 subcommittees which report to the Board are reviewing key
19 aspects of the site's readiness for restart. The Board
20 itself has taken a major role in promoting the nuclear
21 safety policy and developing a reactivity management
22 program, and by the subcommittee they review all 50.59
23 evaluations.

24 In summary, the NSAB has changed and is
25 contributing to the preparation of the site for restart.

1 CHAIRMAN JACKSON: So how do the results that come
2 from these reviews get woven back into what is actually
3 going on at the site?

4 MR. GOEBEL: For the NSAB?

5 CHAIRMAN JACKSON: Yes.

6 MR. GOEBEL: The Oversight Committee?

7 CHAIRMAN JACKSON: Yes.

8 MR. GOEBEL: Well, since all the leadership team
9 essentially is on the board, we all go to all the
10 meetings --

11 CHAIRMAN JACKSON: Yes.

12 MR. GOEBEL: The data which then comes out of
13 those meetings is taken by the individual officers back and
14 incorporated within their --

15 CHAIRMAN JACKSON: So do action items come out of
16 the --

17 MR. GOEBEL: Action items come out of the meeting,
18 they're tracked at each meeting we --

19 CHAIRMAN JACKSON: I see.

20 MR. GOEBEL: If they are assigned -- for instance,
21 I had a couple I had to answer to last time, and I provide
22 answers when it comes up at the next meeting.

23 MR. CARNS: And the Board chairman communicates
24 directly with Mr. Kenyon and tells him, you know, the things
25 that may need some emphasis, and then he will give us plenty

1 of direction.

2 MR. KENYON: And I also meet separately with the
3 outside consultants to make sure that I'm getting all of the
4 information that I need to have.

5 CHAIRMAN JACKSON: Since, you know, one issue that
6 was identified had to do with the robustness and quality of
7 5059 evaluations as opposed to a kind of screening away
8 changes, what are you specifically doing in that area?

9 MR. GOEBEL: Well, the NSAB is looking at each one
10 of them as they go through. They have a subcommittee that's
11 devoted to that effort, and the report from that
12 subcommittee comes at each meeting. Oversight itself is
13 looking at 5059's separate from what the NSAB is doing
14 through surveillances and through audits.

15 CHAIRMAN JACKSON: I see.

16 MR. McELWAIN: A little more specifically on that
17 point, we have had 1,400 people through specific 5059
18 training since the initial back in December when we had the
19 discovery of where we were in relation to past 5059's and
20 screenings in the process, and we have continued along the
21 path of having the program enhanced and to make it
22 simplified, more streamlined. It's all one place now. You
23 used to have to go to several different places for a screen,
24 as well as evaluation. We have put that in one place, and
25 it seems to have a better effect. And I think absolutely

1 the results we're getting are much better than they were
2 some time ago, although we're still working on improvement.
3 We monitor in each unit specifically a sampling of the
4 5059's on a periodic basis to see how we're doing, what the
5 results look like, and NSAB has a subcommittee that looks at
6 all of them.

7 CHAIRMAN JACKSON: Okay.

8 MR. GOEBEL: If there are no further questions,
9 I'd like to turn it over to Marty Bowling.

10 MR. BOWLING: Good morning. I will speak to three
11 of the issues -- configuration management, corrective
12 action, and self-assessment. As you know, a significant
13 effort has been undertaken to validate the design,
14 licensing, and operating basis with actual unit
15 configuration. This effort, which is being managed by NU
16 and the NSSS vendor for each unit, systematically looks at
17 each maintenance rule group 1 and 2 systems -- that's 61
18 systems on Unit II, and 88 systems on Unit III -- to verify
19 several things: that the licensing commitments are being
20 met, that the design and safety analyses are conservative,
21 the FSAR and the tech specs are correct, and the unit
22 physical configuration and operating procedures reflect
23 these requirements.

24 In addition, a total of 51 programs have been
25 reviewed for both Units II and III. These include safety or

1 risk-related programs such as environmental qualification,
2 Appendix R, as well as the process change control programs,
3 design control, drawing control, document control.

4 CHAIRMAN JACKSON: So you are ensuring that the
5 correct procedures are in place to accomplish this?

6 MR. BOWLING: That's correct. It's not only a
7 technical review but it's in terms of configuration
8 management, the process review, how do you maintain. So
9 we're interested in restoring, validating, and maintaining.

10 CHAIRMAN JACKSON: And are you also monitoring
11 adherence to procedures?

12 MR. BOWLING: We do have a performance indicator
13 that looks at that, and we are also -- and I think it's
14 discussed in your issue book, in the process of developing
15 additional metrics for that very issue.

16 CHAIRMAN JACKSON: How would you say they're
17 trending, adherence, procedure adherence, how is that
18 trending?

19 MR. BOWLING: The error rate is not adverse, but
20 it's not where we want it. So we need to focus -- we've
21 just set up the industry program. We're in the process of
22 setting up the industry program, human performance
23 enhancement system. We want more metrics on personnel
24 error, and procedure adherence is a key issue for us.

25 CHAIRMAN JACKSON: Okay.

1 MR. BOWLING: With respect to the second bullet on
2 this slide, the loss of configuration at Millstone has
3 resulted primarily from a lack of organizational ownership
4 rather than a result of inadequate procedures.

5 To address this point, a group has been
6 established within the Engineering Support Group under Jay
7 Thayer to be the program owner for configuration management.
8 This group will assist the units in establishing program
9 requirements as well as ensuring program standards are being
10 met, but to provide additional assurance that configuration
11 management and technical accuracy is maintained going
12 forward, two new organizations are being added.

13 The first, which was piloted on Unit 2 in late
14 1996, is Engineering Assurance Group. This group provides
15 critical self-assessment of engineering activities and
16 processes, provides site-wide integration of engineering
17 performance data and trends, and evaluates the effectiveness
18 of corrective actions.

19 The second organizational addition is the
20 establishment of a group within each unit to be responsible
21 for maintaining configuration control going forward when
22 making any types of changes in the future.

23 These groups are currently being set up on Unit 2
24 and 3 right now.

25 Results in safety significance of what has been

1 found on Units 2 and 3 are characterized in the next three
2 slides, but to put it in perspective, I have selected three
3 ways of looking and characterizing significance.

4 First is to look at the findings that have
5 required changes to the design, licensing or operating
6 basis.

7 The second perspective is to evaluate
8 qualitatively the change in risk that have resulted from
9 those findings that have been determined to meet the
10 reportability requirements under 5072 and 5073.

11 The third perspective is to identify those items
12 that potentially question operability or performance of
13 intended function on maintenance rule required systems.

14 On this slide, about 700 items on each unit have
15 been identified that will require changes to the licensing
16 basis -- that's the FSAR -- the design basis, drawings
17 calculations, specifications, and the operating basis, which
18 is the technical specifications and procedures, or result in
19 a modification to the plant.

20 To characterize safety significance, our safety
21 analysis group under Jay Thayer has evaluated individually
22 each reportable item discovered on Units 2 and 3 since the
23 beginning of 1996 using a qualitative risk-based
24 methodology.

25 Specifically, we have screened each reportable

1 event that has occurred on Unit 2 and 3, and from this
2 screening, we have identified those that may be potentially
3 safety significant. A more detailed review of these are
4 then conducted.

5 CHAIRMAN JACKSON: Are you going to put them
6 through, you know, a more analytical process, the ones that
7 can be, you know, like a PRA type analysis or anything like
8 that?

9 MR. BOWLING: Effectively, we have -- when I speak
10 qualitatively, our PRA people are the ones that are
11 performing this and they are using a consistent methodology
12 for the qualitative review and, therefore, their judgment as
13 presented on this slide would be reflective if they ran the
14 calculation.

15 CHAIRMAN JACKSON: Okay. As you uncover, you
16 know, what may be generic issues, are you sharing that
17 perspective both with the NRC and the industry, say through
18 INPO?

19 MR. BOWLING: Yes, either through the INPO
20 network, and at least in several cases, we have issued Part
21 21st.

22 CHAIRMAN JACKSON: Yes, because I'm interested in,
23 given the extensive review that you're doing, aside from it
24 being important for you, and that's the primary focus, is
25 getting the most for the industry --

1 MR. BOWLING: Right.

2 CHAIRMAN JACKSON: -- out of this. So as such, I
3 think both you and our staff have a responsibility to
4 identify issues with generic applicability so that a proper
5 industry-wide safety assessment can come out of this. So
6 I'm going to ask the staff the same question.

7 COMMISSIONER DIAS: Excuse me.

8 CHAIRMAN JACKSON: Sure.

9 COMMISSIONER DIAS: What's the period of time in
10 which this reportable items covers?

11 MR. BOWLING: It's from the beginning of 1996,
12 roughly the period of the shutdowns.

13 If I can give an example, for Unit 2, since the
14 beginning of 1996, 68 license event reports, LERs, have been
15 submitted, and going through this process, 26 of those 68
16 received a detailed review based on potential safety
17 significance. Three were determined to have some safety
18 significance as shown on the slide. Of these three, all
19 three were rated moderate and concerned a -- first a loss of
20 capability to backwash the service water strainers due to
21 icing; second one was the containment sump screens having
22 openings larger than analyzed; and the third one was
23 insufficient reactor building component cooling water flow
24 to high pressure safety injection pump seal coolers.

25 Mr. Brothers will discuss Unit 3 items later in

1 his presentation.

2 Overall, we can conclude that most deficiencies
3 are not individually of high safety significance. However,
4 we clearly understand that the large number of deficiencies
5 that have required resolution are indicative of programmatic
6 weakness in maintaining configuration control.

7 The next slide shows the last way of looking at
8 significance and significant items required to be resolved
9 before restart are defined in NRC's April 16, 1997, letter
10 pursuant to 10 CFR 50.54(f) as items covered by the
11 maintenance rule, which raised potential questions
12 concerning operability or the ability to perform their
13 intended function. The total number and current status of
14 these items are shown on this slide.

15 You will note that there are more deferral items
16 on Unit 3 than on Unit 2. This is a direct result of the
17 completion of the configuration management structure
18 discovery on Unit 3 whereas, on Unit 2, it is still in
19 progress. It is expected that the Unit 2 list will
20 increase.

21 CHAIRMAN JACKSON: So that is why there is such a
22 disparate --

23 MR. BOWLING: At this point, that is our
24 assessment.

25 CHAIRMAN JACKSON: Do you have clear criteria

1 based on operability and risk for the categorizations of the
2 items? Do you have criteria that you could actually lay out
3 to us?

4 MR. BOWLING: Right. Question number 3 to the
5 letter asks for the methodology for deferral and so it steps
6 through the logic and that will be discussed in more detail
7 with the NRC at the August 12 --

8 CHAIRMAN JACKSON: So you are not prepared to tell
9 us at this stage? The answer is, no?

10 Bill, you were saying no? I heard a "no" from
11 back there?

12 MR. CARNS: We have a procedure.

13 MR. BOWLING: Yes, we have that information. But,
14 basically, we have taken all of our condition reports, that
15 is the threshold for reentering a deficient condition, it
16 goes through the screen, is it a maintenance rule, is it on
17 a maintenance rule system and then we have an expert panel
18 assess the actual condition report on an individual basis as
19 to whether it affects, potentially affects intended function
20 or operability and what we are most interested in is making
21 sure that nothing that goes on the deferral list is
22 important to operability or intended function. That goes
23 through additional reviews and screens and we are adding all
24 the way through our plant operating safety committee to make
25 sure that those are correct.

1 CHAIRMAN JACKSON: Well, I am making my
2 announcement. I would like the NRC staff and each of the
3 contractors to discuss the significance of items on this
4 list and the issue of whether they believe they are clear
5 criteria based on operability and risk for making the
6 parsing. And then whether there is any time migration as we
7 get closer to restart of items from one list to the other.

8 They get the advantage of getting forewarning.
9 You don't get that advantage.

10 MR. BOWLING: Okay, I'm going to move to
11 corrective action.

12 An improved corrective action program has been
13 implemented at Millstone. This program contains the
14 elements necessary for timely corrective action but its
15 long-term effectiveness still must be demonstrated. Simply
16 stated, we have been good at identifying problems but not in
17 providing permanent solutions, especially for key site wide
18 programmatic and process issues.

19 On the progress side, approximately 99 percent of
20 the condition reports are submitted at the time of
21 discovery. This demonstrates that our employees recognize
22 the need to promptly document potential discrepancies.
23 Also, which reports are promptly screened for operability
24 and reportability, usually within 24 hours and no backlog
25 exists. Assignments for corrective action are being

1 generally made within 30 days and only a small backlog
2 currently exists.

3 Finally, the quality of the corrective action
4 plans is being evaluated by each unit's management review
5 team, with Units 2 and 3 averaging over three on a scale of
6 zero to four where four is the acceptance of the action plan
7 without changes or comments.

8 Management expectations for low threshold and
9 self-identification are also being met as shown in the next
10 slide. Total condition reports written are a good
11 indication of threshold and reflect management's expectation
12 that, if in doubt, write a condition report. The large
13 number of condition reports being written at Millstone, over
14 600 per month, reflect this expectation. The percent self-
15 identified, that is by the line organizations and
16 independent nuclear oversight organization under Dave
17 Goebel, as opposed to the NRC or having actual events, are
18 now approaching the high 90 percent level.

19 CHAIRMAN JACKSON: Do any of the line-identified
20 items include event-identified items?

21 MR. BOWLING: Those are -- the event driven are
22 not counted as self-assessment --

23 CHAIRMAN JACKSON: They are excluded?

24 MR. BOWLING: They are specifically excluded
25 because that is not self-identified if it is event driven.

1 CHAIRMAN JACKSON: Thanks.

2 MR. BOWLING: With respect to actual completion of
3 corrective action, progress is being made but the backlogs
4 do not yet show progress because of the emphasis on the
5 structure of configuration management discovery. As this
6 discovery is completed, as it is on Unit 3, currently, the
7 organization is able to focus more on fixing.

8 The next slide shows the number of condition
9 reports that have had corrective action completed and
10 verified in 1997. It is over 3,500 items. It does
11 demonstrate that the corrective action process is working
12 but we clearly understand from a number of surveys and
13 employee feedbacks, including from Little Harbor, that the
14 efficiency and effectiveness of the corrective action
15 program needs improvement.

16 We are committed to making the necessary
17 improvements to ensure long-term effectiveness.

18 CHAIRMAN JACKSON: Now, you are minimizing
19 resources on Unit 1. I note that you seem to have closed
20 quite a number of items in the June time frame. Does that
21 mean they don't cost any money?

22 MR. McELWAIN: No, it was a concerted effort
23 because we have such a large backlog on Unit 1 so we spent
24 the month of June focusing on evaluating the backlog as well
25 as closing issues and we could close what wasn't resource

1 related in this context.

2 CHAIRMAN JACKSON: Okay. Commissioner McGaffigan?

3 COMMISSIONER MCGAFFIGAN: Is Unit 1 performing
4 worse than the other two? The staff in its paper points out
5 that they had an inspection report dated June and they found
6 that the Unit 1 corrective action program had some
7 significant problems -- revision of condition report process
8 poorly implemented, et cetera.

9 Are Units 2 and 3 running well ahead of Unit 1 in
10 terms of your satisfaction with the corrective action
11 programs?

12 MR. KENYON: Why don't you speak to corrective
13 action and I'll talk more generally.

14 MR. McELWAIN: Okay. Specifically, with respect
15 to corrective action, we had some very good inputs from the
16 residents at the end of the last inspection period about
17 specifics of how we're implementing the corrective action
18 program, whether people were completely easy with and
19 feeling easy with the implementation of identification of
20 CRs, which is corrective -- condition reports. Since then,
21 we took that to heart and we've been making strides to make
22 those issues be more in line with Unit 2 and Unit 3.

23 So my perception is that Unit 3 and Unit 2 were
24 ahead of us. I wouldn't say immeasurably ahead of us, but
25 slightly ahead of Unit 1 in the implementation and

1 corrective action program, and we have taken steps to
2 improve that.

3 MR. KENYON: But we are at a reduced resource
4 level on Unit 1 and our expectation is we will ramp up to a
5 full recovery effort around the end of this year.

6 CHAIRMAN JACKSON: Okay.

7 MR. BOWLING: Going back to the word slide, I want
8 to talk about the last bullet.

9 Corrective actions are also required for key site-
10 wide issues that have resulted from past ineffective
11 leadership, really the cause of many of the program and
12 process weaknesses that we currently are experiencing.
13 Eleven site-wide issues are identified in your briefing book
14 and discussed in more detail. We're discussing six of those
15 with you this morning.

16 We understand that the ultimately effectiveness of
17 the corrective action program will be measured by our
18 ability to recognize and correct these site-wide
19 deficiencies.

20 Now moving to self-assessment, the principal focus
21 of self-assessment to date has been on discovery. Over 150,
22 as I mentioned earlier, assessments covering all areas of
23 our organization have been completed in the first half of
24 '97. But now we're refocusing our self-assessment to affirm
25 our readiness for conduct of safe operation. To accomplish

1 this, a multi-tier approach is being used.

2 To affirm our readiness to conduct safe
3 operations, system engineers are verifying their systems'
4 readiness, and each unit functional department is assessing
5 areas that are important to the conduct of safe operation.
6 This effort has been piloted on Unit 2, and currently both
7 Units 2 and 3 are conducting these assessments.

8 We expect each unit manager to affirm their
9 department's readiness and all departments will need to be
10 ready before we can go forward.

11 To help assess integrated unit and site-wide
12 organizational readiness, we will use an external INPO-led
13 industry team. This assessment is scheduled for September.

14 Nuclear oversight will also independently assess
15 and affirm unit readiness for OSTI and restart. And
16 finally, the Nuclear Safety Assessment Board, NSAB, will
17 independently review and affirm the independent nuclear
18 oversight function -- that the oversight function is ready.
19 Only after these assessments are complete and affirm our
20 readiness will we tell you that we are ready for the OSTI.

21 As the actual heat-up and return to service
22 occurs, Operations will conduct detailed walkdowns to verify
23 line ups and equipment readiness. Assessments will also be
24 conducted prior to each mode change to verify that the
25 systems and the equipment that are necessary for operability

1 are operable and properly aligned. This review will be
2 conducted by unit management and independently reviewed by
3 the Plant Operating Review Committee.

4 Finally, the Nuclear Safety Assessment Board will
5 independently review and affirm unit readiness for restart.

6 If there are no further questions, I'll turn it
7 over to Mike Brothers.

8 CHAIRMAN JACKSON: Yes, I want to hear this, but
9 this gives me an opportunity to make a comment so that I
10 don't forget.

11 It is very important, and that's why you were
12 being pressed on this issue, our understanding what your
13 criteria are, how you measure progress, because here you're
14 being presented as having a key role in terms of, for
15 instance, evaluating self-assessments that are required for
16 readiness for the OSTI and for restart. If your own
17 processes are not strong or are weak, then, first of all and
18 most importantly, it doesn't help the role that you're
19 supposed to play for a company itself.

20 MR. BOWLING: Right.

21 CHAIRMAN JACKSON: And secondly, it's definitely
22 going to be something that we're going to pay attention to.

23 MR. BOWLING: Yes.

24 CHAIRMAN JACKSON: Okay.

25 MR. BROTHERS: Thank you, Marty.

1 Good morning.

2 Today, my presentation consists of two major
3 areas. The first is progress on achieving and maintaining a
4 safety conscious work environment, and the second is a
5 general review of the current readiness of Millstone 3 in
6 particular.

7 As stated earlier, this presentation is intended
8 to provide an overview. More detail is included for both
9 the safety conscious work environment and Millstone 3
10 readiness in the briefing book that was provided to you on
11 July 28.

12 Establishing and maintaining a safety conscious
13 work environment is central to our success. We understand
14 that the substantial failure to foster a safety conscious
15 work environment played a prominent role in a decline of the
16 performance on Millstone Station. This leadership team
17 understands and fully accepts the responsibility of line
18 management in establishing and maintaining a safety
19 conscious work environment. We also understand that in the
20 long run, a safety conscious work environment will
21 significantly enhance our ability to conduct everyday
22 business.

23 This is simply because a safety conscious work
24 environment will ensure that all issues and/or concerns are
25 on the table and being addressed. Finally, and most

1 importantly, establishing and maintaining a safety conscious
2 work environment is the right thing to do. This slide is
3 Millstone's one-sentence summary of what a safety-conscious
4 work environment means to this team and this station. This
5 definition is consistent with the NRC's draft policy
6 statement titled Freedom of Employees in a Nuclear Industry
7 to Raise Safety Concerns Without Fear of Retribution dated
8 May 14, 1996.

9 In the summary of the NRC's draft policy
10 statement, it is stated that licensees will establish and
11 maintain safety-conscious environments in which employees
12 feel free to raise safety concerns, both to their management
13 and to the NRC without fear of retaliation.

14 We have broken down the NRC's draft policy into 18
15 attributes of a safety-conscious work environment. We
16 believe that the combination of the comprehensive plan to
17 address employee concerns and our overall plan to establish
18 and maintain a safety-conscious work environment addresses
19 all of the attributes identified in the NRC's draft policy.

20 This slide addresses the progress we have made in
21 establishing a safety-conscious work environment.

22 CHAIRMAN JACKSON: Let me just ask you a question.
23 When you speak of the NU nuclear team, you mean everybody?

24 MR. BROTHERS: Yes.

25 CHAIRMAN JACKSON: Including contractors on site?

1 MR. BROTHERS: That's right, correct.

2 The most important points to make are that our own
3 assessments show improvement as alluded by Buzz and by Dave
4 Goebel, the PII showed an 11 percent improvement in the
5 culture survey and the leadership assessment showed a 21
6 percent aggregate improvement from 1996.

7 The assessment from Little Harbor which will be
8 presented to you separately today shows significant
9 improvement from 1996 until 1997. The Little Harbor
10 assessment also points out the need to make performance
11 improvements in our employee concerns program and, two,
12 improve our recognition of employees who raise concerns
13 which are validated and resolved to gain increased benefits
14 from the self-assessments being conducted by the
15 organization and to improve our ability to recognize and
16 remediate instances of chilling effect within our
17 organization.

18 In addition to the items just discussed, Little
19 Harbor has identified two additional potential problems.
20 First, 37 percent of the people who have used the employee
21 concerns program will not use it again. We attribute this
22 to the fact that the employee concerns program refers
23 concerns within their own confidentiality rules to line
24 organizations like the line or human resources. The people
25 who responded negatively to this question wanted the

1 concerns to be handled by the employee concerns program
2 versus the rest of the organization.

3 COMMISSIONER DIAZ: Excuse me, Mike, I'm sorry. I
4 need to go back here because I am trying to understand some
5 of the qualitative statements.

6 On the previous page where you say what a safety-
7 conscious work environment is, it says it is an environment
8 where all members of the NU nuclear team feel comfortable
9 raising any issue. I want to understand whether they -- the
10 meaning of that. Do they feel comfortable, do they feel
11 compelled? Is it -- have we raised it to the point where it
12 is like an obligation to raise the issue or are they just
13 comfortable?

14 MR. BROTHERS: We are working to reach the point
15 where they feel compelled. Our surveys indicate the people
16 at this point, the large percentage, in fact, feel
17 comfortable. I would not say we have reached the point
18 where they are compelled.

19 COMMISSIONER DIAZ: But that will be a goal?

20 MR. BROTHERS: That is where we are trying to go.

21 COMMISSIONER DIAZ: Thank you.

22 MR. BROTHERS: The second item that Little Harbor
23 has identified was that 53 percent of the open employee
24 concerns have attributes of harassment and/or intimidation.
25 Although we don't yet know the significance of this finding,

1 we are committed to identifying problem areas within the
2 organization by utilizing the many tools which are available
3 to us such as the employee concerns program itself, the
4 Employee Concerns Oversight Panel, cultural surveys and
5 leadership surveys to identify and ferret out those pockets
6 of problems in the organization.

7 Although we have made progress in recognizing the
8 necessity of continuing to monitor our progress toward
9 establishing a safety-conscious work environment, this slide
10 illustrates the techniques that we will employ to monitor
11 and adjust our progress toward the goal of establishing and
12 maintaining a safety-conscious work environment.

13 If there are any questions on this section of my
14 presentation, I intend to go now into a specific review of
15 the readiness of Millstone 3.

16 CHAIRMAN JACKSON: What is the key indicator that
17 you would highlight in terms of saying that you have made
18 progress in this area?

19 MR. BROTHERS: I would list three. The PII
20 survey, in particular the elements of the questions which
21 are 23 questions broken down into 10 categories which
22 indicated a very strong score in the PII survey. Those same
23 questions were asked again in a different format in the
24 leadership survey and, finally, the indication of
25 confidentiality requests within the employee concerns

1 program itself is still indicating a downward trend.

2 CHAIRMAN JACKSON: Okay.

3 MR. BROTHERS: This slide shows the milestones
4 over the remainder of 1997 for Millstone Unit 3. At this
5 time, our goal is to have Millstone 3 physically ready and
6 ready for OSTI, Operational Safety Team Inspection, by
7 September 30. This date supports the NRC's scheduled OSTI
8 start date of October 21.

9 The next series of slides shows specific
10 challenges to our internal milestone of September 30. The
11 November 22, 1997, date for ready for restart is constrained
12 by the approval of all of the license amendment requests
13 currently identified. In addition, our final 50.54 foxtrot
14 response will be submitted on or before this date.

15 The December date reflects the current schedule
16 for the presentation to the NRC commissioners.

17 Listed here are the major challenges to our
18 internal milestone of September 30 to be physically ready
19 and ready for OSTI. I will talk in some detail about each
20 of these challenges on the next four slides. Our commitment
21 is to provide periodic updates regarding our ability to
22 support an OSTI start date of October 21. We intend to
23 provide a final go/no-go assessment of our ability to
24 support a 10/21 OSTI on or before September 15.

25 This indicator, one of the ones you asked a

1 question on, shows all the action requests which are open
2 and required to be closed prior to restart. Although the
3 trend is in the right direction to support a September 30
4 internal milestone for ready for OSTI, the current work-off
5 rate will not support the September 30 date. The completion
6 of discovery for maintenance rule Group 1 and Group 2
7 systems on July 16 resulted in an increase in items which
8 are required to be completed to support our September 30
9 milestone. This influx associated with both the competition
10 of discovery and the conditional report backlog has slowed
11 the overall decrease of items required for restart. Now
12 that discovery is complete for maintenance rule Group 1 and
13 2 systems and we are current on our conditional report
14 evaluations, we expect this indicator to turn and support
15 completion by or very near September 30th.

16 The significant items list for Millstone 3
17 contains 86 items which translate into approximately 200
18 individual items which need to be resolved to support our
19 September 30th milestone.

20 On July 31st we crossed the halfway point in terms
21 of submitting significant items list packages. We are
22 currently approximately 20 packages behind our work-off
23 curve. Although it remains a challenge to achieve our
24 September 30th date, it should be understood that the
25 significant items list is largely a derivative list.

1 By that I mean that accomplishing goals associated
2 with tasks required for restart and modifications also along
3 with automated work orders will allow us to make this goal.

4 Feedback from the NRC continues to show that the
5 quality of our significant item list closure packages
6 remains high and although we are slightly behind our planned
7 schedule continues to reinforce that we will not sacrifice
8 quality in response to schedule pressure.

9 This slide to the next one --

10 CHAIRMAN JACKSON: Commissioner Diaz?

11 COMMISSIONER DIAZ: Again, you are giving us, when
12 you are talking good data, if some of that data could be
13 just put in here, you know, number of systems in Millstone 3
14 challenges, seeing how many systems are, you will allow the
15 Commissioners not having to go back and forth, so just a
16 minor point for the next occasion.

17 MR. BROTHERS: Okay, thank you.

18 COMMISSIONER DIAZ: Because we are getting better.

19 MR. BROTHERS: Thank you.

20 This slide and the next one are directly tied to
21 physical work.

22 It should be noted that the physical workers
23 assigned to Millstone 3 are just now transitioning to what
24 we call an outage mode. They are starting this week and by
25 August 11th will be in two 10-hour shifts or 20 hour days.

1 Up until now they have been roughly in 40-hour weeks.

2 This was because the amount of physical work which
3 was available to the field did not warrant around-the-clock
4 coverage. We expect this indicator and the next one to show
5 a dramatic improvement over the next month.

6 This slide shows the current modifications which
7 are required to be complete prior to restart.

8 The actual data that we have as of the unit, this
9 is as of July 15th. The actual data indicates approximately
10 40 mods are now completed through engineering versus the 25
11 which is indicated on this slide.

12 CHAIRMAN JACKSON: Okay, so it has changed?

13 MR. BROTHERS: Yes.

14 CHAIRMAN JACKSON: Because I was going to say it's
15 missed inconsistency. Okay.

16 MR. BROTHERS: The engineering portion of these
17 modifications are on schedule, to be completed by August
18 15th. Meeting the engineering schedule and the completion
19 of discovery give us good confidence that we can meet our
20 milestone on September 30th for ready for OSTI.

21 CHAIRMAN JACKSON: When you say awaiting
22 engineering, so what about the actual procurement of what
23 you need if there are physical changes? Where does that
24 stand?

25 MR. BROTHERS: That is in the works. We have only

1 identified one item, which has a long lead-time at this
2 time, which will impact potentially the September 30th date
3 out of all the mods, so nothing in the way of long lead-
4 time at this point.

5 This slide shows our current backlog of automated
6 work orders. We have two goals. The first is less than or
7 equal to 500 power block automated work orders and a second
8 is less than or equal to 350 maintenance rule Group 1 and/or
9 Group 2 automated work orders. This 350 is a subset of the
10 overall 500 goal.

11 Although this curve is essentially flat, in other
12 words input roughly equates to our competition rate, this is
13 the case for two reasons.

14 Number one, we have just completed discovery for
15 maintenance rule Group 1 and Group 2 systems, and, number
16 two, up until August 4th the physical workforce was
17 essentially working a normal 40-hour work week.

18 With discovery complete and the workforce now
19 transitioning to an outage mode, we have good confidence
20 that we can meet our milestone of September 30th for ready
21 for OSTI.

22 Although we are challenged, we remain confident of
23 our ability to support OSTI's start date of October 21st.

24 During the course of the current shutdown, we have
25 accomplished a significant amount of work. This slide

1 summarizes the more significant work that has been
2 completed.

3 I want to emphasize the completion of discovery as
4 on maintenance rule Group 1 and Group 2 systems, which was
5 accomplished on 7-16, and the elimination of conditional
6 report evaluation backlogs, which was completed on July 5th,
7 which was a previous conversation we had at the last
8 Commission meeting.

9 This slide and the next slide summarize the most
10 significant items found during the 16 months of discovery on
11 Millstone Unit 3.

12 In terms of once again talking about the
13 significance, high significance is a significant impact on
14 overall core damage frequency but no impact upon public
15 risk. Moderate is a medium impact on core damage
16 frequency -- large uncertainties associated with it. Low is
17 no measurable consequence on core damage frequency but
18 uncertainties associated with it.

19 I want to make two points with respect to both of
20 these two slides.

21 The most significant item found to date, ECCS or
22 Emergency Core Cooling System throttle valves, is an
23 industry problem which was identified early in 1996. It
24 wasn't identified specifically as part of our discovery
25 effort but we included it here.

1 Of the eight most significant items found, six are
2 from original construction or design. Only two are the
3 result of modifications. The two that are a result of
4 modifications are the bypass flow around service water
5 strainers due to the modification that we had performed and
6 the SBO or Station Black Out or diesel battery capacity,
7 both from modifications.

8 The others were all original construction.

9 CHAIRMAN JACKSON: Let me ask you a question.

10 If you look at -- I am just kind of trying to
11 probe the issue of the categorization -- the recirculation
12 spray system items, both the sump and the pump cavitation,
13 don't they impact both trains of safety-related equipment?

14 MR. BROTHERS: They do. The reason they come out
15 in the moderate area, let's talk about cavitation, is
16 although we don't meet the design basis in terms of
17 crediting the containment pressure to help the net positive
18 suction head, it reality that net positive suction pressure
19 will be there because the containment will be at elevated
20 pressure.

21 The way PRA works is to actually look at the
22 reality and the likelihood of conditions that will be called
23 on to function and what results is the system being outside
24 of design basis does not necessarily significantly impact
25 its ability to perform its safety function.

1 CHAIRMAN JACKSON: I would like the NRC Staff to
2 comment on this when you come to the table. And can you
3 comment on whether NRC-required testing was adequate to pick
4 up on these items or not?

5 MR. BROTHERS: That's a question to me?

6 CHAIRMAN JACKSON: Yes.

7 MR. BROTHERS: The question that was done on each
8 of these original construction was testing that was put
9 together by the licensee, RSS, and the architect-engineer
10 and the NSSS vendor during the 1985-86 time frame in
11 conformance with a standardized program that Westinghouse
12 puts together for this generation plant. RSS is a system
13 that's not common to very many Westinghouse plants, so that
14 testing was put together by primarily the licensee and the
15 architect-engineer.

16 CHAIRMAN JACKSON: And what about the station
17 blackout diesel battery capacity?

18 MR. BROTHERS: The station blackout diesel battery
19 capacity actually meets the design and license requirements,
20 but what we found was that in a more likely station blackout
21 scenario it wouldn't perform its function. And briefly put,
22 the most -- the way that station blackout rule works is that
23 you assume loss of offsite power and both diesels fail to
24 start. In that scenario, everything's fine. In the more
25 likely scenario that one or more diesels runs for a period

1 of time and then fails, the battery would have been sitting
2 dead and would not allow you to start the station blackout
3 diesel. So although we meet the regulations, it doesn't
4 meet our standards for performance.

5 CHAIRMAN JACKSON: So are any of these ones that
6 would have fallen out as a consequence of any regulatory
7 requirements?

8 MR. BROTHERS: MOV performance perhaps would be
9 the one that falls out from generic letter 8910 and the
10 followup ones. And RSS sump screens, there was industry
11 information out there that was leading us to look at there,
12 but it was concurrent with our discovery of the problem.

13 CHAIRMAN JACKSON: Okay.

14 MR. BROTHERS: We recognize the need to
15 significantly upgrade the performance of our Operations
16 Department, and we fully intend to accomplish this upgrade
17 prior to our scheduled entry into mode 4 on November 22.
18 The recent configuration management problems along with the
19 extended period of time that we have been shut down require
20 us to take additional actions to ensure that we are
21 confident of our ability to safely operate the plant upon
22 return to power operations.

23 This slide summarizes the actions being taken.
24 Standards are being raised via revision of the Millstone 3
25 and the Millstone station conduct of operations. Challenges

1 such as temporary mods, operator work runs are being
2 dramatically reduced. And, finally, our operators are
3 receiving simulator training in startup and power operation
4 as well as visiting plants of similar vintage to witness
5 startup operations.

6 In summary, my presentation covered two areas. In
7 the area of safety-conscious work environment, we believe
8 that we have made progress towards establishing a safety-
9 conscious work environment, but recognize the need to make
10 specific improvements, particularly in regard to performance
11 improvements in the Employee Concerns Program. With regard
12 to Millstone 3 readiness, although the milestones indicated
13 are challenging, we believe that we will be ready to support
14 the scheduled OSTI start date of October 21 and the
15 Commission presentation on December 19.

16 This concludes my presentation. If there are no
17 further questions, I'll turn it over to Bruce Kenyon for
18 closing remarks.

19 MR. KENYON: Just briefly in closing the progress
20 we presented today I think emphasizes --

21 CHAIRMAN JACKSON: Excuse me, I'm sorry, Mr.
22 Kenyon.

23 COMMISSIONER McGAFFIGAN: This is another one of
24 these schedule things, but the staff is going to tell us
25 October 13 is the start of the OSTI. You've been saying

1 October 21 all the way along. So maybe this is good news to
2 you, they're arriving eight days earlier. But the material
3 that's in their presentation I'll just point out to you says
4 October 13, and I don't know whether there's a disconnect or
5 not.

6 MR. BROTHERS: As Marty said, we certainly are not
7 intending to schedule the NRC. We used the latest
8 information we had from the schedule. But we will adjust
9 our dates to conform with that.

10 COMMISSIONER McGAFFIGAN: And the other thing that
11 I noticed was, and maybe this again goes to our next
12 presentation, but the ICAVP was in the schedule that you
13 showed us earlier, at the earlier presentation, was going to
14 be finished by around the 2nd of September. Now it's around
15 the 2nd of October on the staff chart, and I noticed on
16 Sargent & Lundy's chart it's the 10th of October. What's
17 the slippage been attributed to since the last presentation?

18 MR. BROTHERS: Well, I'll give you my version, but
19 clearly I think it's more correctly answered by the
20 contractor. We didn't complete discovery until July 14,
21 which precluded them from selecting the remaining two
22 systems to do vertical slice reviews on, and that
23 necessitated a modification. But I think they're more the
24 correct people to answer that question.

25 COMMISSIONER McGAFFIGAN: Okay.

1 MR. KENYON: Okay. In closing, I think we've made
2 a lot of progress. Clearly the recovery of the Millstone
3 units is still a work in progress. In general our
4 expectations are being met, but as I indicated in my opening
5 remarks, there are several areas where we're not yet
6 satisfied with our progress. Not to really repeat all of
7 those areas, but there are portions of oversight, portions
8 of the Corrective Action Program, portions of the safety-
9 conscious work environment, work control training, conduct
10 of operations are areas that are a concern to us as of
11 today. I would expect to have most if not all of these
12 areas on track by the time of our next quarterly update, and
13 frankly I expect to have closed a significant number of the
14 15 issues that we're tracking as major issues for Millstone.

15 This concludes our presentation, and we'd be
16 pleased to address any additional questions.

17 CHAIRMAN JACKSON: Let me ask you a couple of
18 questions. I mean, you have things where things don't meet
19 success criteria but meet management expectations, and vice
20 versa, and earlier you'd been talking about various
21 performance indicators. And so the question I have is what
22 is the tie-in then between the performance indicators, the
23 success criteria, and management expectations, and why are
24 they not all leading to the same conclusion and result?

25 MR. KENYON: Well, success criteria indicates

1 where we ultimately want to be. Management expectations are
2 indicating to you how we feel we're doing at our current
3 point in time. Key performance indicators are an important
4 input to our evaluation but certainly not the sole input.
5 So performance indicators say what they say and we are
6 giving you our current assessment. Success criteria
7 indicates what we believe needs to be met in order to close
8 the issue.

9 CHAIRMAN JACKSON: Well, I guess then -- I am not
10 going to argue with how you choose to use what you choose to
11 use but, obviously, I am arguing with you. But all I would
12 simply say to you is that only partially meeting the
13 criteria that say where you want to go and somehow implying
14 that management expectations are fully met is an oxymoron as
15 far as I am concerned. But --

16 MR. KENYON: Well, I am certainly not trying to
17 argue.

18 CHAIRMAN JACKSON: But you will, too.

19 [Laughter.]

20 MR. KENYON: What we are trying to communicate and
21 if we are not communicating it well then we will endeavor to
22 do it better next time but it was an effort to give you, if
23 we are trying to be here and we started way down here and we
24 think we are on a reasonable track, then we are saying our
25 expectations are being met in terms of our progress.

1 On the other hand, I indicated that there were
2 certain issues that, based on where we think we need to be
3 at this point in time, we are not there yet.

4 CHAIRMAN JACKSON: Okay, so this column should
5 really say management expectations met re progress or with
6 respect to progress?

7 MR. KENYON: Yes and we will try for the next time
8 to use clarifying words. But that is to give you a sense of
9 whether we think we are making adequate progress on the
10 issue in relation to the overall.

11 CHAIRMAN JACKSON: And also I guess I would
12 further say then if it is with respect to progress and you
13 have an area like training where you have success criteria
14 that say that these success criteria are partially met and
15 you had a stand-down in June and you have management
16 expectations met "no" in this case with respect to this
17 progress, I am confused again in terms of how it is partial
18 if just in June you had a stand-down.

19 MR. KENYON: Okay. Any particular area tends to
20 have a number of success criteria. If we can look at any
21 particular criterion and say that that particular criterion
22 has been met, we will indicate that we are partially there.

23 CHAIRMAN JACKSON: This is what I want you to do.
24 This is like my fellow commissioner here. I would like you
25 to say what those success criteria are and how they play

1 into your management judgments and how the success criteria
2 and your judgments of whether they are met or not derive
3 from what the performance indicators say. Because it
4 doesn't -- you know, you have these things that appear to be
5 somewhat disconnected.

6 MR. KENYON: We will try and do that better. As
7 you look at each issue, and training is an issue, we did
8 indicate the success criteria and we did, in the concluding
9 statement, endeavor to indicate where we think we are and
10 why. It was hard to put it on a slide but I believe it is
11 there in the book and if we are not adequately communicating
12 it in the book, we will try to make that clearer next time.

13 CHAIRMAN JACKSON: Yes, I think you need to work
14 on that.

15 Commissioner Dicus? Commissioner Diaz?

16 COMMISSIONER DIAZ: I have just a comment that we
17 appreciate the support material. I think that was good. If
18 we could ask you to provide us the same information in one-
19 tenth of the pages?

20 CHAIRMAN JACKSON: That's right, particularly if
21 you are going to sit here and tell us, ah, they are in the
22 book.

23 MR. KENYON: I appreciate the objective.

24 CHAIRMAN JACKSON: We will never be satisfied.

25 MR. KENYON: It is hard. On the one hand you ask

1 for more detail and again you ask for less pages.

2 CHAIRMAN JACKSON: That's right. You asked for
3 it.

4 [Laughter.]

5 COMMISSIONER DIAZ: I think it is a great
6 improvement. Again, I think we -- you are going to come to
7 the point where you will set the industry standard how to
8 report to the Commission and we appreciate that.

9 MR. KENYON: I hope we are very close to it and we
10 appreciate your comments that you made during the
11 presentation and we will try to add those specifics in for
12 the next meeting.

13 CHAIRMAN JACKSON: Commissioner McGaffigan.

14 COMMISSIONER MCGAFFIGAN: Don't change the font.

15 CHAIRMAN JACKSON: I am interested, always, in
16 what the presentation material shows. Okay? And what the
17 real progress is and the key areas that you yourself have
18 identified. And I still have, you know, discomfort vis-a-
19 vis work accomplishment, work control, what seems to be some
20 softness in the employee concerns program, et cetera. And
21 then the real track record in the corrective action area
22 because, you know, that's where the rubber meets the road
23 and again the only reason I needled you on this area of
24 success criteria management expectations, you know, it is
25 nice to talk about all these things but if they don't go in

1 lock step and you can assess leaders and they can have nice
2 qualities but, in the end, the true effectiveness of the
3 leader is the effectiveness of the organization.

4 MR. KENYON: And I agree.

5 CHAIRMAN JACKSON: That's my point.

6 Okay, thank you very much.

7 We will hear from Sargent and Lundy next, I
8 believe. I am also told we will hear from Parsons Power.
9 Okay. Very good.

10 Good morning. I think we won't do any further
11 introductions and just let you begin. And who's going to be
12 the lead off? You, Mr. Erler?

13 MR. ERLER: Yes. I'm Brian Erler, senior vice
14 president at Sargent & Lundy and the project director for
15 the --

16 CHAIRMAN JACKSON: Could you introduce everyone
17 else at the table, please.

18 MR. ERLER: Yes. Well, with me from Sargent &
19 Lundy is Don Schopfer, the vice president and manager for
20 the review team. With Parsons, Dan Curry can --

21 MR. CURRY: I'm Dan Curry, the vice president of
22 nuclear services for Parsons Power, and my deputy director
23 for the project, Eric Blocher.

24 MR. ERLER: I will begin the summary of what we
25 have for Unit 3. With the first slide, I've identified just

1 a little background for the review. The confirmatory order
2 was issued on August 14th for the ICAVP review, and the
3 oversight plan was released in January of this year.
4 Sargent & Lundy was selected for the Unit 3 review in
5 December of 1996 and Parsons Power was selected in February.

6 The overall scope of the review is quite
7 extensive. It's a review of the engineering and design
8 configuration control process, including, then, a
9 verification of a current as modified condition against a
10 design and licensing design basis, and then a verification
11 of the design and licensing basis requirements have been
12 translated into operating and maintenance proceedings for
13 operating of the stations.

14 Also, the review would be a verification of the
15 system performance, including review of actual tests and
16 witnessing and participating in tests that are done for
17 performance of the equipment and systems, and then a review
18 of the corrective action for the identified deficiencies by
19 Northeast Utility.

20 Next slide.

21 The structure of the ICAVP is really quite
22 extensive in that it covers -- it's put together into three
23 tiers to come at the review in three different areas. One
24 is to verify the system meets licensing and design basis and
25 system functionality. This includes the physical

1 configuration of the system, the operation, the maintenance
2 of the system, as well as design performance of the system.

3 Tier II comes at it from the accident mitigation
4 parameters that are required and works all of the accident
5 mitigation parameters against the system performance to
6 assure that they meet the performance requirements for the
7 system.

8 Tier III is a verification that the configuration
9 control process has not introduced any changes that will
10 cause a non-conformance against the licensing basis for the
11 plant.

12 In order for Sargent & Lundy to perform the
13 review, we have identified teams to go and review each of
14 the various tiers.

15 Tier I is made up of our system review group; Tier
16 -- or actually three groups are included in there: the
17 system review group, the configuration review group, and the
18 operating and maintenance review group. Tier II is the
19 accident mitigation review group, and Tier III, the
20 programmatic review group.

21 In order to see how that fits together, I have
22 shown the organization chart of the project team.

23 CHAIRMAN JACKSON: How is the time split between
24 your headquarters, NU, at the NU site and at the NU
25 headquarters in terms of how the various groups are working?

1 MR. ERLER: Most of the time is spent really in
2 Chicago. The review -- the documents have all been sent to
3 Chicago. Our review is dealing with those documents that we
4 received. And then except for the configuration review
5 group, which is on-site doing walkdowns, verifying both the
6 operations as well as the configuration of the plant, that
7 team is on-site 100 percent of the time.

8 The project team is quite extensive. You can see
9 there's over 60-some people that are assigned to this
10 review. These people represent all disciplines experienced
11 in designing and operating and dealing with design
12 modifications for numerous power plants through the years.
13 Sargent & Lundy has put a high degree of importance on this
14 review and has assigned from a management level a
15 significant portion of our management for the review,
16 realizing the importance that this has to the industry.

17 CHAIRMAN JACKSON: Tell us what this internal
18 review committee does and does it sit on meetings with the
19 various review groups?

20 MR. ERLER: Yes. The internal review committee is
21 made up of management personnel in various disciplines as
22 well as operating and licensing areas of the station. They
23 will review all identified discrepancies by the review
24 teams. The review teams identified here will identify with
25 -- discrepancies that have been identified as a result of

1 going through all of the various documents and test
2 procedures, will write up and identify those discrepancies,
3 then it will be reviewed by the internal review committee
4 before it is sent forward to Northeast Utilities.

5 So they have regular meetings on each identified
6 issue and review every discrepancy that has potentially been
7 identified.

8 MR. SCHOPFER: And members of the internal review
9 committee do, in fact, sit in on project team meetings from
10 various overall project teams and various group meetings.

11 CHAIRMAN JACKSON: Okay.

12 MR. ERLER: The protocol is quite important for
13 this review in order to get the right information, but also
14 to make sure everything is as open as possible. It's a very
15 extensive procedure in order to make sure the information
16 that's required from Northeast is obtained by the review
17 team, to make sure that all interested parties have an
18 opportunity to participate and observe at the various
19 meetings.

20 In addition to that, we have, on the home page, we
21 have a web site where we list the audit plan, which is --
22 the manual is included there. A calendar of events for all
23 of the various activities as part of this review is
24 published on an ongoing current basis. All of the
25 discrepancy reports and resolutions responded to on it will

1 be included on the web page, and of course the final report
2 at the time of conclusion of the plan. So it is quite open
3 information that each of the details of what's been found is
4 available to everybody to see where we stand on the review.

5 CHAIRMAN JACKSON: Let me go back to something.
6 You have these various tiers. Now, these tiers relate to
7 tiers of equipment as in --

8 MR. ERLER: Well, they are tiers for the review.

9 CHAIRMAN JACKSON: They're tiers for the review.

10 MR. ERLER: It's outlined in the oversight plan
11 various ways of coming at the systems and the equipment from
12 different directions in order to assure that you have a
13 complete review and performance of all of the systems that
14 are being reviewed.

15 CHAIRMAN JACKSON: Okay. So each of the systems
16 that are being reviewed will have a Tier I, a Tier II and a
17 Tier III review?

18 MR. ERLER: No. Actually, Tier I covers the
19 selected systems, and I'll talk about that, but normally
20 what we talk about is four systems for this review. Those
21 are the systems that undergo the Tier I review. The
22 accident mitigation review, the Tier II, is the review of
23 all systems that have an accident mitigation function. We
24 have identified 22 of those systems. The Tier III is a
25 programming review that is intended to cover things outside

1 of those systems. So it gets broader as it goes down from
2 Tier I, four systems, Tier II, 22 systems, Tier III can
3 cover the entire gamut of the 88 systems with some selection
4 of corrective actions to be reviewed under Tier III and past
5 changes and things that we'll talk about in more detail.

6 CHAIRMAN JACKSON: Okay.

7 MR. ERLER: I would like to turn over, then, the
8 rest of the presentation to Don Schopfer.

9 MR. SCHOPFER: If we could start with the first
10 slide, and that's the overhead, and that shows the schedule
11 and the status through the end of July on that schedule.
12 What you can see is the early activities, the planning
13 activities. We started this schedule -- the schedule shows
14 the start in March. Significant activity happened prior to
15 that to get the audit plan and project instructions to the
16 NRC for approval.

17 CHAIRMAN JACKSON: Now, how would the schedule be
18 impacted if deficiencies that are uncovered warranted a look
19 at an additional system?

20 MR. SCHOPFER: It would be extended. I expect
21 that it would be extended, because these scheduled durations
22 on some of the reviews are really an estimate based on the
23 number of things, number of findings, discrepancies that
24 will be identified, and if there is significantly more than
25 that, then that could extend it, or if the scope is

1 increased as a result of number of significant findings,
2 then that could increase the schedule.

3 CHAIRMAN JACKSON: Okay. And so this is
4 predicated on the four systems and not having some
5 deficiencies identified?

6 MR. SCHOPFER: That's correct.

7 CHAIRMAN JACKSON: Okay.

8 MR. SCHOPFER: As you can see, basically the top
9 half of these items are the planning and the preparation and
10 the mobilization phase; and starting with item 10 on the
11 schedule is basically into the review. As you can see,
12 we're well into the reviews; however, I believe we're about
13 a week to ten days behind -- a week to two weeks behind
14 schedule in the Tier I reviews at this point. And the other
15 activities show they are commensurate with the review on
16 Tier I.

17 CHAIRMAN JACKSON: What is the reason for the
18 delay?

19 MR. SCHOPFER: Well, the extensiveness of the
20 scope, our process of establishing the review structure and
21 getting all the information and doing the review. We added
22 staff and we have added staff to try to cover this based on
23 the schedule.

24 CHAIRMAN JACKSON: Commissioner McGaffigan?

25 COMMISSIONER MCGAFFIGAN: Just the question I

1 asked earlier. It was really the staff's estimate at the
2 last briefing, three months ago, approximately, the ICAVP
3 was guesstimated then to be over in early September. Now it
4 is early October. Was the explanation we got earlier that
5 there was a delay in completing discovery --

6 MR. SCHOPFER: The September date really was based
7 on a schedule that did not reflect the separation of the
8 Wave 1 and Wave 2 and 3 system with that being identified
9 later. With the next two systems being identified in July,
10 that added directly onto the end of the schedule. That is
11 the path or the completion.

12 CHAIRMAN JACKSON: Okay.

13 MR. SCHOPFER: If we can go on then to the next
14 slide in the presentation, it identifies the scope in more
15 detail of the Tier I review. There have been four systems
16 identified and I have the four in parentheses because four
17 really relates to 15 of the 88 NU maintenance rule systems.
18 There are not four systems here, there are 15 systems here.

19 Servicewater and the quench spray and
20 recirculation spray were the first two systems chosen and
21 then, two weeks ago, the auxiliary building HVAC system and
22 the supplemental leakage collection and release system is
23 what SLCRS is for. With the last system being the emergency
24 diesel generator and all associated auxiliaries which
25 includes the engine, the generator, the lube oil, the fuel

1 oil, the starting air.

2 CHAIRMAN JACKSON: How did you decide on the
3 scope, what criteria?

4 MR. SCHOPFER: Which systems?

5 CHAIRMAN JACKSON: Yes.

6 MR. SCHOPFER: The systems were chosen, the first
7 two systems were chosen by the staff, the NRC staff, and the
8 last systems were chosen by -- at random from a list
9 provided by the NRC staff. I'm sorry, by the Nuclear Energy
10 Advisory Council of the State of Connecticut. Those
11 personnel selected those systems from the maintenance rule
12 Group One and Two systems from a list of systems provided to
13 from the staff to them. So it was drawn out of a hat, the
14 last two systems.

15 CHAIRMAN JACKSON: So there are no specific
16 criteria in terms of scope or what it tests or --

17 MR. SCHOPFER: There were criteria established up
18 front as to what kinds of systems should be selected for the
19 Tier I review in terms of scope that it touches lots of
20 different areas in the plant, it has a great cross-section
21 of interfaces.

22 As you can see if you look at these 15 systems, if
23 you break these into individual systems, we have a wide
24 variety here in terms of disciplines and types of equipment,
25 types of commodities installed in the plant so it is a very

1 broad ranging selection. And there were some specific
2 criteria identified both by us in our audit plan of what we
3 suggest for systems and what the staff ended up using for
4 that and I am sure they can address that.

5 CHAIRMAN JACKSON: Particularly about the criteria
6 when you come to that. Thanks.

7 MR. SCHOPFER: In addition to the 15 systems that
8 are being reviewed, the scope and the definition of the
9 scope and the boundaries for each of those systems including
10 instrumentation and controls and indirect support systems
11 and electrical interfaces includes then a limited review of
12 some additional 51 systems, meaning that they won't receive
13 the level of review that the 15 are being reviewed to but in
14 fact we touch on those systems to some extent during the
15 review process and the numbers of interfaces with each
16 system are identified here and they are not additive. That
17 number is approximate at this point. I'll try to give you a
18 brief review status on where the review is and where the
19 review stands on the tier 1. I have a slide with lots of
20 numbers and what I will say about that is that the items
21 down the left side is basically the steps and the order in
22 which the work has to be done on the tier 1 review --
23 establishing the system boundary definition and knowing what
24 exactly is in the scope of that particular system, obtaining
25 all the documents from NU for that review, screening the

1 findings from NU's configuration management program so that
2 we are not duplicating efforts, identifying the system
3 requirements -- that's the design and licensing basis
4 requirements that these systems are required to meet, doing
5 reviews then of calculations, components, drawings, topical
6 reviews, things such as fire protection, high energy line
7 break and those kinds of things, and then basically
8 dispositioning those system requirements based on the
9 documents that are being reviewed.

10 The population of items under the first two
11 systems, service water and QSS, RSS are shown in those first
12 two columns and where or the status of percent complete of
13 doing those activities is shown in the next two columns.

14 We are basically nearing completion with
15 identifying the requirements and we are in the process of
16 doing the reviews of the individual calculations components
17 drawing, et cetera.

18 The modification review is a couple of steps in
19 the process that will be done after the design basis review.

20 CHAIRMAN JACKSON: How large is this configuration
21 team that is on-site that is actually going to -- they are
22 the ones -- they are going to be doing --

23 MR. SCHOPFER: There are currently eight people
24 on-site right now.

25 CHAIRMAN JACKSON: And so are they going to be

1 involved with the -- when you say component reviews, what
2 does that mean?

3 MR. SCHOPFER: That is a review to see that
4 component meets the requirements in terms of it was
5 purchased to the calculations that matches the calculation
6 requirements and the design requirements for that component.
7 It's more or less of a drawing and specification review.

8 The next slide shows the physical configuration
9 review and that in fact is the scope of the walkdown teams.

10 CHAIRMAN JACKSON: Okay.

11 MR. SCHOPFER: That is what we call the CRG and
12 that group, currently eight people on-site -- actually they
13 are at a location just off-site but near the Millstone
14 Station.

15 Their scope is scoping the walkdown drawings,
16 identifying the boundaries, redlining -- meaning making
17 changes to those drawings based on the outstanding changes
18 that exist in the station that haven't been -- but the
19 drawing has not been revised.

20 The rest of the process here -- to compare the
21 physical drawings versus the upper tier drawings and
22 eventually then do the walkdowns. The numbers and the
23 population are the actual numbers of drawings involved
24 unless otherwise stated there and percent complete. We are
25 on the first two systems.

1 CHAIRMAN JACKSON: Yes, but I notice that you
2 don't have anything on the HVAC and EDG.

3 MR. SCHOPFER: That is correct. We have not -- we
4 have scoping meetings scheduled for this afternoon and
5 tomorrow with the staff to identify the boundaries.

6 This work is in process of getting the information
7 to do this level of effort on the next set of systems.

8 CHAIRMAN JACKSON: But yet you feel that by
9 October 14th you are going to be done?

10 MR. SCHOPFER: We are reviewing that schedule.
11 We're looking at resources in order to do that.

12 COMMISSIONER DIAZ: Okay. That was the question,
13 looking at the number of drawing reviews and having done a
14 couple of them in my old life, I am just wondering whether
15 October 14 is a realistic schedule, talking of two months.

16 MR. SCHOPFER: We are reviewing that date and we
17 are looking at resources of what we need to do, and maybe
18 there are limitations in terms of resources, in terms of
19 what you can effectively add, so we are reviewing that as an
20 overall situation and we will --

21 COMMISSIONER DIAZ: You are not certain today with
22 the limited resources that you have that you can meet that
23 deadline?

24 MR. SCHOPFER: I am certain that the resources I
25 have on the slide today is probably going to grow.

1 The next slide is the O&M -- the ORG as we call
2 it, the operations and maintenance and testing review.

3 Without going through it in detail, they have a
4 similar process but their documents that they look at are in
5 fact the operations procedures, the maintenance and testing
6 and training procedures, to see that the design basis
7 requirements have in fact been translated into,
8 appropriately into those procedures and that includes some
9 of the witnessing of testing and looking at test records to
10 see if the performance of the systems meets, actually meets
11 the requirements and their modification review at the end of
12 that.

13 The next slide basically shows that the next two
14 systems, the next set of systems, whatever that number is,
15 10 or 11, we are doing the boundary definition. We have
16 meetings scheduled, as I said, for this afternoon and
17 tomorrow to meet with the Staff related to that, and next
18 week to present those boundaries to NU in a public forum and
19 document retrieval for those systems is in progress now.

20 CHAIRMAN JACKSON: So you really don't have a real
21 assigned completion date for these two systems at this stage
22 of the game?

23 MR. SCHOPFER: We are working to the date that we
24 have established, but we are reviewing that in terms of the
25 resources necessary to meet that date or if there is a

1 different date.

2 COMMISSIONER DIAZ: You think that by the end of
3 this week you will have some definition of what you are
4 going to take regarding the auxiliary building, HVAC --

5 MR. SCHOPFER: Probably early next week -- Monday
6 or Tuesday of next week.

7 The next slide shows the tier 2, the accident
8 review status.

9 We have completed the review of the Chapter 15
10 accident analysis and identified the mitigating systems and
11 components that mitigate the accidents and the critical
12 characteristics that we're going to review associated with
13 those.

14 CHAIRMAN JACKSON: So you are tasked with also
15 reviewing the adequacy of the other FSAR sections with
16 respect to these accident mitigating SSE?

17 MR. SCHOPFER: We have reviewed the entire Chapter
18 15 accident analysis section and the other chapters, 6 and
19 sections about that also, but in any case, yes, we are
20 looking at that, those sections, for conformance with tech
21 specs and design requirements in the performance of the
22 components in those systems that mitigate the consequences
23 of these accidents.

24 Did I answer your question, Chairman Jackson?

25 CHAIRMAN JACKSON: I am not sure, but go on. I'll

1 come back.

2 MR. SCHOPFER: We have identified 22 accident
3 mitigation systems noted on the slide. A number of them are
4 shown there. Some of them, two or three of those systems,
5 are in fact systems that are in the 15 select systems.

6 We have also identified approximately 150 critical
7 characteristics on those 22 systems that we are going to
8 review and a breakdown of the types of characteristics are
9 shown there. Again, it is a variety of types of equipment
10 and things that must be verified.

11 The status of that portion of the review, again,
12 we have submitted this list of characteristics and how we
13 are going to review them to the staff and we expect they
14 have looked those over, reviewed those and we expect some
15 comments this week from them about the adequacy of what we
16 have identified in our review process.

17 We are in the process of doing those reviews and
18 if additional guidance from staff results then we will add
19 that to the review.

20 CHAIRMAN JACKSON: Before you go on, let me go
21 back to your associated system critical characteristics.
22 Did you find that these flows and times and actions with
23 respect to these associated system critical characteristics
24 were explicitly called out and defined in the FSAR?

25 MR. SCHOPFER: Yes. Yes, for example, the flow

1 rate to the vessel via, say, safety injection must be so
2 much gallons per minute within a certain time period.

3 CHAIRMAN JACKSON: And will you be verifying that
4 emergency and abnormal operating procedures have limits that
5 are conservative relative to these flows and times and so
6 forth and actions particularly that are explicitly called
7 out in the FSAR?

8 MR. SCHOPFER: For? We are not doing an extensive
9 operations procedure review on these systems. We are doing
10 that on the 15 selected Tier I systems. I do not believe
11 that we are doing an extensive operations review on those 22
12 or those --

13 CHAIRMAN JACKSON: Because part of verifying
14 conformance with the design and licensing basis and if you
15 are, you know, reviewing things relative to what is
16 explicitly called out in the FSAR, is in fact reviewing
17 whether, in fact, the procedures are in conformance. And
18 you are saying you are not going to be doing that?

19 MR. SCHOPFER: I am saying we are doing that for
20 all of the Tier I systems and I guess my recollection is
21 that we are not doing that for these Tier II systems. To
22 the extent that a Tier I system is also on this list of Tier
23 II systems, and there are at least three or four in that
24 case, then yes, the answer is yes, we will be looking at all
25 the abnormal operating and the normal operating procedures

1 on the Tier I systems.

2 CHAIRMAN JACKSON: Okay, and you feel that is a
3 good thing to do?

4 MR. SCHOPFER: Well, I think if the question is do
5 I feel we should be doing that additional step on those
6 systems, there is lots of additional things that can be
7 done. We were following basically the scope of what has
8 been laid out now. You can review that with the staff and
9 talk about whether that is something we ought to do in
10 addition.

11 MR. ERLER: I think a lot depends upon the results
12 of the Tier I system review. I think we have to complete
13 those 15 systems and as they support the accident mitigation
14 and then we can draw some conclusions if more needs to be
15 done.

16 MR. SCHOPFER: The Tier III, the next slide is the
17 Tier III scope and that is again a wider review and for
18 different types of things, wider in terms of the number of
19 systems.

20 The four components of the Tier III review is to
21 review the current configuration, control and design change
22 processes to review the NU implementation of those current
23 change processes, to review their corrective actions, end
24 use corrective actions including -- that they have
25 identified through their configuration management program,

1 including the extended condition, where they have identified
2 the extended condition, the identification of causal factors
3 and root causes for corrective action documents, and the
4 adequacy of their corrective actions that they plan to
5 resolve the issue. So that review is being done.

6 For all of the corrective action documents for the
7 selected -- 15 selected systems and a sample of corrective
8 actions outside those 15 systems will be developed by the
9 staff and will be assigned to that.

10 CHAIRMAN JACKSON: Let me take you back to the
11 previous slide, the accident review status. You said that
12 your proposed review methodology was submitted to the NRC
13 for approval. When did you do that?

14 MR. SCHOPFER: June 30, I believe.

15 CHAIRMAN JACKSON: This is on track relative to
16 the schedule that you have laid out for yourself?

17 MR. SCHOPFER: Yes, it is.

18 And the last bullet on the programmatic, the Tier
19 III review, is the past change reviews and that is a review
20 of changes made under various programs that were made since
21 the receipt of the operating license at NU.

22 Quickly, the status for the programmatic review on
23 the current change processes, we have completed that review
24 of all 11 processes that included 20 procedures and eight
25 chapters of their design control manual and the review

1 resulted in eight discrepancy reports being identified. Six
2 of those were issued and two are in progress at this time.

3 CHAIRMAN JACKSON: Hold up a second. You know,
4 there was a -- you know, I had my staff pull up, you know,
5 from your home page some of the, you know, which turned up
6 in your consistency reviews, and I noted that you had a
7 particular one listed for technical specification
8 consistency, and basically the example shown was from the
9 administrative section of the tech spec. Is this the only
10 tech spec consistency issue you've identified to date?

11 MR. SCHOPFER: There is at least one other
12 deficiency discrepancy report I think that talks about a
13 tech spec requirement, administrative requirement for one
14 other one besides the one that I think you just mentioned.
15 I think there are two that have requirements in the tech
16 specs about administrative processes that we found a
17 discrepancy on.

18 CHAIRMAN JACKSON: And then there was one having
19 to do with the use of later versions of ASME section 11, and
20 so what was NU's response relative to the use of newer
21 codes, and were they inappropriately using a code case or --

22 MR. SCHOPFER: I don't know the answer to that.
23 They have responded to those, and I -- it's under review,
24 and I don't know actually what that response is.

25 CHAIRMAN JACKSON: Okay. Could you get the answer

1 for me?

2 MR. SCHOPFER: Yes, I will.

3 CHAIRMAN JACKSON: Thank you.

4 MR. SCHOPFER: The current change process
5 implementation, 11 process implementation checklists have
6 been identified and sent to the NRC for approval. That
7 review will be conducted in parallel with the tier 1
8 modification review. So this piece of it is scheduled later
9 on in the process, and the NRC is currently reviewing those
10 checklists.

11 Programmatic -- excuse me, the corrective action
12 reviews identify just the scope here of unresolved item
13 reports which were corrective action documents that were
14 under -- resulting from the NU configuration management
15 process. There were 235 UIR's identified on service water
16 and 265 on the QSS RSS.

17 CHAIRMAN JACKSON: And over what time frame were
18 they identified?

19 MR. SCHOPFER: From the initiation of their CMP
20 program, and I'll say that goes back to last year, February
21 of '96.

22 CHAIRMAN JACKSON: Okay.

23 MR. SCHOPFER: And in addition there are 135
24 condition reports and CR's and ACR's that are not shown on
25 the slide on these two systems. We have those, and those

1 UIR's and CR's and ACR's are under review now. Additionally
2 we've identified 263 UIR's for the next set of systems, and
3 I don't have the number for the number of CR's and ACR's
4 yet. Getting that information. In addition we will be
5 reviewing the sample of corrective actions outside of the 15
6 Tier I systems, and the NRC staff will identify what those
7 numbers and specific items are. In addition we have some
8 previously identified design-related deficiencies that were
9 identified prior to the OL that is in the scope of this part
10 of the review.

11 CHAIRMAN JACKSON: That's prior to the operating
12 license.

13 MR. SCHOPFER: Yes.

14 CHAIRMAN JACKSON: Okay.

15 MR. SCHOPFER: In the past change review there are
16 10 categories of change items included in the scope, things
17 like like-for-like replacements, procedure changes, set
18 point changes, work authorization, a number of other
19 possible change mechanisms that have been available and in
20 use at NU over the last 10 or 11 years, and we are going to
21 look at a sample of those changes in the last 11 years. We
22 have gotten the lists of all those changes made in those
23 categories since the operating license date, and selection
24 criteria have been submitted to the staff for them to
25 review, and that number today is eight instead of four.

1 We've submitted eight of those categories to --

2 CHAIRMAN JACKSON: But you intend to review all
3 the categories?

4 MR. SCHOPFER: Yes.

5 CHAIRMAN JACKSON: And what are the totals in
6 these lists? Is this in the thousands?

7 MR. SCHOPFER: Yes.

8 The last slide I have is basically a summary of
9 the discrepancies, numbers of discrepancies identified to
10 date. There are six DR's that have been formally issued to
11 NU and the NRC. The number today -- there are actually 24
12 discrepancy reports in process at Sargent & Lundy for a
13 total of 30 identified to date. We have received the
14 resolutions from NU on the first six that were submitted to
15 them, and our review of those resolutions is in process.

16 CHAIRMAN JACKSON: Okay.

17 MR. SCHOPFER: That's all I have to present. If
18 there are any questions, any additional questions --

19 CHAIRMAN JACKSON: I note that you have a web
20 site, and it contains, you know, discrepancy reports we've
21 been talking about, and their resolution, so do you plan on
22 putting NU responses to the discrepancies --

23 MR. SCHOPFER: Yes, we do.

24 CHAIRMAN JACKSON: On line.

25 MR. SCHOPFER: And our review acceptance, our

1 comments on their resolutions. Yes.

2 CHAIRMAN JACKSON: Okay.

3 All right, we're going to hear from Parsons, are
4 we?

5 MR. CURRY: Good morning, Chairman.

6 CHAIRMAN JACKSON: Good morning.

7 MR. CURRY: On behalf of Parsons, I would like to
8 thank each one of you, Chairman, Commissioner McGaffigan and
9 Commissioner Diaz for the opportunity to be here. Since the
10 Sargent and Lundy team has overviewed the essential aspects
11 of the program that both of us are working to, I am going to
12 give a status of our work and realizing that, of course,
13 from a schedule standpoint they are about two months ahead
14 of us.

15 I have broken down our presentation into three
16 areas. First, I would like to review our particular team
17 and the way we are organized and give you an early status of
18 our Tier I, II and III activities and the processes that we
19 will be utilizing in those particular areas and also a
20 status of the support activities.

21 On the next slide, you will see the ICAVP team.
22 Myself, as the project director, and Mr. Blocher as the
23 deputy, who is responsible for the technical adequacy of our
24 work. Similarly, we are organized with the tier teams and
25 also a regulatory review group, as well as a technical

1 advisory group, to oversee -- their internal review group
2 would be their actions.

3 Right now, we have 73 technical people assigned to
4 this project. There are additional project controls and
5 certainly document control personnel, as you have heard from
6 the previous discussions. Gathering data is key to be able
7 to perform these evaluations.

8 The numbers that you see outside of those
9 particular large boxes are the people assigned in each area.

10 I am very pleased about the qualifications of the
11 team that we can bring forward. As we have identified here,
12 19 masters' degrees, eight PhDs, 27 professional engineers
13 and 10 people from the operations areas, with reactor
14 operators or senior operation qualifications. The team is
15 very experienced at 30 years on an average. Each team
16 member, of course, has been interviewed by the staff and not
17 only for their technical adequacy but also for their
18 independence from Northeast Utilities. Those conflict of
19 interest statements are available and on file with the
20 staff.

21 Our Tier I status, of course, is -- we are just
22 beginning. It was last week that we formalized with the
23 Northeast Utilities the actual boundaries for the first two
24 Tier I systems that we will be inspecting. Those two
25 systems have been selected. They are the high-pressure

1 safety injection with the refueling water storage tank added
2 into that system as well as the auxiliary feedwater added in
3 with the condensate storage tank.

4 Our boundary system process identified all the
5 interface systems and interface points to those selected
6 systems and I will detail those on a later slide. In
7 accordance with our audit plan, we have a system review work
8 book that includes 10 checklists for each of the key
9 configuration management areas and we utilize that as we
10 inspect each system.

11 This slide shows the breadth of the Tier I
12 inspection and, based upon the questions I have heard today,
13 clearly I think SS&L has indicated this is an extremely
14 broad and deep inspection that is being done. When you look
15 at the systems that are selected, we will be looking at them
16 in their entirety and all those systems that interface. As
17 I have indicated here in the slide, for auxiliary feedwater,
18 we have identified 12 interfacing systems that we will be
19 looking at which indicate 101 interface points.

20 On the slide, I have indicated 45 modifications
21 and those are 45 major modification packages that had to do
22 with the auxiliary feedwater system specifically. The
23 reason I am not yet complete with that, I have to look at
24 those interfacing systems and see how many modifications
25 would be applicable to the particular auxiliary feedwater

1 interfaces.

2 CHAIRMAN JACKSON: Actually, I should have asked
3 this when Sargent and Lundy was talking. I note that you
4 don't call out any specific focus on the electrical, in the
5 electrical area other than the emergency diesel generators
6 and in the INC area generally. Can you say anything
7 about -- was that on the list of these items, additional
8 items where you -- this random selection was made?

9 MR. SCHOPFER: The scope of the review for the
10 second set of systems includes the 4160 volt supply system
11 which is a large chunk of the electrical system. However,
12 in addition, the boundary definition for all of the Tier I
13 systems includes the electrical supply to all of the
14 components back to the first motor control center, the first
15 primary source equipment. And then a load path review
16 meaning not the full detail from that motor control center
17 backwards all the way to the diesel generator.

18 So it includes an extensive amount of electrical
19 review with each of the Tier I systems. In addition, the
20 I&C portion of the instrumentation and control interface has
21 been defined to include all of the interfacing signals
22 from -- that go to or come from a selected system. For
23 example, if reactor protection signals or containment
24 depressurization and those kinds of things affect a
25 component in the selected system, we will review that

1 interfacing system and that I&C so it is a -- that I&C
2 component from a full design basis standpoint. So it is an
3 extensive I&C and electrical review and I did not mention
4 that.

5 MR. CURRY: Similarly, the similar structural
6 attributes of the system will come in under review.

7 In that particular area if you look at the pipe
8 calculations, efforts required, there are 12 stress analysis
9 packages we have already identified within the base system
10 of auxiliary feedwater and the number there of 217 pipe
11 support calculations to be reviewed.

12 The regulatory documents specific to the auxiliary
13 feedwater system, SERs, license amendments, generic letters,
14 bulletins, in addition to 45 more generic ones that would
15 apply across many systems, MOVs is an example, have been
16 reviewed and we will be taking that review as far as the
17 implementation of those requirements.

18 CHAIRMAN JACKSON: So you have completed your
19 system walkdowns at this time?

20 MR. CURRY: No, ma'am, I have not completed my
21 system walkdowns. We have started those but we are not yet
22 complete.

23 CHAIRMAN JACKSON: Okay.

24 MR. CURRY: As you will see, I have also included
25 for the high-pressure safety injection system a similar type

1 of data.

2 Our Tier I status, NNECo indicated they would be
3 ready for us to start the first portion of the group one
4 systems on the 30th of June. Our second system was selected
5 on the eighth of July and we met with staff on the 21st to
6 identify the boundaries for the first two systems.

7 CHAIRMAN JACKSON: So you anticipate going beyond
8 these two systems?

9 MR. CURRY: Yes, Chairman Jackson, we do. We
10 expect, similar to the process being used on Unit 3, that
11 there will be two more, as a minimum, two more systems
12 selected.

13 CHAIRMAN JACKSON: Okay.

14 MR. CURRY: We initiated our Tier I system reviews
15 on the 21st of July. As I mentioned last Wednesday, on the
16 30th, we identified that to the Northeast Utilities in a
17 public meeting and our current schedule, which is under
18 review, indicates that we would complete that by the 15th of
19 September.

20 Tier II is also an extensive review as has been
21 pointed out. In our particular case, we are required to
22 review all of the FSAR Chapter 14 analysis, look at the
23 seven major event categories which break down to 29
24 individual events. And the extent of that from our reviews,
25 currently we have been able to identify 45 systems of the

1 maintenance rule systems that will be affected. We
2 currently have only been able to exclude seven of those
3 systems and the others are currently under review. As you
4 can see my approximate number there, we could well reach 56
5 systems that we would be looking at under the accident
6 mitigation portion of this.

7 We have identified as a minimum 20 -- excuse me,
8 300 unique components. And I mean as unique, two auxiliary
9 feedwater pumps. By definition, an auxiliary feedwater pump
10 is a unique component and I am not double counting for
11 redundancy. The purpose of this particular process, of
12 course, is to verify for active components the critical
13 design characteristics that must be met to support the
14 accident analysis and Chapter 14. In our approach we used a
15 checklist that identifies the critical design
16 characteristics for a review based upon our process that
17 uses the system boundary diagrams for the major component
18 functions and the system functional diagrams that relate
19 component function to design basis events.

20 So from the CDCs we go to the major component
21 functions and the importance of that function and its
22 associated characteristics to the design basis events back
23 to the Chapter 14 analysis.

24 We must, according to the scope of our inspection,
25 identify and submit to the Staff the critical design

1 characteristics for review. We have chosen to break that
2 down into three different areas.

3 The first two areas would cover the majority of
4 the Group 1 systems and we submitted on 18 July the five
5 overcooling events. Today we have delivered six additional
6 events that cover the reactor coolant pressure boundary
7 events.

8 By the date of the 25th of August we expect to be
9 able to complete our submittal, the CVCs for the Staff
10 review.

11 Our tier 3, currently we have submitted our sample
12 and identified that and submitted it to the Staff for their
13 review. Our scope, slightly different, is to assess the
14 adequacy of the CMP to identify and correct past changes to
15 the process configuration management looking for
16 deficiencies.

17 We have assigned the 10 changed processes into
18 four functional groups, and I have identified the four
19 functional groups of engineering, information and records
20 management, parts procurement/supply, and operations and
21 maintenance -- again paralleling very much what you heard
22 from Sargent and Lundy.

23 Our tier 3 status, our process is really broken
24 into two phases as it relates to NNECos, the CMP completion
25 schedule.

1 We submitted the sample for NRC approval. We
2 expect to complete by the 8th our request for prime sample
3 documents and based upon receipt of that information we
4 expect the schedule -- we'll be able to complete the Phase 1
5 portion of tier 3 by the 15th of September. Congruent with
6 Northeast completing their CMP discovery on all systems we
7 expect on that same date to be able to put out our request
8 for the second phase of our sample documents.

9 I would like to discuss just a little bit some of
10 those other support type activities. As soon as we were
11 notified that Northeast Utilities was ready we posted our
12 website the public would have access in a similar manner as
13 has been discussed previously and that went up on the 1st of
14 July.

15 We also have an office in a different location
16 from Sargent & Lundy near the site. Our team has been
17 trained, badged, and has started conducting their walk-
18 downs.

19 Information is really key. As I have indicated on
20 the slide, 179 requests issued -- 152 completed. THis is an
21 area where we are being very aggressive. Today we have
22 people looking at proprietary analysis that had been done by
23 Siemens Corporation so that we can bring those back into our
24 offices to do detailed reviews as they relate to the
25 accident and mitigation.

1 We also have a team on-site from our tier 3 that
2 are selecting the sample documents that we will want to
3 review in our corporate offices.

4 Early on though we have identified three
5 discrepancies. These are primarily in the procedural
6 inconsistency area and they would be at significance level
7 4 -- those three discrepancies will be posted this morning
8 in accordance with the audit plan procedures.

9 Our website, again to provide the public with the
10 opportunity to see and have access to the information as
11 this project goes ahead, hopefully the address will be noted
12 by all. It is set up in a similar manner -- seven pages
13 providing all the prime and backup information for all the
14 organizations involved -- Nuclear Regulatory Commission, the
15 Northeast Utilities, our own organization as well as
16 Connecticut's NEAC organization.

17 We'll also post as a backup method to the NRC any
18 meetings involving ourselves and then any meeting summaries
19 not posted by -- not transcribed by the Nuclear Regulatory
20 Commission.

21 Our discrepancy report index and the text and the
22 responses that will come back from Northeast will be posted
23 as well as, as the project progresses, the final reports
24 indexed and the text provided.

25 We are kind of early-on. If I can answer any

1 questions?

2 CHAIRMAN JACKSON: Commissioner Diaz?

3 COMMISSIONER DIAZ: Just a quick nomenclature
4 question. Does your Chapter 14, Unit 2 correspond to
5 Chapter 15 and Unit 3?

6 MR. CURRY: Yes, sir.

7 COMMISSIONER DIAZ: Just to keep the Commissioners
8 confused.

9 [Laughter.]

10 CHAIRMAN JACKSON: It's a plot. Commissioner
11 McGaffigan?

12 COMMISSIONER MCGAFFIGAN: No questions.

13 CHAIRMAN JACKSON: Well, thank you, gentlemen.
14 We will now hear from Little Harbor Consultants.
15 Good morning.

16 MR. BECK: Good morning, Chairman Jackson,
17 Commissioners.

18 CHAIRMAN JACKSON: If you could introduce those --

19 MR. BECK: I certainly will. I'm John Beck,
20 president of Little Harbor Consultants and team manager for
21 the Little Harbor oversight activities at Millstone, and
22 with me at the table this morning are John Griffin, who is
23 deputy team manager for the effort, and Billy Garde, a
24 member of the team who is primarily responsible for the ECP
25 implementation review which I'll be discussing in some

1 detail a little later this morning.

2 We're pleased to have this opportunity to address
3 the Commission regarding the results of our oversight
4 activities to date. We have provided the Commission a
5 briefing book which contains the information provided to the
6 NRC staff and the company management during public meetings
7 on May 13, June 3 and July 22nd of this year.

8 We obviously don't have sufficient time to cover
9 all the material; thus, we'll provide a summary of our
10 current assessment of the safety conscious work environment
11 at Millstone and our evaluation of the employee concerns
12 program implementation. We will also be pleased to respond
13 to any questions you may have regarding the material we
14 provided earlier.

15 On July 22nd, we reported to the NRC staff and to
16 company management the results of our structured interviews
17 with 239 members of the Millstone work force. These
18 interviews were conducted between June 16 and July 10, and
19 those interviewed were 207 Northeast employees and 32
20 contractor employees at the site, and included
21 representatives from essentially every work group at the
22 Millstone Station.

23 While we selected those to be interviewed, the
24 interviews were voluntary, non-attributive and conducted in
25 a confidential setting. We explained the purpose of our

1 oversight role to those being interviewed and the purpose of
2 the interviews themselves and used a questionnaire developed
3 specifically for the Millstone environment. Where the
4 subject matter was appropriate, we asked the interviewees to
5 rate attributes on a scale of 1 to 5, and also asked them to
6 compare their current feelings or attitudes about an issue
7 with how they felt about the same issue a year ago.

8 CHAIRMAN JACKSON: So how big a sample size did
9 you say you had?

10 MR. BECK: 239 total.

11 CHAIRMAN JACKSON: Okay.

12 MR. BECK: In general, we found an improving
13 environment. While the average numbers, and they were
14 talked about earlier, reflected positive changes in
15 essentially every instance, we did caution management that
16 averages don't tell the whole story. For example,
17 significant standard deviations had some rather large spread
18 in some instances, indicating that not everyone was as
19 positive about the particular matter covered as the average
20 would indicate.

21 Our first slide summarizes what we found
22 concerning the willingness of the work force to raise safety
23 concerns in today's environment. We found, for example,
24 that management's expectation for raising concerns has been
25 clearly and effectively communicated to the work force.

1 Ninety-four percent of those interviewed responded that if
2 they had a safety concern, they knew they were expected to
3 raise that concern.

4 Also when asked, 100 percent of those interviewed
5 that if they were aware of a nuclear safety concern, they
6 would raise that concern via one of the available options.

7 CHAIRMAN JACKSON: So no one said no, and this is
8 out of --

9 MR. BECK: No one said no. We did have --

10 CHAIRMAN JACKSON: Excuse me. This is out of your
11 sample of 239?

12 MR. BECK: That's correct. There were no negative
13 responses.

14 CHAIRMAN JACKSON: Tell me what the distribution
15 in terms of worker categories were represented in your
16 sample.

17 MR. BECK: We took a very careful look at the
18 organization and selected those to be interviewed in a
19 horizontal, evenly distributed fashion, and vertically, we
20 got into management structure, supervisory level, and
21 workers on representative basis given how many individuals
22 there were in each one of those groups. So we have a good
23 sampling of the entire organization, top to bottom and one
24 side to the other.

25 CHAIRMAN JACKSON: Okay.

1 MR. BECK: We think that the responses with regard
2 to the 100 percent positive response on raising a safety
3 issue says a lot about the current state of people's
4 attitudes of raising safety concerns at the site today.

5 We also determined that those interviewed had
6 greater confidence today that a safety concern once raised
7 would be resolved. This particular slide shows the
8 increased level of confidence from a year ago.

9 We asked questions also about raising any concern,
10 not just nuclear safety concerns, including issues of
11 personal matters, human resources, management concerns, and
12 while most people indicated an improved environment for
13 raising any concerns, there were approximately 50
14 individuals who expressed some level of discomfort in
15 raising other types of concerns, and obviously there's room
16 for improvement in this particular area. Many of the issues
17 dealt with if it involved peers, tattling on a peer, for
18 example, if something weren't quite right, or anything that
19 would involve personal embarrassment, things of that type,
20 got --

21 CHAIRMAN JACKSON: Is there clarity as to, you
22 know -- I mean, is there a low threshold for what a safety
23 concern is? Is there clarity in people's minds as to what
24 constitutes a safety concern?

25 MR. BECK: In general, I think they have a very

1 good understanding of what may be a safety concern and no
2 reluctance to raise it if they think it is.

3 CHAIRMAN JACKSON: Okay.

4 MR. BECK: During interviews, we also asked
5 questions intended to gather data on how the work force
6 feels about various attributes of a safety conscious work
7 environment. As you can see, there has been an improvement
8 in the questioning attitude of the work force, for example.

9 You can also see that self-assessment efforts have
10 not been totally effective. In fact, --

11 CHAIRMAN JACKSON: What do the numbers mean when
12 you say 48 percent yes and 52 percent no?

13 MR. BECK: Forty-eight percent of those
14 interviewed were able to identify substantive change that
15 had resulted from self-assessment activities. We would
16 expect to see that number higher once the self-assessment
17 program at the site gains further momentum.

18 CHAIRMAN JACKSON: So it's a perception as to the
19 value of self-assessment?

20 MR. BECK: Yes. That's correct.

21 CHAIRMAN JACKSON: And so 52 percent felt that
22 self-assessment has had no effect.

23 MR. BECK: Had no discernible impact in their
24 particular work area to date.

25 There has also been a substantial improvement in

1 the perception of chilling effect, or, to be more exact, the
2 lack of chilling effect today at Millstone. A value of 1 in
3 this case means a total lack of chilling effect as perceived
4 by those interviewed. The average of 1.8 today indicates a
5 significant improvement in the opinion of those interviewed
6 with respect to how they felt over a year ago. But as we
7 also pointed out to management, there are still pockets at
8 the station where some chilling effect continues to persist.

9 CHAIRMAN JACKSON: Do you believe there's a
10 relationship between a disciplinary action for performance
11 and a chilling effect relative to raising safety concerns?

12 MR. BECK: There could be.

13 CHAIRMAN JACKSON: And do you have an opinion as
14 to how that can be addressed so that -- you know, not
15 getting into any issues with respect to any particular case,
16 but do you have any thoughts about that?

17 MR. BECK: I think it's very important that
18 management clearly explain the details associated with
19 disciplinary action, why it was taken, how it's being
20 implemented, how it's specifically directed toward a
21 particular set of circumstances and does not have an adverse
22 impact on other people.

23 I would like to ask Billie to comment on that
24 question as well.

25 MS. GARDE: I think in any situation like that, it

1 is also very important that if the issue of retaliation is
2 raised in connection with a disciplinary action, that people
3 take a step back from that and go back to the same incident
4 and event that was reviewed and look at it again from a
5 different perspective. I think when that issue of
6 retaliation is raised, an incident deserves a second scrub
7 to look more at the background and the motives and that the
8 work force needs to clearly understand that that second
9 scrub was done and then have the reinforcements given that
10 this particular event should not in any way detract people
11 from raising -- excuse me, raising concerns. If there is
12 still a fear, then that work group is going to need some
13 extra effort to help get over that incident.

14 CHAIRMAN JACKSON: Okay.

15 MR. BECK: We also asked questions about the level
16 of confidence in the employee concerns program and while
17 there has been an improvement as evidenced by the top graph
18 of this slide, 8 percent of those interviewed indicated they
19 would not use the employee concerns program. Their reasons
20 ranged from a lack of trust in the program to a belief that
21 the employee concerns program did not have the authority
22 necessary to obtain resolution.

23 CHAIRMAN JACKSON: Is this a change from last year
24 in the number?

25 MR. BECK: In that particular case, it is. It is

1 a change. I don't have the specific numbers with me right
2 now.

3 The next segment is going to address our findings
4 with regard to the employee concerns program and its
5 implementation.

6 The company's comprehensive plan which was
7 submitted in response to the NRC order of October 24, '96,
8 committed to an extensive revision in their employee
9 concerns program at Millstone. And, for the past several
10 months, we have been monitoring the comprehensive plan and,
11 in particular, the implementation of the new employee
12 concerns program.

13 They have made major improvements in this area.
14 The company has made available the resources and the
15 facilities necessary to implement the program. They have
16 developed a new program manual which we considered to be an
17 excellent document. They have also brought in experienced
18 contract help to support program implementation and to
19 mentor the company employees associated with the employee
20 concerns program. These improvements are a significant
21 advancement from the earlier program. However, our review
22 of the implementation identified a number of deficiencies
23 that must be corrected before this program will be fully
24 effective and earn the trust, full trust of the work force.

25 While they have indicated that sufficient --

1 dedicated, rather, sufficient resources to the program, not
2 all the employees in the ECP program have been qualified or
3 trained to perform the necessary functions expected in an
4 effective program. Our review of program activities such as
5 intake and investigation reveal that work activities were
6 not being performed in accordance with the new program
7 manual.

8 One disturbing finding was that discussion with
9 workers who had used the ECP indicated that 37 percent would
10 not use the program again. Most of that dissatisfaction was
11 based on the belief that the employee concerns program did
12 not have the independent authority to resolve issues.

13 CHAIRMAN JACKSON: So how does this square with
14 your earlier findings? Is it that the employee concerns
15 program first of all doesn't relate to a safety-conscious
16 work environment since you expressed, you know, satisfaction
17 on the part of people with respect to raising safety
18 concerns and then a year ago there seemed to be improvement
19 in terms of the confidence that the employee concerns
20 program would result in resolution and I am a little bit
21 confused because you had high numbers of individuals who
22 said they found no reason not to use the employee concerns
23 program.

24 Was that comprised of individuals who had not used
25 it before?

1 MR. BECK: In the main, yes, and that is the
2 reason for the apparent discrepancy. In this particular
3 case with the 37 percent, this is a subset of people who
4 have used the program and who were interviewed separately
5 from the structured interview process.

6 CHAIRMAN JACKSON: And have you culled out of the
7 37 percent who expressed dissatisfaction, have you been able
8 to delineate what the sources of their dissatisfaction are?

9 MR. BECK: Billie, would you?

10 MS. GARDE: Yes.

11 We contacted individuals. Obviously, some of the
12 concerns were anonymous but we contacted as many individuals
13 as we could who had used the program and whose files were
14 resolved or closed and then interviewed those individuals
15 about their satisfaction with the program and from that,
16 including whether or not they would use it again, we came up
17 with the 37 percent would not use the ECP again.

18 CHAIRMAN JACKSON: What I am trying to say is
19 that, out of that 37 percent, have you been able to identify
20 what the clear factors and concerns are?

21 MS. GARDE: Yes, we did.

22 CHAIRMAN JACKSON: And you have fed this back into
23 the process somehow?

24 MS. GARDE: We have not fed it back into the
25 process with that level of detail. You know, two people

1 said they wouldn't use it because of this reason or five
2 people because of this reason. But we certainly gave
3 generically the feedback. And, as I think Mr. Beck said,
4 the majority of it, I think all but a very few people, would
5 not go back because they were not satisfied with ECP's
6 reliance on either human resources or line management's
7 resolution of their concern.

8 CHAIRMAN JACKSON: Commissioner Diaz, you had a
9 question?

10 COMMISSIONER DIAZ: With respect to tracking of
11 this program with the expected plant startup or completion
12 of work, I am concerned that this first two bullets in here,
13 staff qualification process, has not been completed. It
14 doesn't say how much of it has been completed, and staff
15 training is not yet implemented. How are you on track or
16 not on track for having this portion of training completed
17 prior to startup?

18 MR. BECK: Our understanding of management's
19 reaction to this finding is that they have embraced the
20 findings and they are working diligently to correct every
21 one of the deficiencies that we have pointed out to them.

22 Their particular emphasis on that area is apparent
23 to us since July 22 when we made our public report and we
24 are going to watch very carefully. I have expectations that
25 they are going to address every one of those issues as

1 rapidly as they possibly can and there is no reason why they
2 can't be corrected in relatively short order once the focus
3 and the attention is given to it.

4 CHAIRMAN JACKSON: I think that the employees'
5 concerns program and the progress with respect to it and
6 what you are doing in that regard needs to have some
7 tracking relative to the overall schedule that the staff,
8 our staff, you and Northeast Utilities, should not expect to
9 come in here with solely a focus on the technical issues and
10 not have had some substantive progress and verified progress
11 in this area and asked the Commission to make a decision
12 because, in fact, there are two confirmatory orders on
13 Northeast Utilities relative to their startup and one has to
14 do with the corrective action program. The other has to do
15 with employee concerns.

16 So all I have heard today has to do in terms of
17 the numbers and the data and the progress is strictly on the
18 technical issues and so I just have you bear in mind that
19 there are two sets of problems here, both of which need
20 resolution in measurable ways.

21 MR. BECK: Another issue that we looked at was
22 nuclear safety concerns, and retaliation issues not being
23 properly prioritized during the intake process, and also the
24 database currently used by the Employee Concerns Program to
25 track concerns did not provide meaningful information to

1 management.

2 Our review and monitoring of ongoing concerns
3 identified that management does not always recognize the
4 presence of a hostile working environment or actions that
5 create a chilling effect.

6 Our review of over 90 Employee Concerns files
7 determined that many of them contained insufficient
8 documentation. The lack of documentation made it difficult
9 to determine if the resolution was thorough and responsive.
10 Files completed under the new Employee Concerns Program have
11 not shown any measurable improvement over older ones. Our
12 review also identified that intake and investigation of
13 concerns are often performed inconsistently and in some case
14 have been improperly classified as resolved or closed.

15 The last item on this slide will be the subject of
16 some focused activity on our part over the next few months.
17 As you can see, 53 percent of all open Employee Concerns at
18 Millstone contain complaints of retaliation. While this is
19 a disturbing statistic, it should be noted that we have not
20 validated these concerns. We intend to perform a 100
21 percent review of all current cases of alleged retaliation
22 and will be prepared to discuss our findings at future
23 meetings.

24 CHAIRMAN JACKSON: Okay, well let me just say the
25 following. I mean -- and I am going to play Commissioner

1 Diaz here because you have laid out a number of specific
2 deficiencies: Staff qualification process has not been
3 completed; staff training is not implemented; there is a
4 lack of compliance with the manual requirements that the
5 intake process is not properly prioritized, prioritizing
6 safety concerns; the database lacks data -- et cetera.

7 It seems to me these are very specific items that
8 it is possible to measure progress with respect to, and it
9 seems to me that as the consultants charged with this area
10 that you ought to be able to bring forward to us some
11 progress in that regard.

12 Secondly, the NRC Staff needs to understand that
13 you need to be tracking progress with respect to -- you have
14 to agree that these are the items that ought to be dealt
15 with and there has to be progress relative to them.

16 Northeast Utilities has to understand that we
17 don't just want you coming in here checking off auxiliary
18 feed systems. They are very important obviously, but you
19 need to have here and show measurable progress with respect
20 to these, because I remind you, you are under two
21 confirmatory orders, not one.

22 MR. GRIFFIN: Chairman, if I can respond to that
23 just briefly, we believe that these attributes associated
24 with the Employee Concern Program are extremely important to
25 be corrected. These were just identified by us and to the

1 company on the 22nd of July, so --

2 CHAIRMAN JACKSON: No, no -- all I am trying to
3 say to you is people are just now identifying things on the
4 various physical systems in the plant and I am just saying I
5 have seen nothing in terms of the schedules that say that
6 there is any tracking of these issues and any closure on any
7 of these deficiencies and any weighting that you are giving
8 to them for closure from anybody's presentations today and I
9 am saying to you that that needs to be done --

10 MR. GRIFFIN: We understand.

11 CHAIRMAN JACKSON: -- with equal rigor, equal
12 focus, and equal folding into the schedule.

13 MR. GRIFFIN: We absolutely agree with your
14 comment.

15 CHAIRMAN JACKSON: Okay, but I am saying you have
16 a job relative to get -- fleshing this out and giving some
17 structure to it.

18 MR. GRIFFIN: I understand.

19 MR. BECK: We understand.

20 CHAIRMAN JACKSON: Right.

21 MR. BECK: Let me say that we believe the safety-
22 conscious work environment is improving in spite of these
23 criticisms of the ECP Program and that management at the
24 same time still has a considerable challenge ahead of them
25 to maintain the momentum that they have been able to get to

1 date.

2 They have to identify any remaining managers or
3 supervisors who are contributing to an unacceptable working
4 environment at Millstone and either change behavior or
5 change people. We believe that between our interview
6 results and the various surveys conducted by management that
7 they have sufficient information to deal with this issue and
8 we'll closely monitor their actions.

9 Recent events surrounding disciplinary actions
10 taken at Millstone are also cause for our increased
11 scrutiny. We have been contacted by several members of the
12 workforce concerning this event and its impact on the work
13 environment and we are scrutinizing very carefully the
14 circumstances involved in that event, how the company reacts
15 to these concerns and the resulting impact on the workforce.

16 We believe management also has a considerable
17 amount of work ahead of them to correct the deficiencies in
18 the Employee Concerns Program, as we have touched on this
19 morning.

20 We have been impressed with the dedication of the
21 Employee Concerns Program workforce, both company employees
22 and contractors, and with their desire to do the right
23 thing. We believe with proper leadership and management
24 that they can have an outstanding Employee Concerns Program.

25 That concludes our presentation. We appreciate

1 the opportunity to brief you and want to personally assure
2 you that we take our role in this project very seriously.

3 CHAIRMAN JACKSON: Okay. Again, all I am saying
4 is one needs to have a structured process, a structured
5 scheduled, a structured set of activities that ought to be
6 identified as being important and should be worked in the
7 way that everything else is worked.

8 We can't go around this mountain again and we have
9 got to come around this mountain before we make a judgment
10 that these plants are ready to start.

11 That is what you have been brought in to do and
12 the management here, you know, I'll always say it is as it
13 does -- that is, you know, Employee Concerns Program is as
14 the Employee Concerns Program does, and so if you don't get
15 some structure and order on it and you come along and there
16 still appear to be these problems, you are putting the
17 Commission in a difficult position relative to the judgment
18 we have to make. Okay?

19 MR. GRIFFIN: Thank you.

20 MS. GARDE: Thank you.

21 MR. BECK: Thank you.

22 CHAIRMAN JACKSON: Let's hear from the NRC Staff.
23 Mr. Callan?

24 MR. CALLAN: Chairman, we have about a 20-minute
25 presentation that's 20 minutes without questions, so it's --

1 [Laughter.]

2 CHAIRMAN JACKSON: Is this a message to us?

3 MR. CALLAN: But we've been keeping book of the
4 various questions that you've directed our way this morning
5 that you'd like to have us address, so we're prepared to
6 address those questions at the beginning, if you like, or we
7 can pick them up as we go through the presentation,
8 whichever you prefer.

9 CHAIRMAN JACKSON: Whatever you think is the most
10 efficient.

11 DR. TRAVERS: In that case, good afternoon, I'm
12 Bill Travers, and I'm the director of special projects, and
13 with me at the table besides Joe Callan, the executive
14 director, is Phil McKee, our deputy director for licensing;
15 Gene Imbro, deputy director for ICAVP oversight; and Wayne
16 Lanning, deputy director for inspections.

17 CHAIRMAN JACKSON: I'm going to have to step out
18 for about five minutes. I'm going to leave it in
19 Commissioner Diaz' hands.

20 DR. TRAVERS: Then I won't answer your questions,
21 right?

22 [Laughter.]

23 Or maybe this is a good time.

24 COMMISSIONER DIAZ: Just go slow.

25 [Laughter.]

1 DR. TRAVERS: Okay. As an overview to my
2 presentation today, what I'd like to do is fill the
3 Commission in, provide a status report on the status of NRC
4 activities, principally very much as we have done in past
5 quarterly meetings with the Commission, and I plan to cover
6 the topics that are listed here, starting with our restart
7 assessment plan and so forth.

8 Let me just go forward with this and start with
9 restart assessment plan, indicating that as you know we are
10 using NRC's manual chapter 0350 as the vehicle, the
11 mechanism really for establishing our program for evaluating
12 a licensee's progress and making an ultimate recommendation
13 to the Commission on possible restart for any of the three
14 units.

15 Within that guidance the staff has issued restart
16 assessment plans for each of the three units, and those
17 restart assessment plans identify key issues, which I've
18 identified on this slide, which we think are particularly
19 relevant and certainly need to be resolved prior to our
20 coming before the Commission with a restart recommendation.

21 Today I plan to address four of these items, and
22 I've indicated the ones I plan to address with that funny-
23 looking --

24 COMMISSIONER DIAZ: Okay, again, when you put all
25 of these items, we have a way of tracking each one of

1 them --

2 DR. TRAVERS: Yes.

3 COMMISSIONER DIAZ: Not only independently but
4 together as far as time?

5 DR. TRAVERS: Yes, we do within the restart
6 assessment plan itself. More recently, however, we've
7 provided the Commission with a summary status report that
8 touches on each one of these elements and provides you not
9 only what the issue is but a status of our view of what the
10 licensee's actions are, what NRC actions are, and our view
11 of the status of each of these issues.

12 MR. CALLAN: Is that true as well in the context
13 of the Chairman's last issue about tracking progress through
14 the discrepancies identified in the employee concerns
15 program?

16 DR. TRAVERS: We certainly have included in the
17 Commission paper a discussion of employee safety concern
18 program issues. It's rather summary and it's a rather
19 overview I think of the issues that will ultimately need to
20 be discussed with the Commission, but I think it does
21 provide the framework for that discussion.

22 Before I get into a discussion of the four
23 elements that I'd like to highlight, and certainly respond
24 to any questions you have in any other areas, I'd like to
25 make mention of the fact that we are continuing in our

1 commitment to carry out our programs very openly and with a
2 great access to the public. In particular we continue to
3 have most -- certainly not all, but most of our working
4 meetings, the meetings between Northeast and the staff or
5 the meetings among the contractors and the staff and
6 Northeast up in the area of Millstone and observable by the
7 public. We are continuing to have meetings specifically
8 with the public in the evening on a schedule of
9 approximately every six to eight week. We continue --

10 COMMISSIONER DIAZ: Are those meetings -- have you
11 seen a change in the attitude of the public that they are
12 now being better informed and that, you know, they have
13 access to reasonable information and is that contributing to
14 somehow calm the waters?

15 DR. TRAVERS: I'd say there is still quite a lot
16 of concern on the part of people who attend the meetings
17 that we hold. We continue to get a lot of questions about
18 the status of our program, the status of the licensee's
19 program. Our goal, though, is the one you mention, and it
20 is in fact to provide as much information as we reasonably
21 can to explain ourselves and our programs to the people in
22 the area, and we've been doing that, and we've also,
23 frankly, I think been responsive in a number of areas to
24 recommendations, and suggestions that the public has made.

25 They may not think we've been as responsive as we

1 should be, but I'll give you just one example, if I may. We
2 got a recommendation at a recent public meeting that
3 suggested that in addition to these deficiency reports that
4 are being put on the Net, these are deficiency reports that
5 the contractor has validated, that the public would be
6 interested in not just seeing the ones that were validated,
7 but in seeing the ones that were not validated, and we
8 agreed with that.

9 As a result, what we're putting on the Net today
10 are issues that are both validated as valid discrepancies,
11 and issues that are determined not to be valid, and the
12 basis for that invalidation. So we've got in a number of
13 instances some very good suggestions about how we should
14 provide information, what kind of information, and we're
15 trying to be responsive to that kind of suggestion.

16 We are also, as you are aware, working closely
17 with the state-chartered Nuclear Energy Advisory Council.
18 They are an important element in this process, we think. We
19 have attended meetings of theirs. They, at least selected
20 members, attend our meetings. We have a memorandum of
21 understanding in place for them to participate as they will
22 in some of our inspections and, in fact, have been active
23 participants in the selection of systems for ICAVP as you
24 know.

25 We are also keeping state and local officials

1 advised of the progress of our program and ultimately, of
2 course, what we are about is documenting the basis for
3 coming to the Commission ultimately with a recommendation
4 for restart of each of the three units.

5 An important element of the restart assessment
6 plan is the listing, the significant items list, that you
7 have heard some discussion already today of. The SIL or
8 significant items list for each unit is an all-inclusive
9 listing, really, of the issues that we think are key to
10 staff recommendation to the Commission on restart. And we
11 have tried to provide a rack-up of the number of SIL items
12 for each of the three units, submissions that the utility
13 has made to explain closure for each of these items and the
14 ones that we have actually closed in our review.

15 We have characterized these only in whole SIL
16 items, if you will. So our characterization is a little
17 different here than the one you saw presented by Northeast
18 because in any individual SIL item there are many
19 subcomponents so what we have tried to give you is a rack-
20 up against the way we account for these things.

21 As an example of how that might impact the way
22 this is presented, we have submittals in a partial sense on
23 a number of more than the 34 for Unit 3, for example, that
24 are listed here. We just don't have all of the information
25 that the utility would like to provide us in making their

1 case for closure and I should point out that the information
2 they are providing in these packages is just one mechanism,
3 just one vehicle for what the Staff is going to be
4 evaluating in its determination of closure or not.

5 CHAIRMAN JACKSON: How are you documenting the
6 closures? In inspection reports or in correspondence to the
7 licensee or what?

8 DR. TRAVERS: Thus far, we have been documenting
9 them in inspection reports. In our restart assessment plan,
10 we actually link by a reference the inspection reports that
11 close each individual item.

12 CHAIRMAN JACKSON: Have any ICAVP deficiencies
13 been transferred to the significant items list?

14 MR. McKEE: I think some have. I am trying to
15 recall. Or maybe the discovery --

16 DR. TRAVERS: I think things that have been
17 discovered in the licensee's configuration management
18 program are on the significant items list. For example, the
19 problem with the recirc spray, suction, MPSH suction voiding
20 issue, that I believe is on the SIL. So some of those
21 issues that were identified by the licensee have been
22 transferred to the SIL.

23 CHAIRMAN JACKSON: I would like you to keep the
24 Commission apprised, first of all, of the overlap and then,
25 if any items are moved from the -- any ICAVP deficiencies

1 get moved to the significant items list and how you --
2 because this is, in fact, an indication of NU's oversight.
3 We need to have a measure of that.

4 Then my only other question on this page is, have
5 any allegations resulted as a consequence of the disposition
6 or closure of any of these items?

7 DR. TRAVERS: Let me make sure I understand the
8 question. Are you asking the question in our closure have
9 we received any allegations about the information submitted?
10 Or our view of closure on these items? I think the answer
11 to that question is, no.

12 CHAIRMAN JACKSON: Because sometimes if you are
13 about to close an item there are those who believe that the
14 item has not been sufficiently resolved. And that has not
15 occurred to this point for these?

16 DR. TRAVERS: No.

17 CHAIRMAN JACKSON: Okay, thank you.

18 DR. TRAVERS: I probably ought to point out that
19 in addition to racking up these things numerically, NU
20 already expressed this view, we have been looking at the
21 quality of the submittals that have been provided to us and
22 early on we expected some improvement in that quality and we
23 believe that the packages that we are getting now are
24 relatively high quality. This is just one measure in our
25 view but we think it is an important one.

1 We wanted to continue the update for the
2 Commission on the status of activities that we last told you
3 we would expect to accomplish in the next three months and I
4 have listed them here.

5 Basically, we have accomplished all of the
6 activities that we indicated we would have expected to in
7 the last three months, including approval of Sargent and
8 Lundy audit plan for Units 1 and 3, organization approval of
9 Parsons, approval of the Parsons audit plan. We have
10 completed the selection of all four systems for the Unit 3
11 ICAVP and, again, two of those systems were selected by the
12 NEAC.

13 Again, I will make mention of the fact that while
14 we say all four systems, this is the minimum set of systems,
15 nominal set, if you will, of systems we would expect
16 encompassed within this program and they may be the extent
17 to which we go, depending on the findings that are
18 evidenced.

19 CHAIRMAN JACKSON: You expect four for Parsons'
20 review also?

21 DR. TRAVERS: Correct. Thus far, two have been
22 selected and the second -- I'm sorry, the second grouping of
23 two would again be selected by the NEAC.

24 CHAIRMAN JACKSON: Do you have any initial
25 observations from your inspection of the Unit 3 ICAVP

1 implementation or of the deficiencies identified to date?

2 DR. TRAVERS: It has really just begun so we don't
3 have a lot to share with you today. I think we would expect
4 to be in a much better position at the next meeting or
5 sooner because we will issue an inspection report sooner.

6 CHAIRMAN JACKSON: Yes, sooner might be better.

7 DR. TRAVERS: One thing that I don't have listed
8 on here that we have been attempting to do as well is to
9 keep the public informed about our programs. I mentioned
10 that earlier but in the context of ICAVP, there has been a
11 concern expressed administration it relates principally to
12 the extensiveness or comprehensiveness of the ICAVP program.
13 So the next slide, and again this has been touched on a
14 little bit earlier, but I wanted to highlight the fact that
15 we have been doing our best to explain that we believe the
16 ICAVP is really a very comprehensive system of review. It
17 is not 100 percent and we have tried to explain this to the
18 public. But we have, I think, undervalued it a bit in
19 characterizing it as simply four systems out of 88.

20 CHAIRMAN JACKSON: I think what you need to do,
21 frankly, is to make the case for what the significance of
22 the four is and the linkages at the boundaries to other
23 systems and until I ask, there was no discussion in terms of
24 issues in the electrical area and I think you need to cull
25 that out for more specific discussion relative to the

1 systems that you have selected.

2 DR. TRAVERS: That's a good point and we didn't
3 intend to do that today but I did want to let you know --

4 CHAIRMAN JACKSON: Well, no, you were not asked to
5 do that today.

6 DR. TRAVERS: -- that we have been attempting to
7 do that in public at our meetings to describe again what we
8 feel is a very comprehensive system, one that we are trying
9 not to kid anyone is a hundred percent review of everything
10 NU needs to do but one that we think would provide high
11 confidence that we have been able to scrutinize the results
12 of their effort quite well.

13 The only point I want to make on this slide is
14 that of the four systems that NRC would nominally identify
15 for each of the three units, and I will use Unit 3 as an
16 example, the four systems are listed here but when they are
17 broken out in the context of the maintenance rule
18 definitions, it really amounts to, in the Tier I review
19 itself, some 15 systems. Additionally, when you take into
20 account the more limited review under Tier II but
21 nevertheless a review encompassing key aspects of some
22 additional 22 systems, it gives you another sense of how
23 comprehensive the ICAVP is.

24 CHAIRMAN JACKSON: But also I just think again,
25 and I want to reemphasize my particular interest having to

1 do with the linkages to I&C.

2 MR. CALLAN: Yes.

3 DR. TRAVERS: You raised a good point and I will
4 tell you that in the selection of systems that the NRC made,
5 we specifically did not select an electrical system or an
6 I&C system because of the point you made and that is when we
7 encompass electrical within these other systems, we really
8 bite off a pretty good review in that area as well as I&C.
9 So we didn't want to -- we figured we could get more
10 evaluation by selecting systems that have a diversity of
11 technical areas.

12 CHAIRMAN JACKSON: And under the Tier III with
13 respect to the historical audit of changes to plant
14 configuration, how historical is that audit? Are you going
15 back to the operating license stage?

16 MR. McKEE: Yes. Yes.

17 CHAIRMAN JACKSON: Okay.

18 MR. McKEE: Very historical.

19 CHAIRMAN JACKSON: Very historical. The beginning
20 of time -- okay.

21 DR. TRAVERS: In terms of activities that we would
22 expect to accomplish in the next three months, we have
23 mentioned NEAC selection of the final two systems or at
24 least the final two nominal systems for Unit 2 ICAVP.

25 We would expect the implementation inspections at

1 both Units 2 and 3 to have begun. In fact at Unit 3 it has
2 begun.

3 The ICAVP out of scope system inspection would be
4 expected to have begun for both units, and again that is an
5 NRC inspection --

6 CHAIRMAN JACKSON: Right.

7 DR. TRAVERS: -- that would take a system outside
8 the scope of the four nominally identified.

9 Lastly, we would expect to have begun, and I am
10 not sure we would have it completed, but at least begun the
11 Unit 3 in-scope inspection, a system group.

12 Updating you on the status of the activities we
13 highlighted last time, after NRC received the proposed
14 oversight plan from Little Harbor we met with the public to
15 obtain input on that proposal and we have since approved the
16 audit plan that Little Harbor is using.

17 CHAIRMAN JACKSON: Did you understand the point I
18 was making with them about looking at specific areas for
19 improvement and tracking them and folding them into the
20 schedule?

21 MR. CALLAN: Yes. That point wasn't lost on us.
22 I think that the fact that there are two separate orders
23 that have to be responded to is a point that I think
24 deserves reminding everybody of.

25 DR. TRAVERS: Additionally as part of our review

1 of the oversight plan we interviewed the third party
2 organization team members and we really did that to
3 determine if the expertise matched the objectives that are
4 contained in the plan.

5 We have also met with Little Harbor and the
6 licensee on several occasions to discuss the status and
7 results of their initial activities and again all of those
8 meetings have been in the Millstone area and in fact in the
9 realm of keeping the public informed, we had a suggestion
10 that we bring Little Harbor to our next public meeting to
11 discuss the results of their review and we are going to be
12 doing that next week.

13 In the next three months in this area we would
14 expect to continue to monitor the licensee's implementation
15 of their Employee Concerns Program and Little Harbor's
16 implementation of the oversight plan.

17 We expect to conduct several meetings with Little
18 Harbor and the licensee and we expect to have initiated our
19 own NRC inspection in this area to get a separate but
20 related view of the status and progress of these efforts.

21 As an update, licensing issues are also tracked in
22 the Restart Assessment Plan, and we have included on this
23 slide a description of the status of those.

24 At Unit 3 for example, since last time I think 15
25 additional licensing submittals have been made in the last

1 three months. Right now the schedule calls for the last
2 Unit 3 license submittal to be submitted to NRC in September
3 of '97 and we expect that this should facilitate our ability
4 to review those required license amendments more or less on
5 the schedule that we have laid out in the next slide or two.

6 CHAIRMAN JACKSON: Let me just ask you two quick
7 questions.

8 You show for Unit 3 four additional issues to be
9 submitted.

10 The next slide indicates completion by 10-12
11 roughly. Do we understand these issues?

12 DR. TRAVERS: Which ones they are? We have an
13 accounting of what issues are in the works, yes.

14 CHAIRMAN JACKSON: In terms of what it may involve
15 so that we are comfortable in terms of the resolution of
16 them by this projected date.

17 DR. TRAVERS: We have an understanding of them,
18 but there may be areas that we don't understand as well, not
19 having the submittal in hand.

20 Right now we are saying --

21 CHAIRMAN JACKSON: So they are really outside the
22 scope in a certain sense of this date of 10-12?

23 MR. LANNING: If I may, I mean we are aware, as
24 Dr. Travers mentioned, we're aware of the issues and we
25 understand the issues, although they are still being worked

1 on by the licensee so there may be some nuances or things
2 that will require further review on our part, but submitted
3 by that date -- you are correct, the October 12th date for
4 completion of all the processes for review -- it would be
5 beyond that time.

6 CHAIRMAN JACKSON: Okay. Have any of the issues
7 that you are talking about particularly vis-a-vis Unit 3
8 provided any improvements relative to improved standard tech
9 specs?

10 DR. TRAVERS: Standard tech specs -- I don't know
11 of any that have been fed into that program.

12 CHAIRMAN JACKSON: Okay.

13 DR. TRAVERS: But that relates to a question you
14 asked earlier and one which we were going to take on, and
15 the question as I understood it related to whether or not we
16 were tracking issues at Millstone against the possibility of
17 them being generic issues.

18 CHAIRMAN JACKSON: Right.

19 DR. TRAVERS: And certainly we are. In the
20 broader sense, of course, the causative issues at Millstone
21 has caused the Commission to take a number of steps,
22 including look at design issues at other plants.

23 More specific to your question is at Millstone I
24 don't know that we have identified specific technical issues
25 which today have been identified as generic issues.

1 CHAIRMAN JACKSON: Okay.

2 DR. TRAVERS: The next slide presents an update of
3 our project planning schedule for Unit 3. While some of the
4 intermediate dates have changed since the last meeting with
5 the Commission, our bottom line assessment of where this
6 project could be in December has not changed.

7 CHAIRMAN JACKSON: Okay. Now I am going to
8 clarify for the record that these are projected schedules
9 that are referenced to the licensee's schedules, but with a
10 clear understanding that a complete resolution of issues
11 that have to be resolved and that our full process will be
12 gone through and if there is not satisfactory resolution,
13 that these are not fixed dates per se.

14 DR. TRAVERS: In fact, in crafting this projected
15 schedule, there are two key elements that I think of
16 whenever I look at this thing.

17 Number one is that they are based initially on
18 expected completion dates of licensee activities, the date
19 that they have provided to us; and secondly, they assume
20 that the quality of what we review is going to be quite high
21 and that what we don't have to do is expand the scope of
22 programs like ICAVP, for example.

23 CHAIRMAN JACKSON: Right.

24 COMMISSIONER DIAZ: If you compare, I mean, if you
25 look at this October 2 and look at the presentation by

1 Sargent and Lundy and where they are in Tier I and beginning
2 Tier II, do you think that October 2 is a reasonable --

3 CHAIRMAN JACKSON: Good question. Do they match?

4 DR. TRAVERS: I think they have said they are
5 under review still in terms of their schedule.

6 COMMISSIONER DIAZ: But I want your opinion.

7 DR. TRAVERS: Right now, as we have understood it,
8 I think it is going to be challenging. I think it is going
9 to be a challenging thing for them to complete it on the
10 schedule that is currently in this projection. But if they
11 do, these things can fall in the fashion that we have listed
12 here.

13 Secondly, the next slide provides a project
14 planning schedule for the first time for Unit 2 that we were
15 not -- we couldn't provide last time and the processes and
16 the identified milestones are essentially the same for Unit
17 2 as we have identified for Unit 3 and they result in a
18 Commission briefing approximately March 13.

19 Commissioner McGaffigan asked a question earlier
20 about the difference between February and March and I think
21 we are talking about just a few weeks here and yet I am
22 trying to -- I am going to try to look to see where those
23 couple, three weeks' difference come from. We did not do
24 that extensively before this meeting. We will try to do
25 that.

1 I will mention that I have added one milestone at
2 the end of the schedule to both the Unit 3 projected
3 planning schedule and the Unit 2 and that indicates a post-
4 restart inspection program. And what we wanted to do here
5 really is put a placeholder rather than define an interval
6 of time in any specific way that would indicate that we
7 would expect certainly to continue enhanced scrutiny during
8 power ascension and in fact what we would propose to do is
9 provide the Commission with a plan for a power ascension
10 program of NRC inspection and scrutiny.

11 CHAIRMAN JACKSON: What I would like other see
12 added to this, which is also a message again to Little
13 Harbor consultants as well as to the licensee, a specific
14 fleshed out project planning schedule relative to the
15 employee concerns program. You have an item seven here
16 which says, inspection. But it doesn't have the degree of
17 specificity that you lay out for the others.

18 DR. TRAVERS: We'll do that.

19 CHAIRMAN JACKSON: Thank you.

20 DR. TRAVERS: Lastly, or at least the last slide
21 in this presentation, is an attempt to answer a question
22 that came up at our last meeting and it was could we put a
23 projection of the resources that it will take to complete
24 the project. We have done that indicating where principally
25 at least the resources will come from in a memorandum from

1 the EDO, essentially some additional description of the
2 impacts as we understand them from taking those resources
3 and laid them out in this table.

4 Again, I will just point out that the NRR line at
5 the top of the slide includes the detailed Region I
6 resources, Mr. Lanning and the resident inspectors who are
7 included in our Special Projects Office so --

8 CHAIRMAN JACKSON: You feel they are adequate
9 relative to the schedule as you have laid it out to this
10 point?

11 DR. TRAVERS: Yes. And I will just point out as
12 well we have biased some of these resource requirements in
13 the direction of using contractors for much of -- you will
14 see a fairly large \$4 million estimate for the technical
15 assistance that will be required in our estimation through
16 the end of the project.

17 CHAIRMAN JACKSON: Commissioner Diaz?

18 COMMISSIONER DIAZ: I don't have any questions.

19 CHAIRMAN JACKSON: Commissioner McGaffigan?

20 COMMISSIONER MCGAFFIGAN: There is one comment I
21 would like to make or ask a question. You addressed the
22 issue of a time delay or the difference in Millstone 2. One
23 of the things that struck me about the Millstone 3 schedule
24 is you heard the vice president for Unit 3 constantly refer
25 to the expected date which, until this morning, was the

1 expected date for OSTI inspection of October 21. Now it is
2 October 13. I am just wondering about these time lags
3 between -- I mean, this paper looks like it was put together
4 around the 16th of July and here it is the 6th of August.
5 We didn't get it as a Commission until about the 29th of
6 July.

7 Should there be a 20-day -- if, indeed, you knew
8 on the -- that your expected date for the OSTI had been
9 moved up eight days compared to what you had told the
10 licensee earlier, should there be a 20-day delay in him
11 finding that out so that he can adjust to our schedule? How
12 does that work?

13 Part of my -- the followup question I am going to
14 ask is should we get this document out to the licensee, the
15 document that is released today at the Commission meeting?
16 As far as I am concerned, it can go out the day it is sent
17 to the Commission so as to facilitate communication. If
18 that is -- if it is done on paper.

19 CHAIRMAN JACKSON: May I rephrase the question?
20 Is there clear concurrence between the NRC staff and the
21 licensee on the dates for, say, the OSTI inspection?

22 DR. TRAVERS: Concurrence?

23 CHAIRMAN JACKSON: Clarity?

24 DR. TRAVERS: In fact, it goes to a question you
25 raised in your opening remarks about communications and I

1 think we are trying to be as clear as we can on a real time
2 basis. I don't know if we have shared any new dates since
3 generating this package with the licensee but perhaps we,
4 have. But the most important element from my perspective is
5 they may have a date for their readiness for the OSTI. Our
6 planning practical restrictions may argue that we can't do
7 it the next day and I can't answer the --

8 COMMISSIONER MCGAFFIGAN: Well, you moved this one
9 up eight days. Compared to what they thought before, you
10 know, you have moved this one up and I suspect it has
11 something to do with not having people there at
12 Thanksgiving. Just, you know --

13 CHAIRMAN JACKSON: I think the important point is,
14 well, two fold. We want, of course, to have truth in
15 advertising here and that relates to the documentary record,
16 although I accept that it can be updated, you know, after
17 the fact of a paper that has gone through the usual
18 concurrence chain.

19 But I think the important issue is that there is
20 clarity in terms of the communication between you and all of
21 the stakeholders involved on how things are tracking and
22 what the dates are and that as soon as they are changed that
23 all stakeholders are aware that they have changed.

24 DR. TRAVERS: We will certainly try to make sure
25 we do that.

1 CHAIRMAN JACKSON: Let me, assuming there are no
2 further questions, thank Northeast Utilities Nuclear,
3 Sargent and Lundy, Parsons Power, Little Harbor Consultants
4 and the NRC staff for briefing the Commission on the
5 progress in assessing readiness for restart of the Millstone
6 units.

7 The Commission realizes that it is, in fact,
8 difficult to condense, as we see, the substance of the
9 reviews performed by each of you into briefings like this.
10 But, in fact, these are very important. But it is because
11 of that need for that condensation as well as the direct
12 oversight that the NRC created the Special Projects Office
13 to provide for direct oversight of all licensing and
14 inspection activities and to tailor the NRC's staff
15 guidelines for restart approval, i.e., the Manual Chapter
16 0350 process, to specifically assess the progress against
17 deficiencies at the Millstone units.

18 And the Commission values the independent feedback
19 not only on the progress of the licensees but on the process
20 that is being utilized and I encourage the Special Projects
21 Office to continue what you have been doing and to continue
22 to assess the effectiveness of the process itself, along
23 with your primary task of determining whether the Millstone
24 organization is functioning in total with the proper
25 perspective for safe operation.

1 The Commission appreciates the insights from the
2 contractors and the licensee in obtaining honest feedback on
3 the challenges and successes in making Millstone a safe
4 station with an effective corrective action program, within
5 an environment that is supportive of raising and resolving
6 safety concerns.

7 As I state at each meeting, the Commission does
8 not presuppose that any of the three plants will restart by
9 a certain date. It is important, though, to have specific
10 schedules and because the Commission must ensure that we
11 have the allocation of adequate resources to the oversight
12 and to the process. So we will continue to assess the
13 progress being made in readiness for restart and to assess
14 whether our own assessment process is effective,
15 comprehensive and timely.

16 I was going to say something about the next
17 projected Commission meeting but I won't. We will advertise
18 it at the appropriate time.

19 So unless my colleagues have further comments, we
20 are adjourned.

21 Thank you.

22 [Whereupon, at 12:52 p.m., the meeting was
23 concluded.]

24

25

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: Wednesday, August 6, 1997

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

Transcriber: _____

Reporter: Mark Mahoney

Progress at Millstone Station

**Northeast Utilities Presentation
for the
U.S. Nuclear Regulatory Commission**

*NRC Headquarters
Rockville, Maryland
August 6, 1997*

Northeast Nuclear Energy

Bruce Kenyon

**President & CEO
Northeast Nuclear Energy Company**

Northeast Nuclear Energy

Agenda

- | | |
|---|---------------|
| ♦ Leadership / Milestone Progress | Buzz Carns |
| ♦ Oversight | Dave Goebel |
| ♦ Configuration Management/ Corrective Action/ Self Assessment | Marty Bowling |
| ♦ Safety-Conscious Work Environment/ Unit 3 Readiness | Mike Brothers |

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NU Nuclear Participants

- ♦ Buzz Carns - *Senior Vice President & CNO*
- ♦ Dave Goebel - *VP, Nuclear Oversight*
- ♦ Mike Brothers - *VP, Millstone Unit 3*
- ♦ Marty Bowling - *Unit Officer, Millstone 2*
- ♦ Jack McElwain - *Unit Officer, Millstone 1*
- ♦ Jay Thayer - *VP, Nuclear Engineering & Support*

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We Have Increased Our Public Outreach to Restore Trust

- ♦ **Community Discussions**
- ♦ **Leadership Breakfasts**
- ♦ **Millstone Advisory Council**
- ♦ **Public Attendance at Plant Meetings**
- ♦ **Questions from Public after NRC Meetings**
- ♦ **Enhanced Outreach to the News Media**
- ♦ **Revitalized Speaker's Bureau**

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5

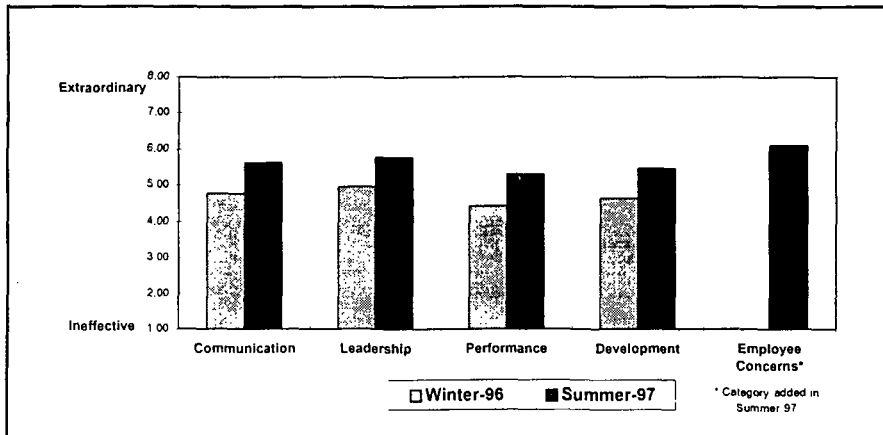
Leadership

Buzz Carns
*Senior Vice President &
Chief Nuclear Officer*

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6

Leadership Assessment Results Show Improvements In All Areas



7

Milestones

| | <u>Unit 3</u> | <u>Unit 2</u> | <u>Unit 1</u> |
|---------------------------------|---------------|---------------|---------------|
| ♦ ICAVP Readiness | Met-5/27 | Met-6/30 | 1/5/98 |
| ♦ Completion CMP Discovery | Met-7/16 | 9/13/97 | 12/1/97 |
| ♦ Physical Plant Readiness | 9/30/97 | 11/25/97 | 3/30/98 |
| ♦ OSTI Readiness | 9/30/97 | 12/1/97 | 4/3/98 |
| ♦ Final 10CFR50.54(f) Submittal | 11/22/97 | 11/22/97 | 4/3/98 |
| ♦ Ready for Mode 4 | 11/22/97 | 12/1/97 | 4/3/98 |
| ♦ Ready for Commission Vote | 12/19/97 | 2/98 | 6/98 |

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8

Oversight

Dave Goebel
*Vice President
Nuclear Oversight*

9
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Nuclear Oversight is Identifying Key Issues

- ♦ Configuration Management 50.54(f)
- ♦ Training Adherence to Systems
Approach to Training (SAT)
- ♦ EEQ/Seismic Programs Conformance
- ♦ Quality of Coatings and Applications
- ♦ Implementation of Corrective Actions

10
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Unit and Support Organizations Have Improved Self Assessment and Work Observations

- ♦ Number increasing
- ♦ Quality improving
- ♦ Training and mentoring ongoing
- ♦ Oversight sampling results for effectiveness

11

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Independent Assessment Of Nuclear Oversight Identified the Need For Further Improvements In:

- ♦ Enhancements to Culture
 - *role of Oversight*
- ♦ Teamwork and Alignment
- ♦ Communication / Product Quality
- ♦ Issue Follow-up

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NSAB Improving

- ♦ **Enhanced Organizational Structure**
 - strengthened membership
 - *added unit officers*
 - increased independence
 - *added 4 external consultants*
- ♦ **Increased Performance-Based Focus**
 - assessing Oversight recovery effectiveness
 - assessing Line readiness for restart
 - 50.59 safety evaluation process

13

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Configuration Management/ Corrective Actions/ Self Assessment

Marty Bowling
Recovery Officer
Millstone Unit 2

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Configuration Management: *Expectations are being met*

- ♦ Licensing, design and operating bases for each unit are being validated
- ♦ Organizational focus to maintain long-term configuration management has been established

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Results From Discovery*

| | <u>MP2</u> | <u>MP3</u> |
|-----------------------|------------|------------|
| ♦ UFSAR changes | ~300 | ~200 |
| ♦ Procedure changes | ~60 | ~40 |
| ♦ Tech Spec changes | 13 | 24 |
| ♦ Drawing changes | ~100 | 250 |
| ♦ Calculation changes | ~100 | 120 |
| ♦ Modifications | 96 | 106 |

* As of July 15, 1997

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Safety Significance of Reportable Items

| <u>Safety Significance</u> | <u>MP2</u> | <u>MP3</u> |
|----------------------------|------------|------------|
| ♦ Reportable Items: | 68 | 75 |
| – <i>low</i> | 65 | 67 |
| – <i>moderate</i> | 3 | 7 |
| – <i>high</i> | 0 | 1 |

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50.54(f) Response Status

| <u>Item Category</u> | <u>MP2</u> | <u>MP3</u> |
|---|------------|------------|
| ♦ Significant (<i>restart</i>) | | |
| – open | 676 | 776 |
| – closed | 726 | 606 |
| ♦ Not Significant (<i>post-restart</i>) | 384 | 1387 |

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Corrective Action Program: *Effectiveness must still be demonstrated*

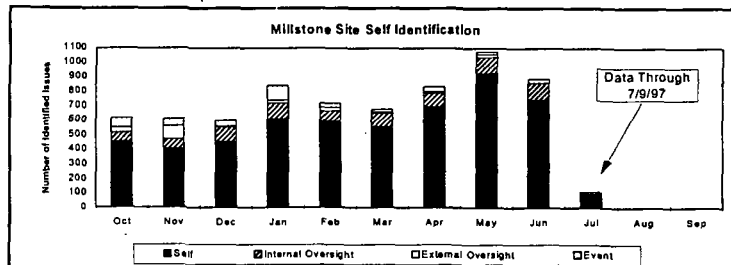
- ◆ Timeliness and quality are improving
- ◆ Expectations for low threshold are being met
- ◆ Backlogs remain high because of emphasis on discovery
- ◆ Focus and priority being given to key site-wide issues

19

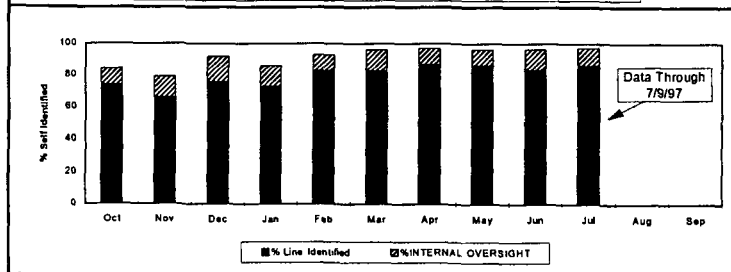
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Management Expectations Are Being Met

Total
CRs



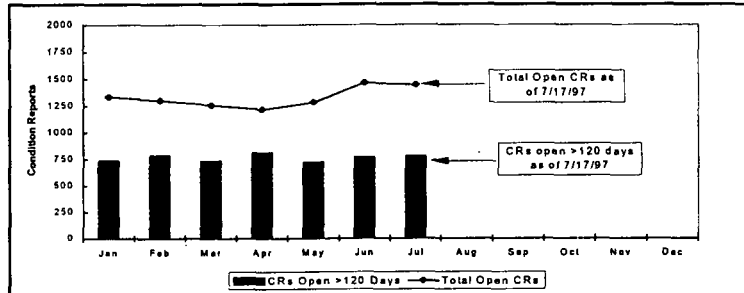
%
Self
Identified



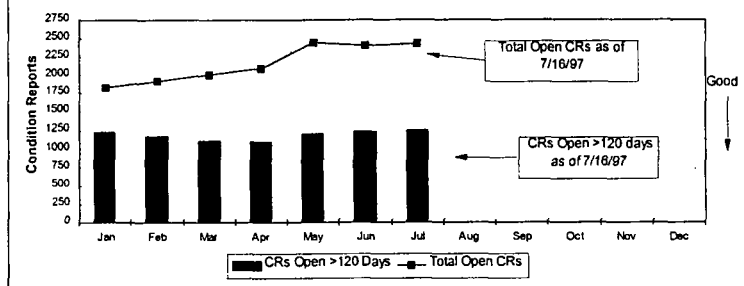
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Backlogs Reflect Emphasis on Discovery

Unit 2

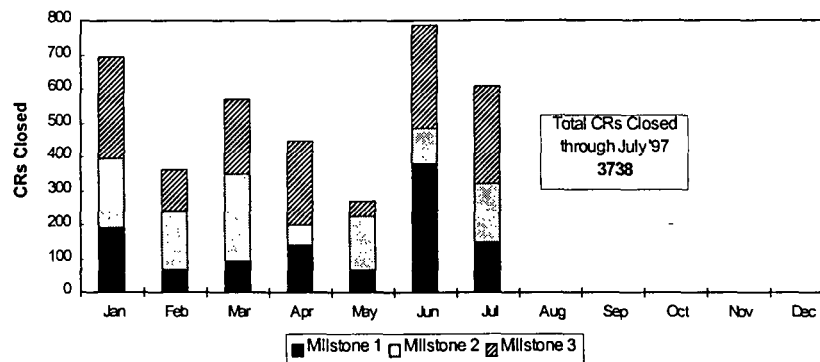


Unit 3



21

Condition Reports Closed in 1997



22

Self-Assessment:
*Comprehensive program being
implemented to assure readiness for
conduct of safe operation*

- ♦ Self assessments being focused on conduct of safe operations
- ♦ Confirmations by Nuclear Oversight and NSAB for unit readiness

23

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**Self Assessments Required
for Readiness for OSTI**

- ♦ System readiness
- ♦ Unit department readiness
- ♦ Unit / Site readiness
- ♦ Independent Oversight affirmation

24

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Safety-Conscious Work Environment / Unit 3 Readiness

**Mike Brothers
Vice President
Millstone Unit 3**

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25

A Safety-Conscious Work Environment ... critical to Millstone success

- ♦ Establishing and maintaining a safety-conscious work environment is critical to our success:
 - it is a Leadership function
 - it enhances our ability to carry out activities
 - IT IS THE RIGHT THING TO DO

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Millstone's Safety-Conscious Work Environment ...

A safety-conscious work environment is an environment where all members of the NU Nuclear team feel comfortable raising any issue important to them with the confidence that the issue will be addressed with commitment, respect, and timeliness.

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We Have Made Progress ...

- ♦ Clear expectations delivered for handling of employee issues
- ♦ Improved processes
- ♦ Improved training
- ♦ Improved feedback mechanisms
 - PII Culture Survey
 - Leadership Assessment
 - Self Assessments
- ♦ Indicators are improving

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We Are Monitoring Our Actions ...

- ♦ PII Culture Survey
- ♦ Leadership Assessment
- ♦ Self assessments
- ♦ Feedback from:
 - industry peers
 - experts
 - internal and external oversight
(Employee Concerns Oversight Panel,
NRC, ITPOP-Little Harbor Consultants)

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Millstone 3 Milestones

- | | |
|--------------------------------|----------|
| ♦ Ready for OSTI | 9/30/97 |
| ♦ Physically Ready for Restart | 9/30/97 |
| ♦ Ready for Mode 4 | 11/22/97 |
| ♦ Ready for Commission Vote | 12/19/97 |

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Millstone 3 Challenges

- ♦ Task Completions Required for Restart
- ♦ Significant Items List
- ♦ Restart Modifications Awaiting Implementation
- ♦ AWOs Required for Restart

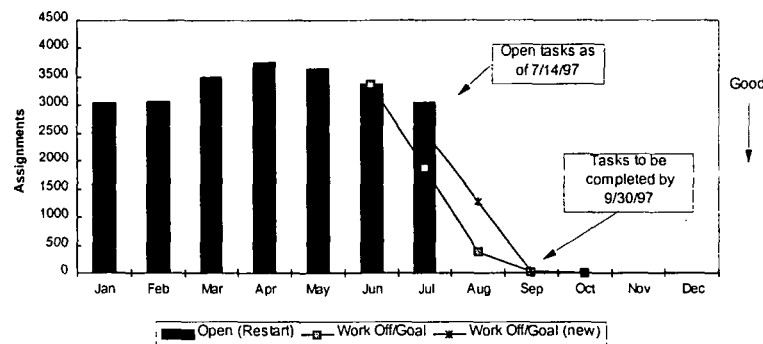
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Task Completions Required for Restart

Millstone 3 - July 1997

Progress: *This goal is very challenging; management attention is being applied to reduce the Open category and improve the workoff rate of open tasks required for restart.*



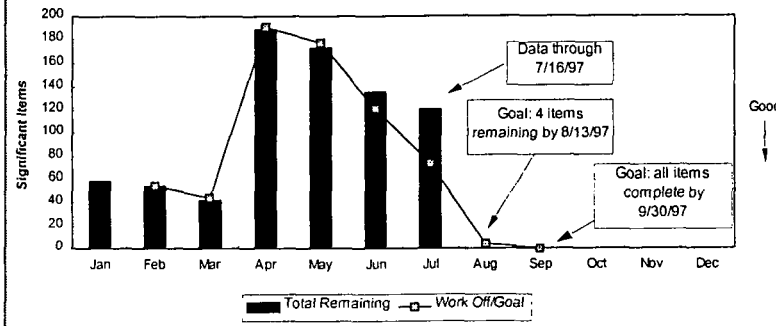
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Significant Items List

Millstone 3 - July 1997

Progress: Closure of items on the Significant Items List is a challenge for the 8/13/97 and 9/30/97 goals.



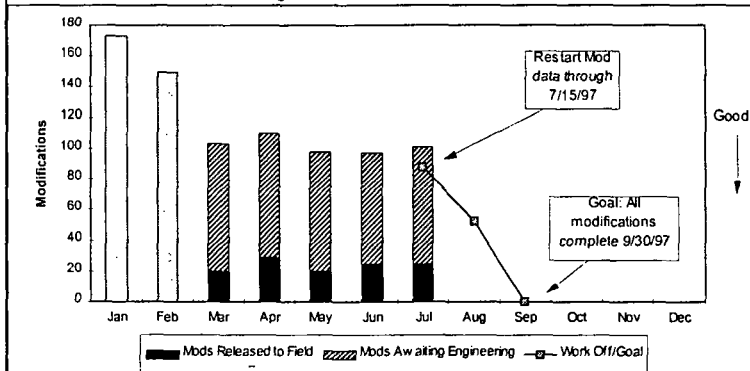
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Restart Modifications Awaiting Implementation

Millstone 3 - July 1997

Progress: Percent complete for Engineering is currently 42% and Construction is 15% complete. This goal remains challenging and the focus of increased management attention.



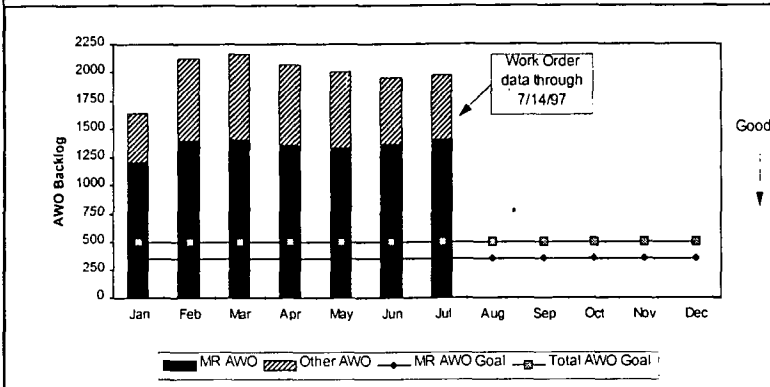
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AWOs Required for Restart

Millstone 3 - July 1997

Progress: The generation and completion of corrective maintenance work orders required for restart is lower than expected and currently challenges the restart timeline.



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Major Work Activities Have Been Completed

- ♦ Safety Injection Flow Orifice - *installed*
- ♦ Letdown Orifice - *replaced*
- ♦ Letdown Heat Exchanger - *replaced*
- ♦ Vital Batteries 1 and 2 - *replaced*
- ♦ Discovery on Maintenance Rule Group 1 and Group 2 Systems - *complete*
- ♦ Corrective Action evaluations backlog - *current*

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Safety Significant Items Found During CMP Discovery

- ♦ High Significance - 1
 - ECCS Throttle Valve settings
- ♦ Moderate Significance - 7
 - bypass flow around Service Water strainers
 - MOV performance
 - RSS Sump Screen gaps

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Significant Issues *(continued)*

- ♦ Moderate significance *(continued)*
 - RSS pump cavitation
 - PORV block valves
 - ARCOR coating in service water
 - SBO diesel battery capacity

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Our Focus on Operational Readiness ...

- ♦ Standards are being raised
- ♦ Operator challenges are being reduced
- ♦ Operators are being trained on modifications
- ♦ Operators are being refamiliarized with startup and at-power requirements
 - procedure training
 - observations at other plants
- ♦ Assessments are being used to monitor readiness

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Summary

- ♦ Progress made towards establishing a Safety-Conscious Work Environment
- ♦ Millstone Unit 3 able to support a 10/21 OSTI and a 12/19 Commission presentation

40

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Concluding Remarks

Bruce Kenyon

41

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Progress on Key Site-Wide Issues

| <u>Issue</u> | <u>Success Criteria Met</u> | <u>Management Expectations Met</u> |
|--------------------------------------|---------------------------------|--|
| ♦ Leadership | partial | yes |
| ♦ Regulatory Compliance | partial | yes |
| ♦ Oversight | partial | no |
| ♦ NSAB | partial | yes |
| ♦ Emergency Plan | no | yes |
| ♦ Radiological Protection | partial | yes |
| ♦ Security | partial | yes |
| ♦ Procedure Quality and Adherence | partial | yes |

42

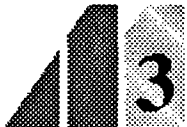
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Progress on Key Site-Wide Issues

| <u>Issue</u> | <u>Success Criteria Met</u> | <u>Management Expectations Met</u> |
|--|---------------------------------|--|
| ♦ Self Assessment | partial | yes |
| ♦ Corrective Action | partial | no |
| ♦ Configuration Management | partial | yes |
| ♦ Safety-Conscious Work Environment | partial | yes |
| ♦ Work Control | no | no |
| ♦ Training | partial | no |
| ♦ Operator Readiness | partial | yes |

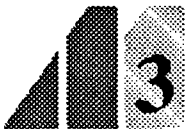
**COMMISSION MEETING
AUGUST 6, 1997**

**MILLSTONE UNIT 3
INDEPENDENT CORRECTIVE
ACTION VERIFICATION PROGRAM
STATUS REVIEW**



Background of ICAVP

- Confirmatory Order - August 14, 1996
- ICAVP Oversight Plan - January 30, 1997
- NU Selects Sargent & Lundy for Unit 3 ICAVP
- 12/19/96
- NU Selects Parsons Power for Unit 2 ICAVP
- 2/14/97



Scope of ICAVP

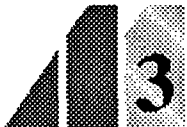
- Review of engineering design and configuration control processes
- Verification of current, as modified conditions against design and licensing basis documentation
- Verification that the design and licensing bases requirements have been translated into operating, maintenance and test procedures
- Verification of system performance
- Review of corrective actions for identified deficiencies

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.

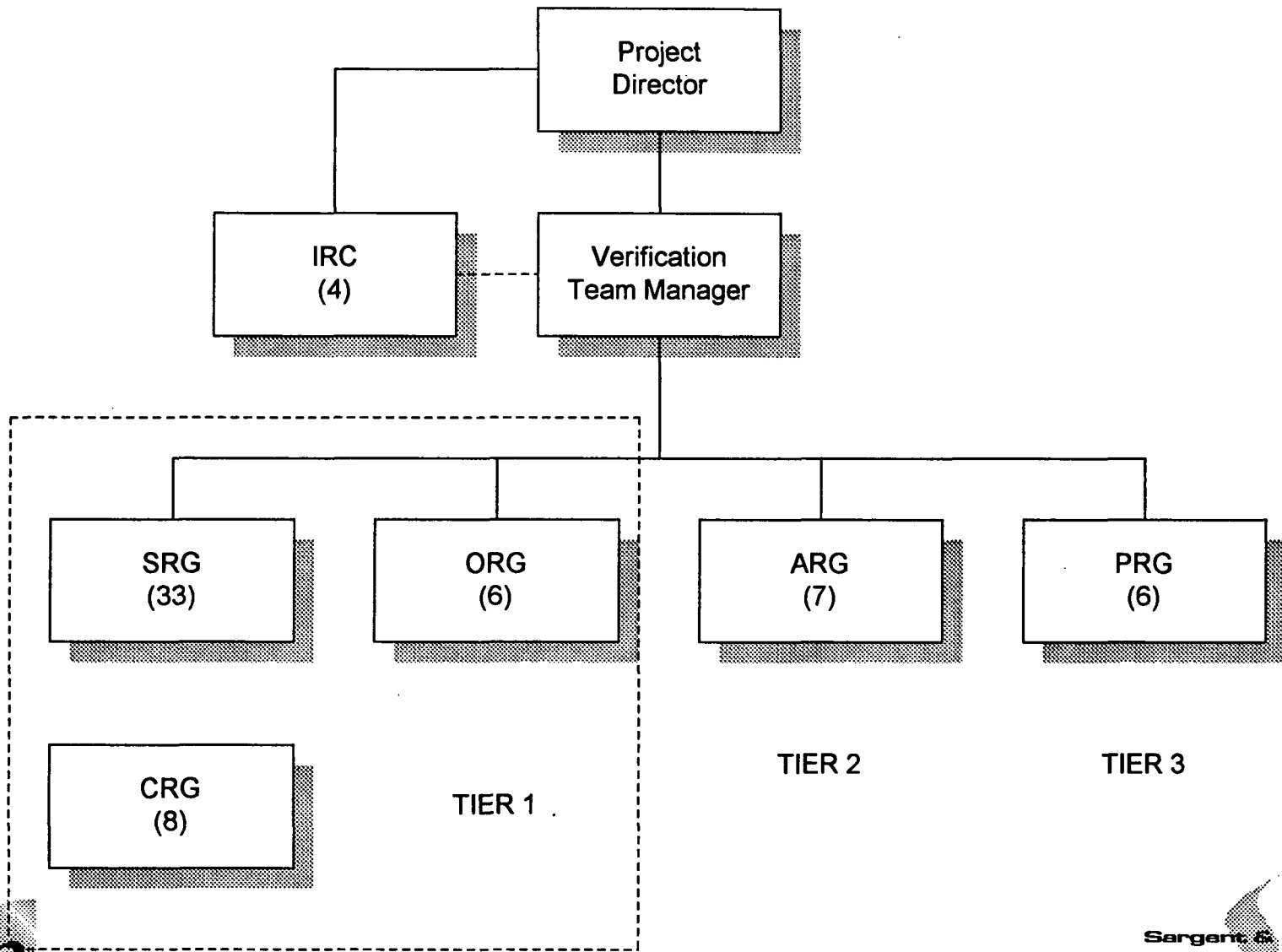


ICAVP Implementation on Unit 3

- **Tier 1** - System Review Group (SRG)
 - Configuration Review Group (CRG)
 - O&M and Testing Review Group (ORG)
- **Tier 2** - Accident Mitigation Review Group (ARG)
- **Tier 3** - Programmatic Review Group (PRG)

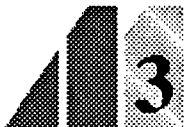


Project Team



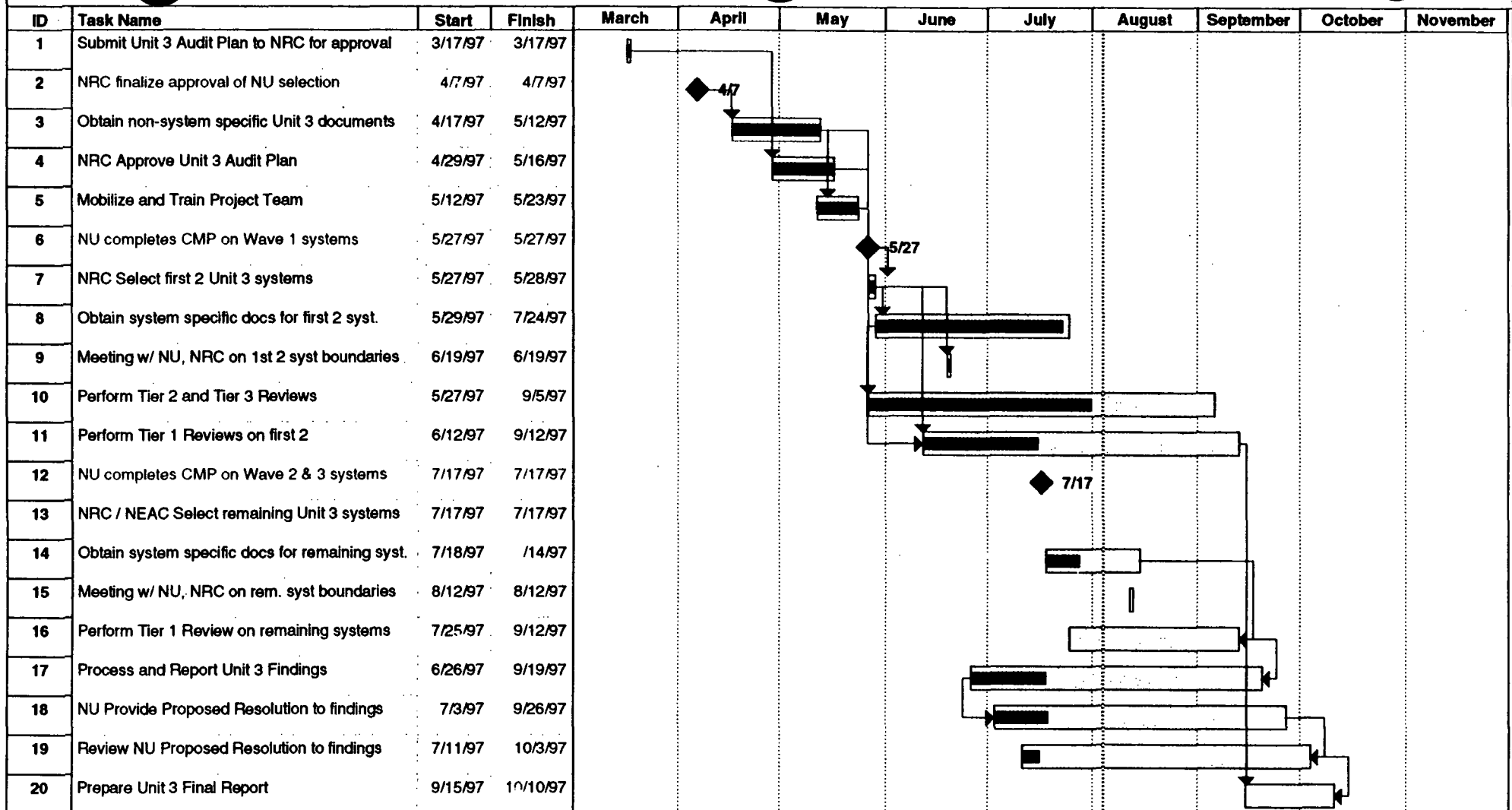
Internet Web Site Status

- Went on-line ~ 6/17/97.
- Contains:
 - Project manual
 - Calendar for meeting notices and meeting summaries
 - Discrepancy reports and resolutions
 - Final report (later)
- www.slchicago.com/mp-icavp



Northeast Utilities Millstone Unit 3 ICAVP Milestone Schedule

Sargent & Lundy
8/4/97



Scope of Tier 1 Review

- Detailed Review of “4” Systems
 - Service Water (SWP)
 - Quench Spray / Recirculation Spray (QSS / RSS)
 - Aux. Bldg. HVAC / SLCRS
 - Emergency Diesel Generator and All Auxiliaries
- Encompasses 15 of the 88 NU MR systems
- Limited Review of 51 Interfacing Systems
 - 27 Interfaces with SWP
 - 27 Interfaces with QSS/RSS
 - 14 Interfaces with Aux. Bldg. HVAC / SLCRS
 - 4 Interfaces with EDG and Auxiliaries

Tier 1 - System Review Status

| | Total Pop. | | % Complete | |
|-----------------------------|------------|-------|------------|------|
| | SWP | QSS | SWP | QSS |
| System Boundary Definition | N/A | N/A | 100% | 100% |
| Document Gathering (RFIs) | N/A | N/A | 90% | 90% |
| Screen NU CMP Findings | N/A | N/A | 90% | 90% |
| Identify System Require. | 472 | 1088 | 90% | 90% |
| Calculation Reviews | 646 | 399 | 10% | 21% |
| Component Reviews | 2,423 | 1,871 | 2% | 1% |
| Drawing Reviews | 302 | 248 | 0% | 8% |
| Topical Reviews | 2 | 2 | 0% | 0% |
| Disposition System Require. | 472 | 1088 | 0% | 0% |
| Mod Reviews | 132 | 20 | 0% | 0% |

Tier 1 - Physical Configuration Review Status

| | Pop. | | % Complete | |
|---|-------|-------|------------|-----|
| | SWP | QSS | SWP | QSS |
| Scope Walkdown Boundary Dwgs | 2,545 | 1,631 | 59% | 80% |
| Redline Walkdown Dwgs | 2,295 | 1,185 | 12% | 13% |
| Physical Dwg Review vs. Upper Tier Dwgs | 1,230 | 1,391 | 21% | 23% |
| Functional Walkdowns (No. of Dwgs) | 2,575 | 1,565 | 17% | 0% |
| Modification Walkdowns (No. of Mods) | 132 | 20 | 0% | 0% |

Tier 1 - O&M & Testing Review Status

| | Total Pop. | | % Complete | |
|---|------------|-----|------------|------|
| | SWP | QSS | SWP | QSS |
| System Boundary Definition | N/A | N/A | 100% | 100% |
| Document Gathering (RFIs) | N/A | N/A | 90% | 90% |
| Screen NU CMP Findings | N/A | N/A | 15% | 15% |
| Identify System Require. | 207 | 231 | 20% | 30% |
| OPS/Maint/Testing/Training Procedure Reviews | 157 | 183 | 2% | 2% |
| Disposition System Require. | 207 | 231 | 0% | 0% |
| Mod Reviews | 132 | 20 | 0% | 0% |

Tier 1 - Remaining Systems Status

Aux. Bldg. HVAC / SLCRS

Emergency Diesel Generator and All Auxiliaries

- Boundary definition in process
- Boundary meetings scheduled for 8-6-97, 8-7-97, and 8-13-97
- Document retrieval in process

Tier 2 - Accident Review Status

- Completed Review of Millstone Unit 3 FSAR Chapter 15 (Accident Analysis)
- Identified Accident Mitigating Systems, Components and Critical Characteristics



Tier 2 - Accident Review Status

- Identified 22 Accident Mitigating Systems
 - Emergency Core Cooling Systems
 - Reactor Protection System
 - Reactor Coolant System
 - Auxiliary Feedwater
 - Auxiliary Building Ventilation System
 - Control Room Ventilation
 - Quench Spray System
 - etc.

Tier 2 - Accident Review Status

- Associated System Critical Characteristics
 - Instrumentation Actuation - 35
 - Pump Flows - 20
 - Fan Flows - 10
 - Valve Closures - 5
 - Leakage Paths - 10
 - Tank Levels and Boron Concentration - 10
 - Operator Actions - 30
 - Event Related Radiological Consequences - 25

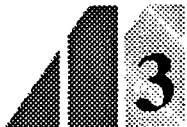
Tier 2 - Accident Review Status

- Submitted Accident Mitigating Systems, Critical Characteristics and Proposed Review Methodology to the NRC for Approval
- Verification of System Critical Characteristics In Process



Tier 3 - Programmatic Review Scope

- Current change process review
- Current change implementation reviews
- CMP corrective action review
- Past change reviews



Tier 3 - Programmatic Review Status

Current Change Processes

- Completed review of all 11 processes
- Review covered 20 procedures and 8 chapters of the Design Control Manual (Rev. 5)
- Review resulted in the initiation of 8 discrepancy reports:
 - 6 DRs issued
 - 2 DRs in-process



Tier 3 - Programmatic Review Status

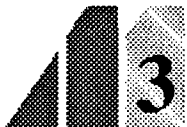
Current Change Process Implementation

- Prepared 11 process implementation checklists
- Review to be conducted in parallel with Tier 1 modification review
- NRC concurrence on checklists in process

Tier 3 - Programmatic Review Status

CMP Corrective Action Reviews

- Unresolved Item Reports (UIR) under review:
 - 235 UIRs for SWP system
 - 265 UIRs for QSS/RSS systems
- UIRs to be reviewed later:
 - 263 UIRs for Aux. Bldg. HVAC / SLCRS / EDG and Auxiliaries
 - Sample of corrective actions outside the Tier 1 systems
- Previously identified design-related deficiencies from pre-OL



Tier 3 - Programmatic Review Status

Past Change Reviews

- 10 categories of change items included in scope
 - Lists of all changes since initial plant operation have been requested for each category
 - 9 lists have been provided by NU
- Sample selection criteria have been submitted to NRC for 4 change categories.

Discrepancies Identified to Date

- 6 DRs issued to NU / NRC
- 13 DRs in process
- 6 Resolutions received from NU
- S&L review of NU resolutions in process



MILLSTONE UNIT 2 STATUS OF ICAVP

Dan Curry & Eric Blocher
Parsons Power
August 6, 1997

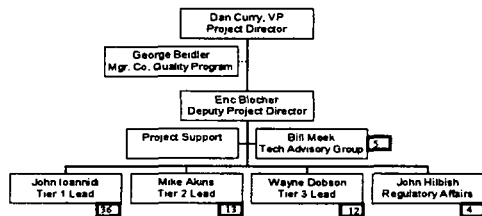
SP-4728C72000

Agenda

- Parsons Power ICAVP Team
- Status of Tier 1, 2 & 3 Activities
- Status of Project Support Activities

SP-4728C72000

Parsons ICAVP Team



SP-4728C72000

Parsons Team Qualifications

- Parsons Team includes 19 MS Degrees, 8 Ph.D. degrees, 27 Professional Engineers, and 10 former Reactor Operators or Senior Reactor Operators
- Parsons Team has approximately 30 years average experience in the power industry
- No Conflicts of Interest noted for any team member (documented per COI form)

SP-4728C72000

Tier 1 (SVSR) Review Process:

- Tier 1 Systems Identified (First Group)
 - ◆ High Pressure Safety Injection (HPSI) with Refueling Water Storage Tank (RWST)
 - ◆ Auxiliary Feedwater (AFW) with Condensate Storage Tank
- System Boundary Process Identified All Functional System Interfaces and Uniquely identified each interface point
- System Review Workbook With 10 Checklists For Key Configuration Management Review Areas

SP-4728C72000

Tier 1 (SVSR) Review Process:

- Functional Review of the Entire System and All Interfaces

| | <u>AFW</u> | <u>HPSI</u> |
|--------------------------------|------------|-------------|
| ◆ Interfacing Systems | 12 | 15 |
| ◆ System Interface Points | 101 | 175 |
| ◆ Mod Packages Identified | ~45 | ~30 |
| ◆ Pipe Calculations Identified | ~12/217 | ~19/470 |
| ◆ Regulatory Documents | 24 | 30 |

SP-4728C72000

Tier 1 Status

- NNECo Completes Group 1 Systems 30 June 97
- Tier 1 System Identified
 - ◆ High Pressure Safety Injection (HPSI) w/ RWST 03 July 97
 - ◆ Auxiliary Feedwater System w/ CST 08 July 97
- Boundary Review Meeting with NRC: 21/22 July 97
- Initiate Tier 1 System Reviews: 21 July 97
- Boundary Presentation to NNECo/Public 30 July 97
- NNECo CMP Complete (NNECo Date) 13 Sept 97
- Issue AFW & HPSI Report 15 Sept 97



Tier 2 Review Process:

- Review all FSAR Chapter 14 Analyses
 - ◆ 7 Event Categories
 - ◆ 29 individual events (some with multiple analyses)
 - ◆ ~ 56 affected systems
 - ◆ ~ 300 "unique" components
- Verify Active Component Critical Design Characteristics that must exist to Support the Chapter 14 Analyses



Tier 2 Status

- Tier 2 "Checklist" identifies CDCs for review based on:
 - ◆ Using System Boundary Diagrams for Major Component Functions
 - ◆ Safety Function Diagrams (relates Component Function to Design Bases Events)
- Identify and Submit to NRC System CDCs for Review
 - ◆ Overcooling (5): 18 July 97
 - ◆ Reactor Coolant Pressure Boundary (6) 05 Aug 97
 - ◆ Radiological, Reactivity & Plant Transients (18) 25 Aug 97



Tier 3 Review Process:

- Inspection Sample Identified and Under Review by the NRC
- Assess adequacy of CMP to identify & correct past change process configuration management deficiencies
- 10 Change Processes Categorized into 4 Functional Groups



Tier 3 Review Process:

- Functional Groups
 - ◆ Engineering
 - ◆ Information & Records Management
 - ◆ Parts Procurement/Supply
 - ◆ Operations & Maintenance



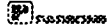
Tier 3 Status

- Process review to be performed in two phases based on NNECo CMP Systems Completion
- Schedule Dates:
 - ◆ Sample Submitted for NRC Approval 25 July 97
 - ◆ Request Prime Sample Documents 08 Aug 97
 - ◆ Phase 1 Complete 15 Sept 97
 - ◆ NNECo CMP Complete (NNECo Date) 13 Sept 97
 - ◆ Request Phase 2 Sample Documents 15 Sept 97



ICAVP Support Activities Status

- Parsons Web Site on-line: 01 July 97
- Parsons Local Office Mobilized at Myrock Ave:
 - ◆ Parsons Badged for Site Access 10 July 97
 - ◆ Initiate Tier 1 Walkdown: 16 July 97
- Requests For Addition Information:
 - ⇒ 179 issued
 - ⇒ 152 Completed (Documents Logged 2,435)
 - ⇒ 27 Open
- Discrepancy Reports Issued 3



WEB Site

Address:

<http://www.parsonsicavp.net>

Pages:

Prime Contact Information
Backup Contact Information
Meeting Announcements
Meeting Summaries
Discrepancy Report Index
Final Reports Summaries



OVERSIGHT OF MILLSTONE WORK ENVIRONMENT

**Little Harbor Consultants
Presentation to
Nuclear Regulatory Commission
August 6, 1997**

August 6, 1997

Presentation to NRC Commissioners

1

ENVIRONMENT FOR RAISING CONCERNS HAS IMPROVED

- Management expectations have been communicated effectively

Yes 94% No 6%

- Workforce is willing to raise safety concerns

Yes 100% No 0%

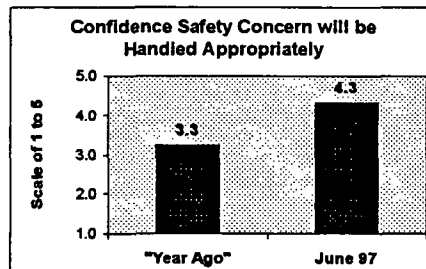
August 6, 1997

Presentation to NRC Commissioners

2

ENVIRONMENT FOR RAISING CONCERNS HAS IMPROVED

- Workforce has greater confidence that concerns will be resolved



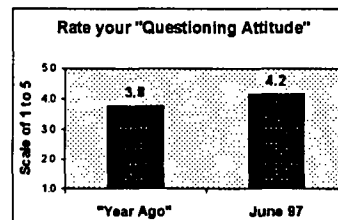
August 6, 1997

Presentation to NRC Commissioners

3

SAFETY CONSCIOUS WORK ENVIRONMENT

Existence of Questioning Attitude:



Impact of "Self-Assessment" on workplace:

48 % Yes 52 % No

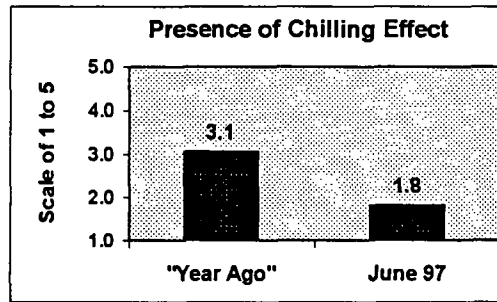
August 6, 1997

Presentation to NRC Commissioners

4

SAFETY CONSCIOUS WORK ENVIRONMENT

Rate the presence of a chilling effect at Millstone:



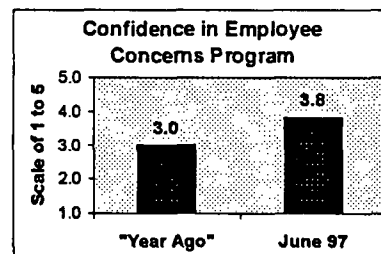
August 6, 1997

Presentation to NRC Commissioners

5

CONFIDENCE IN EMPLOYEE CONCERNS PROGRAM GROWING

Confidence that using ECP will result in resolution:



Any reason you would not use the ECP?

8 % Yes 92 % No

August 6, 1997

Presentation to NRC Commissioners

6

IMPROVEMENTS IN EMPLOYEE CONCERNS PROGRAM

- Necessary resources have been provided for the program
- Enhanced program is documented in new ECP Manual
- Experienced contractors brought in to support program implementation

August 6, 1997

Presentation to NRC Commissioners

7

DEFICIENCIES REMAIN IN ECP IMPLEMENTATION

- Staff qualification process has not been completed
- Staff training is not yet implemented
- Lack of discipline and compliance with the ECP Manual requirements
- 37% of 27 employees who had filed a concern expressed dissatisfaction and would not use the program again

August 6, 1997

Presentation to NRC Commissioners

8

DEFICIENCIES REMAIN IN ECP IMPLEMENTATION, cont'd

- ECP intake process is not properly prioritizing nuclear safety concerns and retaliation issues
- ECP database lacks data required to provide meaningful information to management
- Management does not always recognize presence of a hostile work environment

August 6, 1997

Presentation to NRC Commissioners

9

DEFICIENCIES REMAIN IN ECP IMPLEMENTATION, cont'd

- Documentation in many case files is inadequate and not improving
- Intake and investigation of concerns often performed inconsistently
- Based on file review, some cases improperly classified as resolved or closed
- 53% of open concerns contain retaliation issues

August 6, 1997

Presentation to NRC Commissioners

10



COMMISSION BRIEFING

Millstone

August 6, 1997

OVERVIEW

- **Restart Assessment Plan (MC 0350)**
- **Independent Corrective Action Verification Program (ICAVP)**
- **Employee Safety Concerns Program**
- **Licensing Issues**
- **Schedule**

RESTART ASSESSMENT PLAN (MC 0350)

- Independent Corrective Action Verification Program (ICAVP)
- Employee Concerns Program
- Licensing Issues
 - Corrective Action Program
 - Work Planning and Control
 - Procedure Upgrade Program
 - Quality Assurance and Oversight
- Significant Items List
 - Operational Safety Team Inspection
 - Enforcement
 - Personnel Training/Performance
- Public, State (NEAC), Local, Congressional, other agencies input
- Staff Recommendation

SIGNIFICANT ITEMS LIST STATUS
(As of July 16, 1997)

| | <u>Unit 3</u> | <u>Unit 2</u> | <u>Unit 1</u> |
|------------------------------|---------------|---------------|---------------|
| Total Number of Items | 86 | 51 | 108 |
| Submitted to NRC | 34 | 21 | 0 |
| Closed | 23 | 4 | --- |

ICAVP STATUS

Activities Completed Since Last Commission Status Briefing

- **Approval of Sargent & Lundy Audit Plan for Units 1 and 3**
- **Organizational Approval of Parsons Power as Unit 2 ICAVP Contractor**
- **Approval of Parsons Audit Plan Unit 2 ICAVP**
- **Completed Selection of Four Systems for Unit 3 ICAVP
(Two Systems Selected by NEAC)**
- **Selection of Two Unit 2 Systems for Parsons Review**
- **NRC Inspection of Unit 3 ICAVP Implementation (in process)**

ICAVP UNIT 3 SYSTEMS

**Systems Reviewed by NU Configuration Management Plan
(Systems as Defined by the Maintenance Rule) 88 Systems**

Systems Selected by NRC for Review by Sargent & Lundy

- **Tier 1 Vertical Slice Review 15 Systems**
 - 1. **Service Water**
 - 2. **Recirculation Spray and Quench Spray including Refueling Water Storage Tank**
 - 3. **Auxiliary Building HVAC and Supplemental Leak Collection and Release System**
 - 4. **Emergency Diesel Generator and Support Systems**
- **Tier 2 - Limited Review of Accident Mitigation Systems (22 Systems)**
- **Tier 3 - Historical Audit of Changes to Plant Configuration**

ICAVP STATUS

Activities Scheduled for the Next Three Months

- **NEAC Selection of Two Additional Unit 2 ICAVP Systems**
- **ICAVP Implementation Inspection (Units 2 & 3)**
- **ICAVP Out-of-Scope System Inspection (SSFI) (Units 2 & 3)**
- **Unit 3 ICAVP In-Scope Inspection**

EMPLOYEE SAFETY CONCERNS PROGRAM STATUS

Activities Completed Since Last Commission Status Briefing

- **Met with the Public to Obtain Input on Little Harbor Consultants (LHC) Proposed Third-Party Oversight Plan**
- **Interviewed Third-Party Organization Team Members**
- **Approved the Third-Party Oversight Plan**
- **Met with LHC and Licensee on Status and Results of LHC Activities**

EMPLOYEE SAFETY CONCERNS PROGRAM STATUS

Activities Scheduled for Next Three Months

- **Monitor the Licensee's Implementation of Their Employee Concerns Program Plan and LHC Implementation of Third-Party Oversight Plan**
- **Meeting(s) with LHC and Licensee on Status of LHC Efforts and Licensee Response to LHC Findings**
- **Initiate NRC Inspection of Licensee Employee Safety Concern Program and Processes for Resolving Employee Identified Issues**

LICENSING ISSUES REQUIRED FOR RESTART

**Unit 1: 1 Completed and Issued in 1997
4 Issues Currently Under NRC Review
1 Additional Issue to be Submitted**

**Unit 2: 1 Completed and Issued in 1997
8 Issues Currently Under NRC Review
7 Additional Issues to be Submitted**

**Unit 3: 7 Completed and Issued in 1997
15 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
7/24/97

| ID | Task Name | Start | Finish | Qtr 1, 1997 | | | Qtr 2, 1997 | | | Qtr 3, 1997 | | | Qtr 4, 1997 | | | Qtr 1, 1998 | | |
|----|--------------------------------------|----------|----------|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|
| | | | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar |
| 1 | CMP UNIT 3 IMPLEMENTATION * | 6/3/96 | 7/16/97 | | | | | | | | | | | | | | | |
| 2 | ICAVP UNIT 3 IMPLEMENTATION ** | 5/27/97 | 10/2/97 | | | | | | | | | | | | | | | |
| 3 | NRC ICAVP INSPECTIONS | 7/14/97 | 11/28/97 | | | | | | | | | | | | | | | |
| 4 | NRC ICAVP IN-OFFICE REVIEW/ DOCUMENT | 11/17/97 | 12/24/97 | | | | | | | | | | | | | | | |
| 5 | INSPECTION PROGRAM | 2/14/97 | 10/12/97 | | | | | | | | | | | | | | | |
| 6 | FEMA NOTIFICATION | 9/30/97 | 10/12/97 | | | | | | | | | | | | | | | |
| 7 | EMPLOYEE CONCERNS PROGRAM INSPEC | 9/29/97 | 10/10/97 | | | | | | | | | | | | | | | |
| 8 | LICENSE AMENDMENTS | 3/5/97 | 10/12/97 | | | | | | | | | | | | | | | |
| 9 | OPERATIONAL SAFETY TEAM INSPECTION | 10/13/97 | 11/17/97 | | | | | | | | | | | | | | | |
| 10 | RESTART ASSESSMENT PANEL REVIEW | 11/25/97 | 12/8/97 | | | | | | | | | | | | | | | |
| 11 | EDO/DIR NRR BRIEF | 12/12/97 | 12/12/97 | | | | | | | | | | | | | | | |
| 12 | COMMISSION BRIEFING | 12/19/97 | 12/19/97 | | | | | | | | | | | | | | | |
| 13 | POST-RESTART INSPECTION PROGRAM | 12/19/97 | 3/31/98 | | | | | | | | | | | | | | | |

- * Configuration Management Program (CMP) carried out by the licensee.
- ** ICAVP carried out by Sargent & Lundy contractor.

PROJECT PLANNING SCHEDULE

MILLSTONE UNIT 2
7/24/97

| ID | Task Name | Start | Finish | Qtr 1, 1997 | | | Qtr 2, 1997 | | | Qtr 3, 1997 | | | Qtr 4, 1997 | | | Qtr 1, 1998 | | |
|----|--------------------------------------|----------|----------|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|
| | | | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar |
| 1 | CMP UNIT 2 IMPLEMENTATION * | 6/3/96 | 9/5/97 | | | | | | | | | | | | | | | |
| 2 | ICAVP UNIT 2 IMPLEMENTATION ** | 7/1/97 | 11/21/97 | | | | | | | | | | | | | | | |
| 3 | NRC ICAVP INSPECTIONS | 8/25/97 | 1/30/98 | | | | | | | | | | | | | | | |
| 4 | NRC ICAVP IN-OFFICE REVIEW/ DOCUMENT | 1/20/98 | 2/27/98 | | | | | | | | | | | | | | | |
| 5 | INSPECTION PROGRAM | 3/3/97 | 12/24/97 | | | | | | | | | | | | | | | |
| 6 | FEMA NOTIFICATION | 11/17/97 | 11/28/97 | | | | | | | | | | | | | | | |
| 7 | EMPLOYEE CONCERNS PROGRAM INSPEC | 9/29/97 | 10/10/97 | | | | | | | | | | | | | | | |
| 8 | LICENSE AMENDMENTS | 5/21/97 | 11/25/97 | | | | | | | | | | | | | | | |
| 9 | OPERATIONAL SAFETY TEAM INSPECTION | 1/5/98 | 2/6/98 | | | | | | | | | | | | | | | |
| 10 | RESTART ASSESSMENT PANEL REVIEW | 2/16/98 | 2/27/98 | | | | | | | | | | | | | | | |
| 11 | EDO/DIR NRR BRIEF | 3/6/98 | 3/6/98 | | | | | | | | | | | | | | | |
| 12 | COMMISSION BRIEFING | 3/13/98 | 3/13/98 | | | | | | | | | | | | | | | |
| 13 | POST-RESTART INSPECTION PROGRAM | 3/13/98 | 6/30/98 | | | | | | | | | | | | | | | |

- * Configuration Management Program (CMP) carried out by the licensee.
- ** ICAVP carried out by Parsons Power Group, Inc. contractor.

RESOURCES REQUIRED TO SUPPORT MILLSTONE RESTART EFFORTS

| | 11/96 - 5/97 | | 6/97 - 9/97 Projected | | FY 98 Projected | | 11/96 - 9/98 TOTAL | |
|--------------------|--------------|---------------|--------------------------|---------------|--------------------|---------------|-----------------------|---------------|
| | FTE | \$ | FTE | \$ | FTE | \$ | FTE | \$ |
| NRR * | 15.2 | --- | 11.6 | --- | 35.2 | --- | 62.0 | --- |
| Region I ** | 1.0 | --- | 0.5 | --- | 2.0 | --- | 3.5 | --- |
| Region II | --- | --- | --- | --- | 1.2 | --- | 1.2 | --- |
| Region III | --- | --- | 0.1 | --- | 0.4 | --- | 0.5 | --- |
| Region IV | 0.3 | --- | 0.3 | --- | 1.0 | --- | 1.6 | --- |
| AEOD | --- | --- | 0.1 | --- | 0.4 | --- | 0.5 | --- |
| NMSS | 0.1 | --- | 0.2 | --- | 0.7 | --- | 1.0 | --- |
| Contractors | --- | \$1.1M | --- | \$759K | --- | \$2.1M | --- | \$4.0M |
| TOTAL | 16.6 | \$1.1M | 12.8 | \$759K | 40.9 | \$2.1M | 70.3 | \$4.0M |

* Includes Region I staff detailed to NRR/SPO.

** Region I-based support not assigned to SPO.