

ORIGINAL

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Title: **BRIEFING ON MILLSTONE BY NORTHEAST
UTILITIES AND NRC - PUBLIC MEETING**

Location: **Rockville, Maryland**

Date: **Thursday, January 30, 1997**

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1 UNITED STATES OF AMERICA
2 NUCLEAR REGULATORY COMMISSION

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4 BRIEFING ON MILLSTONE BY
5 NORTHEAST UTILITIES AND NRC

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7 PUBLIC MEETING

8
9 Nuclear Regulatory Commission
10 One White Flint North
11 Rockville, Maryland

12
13 Thursday, January 30, 1997

14
15 The Commission met in open session, pursuant to
16 notice, at 10:00 a.m., Shirley A. Jackson, Chairman,
17 presiding.

18
19 COMMISSIONERS PRESENT:

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

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1 STAFF AND PRESENTERS SEATED AT THE COMMISSION TABLE:

2 JOHN C. HOYLE, Secretary of the Commission

3 KAREN D. CYR, General Counsel

4 NORTHEAST UTILITIES:

5 BRUCE KENYON, President and CEO

6 DAVE GOEBEL, VP, Nuclear Oversight

7 JAY THAYER, Recovery Officer, Nuclear Engineering
8 and Support

9 JACK McELWAIN, Recovery Officer, Millstone Unit 1

10 MARTIN BOWLING, Recovery Officer, Millstone Unit 2

11 MIKE BROTHERS, VP and Recovery Officer, Millstone
12 Unit 3

13 NRC STAFF:

14 HUGH L. THOMPSON, JR., Acting EDO

15 FRANK MIRAGLIA, Acting Director, NRR

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

17 WAYNE LANNING, Deputy Director for Inspections,
18 SPO, NRR

19 PHILLIP McKEE, Deputy Director for Licensing and
20 Oversight, SPO, NRR

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P R O C E E D I N G S

[10:00 a.m.]

CHAIRMAN JACKSON: Good morning, ladies and gentlemen. The purpose of this meeting is for the Commission to be briefed on the status of activities related to the three Millstone Nuclear Power Plants. The Commission will hear presentations today from both Northeast Utilities and the NRC staff.

Millstone Unit 1 has been shut down for approximately 15 months and Units 2 and 3 are approaching being shut down for one year.

All three of the Millstone units were placed on the NRC's watch list in January 1966, and in fact the NRC has stated that this action in retrospect was late in occurring.

The units were recategorized as Category III plants in June of 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, to have responsibility for all licensing and inspection activities at Millstone to support an NRC decision on the restart of those units.

This Commission meeting is the first of what are planned to be quarterly meetings to assess the status of

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1 activities at the sites. The Commission is interested in
2 the recovery process the licensee is employing, the root
3 causes of the deficiencies and how these are being
4 corrected, and indicators and measurement tools the licensee
5 is using to verify progress.

6 The Commission has recently reviewed an NRC staff
7 paper entitled the Millstone Restart Process, which is being
8 made publicly available today.

9 The Commission looks forward to the staff's
10 presentation in addition to the licensee's. We are
11 particularly interested in hearing from the staff on their
12 planned oversight process for restart of the Millstone
13 units.

14 I understand that copies of the presentation
15 materials are available at the entrance to the meeting.

16 Unless the Commissioners have any comments,
17 Mr. Kenyon, please.

18 MR. KENYON: Thank you, Chairman Jackson,
19 Commissioners. For the record, my name is Bruce Kenyon.
20 I'm President and CEO of Northeast Nuclear. I have been in
21 that position since September of 1996. Previously I was
22 President and Chief Operating Officer of South Carolina
23 Electric and Gas, which included responsibilities for the
24 V.C. Summer Plant.

25 Prior to six years at SCE&G, I was 14 years at

1 PP&L in various positions, including being Senior Vice
2 President-Nuclear, and responsible for the Susquehanna
3 units. I was previously with Northeast Utilities, six years
4 there, senior license on both Millstone Unit 1 and Unit 2,
5 and I have navy experience as well.

6 My current challenge obviously is to fix
7 Northeast's nuclear program and recover the Millstone units.

8 Before discussing the status of the recovery
9 efforts and a review of certain issues that we want to
10 address today, I would like to make some introductions.

11 Seated with me is Jack McElwain from PECO. He has
12 been Director of Outage Management, but he's with us as the
13 Recovery Officer on Millstone Unit 1.

14 Marty Bowling. He's Virginia Power Manager of
15 Nuclear Licensing, but he's here with us heading a team as
16 Recovery Officer of Unit 2.

17 Mike Brothers is seated at the table. Mike is
18 assuming the position of Recovery Officer of Millstone Unit
19 3. He succeeds John Paul Cowan, who is Vice President of
20 Operations and Engineering Support. He has been loaned from
21 CP&L. As I think you are aware, he's taking an officer
22 position at Crystal River, but he is here in the audience.

23 Also seated at the table is Jay Thayer. Jay is on
24 loan from Yankee Atomic, Vice President and Manager of
25 Operations, and he's filling the position with us of Vice

1 President of Engineering and Support.

2 Also seated at the table is Dave Goebel. He's a
3 recently retired rear admiral and he is Vice President of
4 Oversight.

5 We have a lot of others in the audience from
6 Northeast Utilities, but I wish to point out that Bernie Fox
7 is seated behind me; Chairman, President and CEO.

8 Also, George Davis chairs the advisory team to the
9 Nuclear Committee of NU's Board of Trustees. George is a
10 former navy vice admiral and previously CEO of Boston
11 Edison.

12 [Slide.]

13 MR. KENYON: The agenda slide indicates what we
14 would like to do for the first of what you've already
15 indicated would be a series of quarterly presentations to
16 the Commission regarding our efforts to recover the
17 Millstone units.

18 For my portion of the agenda, and particularly
19 since this is the first of several meetings to talk about
20 where we are in our progress, I thought I would start by
21 giving you my assessment of the root causes of the Millstone
22 performance problems. I want to highlight the actions that
23 have been taken to address root causes and indicate the
24 progress we're making, and then as part of all that I want
25 to discuss certain issues that I think are relevant for this

1 particular meeting.

2 Other agenda topics will include Jay Thayer giving
3 you a status of efforts to reestablish the licensing and
4 design basis for each unit.

5 Dave Goebel, status of efforts to resolve employee
6 concerns issues.

7 Jack McElwain, status of efforts to establish an
8 effective corrective action program.

9 Clearly there are a number of other issues that we
10 could talk about today, but in the interest of time those
11 are the issues that we selected that we thought would be
12 most relevant for this meeting. As we have other meetings,
13 we will want to discuss other issues as well.

14 [Slide.]

15 MR. KENYON: Beginning with root causes, in my
16 judgment the fundamental problem was leadership. This was
17 manifested through four principal failures.

18 A failure to set and maintain high standards. By
19 that I mean instead of seeking standards of excellence, the
20 organization along the way defaulted to regulatory minimums.
21 The organization stopped benchmarking other utilities. As I
22 think we all understand, if the best you are doing is aiming
23 for regulatory minimums, then at some point you fall short.

24 The second was a failure to establish clear
25 accountabilities. The organization historically pursued a

1 highly centralized organization, more recently called the
2 Power of Five concept. You can organize a lot of different
3 ways, but this particular approach had the significant
4 disadvantage of not establishing and enforcing in a good
5 sense who was accountable for what.

6 As an example, if you are responsible for one of
7 the Millstone units as a unit director, in my judgment that
8 individual did really not have the full accountability that
9 that individual needed to have, did not have engineering
10 resources, did not have licensing resources, did not have a
11 lot of things to really make that person accountable. So
12 what you wound up with was a situation where
13 accountabilities did not truly come together until you got
14 to the top of the organization, and that was just too far
15 away from where the accountability needed to be.

16 There was also a failure to develop efficient
17 processes. The organization sought to solve problems by
18 developing additional controls as opposed to understanding
19 what the real problem was and solving the real problem.
20 They endeavored to prevent problems through controls on top
21 of controls on top of controls. The effect of this was over
22 time to make the processes by which you do work increasingly
23 inefficient and harder to get things done. Over time there
24 was a huge backlog of items not being accomplished, and this
25 gave rise to quite a number of employee concerns, as you

1 would understand.

2 Finally, there was a failure to identify true root
3 causes. The fundamental problem was leadership. The
4 leadership at that time didn't recognize that the
5 fundamental problem was them, and thus they endeavored to
6 pursue a lot of other things without the real problem being
7 solved.

8 So the picture that I think characterized the
9 Northeast Nuclear situation, particularly the Millstone
10 situation, was one of deteriorating performance, low
11 standards, falling further and further behind the industry,
12 a growing backlog of important work not accomplished,
13 unclear accountabilities as to who should fix what, a lack
14 of understanding of the true problems, increase in employee
15 concerns with some high profile cases not well handled,
16 growing supervisor and manager frustration, and thus, in
17 spite of many efforts and many programs to try and address
18 that, the organization, at least at the time I arrived, was
19 as close to a dysfunctional organization as I have ever
20 encountered.

21 Correcting a leadership problem requires new
22 leadership.

23 [Slide.]

24 MR. KENYON: By new leadership, I don't mean one
25 or two individuals, but a substantial infusion. What we

1 have is a new officer team. Every person at this table is
2 new. We have two new hires, four loaned, shifting a little
3 bit with one loaned individual leaving and Mike Brothers
4 picking up that responsibility. As was announced last week,
5 we have a new chief nuclear officer for Millstone, Buzz
6 Carnes. He's coming from Wolf Creek. He spent a few days
7 at the plant this week, but he really reports in halfway
8 through next week and will be able to do a lot for us.

9 CHAIRMAN JACKSON: What's your current estimate of
10 when these various recovery teams will hand off the baton,
11 as it were, to permanent management teams?

12 MR. KENYON: It's coincidental, because we have
13 been working on the agreements, but going out this morning
14 is a press release indicating the following:

15 In the case of Unit 1, PECO has agreed to provide
16 a recovery team to manage the activities on Unit 1 on a
17 long-term basis, meaning through startup into operation for
18 a period of time of at least two years with the opportunity
19 to renew.

20 CHAIRMAN JACKSON: Two years from now or two years
21 from startup?

22 MR. KENYON: Two years from March 1, to be
23 precise. But again, options to renew. Thus, what I'm
24 saying is that they've agreed to stay as long as we need
25 them to stay. In both these cases what we have is a letter

1 of intent. We have some contractual details to work out,
2 but we have a signed letter of intent.

3 Also, on Unit 2, with Virginia Power to do exactly
4 the same thing. In other words, at least two years starting
5 from March 1 provide the recovery team, the leadership team
6 on Unit 2.

7 CHAIRMAN JACKSON: Does that involve the
8 individuals who are sitting at the table?

9 MR. KENYON: Yes, it does. It will not
10 necessarily involve every Virginia Power or PECO individual
11 that is currently. We may shift some.

12 CHAIRMAN JACKSON: But the team leadership is not
13 anticipated to change?

14 MR. KENYON: That's right. The team leadership
15 that you see here sitting at the table is the team
16 leadership that is going to take these units through
17 start up and into operation. We are very pleased with that.

18 On Unit 3, we are transitioning from a CP&L led
19 team to an NU led team, and that NU led team will be led by
20 Mike Brothers. CP&L will be transitioning out. They are
21 willing to leave a few people on a longer term basis but not
22 a full team. Thus, we will supplement an NU led
23 organization on Unit 3 with one or two or three CP&L
24 individuals.

25 In addition, as is going on with the other two

1 utilities that are supporting us, CP&L is going to continue
2 the practice of sending a very senior nuclear individual to
3 the site on a monthly basis to look at what is going on and
4 be in a sense in an ongoing advisory capacity to us as to
5 how they see things going.

6 Also, CP&L is willing to provide support in other
7 ways, such as access to programs, such as a willingness to
8 have our people continue the practice of going and visiting
9 their plants so our folks can see how it's done somewhere
10 else; access to programs and procedures.

11 I want to be sure that the impression is not left
12 that CP&L is just walking away. They're not. I'm
13 comfortable, but I concluded that the right thing to do was
14 transition only one unit at this point and then transition
15 the other two units after startup, well into operation,
16 transition the units one at a time, not have on a Friday a
17 whole team there and then on Monday a whole team gone, but
18 gradually replace people so that both myself and obviously
19 the NRC can be assured that we are going to make a very
20 gradual and careful transition in leadership continuity.

21 CHAIRMAN JACKSON: What impact has this transition
22 had on Millstone and your restart plans there on Unit 3?

23 MR. KENYON: On Unit 3, contrary to what some
24 people have speculated -- they speculated that CP&L
25 transitioning out will be a major setback. I don't see that

1 at all. I think we've got a plan in place.

2 I need to remind you what the initial commitment
3 was. It was to come in for six months. It's just John
4 Cowan that's leaving at this point. The rest of the CP&L
5 team is there and will be there through the six months and
6 then phased out after that. So we have a recovery plan in
7 place that was put together by John and CP&L folks and Mike
8 Brothers.

9 Mike is an individual who is highly regarded by
10 employees, by the public that knows him, by the NRC folks,
11 as I understand it, who know him, certainly by myself, and I
12 think we can achieve a very smooth transition here. I don't
13 see any significant loss of momentum, and thus I think we
14 fully intend to just keep right on doing what we need to do.

15 CHAIRMAN JACKSON: Okay.

16 MR. KENYON: In responding to your question I gave
17 a sense as to what the recovery teams are doing. What I was
18 indicating was that what they do is a lot more than simply
19 have a management team in place. By virtue of the fact that
20 they are here, they provide access to their home companies'
21 programs, their procedures, a working model of what
22 standards should be and how they work.

23 So there is a lot more going on than simply having
24 parachuted some folks in who are filling some leadership
25 positions. There are Northeast Utilities folks, operators,

1 shift supervisors, whatever, going back to those utilities
2 and seeing how things work there. That has been a very
3 important aspect.

4 As I mentioned earlier, the company had stopped
5 benchmarking, but what is going on now is a lot of
6 interaction. Not solely with these supporting utilities,
7 but with others to get out and see how the industry really
8 does things. That has just opened individual's eyes.

9 COMMISSIONER ROGERS: Roughly how many people from
10 each of the units have actually gone off site to look?

11 MR. KENYON: One hundred.

12 COMMISSIONER ROGERS: All told or from each site?

13 MR. McELWAIN: A relative number. About 100 from
14 a site.

15 COMMISSIONER ROGERS: From a site?

16 MR. McELWAIN: The whole site.

17 MR. KENYON: Millstone, yes. It's not a practice
18 that, well, we did it, and that's the end of it. It's one
19 that we do as we need to do.

20 CHAIRMAN JACKSON: You are going to march us
21 through various things in terms of the higher order look,
22 but the highest order look involves the board itself.

23 MR. KENYON: Yes.

24 CHAIRMAN JACKSON: What confidence do we have that
25 the board is on board and fully supportive of what you are

1 outlining here?

2 MR. KENYON: First of all, I would not have taken
3 this position if I did not feel I had the full confidence
4 and support of not just Bernie as CEO of Northeast
5 Utilities, but also the board.

6 CHAIRMAN JACKSON: Can I get Mr. Fox to speak to
7 that? I think it's important that the Commission hear from
8 you.

9 MR. KENYON: Yes. Do you want me to give my
10 answer?

11 CHAIRMAN JACKSON: I want both of your answers.

12 MR. KENYON: I'll answer and then I'll pass it.

13 I would not have taken the position if I didn't
14 feel comfortable that I had the full support. I felt very
15 comfortable. I had it from Bernie Fox. I wanted and did
16 meet with a large number of the trustees prior to taking the
17 job, outlining what I thought the problems were, what I
18 thought I needed to do, and were they supportive of the game
19 plan. The response to that has been very positive.

20 As I think you are aware, the trustees formed a
21 Nuclear Committee. The Nuclear Committee meets twice a
22 month, which is quite unusual for this kind of thing. Once
23 by phone, once in person. The Nuclear Committee
24 periodically comes to the site.

25 As it happens, this was scheduled before this

1 meeting was scheduled. You're smiling, but it's true. The
2 Nuclear Committee met yesterday at Millstone, spent a full
3 day, got briefings from all the recovery officers, took the
4 time as part of their agenda to split up into teams, to go
5 into each unit, talk to managers, meet with employees, get
6 reactions, get their own direct impressions as to what is
7 going on and how well it's going on.

8 In addition, the Nuclear Committee has input from
9 George Davis and the Nuclear Committee advisory team.
10 That's a strong group of consultants. They are critically
11 looking at all of Northeast's nuclear plants on a regular
12 basis and they are providing separate, independent reports
13 to the committee as to what they see are the issues and
14 whether or not George and his group feel that the
15 appropriate actions are being taken.

16 The points I am making are, first of all, they are
17 fully supportive. I've got a budget to do what needs to be
18 done that is almost embarrassing in terms of the amount of
19 money it involves, and they are very engaged in looking at
20 what is happening, questioning what is going on, and
21 receiving a lot of input. So I am extremely comfortable
22 that the trustees as well as Bernie are fully supportive of
23 doing what is necessary to get these units where they need
24 to be, ready to operate, and that they can be carried
25 forward in a safe and reliable fashion.

1 I will pass.

2 CHAIRMAN JACKSON: Let me hear from Mr. Fox on
3 behalf of himself and the board.

4 MR. FOX: Dr. Jackson, obviously I'm not going to
5 repeat many of things that Bruce Kenyon just mentioned, but
6 our very vigorous effort, both mine as the CEO and the
7 board's in their role as fiduciaries and as leaders of the
8 corporation, has been to demonstrated both by word and
9 presence full engagement and full support of Bruce, full
10 support demonstrated by the resources being made available.
11 And you're fully aware and I'm sure everyone in this room is
12 fully aware that that is a challenge, but it's a challenge
13 that we are committed to rising to.

14 In additon to that presence, by not only double
15 meetings of the board committee twice a month, but full
16 briefings of the entire board by the committee chair as well
17 as by Bruce on a monthly basis.

18 As he mentioned, it happened that our board
19 committee had been scheduled to be at Millstone for a full
20 day yesterday. And they were. Right now our plans call for
21 the committee of the board to spend a full day at Seabrook
22 next month. So we also recognize that although the high
23 focus is on the challenges at Millstone that we have other
24 nuclear facilities and we have to be sure that those nuclear
25 facilities also have the proper level of attention.

1 CHAIRMAN JACKSON: Thank you.

2 MR. KENYON: In bringing in a new leadership team
3 -- this is really what is happening to address the
4 fundamental problems -- what this leadership team needs to
5 do. I just want to emphasize this. Part of the issue has
6 been standards. So this team has to bring in what are the
7 right standards, set those standards, enforce those
8 standards. We have got to fix the processes that are not
9 efficient.

10 With regard to incumbent NU nuclear leadership, we
11 need to determine who are part of the solution -- in other
12 words, a keeper -- and who are not, and act aggressively.
13 We frankly do not have a lot of time for a whole bunch of
14 folks to have a get-well program. Either they pretty much
15 know what they need to do and can enforce the right
16 standards and the right accountabilities and manage this
17 well, or we've got to get folks who can.

18 We clearly need to create a proper climate for
19 employee concerns, but our overall challenge is -- and this
20 is really what is most important -- we need to fundamentally
21 change how Northeast Nuclear functions.

22 I had intended to talk about the issue of
23 leadership continuity. I think we have covered that on the
24 basis of your question.

25 Another issue I wanted to address with you is the

1 issue of leadership consistency, a little bit different than
2 the question of continuity.

3 In bringing in three teams, they are obviously
4 coming from different utilities. There are some differences
5 in how those utilities do business. Those differences have
6 turned out not to be huge. They are very modest difference
7 in cultures. I am not insisting on an identical approach
8 for each unit, but I do want the differences to be
9 differences that I can rationalize and feel comfortable
10 with.

11 It has been a challenge to do that and a lot of
12 the other things that I'm doing. As I already mentioned,
13 hiring Buzz Carnes, bringing him in as Chief Nuclear
14 Officer, having the three recovery officers as well as Jay
15 Thayer and an officer who is responsible for some other
16 support functions, really the Millstone leadership team at
17 an officer level all reporting to Buzz Carnes. Dave Goebel
18 as the Vice President of Oversight will continue to report
19 to me because he has responsibilities for more than just
20 Millstone.

21 The intention here is to have a strong senior
22 level person that will assist in leading the recovery of
23 these units, ensure that we have a reasonable consistency of
24 standards across the units, and certainly pay very careful
25 attention to the management transitions.

1 I made the statement earlier that our most
2 important challenge, in my judgment, is not so much the
3 execution of the particular items in the recovery plan, but
4 really the most important challenge is fundamentally
5 changing how NU functions. We, the leadership team, have
6 spent a fair amount of time talking about what are the most
7 important objectives that we need to accomplish in order to
8 make that fundamental change in how NU functions.

9 [Slide.]

10 MR. KENYON: We have identified seven success
11 objectives as being the seven items that we believe are the
12 most important. We're not saying there aren't others, but
13 these are our top seven, so to speak.

14 We must be an organization with high standards and
15 clear accountabilities. I'm going to elaborate on each of
16 these. That means that we have incorporated maybe not all
17 but many of the best practices from other utilities. It
18 means that we are regularly benchmarking with other nuclear
19 utilities. It means that we have indicators that show
20 strong improvement toward excellence. I don't expect us to
21 be at excellence by the time we are ready to start up, but
22 we should be well on the way. And certainly we are meeting
23 our commitments.

24 Second, we must have a strong nuclear safety
25 philosophy, which means to me careful adherence to high

1 safety standards and conservative decision-making.

2 We must have an effective self-assessment process.
3 That is not just oversight. That is also line management
4 being able to critically look at what is going on, identify
5 and deal with problems. I think the fundamental measure
6 there that I would want and I think you would want is to the
7 extent that there are problems we find them, and you can
8 have confidence that we know how to find problems and deal
9 with them.

10 We must have an effective corrective action
11 process, which means problems are prioritized and resolved
12 in a timely manner, and that we have improved regulatory
13 performance as demonstrated by decreasing violations and
14 licensee event reports.

15 CHAIRMAN JACKSON: Let me ask you two questions.

16 One is, what is your assessment of plant personnel
17 embracing the need for change?

18 Number one, so that we are not just talking
19 philosophically, in the course of your discussion are you
20 going to speak with any degree of specificity with respect
21 to what evidence there is of progress with respect to
22 self-assessment and effective corrective action?

23 MR. KENYON: Let me deal with the second question
24 first. One of our additional presentations is corrective
25 action. So we are going to talk about what we are doing and

1 the progress there. We have another presentation on
2 employee concerns and the progress we are making there. We
3 flagged talking about the issue of oversight and we just
4 concluded we didn't have time in the agenda, but certainly
5 if you would like to talk more about that in deference to
6 something else, Dave Goebel can address it.

7 As to your first question on employees and the
8 extent to which they embrace change, certainly what you have
9 in any employee population is a continuum of opinion from
10 those who clearly embrace it and are enthusiastic and let's
11 get on with it. I find at the worker level the employees
12 want to get on with it: let's do what we need to do. If
13 things haven't been right, they accept it. When you're on
14 the watch list, when the plants are shut down, when you know
15 you can't start up, when you know you can't be in this
16 situation forever, I would say the workers are very
17 enthusiastic.

18 The layer that I'm more concerned about is what I
19 would characterize as middle management below this new
20 leadership team, above the employees who basically want to
21 get on and get things done. I think in that middle
22 management layer we have a mixture of folks, some who are
23 very good, committed to do it, some who need to be told, and
24 we are telling them what's the standard, here's how we want
25 you to do business; we are going to hold you accountable to

1 it.

2 I think we have some who are fairly entrenched in
3 a historic way of doing business which we have to fix.
4 Well, we'll fix it. The question is, do we fix it by
5 teaching them how to do it or do we fix it by putting
6 somebody else in the position?

7 I think we are making good progress in reaching
8 the broader population. I don't think we have at this point
9 as much of a sense of urgency as I think we need to have,
10 and we are working on that. I don't think we have at this
11 point all our employees fully understanding the game plan,
12 and we are working hard at communicating that. But in
13 general we are not meeting any substantial degree of
14 resistance to the need to change. Employees know that
15 Millstone isn't in good shape and it needs to be in good
16 shape or they're not going to have jobs.

17 [Slide.]

18 MR. KENYON: Item five is reconstituted licensing
19 and design bases with a process to ensure that they are
20 properly maintained. We'll all know that on the basis of
21 the ICAVP contractor determining that the bases have been
22 restored. We also obviously have to demonstrate that we
23 have implemented effective configuration control processes.

24 Six is an environment that supports the
25 identification and effective resolution of employee

1 concerns. This will be characterized by very open and
2 candid communication with employees, timely resolution of
3 employee safety concerns, and certainly, per your order, an
4 independent review of the employee concerns program and
5 whether or not it has reached a state of effectiveness.

6 Finally, number seven is a commitment to achieve
7 excellence in nuclear operations. What this means to us is
8 that we will have to find what excellence means to us. We
9 will have a plan developed as to how we are going to achieve
10 excellence. There will be demonstrated good progress,
11 particularly on longstanding issues, and certainly issues
12 important to startup have been resolved.

13 CHAIRMAN JACKSON: That progress is important,
14 because every nuclear executive talks about commitment to
15 excellence. Excellence is as excellence does.

16 MR. KENYON: That's right. I don't disagree at
17 all.

18 Finally, we need to be able to show and
19 demonstrate that we have the resource commitments that meet
20 or exceed those of similar well run units.

21 I believe these seven objectives broadly capture
22 the most important aspects of what needs to be done to
23 fundamentally change how this organization functions.

24 [Slide.]

25 MR. KENYON: To talk briefly about the recovery

1 plans, they consist of certain major elements. I want to
2 link as I go through this the success objectives with the
3 elements of the recovery plans. The recovery plans were
4 developed on a unit by unit basis.

5 Recovery plans are laid out to achieve system
6 readiness, which means the licensing and design bases are
7 recovered. That's success objective number five, and that
8 will be the subject of a presentation.

9 The necessary design changes have been made;
10 system drawings are updated; operating, maintenance and test
11 procedures are where they ought to be and properly reflect
12 the design basis; the material conditions of systems and
13 equipment is proper, meaning corrective maintenance has been
14 accomplished; preventive maintenance is current.

15 That's system readiness, but we all know there is
16 a lot more to restart than simply the systems being ready.

17 The second item, and this captures a lot of these
18 other objectives, is organizational readiness. This is to
19 ensure that the broader aspects of the Millstone
20 organization are ready to support safe and reliable
21 operation. This means that we have set the appropriate
22 standards.

23 We are holding individuals accountable. That's
24 success objective number one.

25 We've established a strong nuclear safety

1 philosophy and people can see it in the decisions that are
2 made.

3 We have effective self-assessment.

4 We have an effective corrective action program.

5 We have the proper employee concerns environment, a
6 long-range commitment to excellence.

7 A lot of these success objectives go into
8 establishing that the organization is ready.

9 There also needs to be operational readiness.
10 This ensures that the systems and operating personnel are in
11 a final state of readiness. We'll talk more about this in a
12 future briefing. At a high level it means systems are
13 operable; it means the personnel have been trained; their
14 qualifications have been updated as appropriate; we've done
15 some special things to compensate for the fact that the
16 units have been shut down for a long time; we have the right
17 staffing.

18 Regulatory readiness means that all the
19 commitments that we made that are necessary to support
20 startup have been met. There is a good track record in this
21 regard, and it's characterized by extensive review and
22 interaction with the NRC at many levels in order to support
23 a rebuilding of regulatory confidence.

24 Finally, communications readiness. Here the
25 objective is that, first of all, our employees have a good

1 collective understanding of what we are doing and why,
2 particularly our standards. We have clearly communicated in
3 an open way.

4 There are a lot of ways you can look at this, but
5 the fundamental measure is on the basis of face to face
6 communication. I have the best sense of what is going on by
7 going out in the organization and talking to people and
8 looking at their attitudes, listening to their questions,
9 seeing what they are concerned about. That's how I judge
10 them.

11 CHAIRMAN JACKSON: Let me ask you this question,
12 Mr. Kenyon. Since in many ways communications in that whole
13 area are at the heart of how you deal with employee
14 concerns, and we are going to hear about that, you have the
15 face to face opportunity and you can have some comfort
16 relative to what your organization's state of readiness is
17 in that area. How are you going to communicate it to the
18 public and to us relative to a restart decision?

19 MR. KENYON: First of all, with regard to the
20 public, we are commencing a series of public meetings every
21 four to six weeks. The first one is in February. I'm not
22 sure I'm remembering off the top of my head the date. In
23 fact, I think we actually have two in February. A series of
24 public meetings. They are going to be topic-based.

25 The first one is going to be employee concerns,

1 but we are going to have other topics that we think would be
2 of interest to the public. We are going to invite the whole
3 world. We are going to have a leadership team; we are going
4 to have employees, depending on what the topic is.

5 For example, we have had this employee concerns
6 task force working on what is a good employee concerns
7 program. At this meeting where we go through the employee
8 concerns issues we are going to have members of the employee
9 concerns task force participate in the communication of what
10 we are doing and how we are doing it.

11 So with regard to the public, it's a series of
12 meetings, and we'll do this for as long as it's productive.
13 We just have to communicate, communicate, communicate.

14 CHAIRMAN JACKSON: Do you have metrics to measure
15 success?

16 MR. KENYON: We have public opinion measures that
17 we take on a monthly basis. I think these measures can be
18 refined, but we do that.

19 This is more subjective. The reality is most of
20 the public believes that there is a new leadership team in
21 place. My interaction with the public has been very
22 positive; my interaction with the media has been very
23 positive; and thus the general public is quite supportive of
24 "we want the units run well, we want the units run safely,
25 demonstrate that you can do that, bring these units back."

1 There is a smaller group in the public that is
2 much more vocal, but even my interactions with them have
3 been good. We are going to make sure to the extent that
4 group has issues -- I've gone on their talk show. They have
5 their own TV talk show. I've gone on their talk show. So
6 we are going to have interactions with them.

7 Maybe I'm an idealist, but we are committed to do
8 what is right. We are open and candid about what we are
9 doing, and that is going to come across; it is coming
10 across; and I think we sense it a lot in terms of just the
11 nature of the interactions that are going on in addition to
12 surveys that we take on a monthly basis.

13 With regard to the NRC, I think the key here is
14 that we have regular meetings, formal and informal, where we
15 just lay out what we are doing and how we are doing it, and
16 we have good dialogue as to what the issues are.

17 Certainly I'm looking for input from all quarters,
18 particularly including the NRC, and I think that if it isn't
19 clear already, it will be clear that we are very open, we
20 are very candid, and we're not trying to hide anything.
21 We're just going to lay it out there and have lots of
22 interactions. I think a quarterly meeting with the
23 Commission is excellent, and we welcome this opportunity.

24 Obviously the fundamental measure is performance,
25 and we intend to demonstrate that performance and then

1 communicate that performance.

2 To comment on schedules, first, we are committed
3 to do what's right. Standards are first; schedules are
4 secondary.

5 I have indicated that our most important challenge
6 is not so much the schedules as laid out in the recovery
7 plan but to fundamentally change how the organization
8 functions. That is not something that can be readily
9 scheduled. Thus it's our belief, although subjective, that
10 we can accomplish these fundamental changes in the
11 organization within the time frames that are laid out in the
12 schedule. But that's an assumption.

13 I have stated that standards are first and
14 foremost. A companion statement is that I need to convey at
15 least on our part a sense of urgency. Having three units
16 down for an extended period of time is a significant
17 financial drain on the company, and we really do need to
18 restart at least one unit this year. We just cannot keep
19 spending like this indefinitely.

20 My fourth point is that it's much easier to create
21 a schedule when the scope of the work is fully known, and we
22 don't know the full scope of the work because we are going
23 through a lot of reviews to see what needs to be done. We
24 have made allowances in our schedule for a reasonable number
25 of identified problems. We've made assumptions. We don't

1 know, for example, the sample size that is going to be
2 required by you of the ICAVP contractor. So whatever you
3 have determined in that regard obviously can significantly
4 influence the schedule.

5 My fifth point goes to the issue --

6 CHAIRMAN JACKSON: Let me talk to you before you
7 go off of schedules. By what date do you foresee having a
8 workable restart issues list for each unit?

9 MR. KENYON: We have a workable restart issues
10 list now. It's just that as we find new things we add to
11 it. As we close things we take items off. So we have a
12 listing of items required for startup now.

13 I want to talk a little bit about the strategy of
14 endeavoring to restart the three units in parallel, which is
15 a significant change from what was being done before I
16 arrived.

17 I think it's obvious to everyone that the most
18 efficient way to restart three units is to work all three in
19 parallel rather than one at a time. But I also fully
20 realize that there are potential interferences both within
21 NU and externally as to can you really do all three at once.
22 At the moment what we are trying to do is each unit working
23 what it needs to do, working those units in parallel, and at
24 some point there may be some interferences.

25 What I'm working to do and what the leadership

1 team is working to do is, as we see pinch points, we
2 endeavor to solve those: Can one ICAVP contractor do its
3 review of three units almost on top of each other? We've
4 concluded no.

5 So we've submitted the contractor for Unit 3. We
6 will be submitting contractors for Unit 1 and 2 and we're
7 going to be adding one additional contractor so we have a
8 greater assurance that this workload can be accomplished.

9 We also know that there are challenges to NRC
10 inspection resources: Can the NRC do what it needs to do
11 with three units coming back in parallel?

12 I want you to know this. I acknowledge that we
13 may get to a point where it's necessary to select a lead
14 unit, but my desire is to not do that any sooner than we
15 have to. I'd like to work three units in parallel as long
16 as we can work them.

17 I realize that it is an impractical reality to
18 have three units arrive on your desk seeking permission to
19 restart at the same time, and that is not quite what the
20 schedules show anyway. They are not that far apart, but
21 things are going to happen. We are going to encounter this
22 issue that we don't know about today or that issue that we
23 don't know about today.

24 I'd like to work these in parallel for as long as
25 we can work them. What we are asking of ourselves is, if we

1 ever get to a point that we've got to make some choices,
2 we'll make some choices. All things being equal, we'll pick
3 the largest unit. The reality is all things are probably
4 not going to be equal, and then we would endeavor to pick
5 the unit with the greatest state of readiness, the highest
6 probability of success, and at some point it will be one
7 unit at a time going across the goal line.

8 We are sensitive to the challenges that we are
9 creating for the NRC and its inspection resources. Our
10 commitment is to work with you and try and figure out ways
11 that we could be supportive and cooperative of the
12 regulatory challenges that you and the staff have.

13 CHAIRMAN JACKSON: Do the schedules that you have
14 developed for each site include all the important
15 milestones?

16 MR. KENYON: Yes.

17 [Slide.]

18 MR. KENYON: To wrap up, just quickly indicating
19 progress, a lot has happened in the last three or four
20 months.

21 We have established and communicated the root
22 causes of our nuclear problems.

23 We have brought in a new leadership team.

24 We have reorganized the nuclear organization to a
25 unitized concept with much clearer responsibilities.

1 We have established a recovery team for each
2 Millstone unit.

3 We have developed a recovery plan for each unit
4 and a recovery plan for oversight.

5 We have begun the process of raising standards and
6 improving processes.

7 [Slide.]

8 MR. KENYON: The ICAVP contractor has been
9 selected for Unit 3 and we will be communicating shortly the
10 recommendation for Units 1 and 2.

11 We've established a virtually new oversight
12 leadership team, and that includes a new director of
13 employee concerns.

14 We have selected the employee concerns oversight
15 contractor.

16 We have a new employee concerns program developed
17 by the team. As I indicated, a lot of employee input on
18 this, and because we wanted to get the employee input and
19 because they really wrestled with how this program needed to
20 be established, it took a little longer than we hoped, but
21 that submittal will be made tomorrow, and Dave Goebel will
22 talk more about the employee concerns program.

23 [Slide.]

24 MR. KENYON: We have approved a significantly
25 improved corrective action program. Jack McElwain will talk

1 about that in more detail.

2 We have addressed the issue of leadership
3 continuity through startup. I've talked about that.

4 I haven't mentioned this up to now. We have
5 conducted a leadership assessment. In other words,
6 employees assessing their leadership on leadership
7 characteristics, not technical skills. We just have the
8 results of that being communicated, but that's important
9 input to us on this question of who is part of the solution.

10 CHAIRMAN JACKSON: Are you going to talk to us
11 about the results?

12 MR. KENYON: No, because I have not personally
13 been briefed on the results yet. Some of these folks have.
14 If you'd like, they can. It's just that my briefing hasn't
15 taken place yet.

16 CHAIRMAN JACKSON: I think it would be interesting
17 for us to hear to the extent you are prepared to talk about
18 it. You don't have to take a lot of time.

19 MR. KENYON: Marty.

20 MR. BOWLING: For Millstone Unit 2, as Bruce has
21 indicated, all employees who were invited, that is,
22 voluntarily, could rate their immediate supervisor and any
23 level up in the organization all the way to Bruce.

24 We have the results back on that. They have just
25 been received this week and we are just looking at them.

1 The rating scale was between one and eight. On Unit 2 the
2 aggregate score for all supervisors was around a five.

3 CHAIRMAN JACKSON: What does one mean?

4 MR. BOWLING: One was the lowest.

5 MR. KENYON: One means strongly disagree. In
6 other words, we asked 26 or 28 leadership questions. This
7 is a variation on what we did at South Carolina Electric and
8 Gas, a very important tool for us. There are questions on
9 leadership attributes and each employee basically has boxes
10 to check that range from strongly agree, because the
11 leadership characteristic is stated in a positive way, to
12 strongly disagree, meaning my supervisor doesn't do that.
13 If you get a score of one, that means you've got strongly
14 disagree on everything. The other end of the scale is
15 strongly agree on everything.

16 MR. BOWLING: So it basically came out on the
17 average, but you can see for individuals deviations one way
18 or the other.

19 Another good feature of this, for each low rating
20 the employee was asked to provide the major reason for that,
21 and there were three or four possibilities. The two most
22 prevailing reasons coming out for a low score is that the
23 supervisor doesn't have time or the supervisor doesn't
24 perceive this area that I'm working in as important.

25 CHAIRMAN JACKSON: What do you intend to do with

1 the results?

2 MR. KENYON: I'm going to sit down with each of
3 the officers. We've solved the leadership problem at the
4 top of the organization. The next layer down for us is
5 directors. We have changed out over half the directors.
6 The next layer down is managers and supervisors and so
7 forth.

8 A critical issue for us is we need to understand
9 who is clearly part of the solution, who clearly doesn't get
10 it, in which case they go, and then to the extent that there
11 is a question mark there and the leadership assessment is
12 input, then we have to decide how bad is the problem and do
13 we think we can fix it in a short period of time or not. If
14 we think it's fixable, there is a decent chance of fixing it
15 in a short period of time, we'll hang in with the
16 individual. If we conclude it's not fixable in a short
17 period of time, then we are not going to hang in with the
18 individual.

19 CHAIRMAN JACKSON: How are you defining short
20 period of time?

21 MR. KENYON: A couple months. We are going to do
22 a leadership assessment again in six months. Our objective
23 is a significant improvement in the leadership scores. For
24 whatever it is we got this time we want to see a significant
25 improvement next time.

1 COMMISSIONER ROGERS: Before we leave this
2 progress topic, could you say just a little bit more about
3 your unitized concept? What activities are unit-specific
4 and what are shared by the whole site? For example, to what
5 extent is engineering unit-specific and maintenance
6 unit-specific?

7 MR. KENYON: I will give you some examples. I'm
8 going to ask the other folks on the leadership team to throw
9 in some more.

10 For example, on engineering, there is a
11 centralized organization that sets the engineering
12 standards, that sets the programs, but the accomplishment of
13 the engineering is on a unit by unit basis.

14 Similarly with license. We have a centralized
15 organization that is going to set overall policy and
16 strategy, but to the extent a regulatory commitment is made,
17 it is almost always a unit-specific commitment.

18 This has been a problem in the past, because a
19 centralized organization made a commitment that really the
20 unit had to carry out, but the unit didn't own the
21 commitment because they didn't make it. So we've had a lot
22 of problems with this outfit doing this and that outfit not
23 living up to it. So regulatory commitments are going to be
24 managed on a unit by unit basis, and thus if a commitment is
25 not met, it's very clear who is accountable.

1 We have a centralized training organization, but
2 the units have to be satisfied that they are getting what
3 they need. So training is support.

4 Jump in with some other examples.

5 MR. McELWAIN: A further example on the programs,
6 like the motor operated valve program, the erosion/corrosion
7 program, those things are managed out of Jay's organization
8 and implemented at the units. A different program is the
9 corrective action program that I'll talk about. It's a
10 site-wide program. So everything that we can now determine
11 still makes sense to be one program for everybody, like MOVs
12 and like corrective action, that's the approach we are
13 taking with that.

14 Each of the units where the central group will
15 take a lead in trying to enhance the particular program, for
16 example, corrective action, was a three-unit operation to
17 get it where it is today, but I get to talk about it because
18 I was assigned the sponsorship for that program.

19 That's how we have taken things that were very
20 cumbersome to do and were universal, if you will, and
21 sometimes we have unitized them and sometimes we've not.
22 The critical aspect is, if it applies to all units, we'll at
23 least pilot it on one unit and then make it common across
24 the three. It makes sense from a practical standpoint
25 rather than have three organizations trying to do the same

1 thing to have somebody pilot it, input from the other two
2 units, make it common, and then manage it from there.

3 COMMISSIONER ROGERS: The engineering design basis
4 reconstitution, I'd like to hear about that. Not
5 necessarily now but at some point.

6 MR. KENYON: That is a presentation

7 COMMISSIONER ROGERS: I'd like to hear how
8 unitized that is and how general it is.

9 CHAIRMAN JACKSON: Mr. Bowling, you were going to
10 say something?

11 MR. BOWLING: Yes. I think the approach is for
12 the unit to have those organizations in it which it needs to
13 provide the conduct and support of operations and
14 maintenance. From the engineering perspective with the unit
15 are three key areas:

16 Design engineering for any modifications required
17 to the plant.

18 The technical support area, which is basically
19 system engineering, and also regulatory and technical
20 programs.

21 The third is the configuration management
22 restoration under 50.54(f).

23 MR. KENYON: At this point I would like to call on
24 Dave Goebel on employee concerns.

25 MR. GOEBEL: Thank you, Bruce.

1 Just a short introduction of myself. My name is
2 Dave Goebel and I'm a 34-year navy veteran, having spent 25
3 years of that in the Naval Nuclear Propulsion Program either
4 at sea or ashore. Eight of those years were in shipyard
5 periods doing major reactor plant maintenance, refuelings,
6 training for restart, and that sort of thing. And I had two
7 years as a senior member of the Naval Nuclear Propulsion
8 Board doing examinations on reactor plants.

9 The remainder of my career was either in school or
10 working on national policy issues. I was fortunate to have
11 had the opportunity to work with General Powell in
12 concluding the START Treaty at the assistant secretary
13 level, and most recently have worked with DOE and the
14 national labs and DP on sustainment of the nation's nuclear
15 weapons stockpile without the benefit of underground nuclear
16 testing.

17 I was part of the navy's original retention
18 program that started back in the early and mid-1960s, and
19 throughout my navy commands the retention of my
20 organizations has always improved.

21 And I've been with Northeast Utilities for four
22 months now.

23 [Slide.]

24 MR. GOEBEL: The subject that I'm going to talk
25 about today is the employee concerns program.

1 The fundamental objective is the number six
2 objective which Bruce has just given you. We want to
3 establish an environment that supports the identification
4 and effective resolution of employee concerns.

5 [Slide.]

6 MR. GOEBEL: There are two prongs to that, the
7 first of which is the preparation of the comprehensive plan.

8 That plan was written with the assistance of the
9 employee volunteers. As Bruce has said, we put a call out
10 for volunteers, for people who would be interested in doing
11 that. We had 20 people come forward. We made no
12 selections.

13 We took those who sincerely wanted to work on it
14 and set them down for what started out as as month and then
15 ended up a little over two months with no real bounds on
16 them. They were free to suggest anything they wanted to
17 suggest, and it was done with the employee group essentially
18 with no oversight. They had the opportunity to say what
19 they felt and to line out a program.

20 We had two facilitators which we hired to bring in
21 to try and facilitate the discussion so that they would have
22 an idea of what good programs were in other utilities, and
23 they provided a program which has been the foundation for
24 what, as Bruce has said, we will be submitting tomorrow.

25 That plan provides for increased training for

1 members of the work force as well as members of management.

2 It works to improve the effectiveness of the ECP,
3 that is, the employee concerns program, through a series of
4 process improvements.

5 We will be increasing the accountability of
6 individual behaviors of management. As part of that we will
7 have a system where we will do hot spot analysis. The
8 leadership survey will certainly help us in that regard, to
9 identify those managers who harass or intimidate.

10 Likewise, confidentiality is extremely important
11 to us, and this program helps set in place the protocols to
12 ensure we sustain confidentiality for those folks who have
13 concerns and who want to have confidentiality.

14 A key part of the program is the establishment of
15 an employee concerns oversight panel. The function of that
16 panel will be to oversee the employee concerns program
17 itself. That panel will consist of members from the work
18 force. They will additionally monitor for chilling effect;
19 they will monitor for harassment.

20 At the end of the day, when an employee has had
21 his concern dealt with in the best way in which the program
22 thinks is appropriate and everyone has had their say, if the
23 employee is still dissatisfied, there will be a provision to
24 have a third party reviewer to come in, take a look at it,
25 and give judgment on the employee's issue.

1 So we think that this particular employee concerns
2 oversight panel will go a long way towards helping ensure
3 that the concerns are properly handled.

4 COMMISSIONER ROGERS: How many people are on it
5 and do they stay on there? Or do they rotate?

6 MR. GOEBEL: We are currently planning seven with
7 a full time administrator. There will be some sort of a
8 rotation plan, maybe after a year and a half to two years,
9 but it's going to be a reasonable period of time.

10 There is some question as to whether the panel
11 should have outside members on it similar to a nuclear
12 safety assessment board. Those are being weighed now to try
13 and sort out what gives a fair, impartial effective panel to
14 take on the issue that may or may not come up.

15 CHAIRMAN JACKSON: Have you done any comparison of
16 your proposed program to programs in other industries or in
17 other companies?

18 MR. GOEBEL: We have in other companies. The team
19 was encouraged to go out and sample other utilities, and
20 they have done that. They went out as part of their
21 preliminary work, found out what other utilities had done,
22 and our two facilitators for the group had come from a
23 background of very heavy involvement in employee concerns
24 programs. So they could provide some of that insight on
25 what were good programs, what were not good programs, what

1 really made sense to do and what didn't.

2 The team embraced them. They felt very
3 comfortable with the two folks that came in. As I said, we
4 stayed out of it. It was their process.

5 CHAIRMAN JACKSON: You've laid out the
6 comprehensive plan objectives, but I'm always performance
7 oriented. What are your metrics for knowing that you've
8 accomplished it?

9 MR. GOEBEL: "Show me."

10 CHAIRMAN JACKSON: But how are you going to know
11 you've accomplished those objectives and how will more than
12 Dave Goebel know that you've accomplished those objectives?

13 [Slide.]

14 MR. GOEBEL: This slide and the next slide are ten
15 objectives, and I won't bother reading them.

16 First off, it might help to understand where the
17 objectives came from. The objectives came from those
18 deficiencies that were outlined to us in two fundamental
19 reports, the FCAT report, fundamental cause assessment team
20 report, which had been commissioned by the company, and the
21 Hanan report. Those reports went through and delineated in
22 some detail where historically we had failed to meet the
23 mark.

24 The program sets its objectives, and these were
25 the objectives that the team set out to satisfy, to look at

1 these things and to say, what does it take, what are inputs
2 that if we did certain fundamental actions would lead to a
3 correction of that deficiency. So they have devised a
4 series of 110 or 120 different types of things which should
5 be looked at in order to go through.

6 Those have been formulated into concrete packages
7 to lay out a process in which we will address each one of
8 those. When the plan is submitted, it will be submitted
9 with these objectives in it, and next to those objectives
10 will be elements which we carried out in order to satisfy or
11 meet those objectives.

12 Measurements will come in probably three ways.

13 One is the standard KPIs that will come out of it
14 and measure a number of concerns, how long they are open.
15 Just those types of things that show effectiveness of the
16 program.

17 A second measurement method will be through the
18 third-party oversight panel which has been directed by
19 order, and I'll talk to that in a minute.

20 The third way is you go around and ask. Bruce has
21 plainly said this. We have got to establish the rapport
22 with the work force that management is interested in their
23 issues. We want to hear them, we want them to bring them
24 forward, and we will accept them and work with them in order
25 to solve the issues that they have. Whether they be safety

1 issues, personnel issues that affect the performance of
2 their job, we will help them see that those types of issues
3 get solved.

4 Although the fundamental focus of the program may
5 be safety issues, we recognize there are a lot of other
6 issues out there that the work force also has, and we will
7 facilitate getting those to the right section of the
8 organization.

9 CHAIRMAN JACKSON: Will the effectiveness of the
10 line managers in dealing with employee concerns all the way
11 up the line be part of the performance appraisal for those
12 individuals?

13 MR. GOEBEL: It will. One of the taskings that
14 will go out to the human resources development process is to
15 go back and modify job descriptions to make it a
16 consideration when hiring individuals, and it will go into
17 our internal evaluation system. So when you evaluate an
18 individual there will be a box there that says how does he
19 or she do in relation to handling employee issues, employee
20 concerns, or whatever. So every time your annual review
21 comes up you will be graded on that assessment to make a
22 determination as to how you as an individual have done.

23 CHAIRMAN JACKSON: Relative to the objectives that
24 you've laid out in this overall comprehensive plan?

25 MR. GOEBEL: There will be guidance that lays out

1 how they should do that process. Yes, ma'am.

2 [Slide.]

3 MR. GOEBEL: Unless there is interest, I won't
4 read those ten items. It's still line management's
5 responsibility to make this program work. They have got to
6 demonstrate that they have the willingness to talk to their
7 employees.

8 They have got to demonstrate that they have
9 established an environment where safety questions are
10 welcomed.

11 Additionally, the line is responsible for
12 championing zero tolerance for harassment, intimidation and
13 discrimination.

14 COMMISSIONER ROGERS: What does zero mean? What
15 does that really mean?

16 MR. GOEBEL: What it means is that, one, it is not
17 a tolerated management precept that if you harass a fellow
18 employee that that's an accepted mode of behavior, and they
19 must work to root those out, have systems that help them
20 identify that through their own management chain.

21 Some of it will be feedback from the employee
22 concerns program, either through this concerns oversight
23 panel which we have established or through just the handling
24 of the concerns themselves that will come out of the
25 process.

1 But they have got to champion that and they've got
2 to make their people understand that in the course of doing
3 their business they will not tolerate that behavior in their
4 own organization. So in that sense it's zero tolerance. I
5 do not allow that here.

6 MR. KENYON: It means if we find it, we're going
7 to deal with it severely, up to and including firing the
8 individual.

9 [Slide.]

10 MR. GOEBEL: The ECP program then becomes a safety
11 net for the line.

12 The ECP program will assist the line in handling
13 the concerns, acting fundamentally as a facilitator.

14 In those cases where that doesn't work, then the
15 ECP program provides an alternate path. Today that path is
16 necessary. The trust of some of the employees remains low.
17 We've got to regain that trust, and this program is one way
18 to do that.

19 CHAIRMAN JACKSON: Do you find there are new hot
20 spots emerging?

21 MR. GOEBEL: Not right now.

22 CHAIRMAN JACKSON: Have the old ones been
23 resolved?

24 MR. GOEBEL: There has been such a shift in
25 management that we have not seen new ones develop, and the

1 old ones that might have existed have not risen up.

2 As we go through this process of evaluating
3 members of the management team at all levels for leadership
4 characteristics and people are forced to walk the talk, we
5 are going to find out very quickly those that are on the
6 team and those that are not on the team, and if we have a
7 hot spot, it's clearly because we will have found in an
8 organization an area where there is not someone on the team.

9 [Slide.]

10 MR. GOEBEL: In addition to the plan, we have
11 submitted the name of a third-party oversight team, Little
12 Harbor Consultants. That's a ten-person team. In so doing
13 we have received inputs from over 20 different companies or
14 individuals who wanted to be a part of the process as we
15 went through this. We asked eight companies for RFPs and
16 ultimately interviewed six, and the selectee out of that
17 process became the Little Harbor Consultants.

18 Their function is clearly outlined in the order:
19 Provide an independent assessment.

20 The need to evaluate for improvement.

21 And they need to determine what the needs are for
22 additional change.

23 After reviewing their qualifications, they came in
24 and briefed us, told us how they intend to conduct business,
25 how they intend to work to involve all the stakeholders,

1 including the public in the process. I think they've got
2 what it takes to do this job.

3 COMMISSIONER DIAZ: Excuse me. I have a question
4 on that. I'm sure when you evaluated Little Harbor you were
5 very concerned with their experience in handling employee
6 concerns. Was it clearly established that they had the
7 capability of correlating safety concerns with safety issues
8 in a manner that will be clearly and promptly identified?

9 MR. GOEBEL: Yes. I believe they have five
10 engineers who are specifically skilled in the areas. If
11 there is a safety concern and we fail to recognize it, they
12 certainly should be able to.

13 COMMISSIONER DIAZ: Thank you.

14 [Slide.]

15 MR. GOEBEL: The final thing I wanted to say is we
16 have had some successes in the recent past. So we are
17 making progress.

18 I cite on the slide that on the first of December
19 we had 44 concerns which were under investigation and the
20 oldest was up to four years old. In the previous two or
21 three years or four years our average closure time was over
22 200 days. Very long. Things just sat; they festered; there
23 was no satisfaction really given to the employee when he or
24 she had a concern that anybody cared. It's clear from the
25 statistics.

1 As of the 24th of January, a little less than two
2 months, we had 22 open concerns that were under
3 investigation. The oldest was about 22 months old, and that
4 includes what was a holdover from the previous number. But
5 those received since the first of December through the 24th
6 of January the average closure time was about 18 days.

7 So clearly there has been a prompt change in the
8 process. That I attribute to two things. One is a very
9 senior level involvement on the part of the units. The unit
10 recovery officers and the unit directors are personally
11 taking an interest in resolving these concerns.

12 That is filtering down through the organization.
13 The organization then starts to see at the middle level the
14 concerns which Bruce has talked about. That is going to go
15 a long way towards improving the overall handling of these
16 issues and the restoration of the employee trust in
17 management.

18 I will say also that the submission rate of
19 concerns to the employee concerns program has increased.
20 Frankly, I don't take that as all bad. I want them to say
21 the stuff. I don't want them to be out there allowing these
22 things to fester and not come forward. We are trying to
23 generate an atmosphere where they truly know that we want
24 the concerns that they see; we want them to bring them
25 forward; and we want to get them no matter how we get them;

1 we don't want them to sit there and fester.

2 If there are no other questions, that concludes
3 the briefing.

4 COMMISSIONER DIAZ: I just wanted to make a
5 comment that since this deals with employee concerns and how
6 they are doing their jobs and you have changed from the
7 military to the civilian, we will not hold against you your
8 distinguished military career.

9 [Laughter.]

10 MR. GOEBEL: Thank you very much. I appreciate
11 that. No further comment.

12 CHAIRMAN JACKSON: Commissioner Rogers.

13 COMMISSIONER ROGERS: Not on this. Thank you.

14 CHAIRMAN JACKSON: Okay.

15 MR. KENYON: Jay.

16 MR. THAYER: Good morning. I'm Jay Thayer. I'm
17 an electrical engineer by training. I spent 23 years in
18 various technical and managerial positions in the commercial
19 nuclear power industry in both engineering and operations
20 areas of responsibility. I've been in executive management
21 for the last six years, most recently serving as the Vice
22 President of Engineering at Vermont Yankee Nuclear Power
23 Corporation.

24 [Slide.]

25 MR. THAYER: The purpose of my presentation this

1 morning is to cover what Bruce outlined as objective number
2 five, and the measurement of that is we must have by restart
3 restored licensing and design basis with processes to ensure
4 that they are properly maintained.

5 We are currently implementing our configuration
6 management plan to restore the design and licensing basis
7 for the three Millstone units, and the effectiveness of our
8 efforts will be independently confirmed by the ICAVP
9 contractor.

10 A little bit about my role. As discussed before,
11 my organization is a standard setting organization. In
12 addition to some of the engineering programs that we manage,
13 we run the 50.59 procedure; the design control program is
14 under my organization; the configuration management program
15 and technical programs as mentioned before, such as the MOV
16 program.

17 We have moved into a more active role in the
18 configuration management program. As the three units
19 developed the programs last summer and last fall, in the
20 last several weeks, since about the first of the year, we
21 have moved into a role of overseeing and trying to levelize
22 that effort.

23 One of the first accomplishments that we made was
24 we performed a self-assessment of the three-unit
25 configuration management plans, looking for consistency. We

1 understood going in that they would not be identical, but we
2 also understood we wanted some level, some standard set so
3 that when the ICAVP contractor came in or when your
4 inspection people came in there would be some common
5 understanding of what had been done to restore both the
6 licensing and the design processes.

7 Furthermore, as of about a week ago I've initiated
8 under the direction of Bruce Kenyon an independent
9 assessment as to the degree of consistency that will be
10 needed for the units in implementing the CMP.

11 My current plan is to bring in some of the outside
12 senior review people who have been engaged in reviewing the
13 50.54(f) responses for the industry. I feel that the
14 knowledge that has been gained by those folks in the last
15 few months will be vital to us, number one, to benchmark our
16 efforts against the industry efforts, and also to achieve
17 this consistency goal that we are looking for on the
18 Millstone site between our three units.

19 [Slide.]

20 MR. THAYER: The stated purpose of our
21 configuration management plan is very simple. It's to
22 provide a reasonable assurance that the future operation of
23 each unit will be conducted as specified in the terms and
24 conditions of the unit's operating license, NRC regulations,
25 and the unit's updated FSAR.

1 [Slide.]

2 MR. THAYER: Getting back to the configuration
3 management plan, this is our guidance document. It's simply
4 to tie our actions that we take in configuration management
5 to the requirements of the 50.54(f) letters, the various
6 letters that have been issued for the three Millstone units.

7 [Slide.]

8 MR. THAYER: This configuration management plan is
9 a high level document.

10 It applies to all three units.

11 It is implemented by a series of project
12 instructions. Over the past month the effort has been to
13 update the project instructions to more accurately reflect
14 what is going on on the three sites and to look for
15 consistency.

16 CHAIRMAN JACKSON: Could you describe the
17 availability of the design and licensing basis information
18 at each site?

19 MR. THAYER: It varies and it varies primarily, as
20 you would expect, by the vintage of the plan, the vintage of
21 the license, the type of the NSSS, and also, quite frankly,
22 the time that the various configuration management teams
23 have been in place.

24 The level of investigation on Unit 3, for example,
25 is ahead, primarily for two reasons. One, because the team

1 has been place longer; two, because the vintage of that unit
2 is such that a lot more of the design basis is more readily
3 recoverable.

4 On Unit 1, for example, the FSAR is simpler. The
5 backup to that, the calculations, the design, the drawings,
6 there are fewer in number of them. So even though it is an
7 older unit, the amount of information to recover is less.
8 That has held true.

9 There are other idiosyncracies. We find pockets
10 of where certain parts of the design and licensing basis
11 have been particularly well maintained. For example, the
12 incidence of findings on the Unit 2 FSAR is lower for some
13 reason than the other two units. We don't understand that
14 yet; we don't want to attempt to explain it; but it's just a
15 finding as we have marched through the various design
16 documents and licensing documents.

17 CHAIRMAN JACKSON: Are you saying that you will or
18 you won't have a large reconstitution effort to do?

19 MR. THAYER: The reconstitution of information
20 will be taken on a case by case basis and it will be decided
21 based on the safety significance or on the ability for us to
22 prove the function of a particular system or the function of
23 a particular component. If it is deemed necessary to be
24 able to prove a design basis fact to reconstitute, then we
25 will reconstitute.

1 [Slide.]

2 MR. THAYER: We also understand that design basis
3 and licensing basis recovery involves ongoing processes.
4 These processes have not been done well in the past at
5 Northeast Utilities, and we understand that the
6 configuration management plan is not a one-time effort. In
7 recovering, reconstituting, documenting, collecting the
8 design basis and licensing basis we also have to put into
9 place robust programs which will ensure that these processes
10 continue on or after restart and for the remaining life of
11 these plants.

12 [Slide.]

13 MR. THAYER: To wrap up, the engineering programs
14 and the documents that are being assessed. We will have by
15 the start of the ICAVP a significant amount of that
16 information corrected and updated. We provided the
17 remaining updates to the information prior to restart, an
18 update of all the engineering programs and the processes to
19 support the updating of those that I mentioned a minute ago,
20 well developed and implemented and validated prior to
21 restart.

22 CHAIRMAN JACKSON: Let me ask you this question.
23 You talked about a review of NRC commitments. What has your
24 early sampling told you? Where do you stand with respect to
25 that?

1 MR. THAYER: From the standpoint of access to the
2 commitments, on Unit 1, for example, we have completed a 100
3 percent review of the commitments. So the first point is
4 they are easily retrievable.

5 The second point is we feel that that is the
6 discovery retrieval. We are going through the validation:
7 Have those commitments been carried out in the practices and
8 procedures on site?

9 CHAIRMAN JACKSON: That's what I'm interested in.

10 MR. THAYER: I don't have a good feel for that at
11 this point. That is the validation process that we are
12 currently going through.

13 MR. BOWLING: I would add, Jay, that that's the
14 effort that is about to be undertaken on a large scale. So
15 over the next three to five months they will be validated
16 and results will be in.

17 CHAIRMAN JACKSON: So I should ask you again at
18 the next meeting?

19 MR. BOWLING: Yes.

20 CHAIRMAN JACKSON: With respect to the FSAR review
21 and update, what is your progress in that area and how would
22 you categorize the findings to date? If you could give a
23 few examples and talk about their risk significance.

24 MR. THAYER: The FSAR was one of the first areas
25 of review and discovery in the configuration management

1 plan. Mike might want to talk about the Unit 3 progress in
2 that area because it's further along. But we have a
3 significant number of findings on all three of the FSARs.
4 Like I said, Unit 2 being less for some reason.

5 Right now we are going through a process of
6 prioritizing those findings: What is the impact? I won't
7 trivialize it by a typographical error. Does it impact the
8 ability for the system to satisfy the design basis fact in
9 question? Does it misrepresent a system design basis fact?
10 Does it not capture a critical licensing commitment?

11 These are being prioritized and screened right
12 now, and they will also be prioritized as far as which one
13 of those will go into our FSAR updates which will be
14 submitted prior to startup.

15 CHAIRMAN JACKSON: What improvements are you
16 looking to make in your 50.59 program?

17 MR. THAYER: We have made quite a bit of progress
18 in 50.59 already. In one of the early efforts last fall we
19 had an initiative by Unit 1 to perhaps adopt one of the PECO
20 50.59 processes. We put a team together, some of my folks,
21 the Unit 1 folks.

22 We looked at the existing Northeast 50.59 process
23 and came to the conclusion that the process of performing
24 the safety evaluations was fairly current; it was fairly
25 rugged; it stood the test against an industry benchmark; but

1 what we found was our screening process for when we should
2 be performing 50.59s was terrible.

3 In other words, the 50.59s that we were doing,
4 most of those have been pretty good safety evaluations, but
5 we weren't performing safety evaluations on changes and
6 issues that came up on operability determinations as were
7 others in the industry. So our screening process to tell an
8 individual when a 50.59 was necessary was broken.

9 That has been the major focus of the procedure
10 upgrade. That procedure has been revised, and training is
11 going on right now with personnel to implement that
12 procedure.

13 CHAIRMAN JACKSON: When you speak of meeting the
14 50.54(f) letters prior to restart, what do you mean by that?
15 And in order to have time for the NRC staff to review, you
16 have to resolve what prior needs in that regard?

17 MR. THAYER: We understand that. It's my
18 understanding that the formal letters have a seven-day prior
19 to restart commitment in them or request in them. That
20 obviously is not enough time to assure compliance with all
21 the requirements of these letters. We have built in various
22 time frames in our recovery schedules for inspection
23 activities which would come after the ICAVP which would
24 monitor progress prior to restart. I don't have the exact
25 time frame, but there is a considerable --

1 CHAIRMAN JACKSON: You've built in and resolved
2 those milestones with the NRC staff?

3 MR. THAYER: I wouldn't go so far as to say
4 they've been resolved yet. However, we have acknowledged
5 that it will take a finite amount of time and not seven days
6 to resolve those kinds of issues.

7 MR. BROTHERS: Chairman Jackson, Mike Brothers.
8 In terms of the official schedule that we are putting on the
9 units, our schedule goes up to the point of when we are in
10 fact ready for restart. In other words, when we submit that
11 letter to you. After that there is no formal schedule.

12 CHAIRMAN JACKSON: Okay.

13 MR. McELWAIN: Good morning, my name is Jack
14 McElwain. I'll keep the intro short. I've been with PECO
15 Energy since 1968 and I've spent since 1984 at Peach Bottom.
16 I've been here since October.

17 [Slide.]

18 MR. McELWAIN: I'd like to talk a little bit this
19 morning about the corrective action program.

20 We saw a need and the need has been obvious over
21 time that the corrective action program did not work.

22 The first slide tells you the things that were
23 lacking in the corrective action process, i.e.
24 accountability, quality and timeliness of the evaluations.
25 We didn't have an effective issue and commitment tracking,

1 and we didn't do very much trending at all.

2 CHAIRMAN JACKSON: Was the QA involved in that?
3 What is the QA organization? Have they looked at this area
4 of issue trending recently, and what definition is there to
5 effectiveness in this context?

6 MR. McELWAIN: It's easier to say the opposite,
7 that they weren't effective because we didn't really do it.

8 CHAIRMAN JACKSON: That's ineffective.

9 MR. McELWAIN: That's just the way we were in the
10 fall. But the oversight organization did do a corrective
11 action audit in November while we were in the process of
12 changing it, and they did validate that the things that were
13 happening in the past were still not fixed.

14 CHAIRMAN JACKSON: Does this mean your QA
15 organization needs reconstitution, or is there something
16 else, some other way?

17 MR. McELWAIN: I think the QA organization from
18 the past is being reconstituted, and that is one of the
19 recovery organizations that is happening in parallel with
20 us. So I don't think that is something new.

21 CHAIRMAN JACKSON: The first role is with the
22 line, but the role of the QA organization is important on a
23 going-forward basis. You have the corrective action
24 program. It's important, at least in my mind, that we
25 understand how that reconstituted QA organization and your

1 handling the corrective action program coalesce.

2 MR. KENYON: We had targeted that as a future
3 presentation. I think coming into this it's obvious that
4 oversight, meaning QA and other things, was not right. Dave
5 has done a lot to fix that. I feel much better about the
6 audit reports that we have today versus what we had a month
7 or six weeks ago. We do plan on a future presentation to
8 give you.

9 CHAIRMAN JACKSON: So you want to talk to us today
10 about overall where you are planning to go in corrective
11 action but this is a commitment that you are going to talk
12 to us specifically about the QA organization and how it fits
13 into this.

14 MR. KENYON: Absolutely.

15 CHAIRMAN JACKSON: Okay.

16 MR. McELWAIN: We did revise the corrective action
17 program to address these issues. But more importantly, we
18 took a management perspective at each of the units. We had
19 a management review team that looks at every adverse
20 condition report that is generated, and it used to be a
21 different process than it is now.

22 The process now is the management team looks at it
23 every day. We determine the significance level of it. We
24 assign it to a certain individual. We have established
25 commitments, had people own up to those commitments and own

1 that particular ACR and follow through to completion.

2 Historically you could have an adverse condition
3 report closed without all the corrective actions being
4 complete. We stopped that. No adverse condition report
5 -- in the new model it's going to be condition report --
6 will be closed without the corrective actions being
7 complete. It's a lot harder to lose track of things that
8 you said you were going to do versus did you do them.

9 That same cross-discipline team looks at all the
10 corrective actions and root causes on the adverse condition
11 reports to determine if they really meet the description of
12 the incident or the adverse condition itself.

13 We also look at the proposed corrective actions
14 and the timeliness of them to see if they fit where we think
15 they should be in the grander scheme of things.

16 [Slide.]

17 MR. McELWAIN: We have upgraded root cause
18 analysis capability. It comes with the change in the
19 process. For example, Unit 3. A whole lot of people have
20 been trained. What they are using is a vendor FPI process
21 on causal analysis trending, how to do those particular
22 issues. That's captured in the procedure.

23 Unit 2 has a lot of people trained in that. Unit
24 1 has less people in that, but we're all going down the same
25 path. This is one program across the units, and that's how

1 we are going to make sure that we really do the right root
2 cause analysis of the right causal factors.

3 A key to go hand in hand with a good corrective
4 action program is two issues.

5 One is a self-assessment. I don't mean
6 necessarily formal self-assessment as prescribed on a
7 bi-yearly basis like most utilities have. It has got to be
8 a constant way of looking at how you do business, whether
9 it's how you did the performance that week or it's how an
10 operator evolution went. It's constantly being critical in
11 figuring out how to do things. Even if you did them well,
12 how to do them better. That's what I'm looking at as the
13 self-assessment piece. It has to become generic to the site
14 and the way we normally do business on a daily basis.

15 The other part of that is a worker observation
16 program. What this implies is that management can't be
17 sitting in a different building. They have to be out in the
18 plant. They have to be observing the work activities. If
19 they see something that is not correct, they have to take
20 immediate intervention on it, even if it's something as
21 simple as earplugs required.

22 You talk to the people about what they're doing,
23 look at the procedures, see how they are doing the work to
24 make sure that you do a one on one immediate intervention.
25 Raising the standards is an easy way to do that. You get

1 out there. People become more engaged in the bigger picture
2 of how the power plant works if they are not stuck in their
3 particular office looking at paperwork, ACRs or AITTS, which
4 are the computer systems that track these issues. I think
5 those two things are going to be important in allowing us to
6 have a better corrective action program going forward.

7 [Slide.]

8 MR. McELWAIN: The corrective action formal
9 program change is effective the middle of February. We
10 instituted from a management perspective the things that are
11 in there back in November, but this formalizes that and
12 gives us time to train the people that have to do different
13 evolutionary steps in the process to allow it to be done in
14 a controlled, efficiency manner.

15 We also have established strong line management
16 ownership and accountability for the corrective action
17 process. It's one of the issues that I am the sponsor for
18 and the other unit recovery officers as well as Jay have
19 issues that they are sponsoring.

20 It shows mainly if people understand that
21 management has an interest in it, they are the things that
22 they are going to be interested in. This will also help
23 with employee concerns. If somebody identifies something,
24 we can fix it right and don't have it happen again. It
25 doesn't have to wait and fester and turn into a concern

1 sometime down the road. That also will help that program.

2 We have performance indicators presently for each
3 unit, by each organization to trend issues coming in at
4 significance levels, whether they are overdue or not
5 overdue; corrective action is being developed as well as
6 completed. It's a whole series of indicators that we go
7 over in house on a normal basis. Actually on a weekly basis
8 at Unit 1.

9 [Slide.]

10 MR. McELWAIN: The indicator I attached was just
11 to give you an idea. This is just raw data on the adverse
12 condition history since September of those that have come
13 in, which is the dotted line, and those which have been
14 closed out, which is the solid line.

15 As you can see there is a screaming up the hill,
16 which is what we would expect it to do. The threshold is
17 very, very low. We get some things that could appear to be
18 nonsensical in a certain environment. We don't treat them
19 that way. We don't say that can't be an ACR. We make it an
20 ACR. We go along with it. We give it the significant
21 level it needs. If it's something we can trend, something
22 we use in the trending bin, something that requires
23 immediate action, we try to take that action.

24 In the solid line rising you see to match the
25 input there is a real time lag. There is a big backlog of

1 ACRs historically. When the recovery teams first got here
2 we set up with each individual who had responsibility for
3 these actions: When are you going to be done? We need your
4 commitment to do it. Tell us what resources you need and
5 we'll get them for you.

6 Most of them, as you can see, kind of focused on
7 the end of the year, because we were asking this question in
8 early November. That rise in the closeout rate is based on
9 people starting to meet those commitments that they made to
10 close those ACRs out. That's really all that graph is
11 indicative of.

12 CHAIRMAN JACKSON: Commissioner Rogers.

13 COMMISSIONER ROGERS: The correction action
14 program, of course, is very important. But it's sort of
15 implies that it's corrective, that something didn't go right
16 and it has to be fixed. In this worker observation program
17 you focused on management participation. Have you given any
18 thought to actually using workers to help to identify better
19 ways of doing things so that you avoid something that has to
20 be corrected?

21 MR. McELWAIN: Yes. In the new program there are
22 three levels. There used to be four. They used to be A, B,
23 C and D. Now they are 1, 2, 3. One and two are the real
24 issues that are corrective actions.

25 Category 3 is enhancements. You want to improve a

1 procedure that you don't have control of, that you can't
2 improve yourself. A work process you want to improve;
3 something you think could be an enhancement no matter what
4 it is. That's what the level 3's are going to be for.

5 That's the formal avenue for doing that. That's
6 why we have to have everybody understand what that process
7 is for and why it's necessary to have these issues come out.
8 Even if they are enhancements and improvements, you capture
9 them, you assign some actions to them, and you track them to
10 completion.

11 The thought going into the change was the first
12 two are significant, could be plant, could even be people
13 issues, but the third is really for enhancements and
14 improvements.

15 MR. BOWLING: I would add something. The way that
16 we are getting at this is to bring from our utilities people
17 up on a temporary basis. For example, licensed operators
18 that then can observe what shift operations is and make
19 those type of observations to the right standards.

20 CHAIRMAN JACKSON: Mr. Kenyon.

21 MR. KENYON: Chairman Jackson, in the interest of
22 time I'm going to be very brief in my closing comments.

23 I think we have indicated that we believe the
24 fundamental problem that has plagued Northeast and
25 particularly Millstone for quite a number of years has been

1 leadership. We have fundamentally changed out the
2 leadership at high levels and we are still working down in
3 the organization.

4 This team is committed. This team is
5 enthusiastic. This team clearly understands the standards
6 that need to be set. There is no doubt in my mind we can do
7 what needs to be done. The issue is execution and how long
8 it is going to take.

9 We are working hard. We know that the key issue
10 here is demonstration of performance, and that's what we
11 intend to do. We also know that a key issue is
12 communication, communication with the public, communication
13 with you, the regulator.

14 You asked me an earlier question regarding do we
15 know what needs to be done. We do think we know what needs
16 to be done. We have not at this point fully communicated
17 that to the NRC. There are requests for what are your
18 action lists and that kind of thing. We will be responding
19 to those.

20 We do seek a couple of things that are maybe
21 obvious. One is an acceptance of this leadership team on
22 its merits. We know that there is a lot of regulatory
23 history that represents how NU has behaved historically. NU
24 has been rather defensive, rather contentious, rather
25 legalistic, and that behavior produced understandable and

1 corresponding reactions by the NRC, and thus I think the
2 regulatory relationships when I arrived were not good.
3 That's the company's fault.

4 I want you to know that that is clearly not what
5 this leadership wants. We intend to be fully open, fully
6 candid, not defensive. We will share the information. We
7 know that there are regulatory challenges that need to be
8 met, and we intend to fully work with you. So certainly we
9 want to be judged on the basis of what we do and the
10 performance we achieve and not be judged on a history that
11 at least this team did not create.

12 Second, we are hopeful and believe it's important
13 that there be a sufficient commitment of resources to
14 support the inspection and regulatory resources to support
15 the recovery of these units.

16 Certainly, based on the actions you took yesterday
17 in putting quite a number of plants on the watch list, we
18 know we're not the only ones with problems, and I'm not
19 suggesting that misery loves company. We have been down for
20 a while. We need for a lot of reasons to get these units
21 back and we know that is going to take a commitment of
22 resources from the Commission. We want to work with you to
23 be as supportive on that as we can.

24 We believe that this may constitute the largest
25 management turnaround in the history of the nuclear

1 industry. Maybe that's an arguable point, but that's what
2 we've got to do and that's what we are committed to do.

3 This concludes our remarks.

4 CHAIRMAN JACKSON: Thank you, Mr. Kenyon.

5 Let me make a couple of comments to you.

6 Obviously everyone is aware of how long the units have been
7 down, what it costs for every month they're down. It can't
8 be more important to anyone than the company itself, its
9 shareholders, those who work at the company, as well as
10 those in the community that have a stake. You're the ones
11 who are going to have to rebuild the trust of that
12 community. We have our own job with respect to regulatory
13 confidence, but in the end you're the ones who own and
14 operate those plants. So the stakes are highest for you.

15 I don't think there is any question but that the
16 Commission will accept the team on its merits, but what that
17 means is that the focus is on what you do, not what you have
18 been.

19 We all like to feel that if we come at something
20 with good reputations that we want people to believe that we
21 are going to do what we say we are going to do, but in many
22 ways how we got ourselves to here is taking promissory
23 notes. One should take what you say at face value, but in
24 the end, as we work our way along, what we are looking for
25 is measurable progress in each of the areas, particularly

1 the ones that had gotten to points where we felt we had to
2 issue orders with respect to.

3 I think if we all understand that and you're
4 working with the staff and you're working with those in the
5 State of Connecticut who are involved in good faith and
6 openness and with measurable progress, then we don't have a
7 problem. If it doesn't go that way, then you all have
8 stellar reputations, but in the end when we come to make our
9 decision it's going to be on the basis of what we see and
10 what we see has been done.

11 Unless there are any further comments from the
12 Commission, I think we will hear from the NRC staff, who
13 will be given equal opportunity.

14 MR. KENYON: Thank you, Chairman Jackson. I
15 couldn't agree more with your closing comments.

16 CHAIRMAN JACKSON: Mr. Thompson, you can begin.
17 Would you begin, though, by introducing the members at the
18 table with you, please.

19 MR. THOMPSON: I would be delighted to, Chairman
20 Jackson.

21 To my left is Wayne Lanning, who is the Deputy
22 Director for Inspections for the Special Projects Office.

23 To my immediate right is Phil McKee, who is the
24 Deputy Director for Licensing, the Special Projects Office.
25 He will be giving the briefing this morning. Unfortunately,

1 Dr. Travers had a death in the family and is not able to be
2 with us this morning.

3 To Mr. McKee's right is Frank Miraglia, who is the
4 Acting Director of the Office of Nuclear Reactor
5 Regulations.

6 To his right is Mr. Gene Imbro, who is the Deputy
7 Director of Independent Corrective Action Programs.

8 They will be prepared to respond to any questions
9 that we may have today. Phil McKee will actually lead us
10 through the staff's briefing.

11 As you know, in November of 1996 this new
12 organization, the Special Projects Office, was established
13 within the Office of NRR with responsibilities to include
14 all licensing and inspection activities required to support
15 an NRC decision on the readiness to restart each of the
16 three Millstone units. I was pleased by Bruce Kenyon's
17 recognition that their approach to move in parallel will add
18 a significant and a real workload challenge to the NRC
19 staff.

20 I think with that I will just turn it over to
21 Phil.

22 MR. McKEE: Thank you.

23 [Slide.]

24 MR. McKEE: As mentioned by Hugh Thompson, the
25 primary reason the Special Projects Office was created is to

1 provide a specific management focus on future NRC activities
2 associated with the Millstone units.

3 The new organization serves a primary function of
4 integrated Headquarters and Region I resources for
5 inspection, licensing and oversight.

6 As Hugh mentioned, Bill Travers is unfortunately
7 not able to be here with us today. He's the Director of
8 Special Projects Office.

9 Reporting to him are the three deputies here at
10 the table. We are responsible for the key oversight
11 activities.

12 CHAIRMAN JACKSON: So the director assumes the
13 role of both the regional administrator and the associate
14 director of the projects?

15 MR. McKEE: That's correct, the region, and the
16 projects are integrated and focused to the Special Projects
17 Office director.

18 The regional arm of the Special Projects Office
19 includes a branch chief, resident inspectors, and the region
20 project engineer.

21 In January of 1996 each Millstone unit was
22 allocated a senior resident and resident inspector position.
23 Since then two new resident inspectors have been assigned
24 for Units 1 and 3 and we are in the process of selecting the
25 senior resident for Unit 2.

1 I might mention that two of the residents are here
2 today, and also the branch chief, Jack Durer, and also the
3 resident for Millstone Unit 3, who is Tony Cerni, and the
4 resident for Millstone Unit 1, who is Ted Eastly.

5 CHAIRMAN JACKSON: Are you telling us that each of
6 the senior residents are new?

7 MR. McKEE: That's correct, since January. By the
8 time we select the third senior resident, which should be
9 shortly, they will all be new senior residents.

10 Special Projects Office is utilizing a minimum
11 number of full-time staff. However, the staff will be
12 supplemented, depending on ongoing activities by regional
13 inspectors, headquarter technical staff, and contractors.

14 [Slide.]

15 CHAIRMAN JACKSON: Let me ask you a question. Go
16 back to your first slide.

17 [Slide.]

18 CHAIRMAN JACKSON: You have there that you will be
19 using contractor resources. They are going to be used in
20 what areas?

21 MR. McKEE: We are kind of bloating, depending on
22 license activity resources, but contractor resources are
23 going to be needed for a number of functions.

24 We are looking at contractor support for our staff
25 and for the independent corrective action verification

1 program activities that the NRC will do on our oversight of
2 that program.

3 Also contractor support is needed for inspection
4 areas and maybe follow-up on some of the allegations that
5 the NRC receives.

6 Further, we are looking at some contractor support
7 even in the employee concerns program area to support some
8 follow-up activities and monitoring activities we have
9 planned there.

10 CHAIRMAN JACKSON: And they are going to be
11 independent of any organization or contractors that the
12 licensee uses in those same functions?

13 MR. McKEE: Definitely. We will be independent of
14 those organizations.

15 Back to the second slide, please.

16 [Slide.]

17 MR. McKEE: Although my presentation will focus on
18 staff activities to establish NRC's programs for assessing
19 the licensee's corrective actions and restart readiness, I
20 want to first emphasize that our primary responsibility at
21 Millstone continues to be the day to day assessment of the
22 licensee's safety performance. Most important, given the
23 status of the facilities, is our continuing assessment of
24 the licensee's safe shutdown operations.

25 As you heard from the licensee's presentation,

1 there have been a significant number of recent management
2 changes at the Millstone station. Staff has not had
3 sufficient time to assess the effects of all the changes
4 being implemented by this new organization.

5 Further, the licensee is still in a period of
6 discovery related to many issues, and in particular those
7 related to design and licensing basis.

8 Although it is premature to comment in any depth
9 on the recent performance, I would like to mention that our
10 inspection activities have identified improvements in
11 control of site work. Most significantly, schedules,
12 although some may be ambitious in our estimation, and
13 prioritization for major work activities have been developed
14 for all three units.

15 However, one area which continues to be an issue
16 and which has been identified in recent NRC inspection
17 reports is the licensee's follow-up in correcting identified
18 issues. Since corrective action processes is a very
19 important and critical issue, we plan to closely follow
20 licensee progress in this area.

21 [Slide.]

22 MR. McKEE: The staff is structuring our oversight
23 program in accordance with Inspection Manual Chapter 0350.
24 That manual chapter provides a process, including check
25 lists covering most every contingency, for assessing restart

1 readiness of plants which are shut down for complex events,
2 significant hardware issues, or significant management
3 weaknesses.

4 The elements that I have listed on the slide
5 include some major activities and they are customized for
6 the Millstone review. I will just discuss a few here
7 briefly.

8 Consistent with the manual chapter's guidance, we
9 have established a restart panel and restart assessment plan
10 focused on Unit 3.

11 The restart evaluation process specifically
12 includes Commission involvement. At Millstone that
13 involvement is substantial and encompasses periodic status
14 reports, including a quarterly briefing of the Commission
15 and restart authorization.

16 Regarding ACRS review, plants shut down for longer
17 than one year are typically considered for review by ACRS.
18 However, ACRS at their option can be involved to the extent
19 that they think is appropriate.

20 Public participation is a very important aspect.
21 In most all of our oversight processes, including employee
22 concerns area and the ICAVP -- I'll keep using ICAVP.
23 That's one acronym I'll use, because it shortens it quite a
24 bit -- multiple means are available for public
25 participation.

1 CHAIRMAN JACKSON: Do you have a long-range time
2 line formulated as yet that in some sense schedules, at
3 least in a relative sense, each of the milestones associated
4 with each of these pieces and that has some logical
5 methodology for picking locations for public meetings?

6 MR. McKEE: The processes for ICAVP and employee
7 concerns identifies specific times. In those processes
8 public participation is specified. Our goal is every six
9 weeks or so to have a public meeting if it's not held for
10 some other reason.

11 As we mention here and the licensee mentioned,
12 schedules are fairly open and haven't been well established
13 yet. So we really try to use those periodic meetings that
14 we have to pick up the issues of the time. In February we
15 are having a meeting with the public to discuss the ICAVP
16 and employee concerns. We are also including another issue
17 that we are discussing there.

18 I think our interaction with the public is quite
19 substantial and fairly well laid out.

20 MR. IMBRO: Further, on the ICAVP we are also
21 planning to solicit public comments on the audit plan or get
22 public input on the audit plan when it's submitted by the
23 licensee. We will take those public comments into
24 evaluation in our approval process.

25 CHAIRMAN JACKSON: Are you doing that through

1 public meetings?

2 MR. IMBRO: Meetings with the public, Dr. Jackson.
3 We usually meet with the public in the evening and solicit
4 their input.

5 Also, we have committed to have periodic status
6 meetings on the conduct of the ICAVP or progress of the
7 ICAVP with the public. We want to keep them apprised of the
8 status.

9 MR. McKEE: Getting back to the assessment plan,
10 the plan also provides for coordination with other agencies
11 as appropriate, and organizations. This may include FEMA,
12 Department of Justice, and the state as necessary.

13 Most importantly, the process results in a
14 documented basis for NRC's restart readiness evaluation.
15 This basis is to be used by the NRC senior management and
16 the Commission in making decisions regarding the restart of
17 any of the Millstone units.

18 [Slide.]

19 MR. McKEE: The core of our planning is documented
20 in the restart assessment plan. In particular, the plan
21 identifies areas where regulatory emphasis is needed. The
22 plan is a living document and will be revised periodically
23 as we go along.

24 The first two items listed, the ICAVP and employee
25 concerns, are major elements of the plan, and I will discuss

1 these later in a little more detail.

2 However, it needs to be emphasized that the
3 employee concerns and ICAVP elements, as important as they
4 may be, are only elements of a much larger plan. Many of
5 the other elements, such as corrective action -- and I think
6 that was discussed by the licensee here -- work planning and
7 controls and quality assurance and oversight, are equally
8 important.

9 The plan also includes a significant issues list
10 that specifies individual items. These items are typically
11 identified in inspection reports which the restart
12 assessment panel has determined require documented
13 verification prior to restart of any of the units.

14 Like the plan, we expect this list to evolve as
15 the discovery process continues.

16 CHAIRMAN JACKSON: Is that going to be made
17 publicly available?

18 MR. McKEE: The significant issues list, the ones
19 we have identified at least for Unit 3, is publicly
20 available in our restart. It's an attachment to our restart
21 assessment plan.

22 CHAIRMAN JACKSON: That will be true for all of
23 the --

24 MR. McKEE: Right, and it will be true for the
25 other two units.

1 CHAIRMAN JACKSON: Let me make sure I understand.
2 Are all of the significant issues restart issues?

3 MR. McKEE: All of the significant issues require
4 certain resolution, our inspection, the NRC follow-up prior
5 to restart. So they do involve restart issues, yes. Some
6 are like corrective action plans. You won't be able to
7 resolve necessarily every aspect that might be included.

8 MR. MIRAGLIA: It will at least articulate the
9 scope of the issue for restart and would could remain for
10 later.

11 CHAIRMAN JACKSON: I guess all I'm really asking
12 is relative to a point of clarity. Since I have confusion,
13 and I think about the public, I think it's very important
14 that we're clear if we have what we call a significant
15 issues list what the overlap of that list is relative to
16 what are the issues that have to be addressed before restart
17 so that there is no confusion.

18 MR. LANNING: Let's clarify it to make sure we all
19 have the same common understanding. The significant issues
20 list are those issues that the staff has identified as the
21 minimum required that the licensee must address and complete
22 to our satisfaction prior to restart.

23 There is an additional list that the licensee has
24 which is much larger than that, which is also a source of
25 confusion. We only have completed this activity for Unit 3

1 to date, because that's the only list that we have received
2 from the licensee concerning restart.

3 CHAIRMAN JACKSON: Let me make sure I understand.
4 The licensee has its restart list.

5 MR. LANNING: That's correct.

6 CHAIRMAN JACKSON: Is our significant issues list
7 a subset of that, or it could be but it goes beyond it?

8 MR. LANNING: Our list is a subset of the
9 licensee's list.

10 CHAIRMAN JACKSON: I'm sorry to belabor the point,
11 but every issue that is on our significant issues list by
12 definition is on the licensee's restart list?

13 MR. LANNING: That's correct.

14 CHAIRMAN JACKSON: Commissioner McGaffigan.

15 COMMISSIONER MCGAFFIGAN: In the inspection
16 report, how quickly does the licensee get to start working
17 on coming up with a way to resolve the issues? Do they have
18 to wait for us to write the report, or is it orally
19 communicated at the time? How does that work just in
20 general?

21 MR. MIRAGLIA: Wayne.

22 MR. LANNING: The significant issues list is
23 articulated in the restart assessment plan. That has been
24 published; it's available to the licensee to start work on
25 immediately.

1 COMMISSIONER MCGAFFIGAN: You also said earlier
2 it's an evolving document; you are going to come up with
3 additional issues, and as they said, they are going to come
4 up in discovery. I think that was the word used. How are
5 additions made?

6 I'm just trying to understand the process so
7 that's it's a prompt process, that it doesn't wait for an
8 every three month Commission meeting or something in order
9 that they know what they have to fix.

10 MR. MIRAGLIA: The issues are identified. In the
11 course of inspections there are usually exits. So the
12 information in terms of the issue is identified to the
13 licensee at the conclusion of the inspection.

14 The licensee will make its evaluation as to is
15 this a restart item or not, share that with the staff, and
16 we either agree or say it needs to go even further.

17 That's the process that is done by the 0350
18 restart panel. There are periodic meetings of those. They
19 are done in public meetings. Those lists are shared with
20 the utility on a fairly frequent basis.

21 I don't know what your current meeting schedule is
22 right now.

23 MR. LANNING: We're averaging about one a month.
24 As they have made progress we can have more frequent
25 meetings.

1 COMMISSIONER McGAFFIGAN: And it's up to the
2 licensee to propose how to resolve the issue once it's
3 identified? Then it's up to the panel to decide whether
4 that resolution is acceptable?

5 MR. LANNING: Absolutely. They have to list each
6 of the issues and provide us a package certifying
7 essentially that they have completed the actions that they
8 think are necessary for the NRC to close that issue. They
9 provide that to us so that we can inspect it.

10 CHAIRMAN JACKSON: Okay.

11 MR. McKEE: If we can go back to slide four.

12 [Slide.]

13 MR. McKEE: One item listed is the operational
14 safety team inspection. It's an intensive independent
15 evaluation to be performed just prior to the restart of each
16 of the Millstone units. The inspection focuses on
17 licensee's capability to safely operate the facility. It
18 involves eight or more inspectors who will be on site two or
19 three weeks to perform the inspection.

20 I need to point out that prior to December 1996
21 the licensee had been focusing on Unit 3 as the lead plant
22 for restart. For that reason, the NRC restart action plan
23 is directed at Unit 3 activities. Now it appears, I think
24 as was discussed and you heard today, that the licensee is
25 focusing restart activities for all three units on a

1 parallel path. This revised approach could have
2 considerable resource impacts on the NRC, particularly in
3 considering the scope and depth of NRC activities associated
4 with the restart assessment for each of the facilities.

5 Also, there are many actions and milestones
6 required by the licensee to be completed prior to NRC
7 conducting its review and assessments. I know the licensee
8 spoke to this issue a little bit in their presentation,
9 including the many assumptions that they have made in doing
10 their things. I think they reflected that they are not
11 certain on some what NRC may require in certain areas. So
12 there is a little interchange that needs to go on here.

13 Given the licensee's ambitious schedules and
14 parallel effort for the units, the staff questions the
15 licensee's capability to meet all the necessary milestones
16 for providing staff with necessary submittal packages and
17 the information to support NRC activities.

18 It is very important that the licensee prepare
19 supportable and integrated schedules with clear intermediate
20 milestones for the three units. I heard some of that today,
21 but that needs to be very carefully done so that we can
22 proceed with our work also.

23 This is essential for the staff to plan and muster
24 necessary resources to evaluate licensee programs.

25 As an aside, I want to mention last October the

1 staff did request some information, more details on the
2 operational readiness plan and schedules of important
3 milestones for Unit 3. Although we received some
4 information, we really haven't yet even received docketed
5 information on that request. So we are still waiting for
6 certain information for us to proceed.

7 CHAIRMAN JACKSON: Let me take you back for a
8 quick minute. You mentioned that the Manual Chapter 0350
9 process explicitly provides for your interface with other
10 appropriate agencies and organizations, and you mentioned
11 FEMA, DOJ, and state agencies. The question I have relative
12 to the state is, have you in fact articulated what your
13 interface is going to be with either state agencies or state
14 organizations or state groups? Have you in fact articulated
15 that?

16 MR. IMBRO: I can answer that, Dr. Jackson. For
17 the ICAVP we have solicited observation of the process by
18 the NEAC, Nuclear Energy Advisory Council, I believe it is,
19 and that organization is constituted by the Connecticut
20 state legislature. We have memorandums of understanding
21 from four of the individuals, the two chair people plus two
22 alternates, and they will be involved in keeping abreast of
23 the ICAVP and our status so they will understand the process
24 and know what is going on. So to that extent the state has
25 been involved with the ICAVP.

1 MR. MIRAGLIA: In terms of the public meetings, I
2 believe there has been conversation with Dr. Travers and the
3 state that they would like to be kept informed of briefings.
4 If they need more than they would get at public meetings,
5 we've even arranged for opportunities to be briefed in that
6 regard as well.

7 MR. LANNING: That's right. We have committed to
8 brief the state representatives monthly on the status.

9 MR. MIRAGLIA: So there has been contact at a
10 number of levels.

11 MR. McKEE: If I could have the fifth slide.

12 [Slide.]

13 MR. McKEE: The independent corrective action
14 verification program has been required for each Millstone
15 unit by order issued in September of 1996.

16 The ICAVP is intended to provide independent
17 confirmation that the licensee has identified and addressed
18 design and licensing basis deficiencies.

19 The ICAVP will also confirm that the licensee has
20 processes in place that will ensure continued conformance
21 with their license basis.

22 The order requires the licensee to contract for an
23 independent organization to carry out the ICAVP.

24 The order specifies that NRC review and approval
25 is required for several of the elements.

1 NRC staff will review and approve the independence
2 and technical qualifications of the proposed ICAVP
3 organization.

4 Individual member's independence and their
5 technical qualifications.

6 And the audit plan which must be submitted by the
7 ICAVP organization.

8 As part of our review of the ICAVP audit plan, the
9 staff will determine the scope and depth of the ICAVP audit,
10 including which systems are to be evaluated.

11 CHAIRMAN JACKSON: What criteria are you using to
12 ensure an adequate sampling of systems?

13 MR. MIRAGLIA: As described in the Commission
14 paper that was referenced early in your remarks, Chairman
15 Jackson, which will be made public today, the licensee has
16 the primary responsibility to look at all systems within the
17 context of the 0350 process and conduct the problem
18 identification phase, resolve issues, and then institute
19 corrective actions. The ICAVP will also then select a
20 number of systems.

21 In early meetings with the utility in August
22 preceding the order relative to this, we talked in terms of
23 looking at risk-significant systems, those that would be
24 covered by the maintenance rule, and at a point in the
25 process where the utility has completed its problem

1 identification and instituted corrective actions propose a
2 number of systems that are ready for ICAVP review. Then,
3 within the context of the process the ICAVP will decide a
4 number of systems to be looked at, and then that plan will
5 be submitted for the staff to review and audit.

6 CHAIRMAN JACKSON: So the number of systems and
7 the basis on which they are to be chosen will come to the
8 NRC for approval?

9 MR. MIRAGLIA: Yes.

10 MR. IMBRO: We will specify the number of systems.
11 I think the next slide really addresses the scope of the
12 ICAVP in terms of the multi-tiered effect not only to review
13 four systems as was stated in the Commission paper, but also
14 the fact that we need to look at the accident analyses to
15 make sure the other systems that get engaged to mitigate
16 accidents function the way they are supposed to, and then
17 also to look at the change processes that have resulted in
18 plant configuration getting to where it is since OL to make
19 sure that those have not introduced any modifications.

20 CHAIRMAN JACKSON: Have you begun your discussion
21 of the ICAVP? You're up next, right?

22 MR. IMBRO: No. Mr. McKee was going to handle the
23 whole presentation. I was trying to respond to your
24 question.

25 [Slide.]

1 MR. McKEE: On the next slide we are going to talk
2 about conduct of the ICAVP.

3 As I mentioned before, the staff is required to
4 approve it. We have given a lot of consideration to those
5 elements of what we think should be considered in the ICAVP.

6 In general, staff has determined that the ICAVP
7 should include a three-tier review.

8 Tier 1. This is the plan for Unit 1 as we have
9 identified in the paper, but likely will apply a similar
10 process to the other units. The contractor would perform an
11 extensive vertical slice evaluation of design and operation
12 aspects of a sample of safety-related and risk-significant
13 systems. I think the original thought was four, as Gene
14 mentioned.

15 In tier 2 other safety-related or risk-significant
16 systems would be evaluated and the focus would be on
17 critical active functional attributes necessary to mitigate
18 postulated accidents analyzed in the FSAR.

19 In tier 3 design change processes such as those
20 involving procedural changes, calculation changes, drawing
21 changes, tech spec changes would be sampled.

22 CHAIRMAN JACKSON: So when we are looking at tier
23 1, tier 2 and tier 3, how many systems, at least at this
24 stage of the game, are you talking about looking at?

25 MR. IMBRO: It's a little bit hard to answer. For

1 tier 1 it clearly is four systems. The four-system review
2 is a vertical review looking at all design aspects and
3 making sure that the systems conform to the licensing basis
4 but also that the design requirements flow through to the
5 operating, maintenance, surveillance procedures, testing, et
6 cetera. So there is a complete top to bottom review of four
7 systems.

8 Tier 2 I wouldn't necessarily look at on a system
9 basis but more on an analyzed accident basis. In other
10 words, we are going to start with the Chapter 15 accidents
11 and the FSAR and go through each accident and look at what
12 has been taken credit for in terms of performance of all the
13 systems and make sure that those functions can be performed
14 by the systems by going back to look at the design bases for
15 those particular attributes.

16 So the tier 2 is not necessarily a system review
17 but an accident analysis review focusing on the critical
18 attributes of the systems that need to come into play to
19 mitigate the consequences of the accident.

20 And tier 3 is not a system review at all but is a
21 broad review of processes.

22 MR. MIRAGLIA: And it's the results of all of
23 these and the outcomes of these that will say is that
24 enough. You have to put those together and make the
25 judgments that those three processes have provided the

1 information to say and to make the inference that the ICAVP
2 is going to have to say that the licensee has done enough
3 and independently verified corrective action.

4 MR. McKEE: Finally, on that slide, the ICAVP
5 would not begin until the licensee has completed the problem
6 identification phase of the configuration management program
7 for at least one half of the risk-significant systems.

8 If I could have slide seven, please.

9 [Slide.]

10 MR. McKEE: This provides a little more
11 information on the tier 1 evaluation. We may have covered
12 some of this already.

13 The tier 1 scope as identified by the staff for
14 Unit 3 includes a multi-discipline vertical slice review for
15 several systems comparable to an integrated design
16 inspection. Licensee review includes approximately 80
17 safety-related or risk-significant systems.

18 Tier 1 will encompass the adequacy of original
19 design for the unmodified portions of the selected systems
20 as well as all the modifications since issuance of the
21 operating license.

22 CHAIRMAN JACKSON: Let me ask you a question. I
23 just want to make sure I'm clear. Did you say the licensee
24 has identified 80 systems?

25 MR. McKEE: I think 80 represents the full scope

1 of all the systems that the licensee is looking at, not ones
2 that necessarily will come under the ICAVP.

3 CHAIRMAN JACKSON: I understood that. I'm asking
4 you a question. You said 80 systems, right, and you said 80
5 risk-significant systems?

6 MR. MIRAGLIA: It's the 80 systems that would fall
7 under the criteria as they are implementing the maintenance
8 rule.

9 CHAIRMAN JACKSON: The ICAVP at this point will
10 look at four in this tier 1 process?

11 MR. IMBRO: That's correct.

12 MR. MIRAGLIA: And the 80 is applicable just to
13 Unit 3.

14 CHAIRMAN JACKSON: Is the 80 for one unit or for
15 all three?

16 MR. IMBRO: The 80 is for Unit 3.

17 CHAIRMAN JACKSON: So the four is for Unit 3?

18 MR. IMBRO: Exactly, yes.

19 COMMISSIONER ROGERS: What is the thinking here of
20 your focus on the original design for unmodified systems?
21 What are you looking for there?

22 MR. IMBRO: What we are looking for, Commissioner
23 Rogers, is, starting with the reality of the system as
24 installed in the plant, making sure that that is in
25 conformance with its licensing basis. For the unmodified

1 portions of the system the supporting documentation is the
2 original design. For the parts of the system that have been
3 modified, it's the supporting documentation of the
4 modification packages. We want to look at the total design
5 package that supports the system as it exists today to make
6 sure that's in compliance with its licensing and design
7 basis.

8 COMMISSIONER ROGERS: The problem I have here is
9 just understanding what sort of things you think you might
10 turn up there. It looks to me as if what you may find or
11 the purpose of this would be to see whether the original
12 design complied with the original FSAR. Is that right?

13 MR. IMBRO: That's right.

14 COMMISSIONER ROGERS: This would go back to your
15 one then.

16 MR. IMBRO: Exactly.

17 MR. MIRAGLIA: The second thing is that given the
18 modifications --

19 COMMISSIONER ROGERS: I understand the
20 modifications. It's the unmodified portions.

21 MR. IMBRO: There have been examples where
22 original design problems have been uncovered. Therefore we
23 felt like we needed to go back and look at the adequacy of
24 the original design. That is something that is a little bit
25 unusual in terms of how we review things, but we felt for

1 Millstone this was necessary.

2 COMMISSIONER ROGERS: But then this is sort of a
3 sampling process in a certain sense of the original design
4 conformance with the FSAR for the four systems. That's how
5 you are taking the sample in a sense. It really doesn't
6 relate to the modifications; it relates to the original
7 design and FSAR conformance.

8 CHAIRMAN JACKSON: Let me make sure I understand,
9 because now I'm confused. My perspective was that there
10 were these four systems that you were picking based on some
11 set of criteria, risk significance included.

12 MR. IMBRO: That's right.

13 CHAIRMAN JACKSON: Having picked those, some
14 portions of the systems may have been unmodified since the
15 beginning and some portions may have been modified.

16 MR. IMBRO: That's correct.

17 CHAIRMAN JACKSON: In taking this vertical slice
18 you are doing both things. You are not picking the four
19 systems based on never having been modified or having been
20 modified. You're picking them on some other criteria, and
21 in taking this slice you have to do both of these.

22 MR. IMBRO: That's right. One of our criteria
23 would be also to look at the number of modifications and the
24 complexity of modifications that are made to a particular
25 system.

1 CHAIRMAN JACKSON: To make sure that we are
2 touching base with what his question is and mine, within a
3 given complicated system there are aspects of both.

4 MR. IMBRO: Exactly.

5 MR. MIRAGLIA: You're picking a system and you're
6 saying did it meet the original design as modified. The
7 answer is yes.

8 CHAIRMAN JACKSON: Commissioner McGaffigan.

9 COMMISSIONER MCGAFFIGAN: This is just a language
10 question and perhaps everybody who went through the
11 maintenance rule knows. When you use safety-related or
12 risk-significant, are they the same, or is risk-significant
13 systems that are not safety-related?

14 MR. MIRAGLIA: Within the context of the
15 maintenance rule, it is risk-significant and it would
16 include safety.

17 COMMISSIONER MCGAFFIGAN: So risk-significant
18 includes safety systems?

19 MR. MIRAGLIA: In terms of the maintenance rule,
20 it would be the broader context.

21 MR. IMBRO: Some of the safety-related systems are
22 not really risk-significant. It gets complicated.

23 CHAIRMAN JACKSON: We don't want to go off the
24 map, but there are at least four operative phrases that come
25 up that I think actually need clarification at some point.

1 They are safety-related; we say safety-significant; we say
2 important to safety; and we say risk-significant. And they
3 don't all mean the same thing. Am I correct?

4 MR. IMBRO: That's correct.

5 MR. MIRAGLIA: That's right.

6 CHAIRMAN JACKSON: For the purposes of
7 Commissioner McGaffigan's question, what are you saying?

8 [Laughter.]

9 COMMISSIONER MCGAFFIGAN: They've been very good
10 about using the terms safety-related or risk-significant all
11 through the briefing. So I've been very impressed.

12 MR. IMBRO: From my knowledge of Unit 3, the
13 licensee has approximately 220 or 230 systems total in the
14 plant. They have divided those into four categories. I
15 will focus on the first two because I'm not sure I know the
16 definitions for the other two. The first two comprises the
17 80 systems that we just discussed or made reference to.

18 The group one systems are risk-significant and
19 safety-related, and I think the total number is something
20 like 39, more or less.

21 The group two systems are safety-related or
22 risk-significant. In that category there are approximately
23 42 systems, I believe. Some of those are safety-related but
24 not risk-significant, and others, one or two systems, are
25 risk-significant but not safety-related. I think the two

1 non-safety-related systems that are risk-significant have to
2 do with availability of offsite power kind of things that
3 are not typically safety-related.

4 CHAIRMAN JACKSON: Maybe you could just give a
5 quick definition of safety-related.

6 MR. IMBRO: Safety-related would be those systems
7 that -- I guess as a first cut, those systems that are
8 necessary to mitigate the consequences of an accident or to
9 prevent accidents such as the primary pressure boundary.

10 CHAIRMAN JACKSON: Just for the record.

11 COMMISSIONER McGAFFIGAN: Sorry.

12 CHAIRMAN JACKSON: No. That was a good question.

13 MR. McKEE: To finish on this slide, I was going
14 to mention something about our selection process, but I
15 think we've already covered that. It's based on a number of
16 factors. So let's move to the next slide, please.

17 [Slide.]

18 MR. McKEE: As far as NRC oversight of the ICAVP,
19 staff will provide oversight of that process by reviewing on
20 a sampling basis the ICAVP processes and findings and
21 conducting separate design-related inspections of a couple
22 systems.

23 CHAIRMAN JACKSON: Those systems are different
24 than the four the ICAVP will cover?

25 MR. IMBRO: No, not totally. One will be within

1 the scope of the ICAVP. So one of the systems that was used
2 to do a vertical slice on ourselves will be within the scope
3 of the ICAVP and would be one of the four systems. The
4 other would be not be within the scope of the ICAVP but one
5 of the remaining of the 80 systems that is done by the
6 licensee but not necessarily addressed by the ICAVP.

7 CHAIRMAN JACKSON: And that's one of the things
8 that we are going to end up using contractors for?

9 MR. IMBRO: Exactly, yes.

10 MR. McKEE: Staff intends to keep the state and
11 public well informed on ongoing activities, including
12 invitation to the state representative to observe NRC
13 inspections. We are going to have multiple meetings with
14 the licensee which will be open to the public. And we're
15 going to have specific meetings with the public on this
16 topic.

17 [Slide.]

18 MR. McKEE: Just to give you a quick status of
19 where we are on ICAVP.

20 In brief, the current status of the program is the
21 staff is reviewing the proposals by the licensee to use
22 Sargent & Lundy at Units 1 and 3. We have requested some
23 additional information from the licensee and we plan
24 separate meetings with the licensee and the public in the
25 near future. February 5, I think, is when we planned those.

1 The meeting with the licensee, which will be open
2 to the public, will be to discuss their proposal and
3 selection process.

4 In our meeting with the public we plan to solicit
5 the public's comments on the contractor selection.

6 CHAIRMAN JACKSON: Will the comments that you get
7 from the meeting be addressed prior to or as part of the
8 decision-making process?

9 MR. IMBRO: It will be part of the decision-making
10 process.

11 COMMISSIONER McGAFFIGAN: Could I ask one
12 question?

13 CHAIRMAN JACKSON: Sure.

14 COMMISSIONER McGAFFIGAN: Perhaps Mr. Kenyon can
15 answer. His chart read the same way, that there was a
16 contractor for Unit 1 and 3, but in his oral presentation he
17 said that they had chosen an ICAVP contractor for 3 and they
18 were soon going to do 1 and 2. I guess I should have asked
19 it at the time. I'm just wondering whether you have chosen
20 the Unit 1 ICAVP contractor and submitted it yet or whether
21 your oral remarks were right and you are still working on
22 that.

23 MR. KENYON: We have chosen but not submitted.

24 COMMISSIONER McGAFFIGAN: Chosen but not submitted
25 the number 1?

1 MR. KENYON: That's right.

2 CHAIRMAN JACKSON: Where does the thing stand for
3 Unit 2?

4 MR. KENYON: The same. We have internally chosen
5 both and we will shortly be submitting them.

6 CHAIRMAN JACKSON: So the only one that has been
7 submitted is Unit 3 at this stage?

8 MR. KENYON: That's correct.

9 I'm sorry. I'm out of date. Unit 1 has been
10 submitted also.

11 MR. IMBRO: There is a difference in date.
12 Submittal on the Unit 1 was the 15th of January.

13 MR. McKEE: That completes the ICAVP. I want to
14 shift over to employee concerns. If I could have slide 10,
15 please.

16 [Slide.]

17 MR. McKEE: As a result of past failures in the
18 licensee's programs for the handling of safety issues raised
19 by its employees and NRC concerns about the treatment of
20 employees who brought safety concerns to management's
21 attention, NRC issued an order in October of 1996 requiring
22 the licensee to take a number of actions. The licensee did
23 discuss some of these and I'll kind of cover those briefly
24 again.

25 The principal actions specified by the order

1 include licensee submittal for NRC review their own
2 comprehensive plan for reviewing and disposition of safety
3 issues raised by their employees.

4 The order also requires the licensee to propose an
5 independent organization to oversee the comprehensive plan.

6 Once the NRC approves an independent organization,
7 that organization will develop and provide for NRC approval
8 an oversight plan. All these actions are required prior to
9 the restart of any of the Millstone units.

10 Once in place, the independent organization would
11 provide reports at least quarterly to the NRC. These
12 reports would be made available to the public. We are still
13 considering how we might discuss that, and that would be
14 presented quarterly, including participation by the public.

15 CHAIRMAN JACKSON: So at this point you don't
16 necessarily require any progress relative to the plan before
17 restart. You just said that the plan has to be approved
18 prior to restart.

19 MR. McKEE: That's correct. The oversight plan
20 has to be approved. That's the independent group. That
21 plan has to be approved prior to restart. As far as
22 implementation of their comprehensive plan the oversight
23 group will be doing, that's one purpose of that function,
24 and then of course the NRC would be doing, also similar to
25 the ICAVP, some other higher tier level oversight and

1 assessment of employee concerns.

2 CHAIRMAN JACKSON: I'm just trying to clarify
3 those. Whereas with ICAVP there are certain things that
4 specifically have to have been done before restart, you are
5 not putting in any requirement that there are specific
6 things that have to have been done in the employee concerns
7 areas.

8 MR. McKEE: You're correct. The order does not
9 specify. The order specifies that they have to have the
10 oversight plan in and we approve it prior to restart.

11 CHAIRMAN JACKSON: But you have to bring it to us
12 and convince us.

13 MR. McKEE: That's correct, yes.

14 MR. LANNING: But as a practical matter, the
15 licensee will have to demonstrate that they've made progress
16 in dealing with employee concerns prior to restart. That is
17 a startup issue.

18 CHAIRMAN JACKSON: That's something you should
19 keep in mind in coming to the Commission.

20 MR. McKEE: My last point was that the NRC plans
21 to assess the effectiveness of this plan and bring that to
22 the Commission and discuss that with the Commission prior to
23 restart.

24 Next slide, please.

25 [Slide.]

1 MR. McKEE: The status of the employee concerns
2 order activities is similar to the status for the ICAVP. Of
3 course we don't have three separate programs. The employee
4 concerns is a station program rather than an individual unit
5 program.

6 The licensee has submitted a proposed
7 organization, Little Harbor Consultants, and we are
8 reviewing the qualifications and independence aspects of the
9 organization and individuals.

10 Similar to the ICAVP contractor selection process,
11 we have requested some additional information from the
12 licensee. A letter just went out today on that.

13 CHAIRMAN JACKSON: Are there any particular issues
14 that are you requesting information about?

15 MR. McKEE: We're requesting some further
16 information on Little Harbor Consultants, some further
17 information on some of the individuals, assurance of their
18 independence from Millstone, and financial independence from
19 Northeast Utilities.

20 We are also curious about some of the construction
21 of that organization, how the people will be placed at site,
22 what will be their availability and kind of their dedication
23 of time, since it looks like a specially formed organization
24 for this purpose.

25 Again, we are having a meeting with the licensee

1 concurrent with the ICAVP meeting on February 5, and that
2 meeting will be open to the public for them to discuss the
3 issues that we have asked them and the additional questions.
4 Also that evening we are having a meeting with the public to
5 receive their comments or any input on the proposed
6 organization.

7 CHAIRMAN JACKSON: Let me make sure I understand.
8 This meeting to receive comments on the proposals relative
9 to the ICAVP, is that a meeting that the NRC is holding on
10 February 5?

11 MR. McKEE: On February 5 we actually have two
12 meetings. We have one meeting that the NRC is holding, and
13 it's a meeting with the licensee. That meeting will be in
14 the afternoon of the 5th.

15 CHAIRMAN JACKSON: Is that going to be open to the
16 public?

17 MR. McKEE: That will be open to the public. That
18 meeting will include discussions of both the ICAVP and the
19 employee concerns.

20 CHAIRMAN JACKSON: Then separately the NRC is
21 having a public meeting on February 5th in the evening?

22 MR. McKEE: Correct. In the evening we are having
23 a meeting with the public off the site. I guess in the
24 Waterford Town Hall. A meeting with the public to discuss
25 both those programs.

1 CHAIRMAN JACKSON: When do you foresee a decision
2 being made relative to the ICAVP and our acceptance?

3 MR. McKEE: If I could have the next slide.

4 [Slide.]

5 MR. McKEE: But that won't provide a definitive
6 answer. Actually the next slide we tried to identify some
7 milestones that we expect or anticipate will be accomplished
8 prior to our next briefing to the Commission.

9 We anticipate after this meeting, if we get
10 additional information that progress will be made and
11 subject to meeting the criteria that we are looking for,
12 approval of the ICAVP organizations as well as the employee
13 concerns organization.

14 If that's true in the next three months the order,
15 at least in employee concerns, which I know a little bit
16 better, after approval of the organization, they have 30
17 days to submit their oversight plan. If that works out and
18 we select within the next several weeks the employee concern
19 contractor, we should be at a point even three months from
20 now for looking at an approval well in the process of that
21 oversight plan.

22 I think the same is true also for the submittal of
23 the ICAVP plan.

24 MR. IMBRO: For the ICAVP, we hope that within
25 several weeks after we have our meeting on the 5th and we

1 evaluate the information as presented and consider the
2 public comments that we receive from the evening meeting,
3 then we would be in a position to provide feedback back to
4 the licensee.

5 MR. LANNING: And to help the public provide
6 meaningful feedback, we have provided copies of the
7 correspondence between Northeast Utilities and NRC in the
8 local public document room, which is the Waterford library,
9 such that the public can get copies of that documentation
10 and prepare themselves for the evening meeting.

11 CHAIRMAN JACKSON: Okay.

12 MR. McKEE: We've really covered most of the items
13 that we have on there that I will call the near term, the
14 next three months.

15 The last item. Of course we plan to keep the
16 Commission informed, and we will work our agenda and see
17 what we need to talk about at the next meeting.

18 That concludes my remarks.

19 CHAIRMAN JACKSON: Thank you.

20 MR. THOMPSON: That concludes the staff's
21 presentation. We would be prepared to answer any questions.

22 CHAIRMAN JACKSON: Commissioner Rogers.

23 COMMISSIONER ROGERS: I have no additional
24 questions. I thought it was very excellent.

25 CHAIRMAN JACKSON: Commissioner Dicus.

1 COMMISSIONER DICUS: No, thank you.

2 CHAIRMAN JACKSON: Commissioner Diaz.

3 COMMISSIONER DIAZ: I do have a couple of little
4 questions. Again, you're going to have to excuse me,
5 because they were very simple, but when the discussion on
6 safety-significant and risk came in they got a little more
7 complicated. So I had to write something down quickly just
8 to make sure that my question comes out clearly.

9 You go through this entire document. I am certain
10 that in every one of the staff actions safety is behind it.
11 Paraphrasing Chairman Jackson when she finished her remarks,
12 we do not manage utilities; we regulate utilities regarding
13 their safety significance. I think that is an important
14 issue.

15 And we know we have this major massive effort on
16 the design basis reconstitution, which I guess constitutes a
17 significant portion of the efforts.

18 However, in going through all of these documents,
19 and I'm sure I missed not only this but all the others, I
20 wonder if I could ask the staff.

21 In all of these vertical, horizontal and diagonal
22 slices we have taken have you identified an individual,
23 independent, very safety-significant, risk-significant issue
24 at Millstone which would have had or could have impaired the
25 capability of the systems to perform its intended safety

1 function?

2 MR. MIRAGLIA: I think what led up to and prior to
3 the 50.54(f) letters on each of the units there were special
4 inspections. In fact, there was a self-assessment by the
5 licensee relative to concerns that led to technical
6 specification shutdowns because they could not meet the
7 licensing basis. I believe Unit 1 was the first unit to be
8 shut down.

9 As a result of those concerns, we had a special
10 inspection team sent to the Millstone station with a focus
11 on Unit 1. Then we looked at Unit 2 and 3 as concerns were
12 identified based upon the licensee's own self-assessment.
13 And also within the context of Haddam Neck. So we had a
14 20-plus-person team looking at the safety and operation
15 within the licensing basis for the facility. And other
16 issues were identified where they couldn't make the
17 appropriate operability call, so it led to the shutdown of
18 the other units.

19 Those reports are on the docket, in the public
20 document room, and form the basis. It was the licensee's
21 own judgment based upon their assessments and our inspection
22 results that led to the shutdown of those units and the need
23 for a reconfiguration to assure operation.

24 COMMISSIONER DIAZ: I couldn't agree more with the
25 need for reconstitution of the design basis. Being

1 simpleminded, that really was not my question. My question
2 was, have we identified an independent issue?

3 MR. MIRAGLIA: I believe we can identify from the
4 findings in the special inspection at least two or three
5 significant safety issues at the units that led to the
6 shutdown, and we can provide that and highlight those
7 reports for you.

8 COMMISSIONER DIAZ: Would you, please. I will ask
9 the staff to do likewise.

10 MR. THOMPSON: We will be glad to provide that to
11 the Commission.

12 MR. McKEE: We had an enforcement conference with
13 the licensee in December. That enforcement conference
14 included a number of the issues that were identified at the
15 inspection we were talking about plus issues that were
16 identified by the regional inspection program. So what we
17 provide will probably include a lot of that. That included
18 a number of significant issues.

19 COMMISSIONER DIAZ: I have gone to the significant
20 issues list. I don't see many of them that I would call
21 really safety-significant and risk-significant.

22 MR. MIRAGLIA: Mr. Imbro can give one example.

23 MR. IMBRO: One issue that comes to mind, I
24 believe on Unit 2, was the size of the containment sump
25 screen mesh. That was larger than the orifice size for the

1 high pressure injection throttle valves and created a
2 potential for blockage of high pressure injection because
3 debris could pass through the sump screens that was larger
4 than the orifice size. That is one issue that comes off the
5 top of my head.

6 MR. LANNING: An additional issue is Unit 2
7 concerning the turbine driven auxiliary feedwater pump.
8 They had disabled that pump at certain times contrary to
9 tech specs, which is a very significant finding by this
10 team.

11 COMMISSIONER DIAZ: I remember that one clearly.

12 But I think it would be important that we identify
13 those significant issues clearly and separate; all of the
14 issues dealing with design basis and with everything else is
15 something that we need to have up front.

16 MR. MIRAGLIA: It's already documented within the
17 reports. We could highlight those. I think it's those
18 issues that indicated that we had to do an extensive fix.

19 CHAIRMAN JACKSON: Why don't you just take what
20 you have and highlight it and provide it to Commissioner
21 Diaz.

22 MR. MIRAGLIA: Yes. We'll do that.

23 CHAIRMAN JACKSON: Are there any further questions
24 or comments?

25 [No response.]

1 CHAIRMAN JACKSON: I would like to thank both
2 Northeast Utilities and the staff for briefing the
3 Commission on the processes being used to address readiness
4 for restart of the Millstone units.

5 The Commission recognizes that much effort has
6 been expended by the licensee and the NRC staff in
7 determining what the deficiencies are, analyzing them for
8 root cause and categorizing them for safety significance.
9 Clearly, however, there is a lot of work yet to be done.

10 To reiterate, from the NRC's perspective the
11 decision-making process has been formalized by the following
12 things.

13 First, issuing orders related to an independent
14 corrective action verification program and the establishment
15 of a third-party oversight of the employee concerns program.

16 Secondly, creating the Special Projects Office to
17 oversee all licensing and inspection activities.

18 Third, updating the NRC's staff guidelines for
19 restart approval, namely, the Manual Chapter 0350 process,
20 specifically for the Millstone units.

21 Fourth, formalizing Commission involvement by
22 necessitating a vote for final restart approval and in the
23 interim conducting routine meetings to track progress which
24 at this point are scheduled on a quarterly basis.

25 However, the plan is dependent also on the

1 licensee's schedule, and so I encourage the licensee to work
2 closely with the staff in establishing a schedule however
3 draft a schedule that may be and as promptly as possible
4 finalizing a list of restart issues.

5 NRC resource allocations, as we have all spoken
6 to, must be planned accordingly. And although the licensee
7 has indicated the desire to work all three units in
8 parallel, I believe the Commission would greatly benefit by
9 having a draft time line with significant milestones
10 annotated for each of the three units.

11 The Commission does not presuppose that any of the
12 plants will restart by a certain date or not restart by a
13 certain date. However, the Commission must be prepared to
14 ensure that adequate resources are employed to ensure
15 adequate review in a timely manner and to ensure that the
16 public health and safety concerns are addressed.

17 The Commission looks forward then to more detail,
18 more meat on the skeletons of these plans and these
19 processes at each subsequent Commission meeting.

20 As an aside, with respect to the regulatory
21 lessons learned from this process, I note that the NRC
22 continues to study improvements to be made in its processes
23 and to have those processes reflect appropriately risk and
24 safety significance. The Commission is currently scheduled
25 to be briefed on Millstone and Maine Yankee's lessons

1 learned on February 19.

2 Unless any of the Commissioners have any closing
3 comments, we stand adjourned.

4 [Whereupon, at 12:40 p.m., the briefing was
5 adjourned.]

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CERTIFICATE

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

TITLE OF MEETING: BRIEFING ON MILLSTONE BY NORTHEAST
UTILITIES AND NRC - PUBLIC MEETING

PLACE OF MEETING: Rockville, Maryland

DATE OF MEETING: Thursday, January 30, 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: Michael Paulus

Reporter: Michael Paulus

Northeast Utilities Briefing for the U.S. Nuclear Regulatory Commission

***NRC Headquarters
Rockville, Maryland
January 30, 1997***



**Northeast
Utilities System**

Overview

Bruce Kenyon

***President & Chief Executive Officer
Northeast Nuclear Energy Company***



**Northeast
Utilities System**

Agenda

- **Employee Concerns** ***Dave Goebel***
- **Licensing and Design Basis Recovery** ***Jay Thayer***
- **Corrective Action** ***Jack McElwain***
- **Closing Remarks** ***Bruce Kenyon***



Root Causes of Millstone Decline

- **Failure to set and maintain high standards**
- **Failure to establish clear accountabilities**
- **Failure to develop efficient processes**
- **Failure to identify true root causes**



Leadership Solutions

- **New Officer Team**
- **Recovery Teams**
- **Use of Other Loaned Individuals**



Success Objectives

- 1. High standards and clear accountabilities**
- 2. Strong nuclear safety philosophy**
- 3. Effective self-assessment**
- 4. Effective corrective action process**



Success Objectives *(continued)*

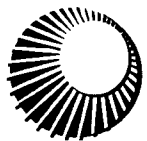
- 5. Licensing and design bases restored with process to ensure they are properly maintained**
- 6. An environment that supports the identification & effective resolution of employee concerns**
- 7. Commitment to achieve excellence in nuclear operations**



Recovery Plans

Elements of Readiness in Each Phase

- System
- Organizational
- Operational
- Regulatory
- Communications



Progress

- **Established and communicated root causes**
- **Established new nuclear leadership team**
- **Reorganized to a “unitized” concept**
- **Established recovery teams for each unit**
- **Developed Recovery Plans and schedules for the site**
- **Raising standards and improving processes**



Progress *(continued)*

- **Selected ICAVP contractor for Units 1 & 3**
- **Established new Oversight leadership team**
- **Selected Employee Concerns Oversight contractor**
- **Submitted new Employee Concerns Program**



Progress *(continued)*

- **Implemented improved Corrective Action Program**
- **Established longer-term leadership team for each unit**
- **Conducted leadership assessment**



Employee Concerns

Dave Goebel

Vice President - Nuclear Oversight



**Northeast
Utilities System**

Program Goal

***An environment that supports the
identification & effective
resolution of employee concerns.***



**Northeast
Utilities System**

A Comprehensive Plan...

- **Was Written with Assistance of Employee Volunteers**
- **Provides for Increased Training**
- **Improves the Effectiveness of ECP through process improvements**
- **Increases Accountability for Individual Behaviors**
- **Establishes an Employee Concerns Oversight Panel**



Comprehensive Plan Objectives

- **Exercise Effective Leadership**
- **Establish and Maintain High Standards**
- **Strengthen Leadership, Management & Interpersonal Skills**
- **Establish Effective Problem Resolution and Performance Measures**
- **Increase Sensitivity to Employee Needs**



Comprehensive Plan Objectives

(continued)

- **Freely Admit Mistakes**
- **Develop Supportive Management Styles & Support for Concerned Employees**
- **Develop Effective Communications and Teamwork**
- **Establish Accountability**
- **Establish an Effective ECP**



Line Management is Responsible For...

- Establishing an Environment Where Safety Questions are Welcomed.
- Championing Zero Tolerance for Harassment, Intimidation or Discrimination.



ECP is the “Safety Net” for the Line

- **Assists the Line in Handling Concerns
as Facilitator**
- **Provides an Alternative Path for
Concerns**
 - the trust of some employees remains low



Third-Party Oversight

- **Little Harbor Consultants, Inc.**
nominated by NNECO on 12-23-96
- **Independent assessment of
environment**
- **Evaluation of improvement
effectiveness**
- **Determine need for additional change**



ECP Case Resolution

- On 12-1-96, ECP had 44 concerns under investigation, the oldest was up to 4 years old.
 - *average closure time was over 200 days.*
- As of 1-24-97, ECP had 22 concerns under investigation, the oldest was was ~ 22 months old.
 - *average closure time was ~18 days.*
- Submission rate to ECP has increased.



Licensing and Design Basis Recovery

Jay Thayer
***Recovery Officer - Nuclear Engineering
and Support***



**Northeast
Utilities System**

Licensing and Design Bases Recovery

- **Role of Support Recovery Officer**
- **Configuration Management Plan (CMP)**
- **Ongoing Initiatives to Meet the CMP**
- **Restart / Long Term Improvement
Scope**



Role of Support Recovery Officer

- **Manage Common Engineering Programs**
- **Develop Overall Licensing Strategy**
- **Ensure Appropriate Consistency Among the Units**
- **Facilitate Communications Between the Units**



Configuration Management Plan (CMP)

- CMP Objective:

“...provide reasonable assurance that the future operation of each unit will be conducted as specified in the terms and conditions of the unit’s operating license, NRC regulations and the unit’s UFSAR.”



Configuration Management Plan

- Identify and resolve design and licensing bases deficiencies
- Ensure the design and licensing bases documentation are maintained
- Ensure station activities are consistent with applicable regulations and the design and licensing bases



Configuration Management Plan

- High-Level Document
- Applies to All Three Units
- Implemented By Project Instructions (PIs)
- Prioritized by Risk Significance
- Accommodates Differences in the Units
 - design and licensing bases
 - vintage
 - NSSS and A/E



Ongoing Initiatives to Meet the CMP

- **FSAR Review and Update**
- **Review of NRC Commitments**
- **Prioritized Document Updating**
- **Training**
- **Walkdowns**



Restart and Long-Term Improvement Scope

- **Improve Configuration Control Program Prior to ICAVP**
- **Improve 10 CFR 50.59 Program Prior to ICAVP**
- **Meet the 10CFR 50.54(f) letters Prior to Restart**
- **Ensure Continued Improvement After Restart**



Corrective Action Program

Jack McElwain
Recovery Officer - Millstone Unit 1



**Northeast
Utilities System**

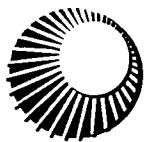
Corrective Action Program

- **Revised Corrective Action Process**
 - **accountability**
 - **quality and timely evaluations**
 - **effective issue and commitment tracking**
 - **effective issue trending**



Corrective Action Program

- **Upgraded Root Cause Analysis Capability**
- **Self-Assessment Program**
- **Worker Observation Program**

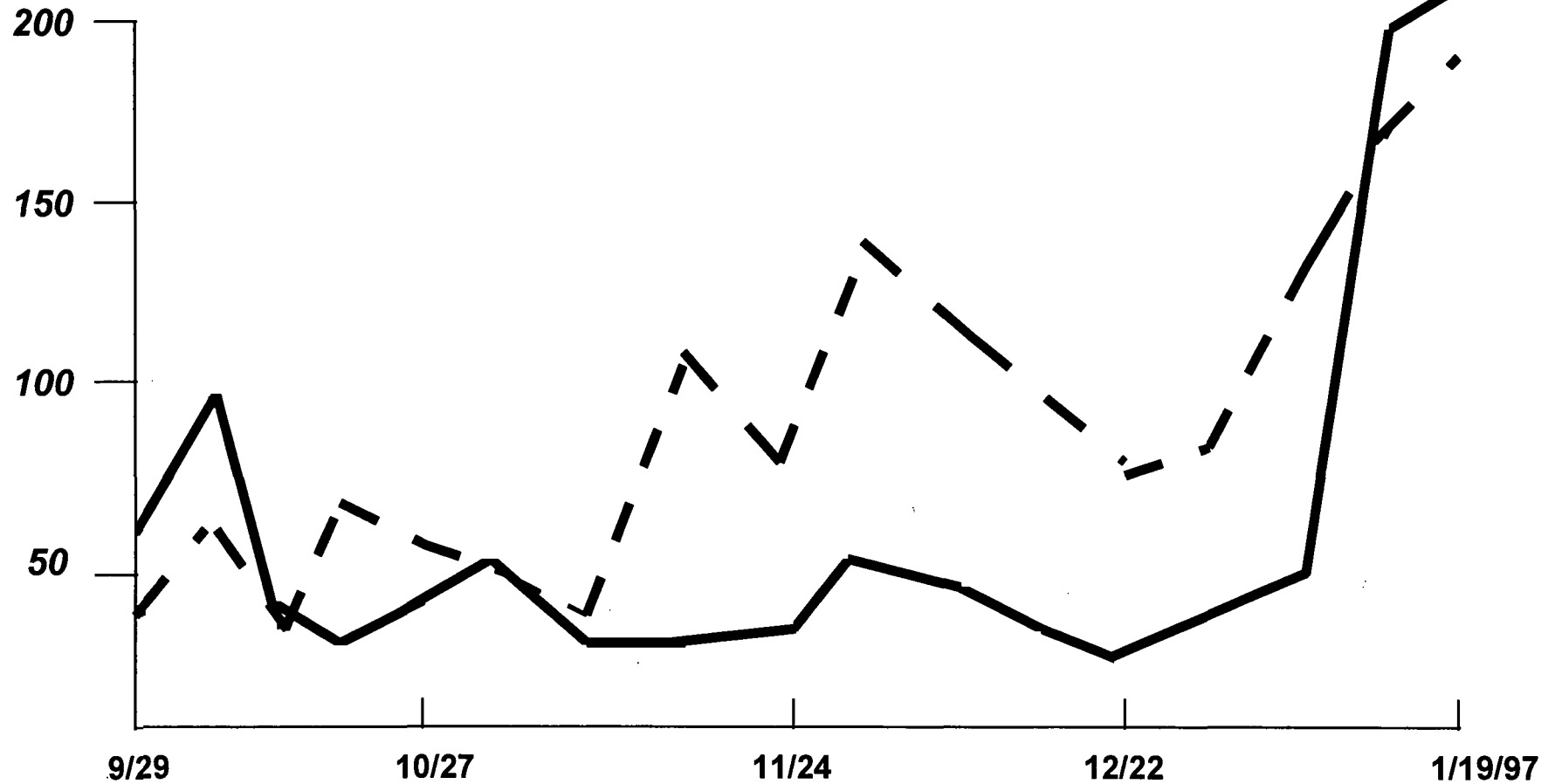


Corrective Action Program

- **Comprehensive Training to Ensure Employee Understanding of Program**
- **Establishment of Strong Line Management Ownership and Accountability**
- **Performance Indicators to Status Program Health**



ACR History



Closing Remarks

Bruce Kenyon
President & Chief Executive Officer
Northeast Nuclear Energy Company



**Northeast
Utilities System**



COMMISSION BRIEFING

Millstone

January 30, 1997

SPECIAL PROJECTS OFFICE (SPO)

COMPOSITION

- **Director: Assumes Role of Regional Administrator and Associate Director for Projects, NRR**
- **Deputy Directors for Inspection, Licensing, and ICAVP Oversight**
- **Resident Inspectors and Regional Project Engineers Included in SPO**
- **Minimal Staff, Additional NRC Resources Matrixed as Needed, Contractors Also to be Used**
 - **25 FTE Total/21 Management and Technical**
 - **Matrixed NRC Resources**
 - **Contractor Resources**

RECENT PLANT PERFORMANCE

- **Principal Focus is Assessing the Day-to-Day Shutdown Risk to Ensure Public Health and Safety**
- **Work Control Improvements**
- **Licensee's Corrective Action Processes Remain a Significant Issue**
 - **Closeout of Licensee Identified Issues**
 - **LER Commitment Followup**
 - **Commitments in Response to Inspection Reports**

OVERSIGHT OF READINESS TO RESTART

MANUAL CHAPTER 0350 PROCESS (FOR SHUTDOWN PLANTS)

- **Common Framework, Tasks, and Criteria**
- **Restart Panel/Restart Assessment Plans**
- **Commission Involvement**
- **Independent ACRS Review**
- **Public Participation**
- **Other Agencies and Organizations**
- **Documented Record of Approval Basis**

RESTART ASSESSMENT PLAN

- **Independent Corrective Action Verification Program**
- **Employee Concerns**
- **Corrective Action Program**
- **Work Planning and Controls**
- **Procedure Upgrade Program**
- **Quality Assurance and Oversight**
- **Significant Issues List**
- **Operational Safety Team Inspection**
- **Enforcement**
- **Others**

ICAVP

- **Intended to Independently Confirm That the Licensee has Identified and Addressed Design Basis Deficiencies**
- **Independent Organization**
 - **NRC Review and Approval Required:**
 - **Organizational Independence and Technical Qualifications**
 - **Individual Members Independence and Technical Qualifications**
 - **Audit Plan**

CONDUCT OF ICAVP

- **NRC will Approve the ICAVP Team and Review Plan Prior to Implementation**
- **Comprehensive Three Tier Review will be Conducted by ICAVP Organization**

Tier 1 - Vertical Slice Review of Systems

Tier 2 - Verification of Critical Functional Attributes Relied Upon in UFSAR Accident Analysis

Tier 3 - Sample Review of all Various Design Change Processes

- **Begin After Licensee Has Completed the Problem Identification Phase of the Configuration Management Program for Approximately 1/2 the Risk Significant Systems**

CONDUCT OF ICAVP (CONTINUED)

TIER 1 SCOPE

- **Multi-Discipline Vertical Slice Review Comparable to an Integrated Design Inspection**
- **Adequacy of Original Design for the Unmodified Portions of the Selected Systems**
- **All Modifications Made to the Selected Systems Since Initial Licensing**
- **Adequacy of Licensee's Corrective Actions for Design-Related Problems Identified by the Licensee and the ICAVP Organization**

NRC ICAVP OVERSIGHT

- **Review on a Sample Basis the Material Reviewed by the ICAVP Organization to Verify Their Findings and Conclusions**
- **NRC Design-Related Inspections (2 Systems)**
- **Public Visibility of NRC Oversight Process**
 - **State and Advisory Council Invited to Observe NRC Oversight Team Inspection Process**
 - **Multiple NRC/Licensee Meetings Open to Public**
 - **Multiple Meetings with General Public**
- **Input to NRC'S Restart Decisionmaking Process**

ICAVP STATUS

- **Licensee Proposals to Use Sargent & Lundy as ICAVP Organization (Unit 3 - December 18; Unit 1 - January 15)**
- **Staff Reviewing Proposals for Independence and Technical Qualifications**
- **Request for Additional Information (January 13)**
- **Licensee Meeting to Discuss ICAVP Organization (February 5)**
- **Meeting with General Public to Receive Comments on Proposals (February 5)**

EMPLOYEE CONCERNS ORDER

- **Licensee Submits; NRC Reviews:**
 - **Employee Concern Program Plan**
- **Licensee Proposes; NRC Approves:**
 - **Independent Organization to Oversee the Plan**
- **Independent Organization Oversight Plan Requires NRC Approval Prior to Implementation**
- **Independent Organization Reports at Least Quarterly to NRC**
- **NRC Assessment of Licensee's Program Effectiveness Prior to Restart**

OVERSIGHT OF EMPLOYEE CONCERNS ISSUES

STATUS

- **Licensee Proposal (January 23) to Use Little Harbor Consultants, Inc. as 3rd-Party Organization**
- **Staff Reviewing Proposal for Independence and Technical Qualifications**
- **Request for Additional Information**
- **Licensee Meeting to Discuss 3rd-Party Organization (February 5)**
- **Public Meeting to Receive Comments on Proposal (February 5)**

NEAR TERM PROPOSED MILESTONE (FEBRUARY THROUGH APRIL)

(Dependent on Licensee Schedule)

- **Approve ICAVP 3rd-Party Organizations**
- **Approve Employee Concerns 3rd-Party Organization**
- **Approve ICAVP 3rd-Party Audit Plans**
- **Review Licensee's Comprehensive Plan for Employee Concerns**
- **Approve Employee Concerns 3rd-Party Oversight Plan**
- **Briefings to General Public: Approximately Every 6-8 Weeks**
- **Review Recovery Plans and Punchlists**
- **Unit I ICAVP Projected to Start**
- **Quarterly Commission Briefing**

MILLSTONE STATION

SUCCESS OBJECTIVES

1

HIGH STANDARDS & CLEAR ACCOUNTABILITIES

- ❖ Incorporate many best practices from other utilities
- ❖ Regularly benchmark with other nuclear utilities
- ❖ Indicators show strong improvement toward excellence
- ❖ Commitments are met

2

STRONG NUCLEAR SAFETY PHILOSOPHY

- ❖ Careful adherence to high nuclear safety standards
- ❖ Conservative decision making

3

EFFECTIVE SELF-ASSESSMENT

- ❖ Significant issues are identified by NU rather than the regulator

4

EFFECTIVE CORRECTIVE ACTION PROCESS

- ❖ Corrective actions & commitments are prioritized & resolved in a timely manner
- ❖ Improved regulatory performance as demonstrated by decreases in NRC violations and LERs

5

RESTORED LICENSING & DESIGN BASES WITH PROCESSES TO ENSURE THAT THEY ARE PROPERLY MAINTAINED

- ❖ ICAVP contractor confirms that the licensing & design bases have been restored
- ❖ Implemented effective configuration control processes

6

AN ENVIRONMENT THAT SUPPORTS THE IDENTIFICATION & EFFECTIVE RESOLUTION OF EMPLOYEE CONCERNS

- ❖ Open & candid communications
- ❖ Timely resolution of employee safety concerns
- ❖ Independent review of employee safety concerns confirms effectiveness

7

COMMITMENT TO ACHIEVE EXCELLENCE IN NUCLEAR OPERATIONS

- ❖ Excellence has been defined, a plan to achieve has been developed and there is good demonstrated progress
- ❖ Issues important to startup have been resolved
- ❖ Resource commitments meet or exceed those of similar well run units



Northeast
Nuclear Energy





POLICY ISSUE

(NEGATIVE CONSENT)

January 3, 1997

SECY-97-003

FOR: The Commissioners

FROM: James M. Taylor
 Executive Director for Operations

SUBJECT: MILLSTONE RESTART REVIEW PROCESS

PURPOSE:

To inform the Commission of the processes and approaches that the Nuclear Regulatory Commission (NRC) staff will use to oversee the corrective action programs at Millstone Nuclear Power Station, Units 1, 2, and 3.

SUMMARY:

This paper presents the staff's plans that will be used to direct the review of Northeast Nuclear Energy Company's (NNECO's, licensee's) corrective action activities at Millstone Nuclear Power Station. The staff plans to apply the guidelines provided in NRC Inspection Manual Chapter 0350, "Staff Guidelines for Restart Approval," to the restart approvals of Millstone Units 1, 2, and 3. A restart panel has been established to oversee and coordinate NRC's restart review activities.

Until the staff was informed by the licensee at a public meeting on December 17, 1996, that it intended to pursue restart of all three units in parallel, Unit 3 was considered to be the lead plant for restart. Therefore, much of the NRC's activities to date have been focused on Unit 3 and are discussed in this paper. As noted throughout the paper, the staff will develop its plans for assessing restart readiness of Units 1 and 2 similar to that which has already been accomplished for Unit 3.

Contact: William D. Travers, NRR/SPO
 415-1200

The restart panel has issued a restart assessment plan for Unit 3 to track and monitor all expected NRC actions required to be taken before the staff will forward a recommendation for restart. The staff has also developed preliminary plans for oversight of the Independent Corrective Action Verification Program (ICAVP) required by the NRC.

BACKGROUND:

On November 4, 1995, the licensee shut down Millstone Unit 1 for a planned refueling outage. During an NRC investigation of licensed activities at Millstone Unit 1, in the fall of 1995, the NRC staff identified potential violations regarding refueling practices and operation of the spent fuel pool cooling systems that were inconsistent with the Updated Final Safety Analysis Report (UFSAR). The NRC issued a letter to the licensee on December 13, 1995, requiring that, before the restart of Millstone Unit 1, it inform the NRC, pursuant to Section 182a of the Atomic Energy Act of 1954, as amended, and Section 50.54(f) of Title 10 of the Code of Federal Regulations (10 CFR), of the actions taken to ensure that in the future it would operate that facility according to the terms and conditions of the plant's operating license, the Commission's regulations, and the plant's UFSAR.

In January 1996, the NRC designated the units at Millstone as Category 2 plants on the NRC's watch list. Plants in this category have weaknesses that warrant increased NRC attention until the licensee demonstrates a period of improved performance. On February 20, 1996, the licensee shut down Millstone Unit 2 when it declared both trains of the high pressure safety injection (HPSI) system inoperable because of a design issue (there was a potential that the HPSI throttle valves could become plugged from debris when in the sump recirculation mode). On March 30, 1996, the licensee shut down Millstone Unit 3 after it found that containment isolation valves for the auxiliary feedwater turbine-driven pump were inoperable because the valves did not meet NRC requirements. In response to (1) a licensee root cause analysis of Millstone Unit 1 UFSAR inaccuracies that identified the potential for similar configuration-management conditions at Millstone Units 2 and 3, and (2) design configuration issues identified at these units, the NRC issued 10 CFR 50.54(f) letters to the licensee on March 7 and April 4, 1996. These letters required that the licensee inform the NRC of the corrective actions taken regarding design configuration issues at Millstone Units 2 and 3 before the restart of each unit.

In June 1996, the NRC designated the units at Millstone as Category 3 plants on the NRC's watch list. Plants in this category have significant weaknesses that warrant maintaining them in a shutdown condition until the licensee can demonstrate to the NRC that it has both established and implemented adequate programs to ensure substantial improvement. Plants in this category require Commission authorization to resume operations.

On August 14, 1996, the NRC issued a confirmatory order directing the licensee to contract with a third party to implement an ICAVP to verify the adequacy of its efforts to establish adequate design bases and design controls. The ICAVP is intended to provide additional assurance, before unit restart, that the licensee has identified and corrected existing problems in the design and configuration control processes.

On October 24, 1996, the NRC issued an order directing that, before the restart of any Millstone unit, the licensee develop and submit to the NRC a comprehensive plan for reviewing and dispositioning safety issues raised by its employees and ensuring that employees who raise safety concerns can do so without fear of retaliation. The order also directs the licensee to retain an independent third party to oversee implementation of its comprehensive plan.

On November 3, 1996, the NRC created a new organization, the Special Projects Office (SPO), within the Office of Nuclear Reactor Regulation (NRR), to provide a specific management focus on future NRC activities associated with the Millstone units. The SPO's responsibility for future activities at Millstone includes all licensing and inspection activities required to support an NRC decision on restart of the Millstone units.

DISCUSSION:

The significance and number of issues identified at Millstone have resulted in the continued shutdown of all three units pending the licensee's completion of its corrective actions and NRC's verification and formal authorization to restart. NRC regulatory oversight of the licensee's corrective actions will require extensive planning and program integration by the staff. Specific elements of the staff's approach for oversight of Millstone are described in this paper.

Staff planning for the conduct of NRC regulatory oversight programs at Millstone is based on the recognition that it is the licensee's primary responsibility to demonstrate that corrective actions have been effectively implemented. Before NRC can reach a decision to approve restart, the licensee must determine that the plants conform with applicable NRC regulations, license conditions, and the UFSARs and that applicable licensing commitments have been met. The licensee's compliance with NRC regulations, license conditions, and licensing commitments is fundamental to establish NRC's confidence in the safety of licensed activities.

The staff's approach for oversight at Millstone is designed to ensure that the licensee will carry out a comprehensive, broad-scope program to identify and correct its weaknesses. Recently, in a December 17, 1996, public meeting, the licensee provided its revised plans for recovery of Millstone Units 1, 2 and 3. The principle elements of their planning for restart includes: 1) system readiness; 2) organizational readiness; 3) operational readiness, and 4) regulatory readiness. The licensee has indicated that the Millstone Unit 3 Configuration Management Plan (CMP) continues to be its principal program to provide reasonable assurance that design-bases weaknesses have been effectively corrected. Similar plans exist for Millstone Units 1 and 2. The CMP includes both efforts to understand the licensing- and design-bases issues that led to NRC issuance of the 10 CFR 50.54(f) letters and actions to prevent recurrence of those issues. The licensee described its CMP objective to document and meet the units' licensing- and design-bases requirements, and its intention to ensure that adequate programs and processes exist to maintain control of these requirements.

To verify the adequacy of actions by the licensee, the NRC staff is planning a comprehensive and multi-faceted oversight program. The need for close evaluation of the licensee's programs and results is underscored by the breadth and significance of the problems identified at Millstone. Although, as a practical matter, NRC verification cannot include a 100-percent verification of licensee programs, NRC oversight is planned to provide confidence that the licensee has implemented its corrective actions. As described in this paper, independent third-party evaluations required by the NRC will be used to enhance NRC confidence that the licensee's corrective action programs have been effectively implemented.

Inspection Manual Chapter 0350

NRC Inspection Manual Chapter (MC) 0350, "Staff Guidelines for Restart Approval," establishes the guidelines for approving the restart of a nuclear power plant after a shutdown resulting from a significant event, a complex hardware problem, or a serious management deficiency. The staff originally issued this guidance in March 1990 in response to a May 1989 audit by the General Accounting Office (GAO) of NRC's restart actions for Peach Bottom. The GAO found that NRC's restart approval actions were reasonable, but that the NRC needed to establish criteria to ensure a consistent process is used to assess readiness for restart. The primary objective of the guidelines in MC 0350 is to ensure that NRC's restart review efforts are appropriate for the individual circumstances, are reviewed and approved by the appropriate NRC management levels, and provide objective measures of restart readiness. MC 0350 also states that the Advisory Committee for Reactor Safety (ACRS) may review the restart process to independently evaluate NRC's and the licensee's actions. The staff will include an opportunity for ACRS review in its Millstone oversight planning.

As a result of NRC concerns regarding the overall effectiveness of the licensee's management, the staff will apply the guidelines of MC 0350 to the restart approvals of Millstone Units 1, 2, and 3. MC 0350 states that the staff should develop a plant-specific restart action plan for NRC oversight of each plant startup. The restart action plan is to include those issues listed in MC 0350 that the NRC restart panel (discussed below) has deemed applicable to the reasons for the shutdown. The plan may also include additional issues determined to be applicable to the specific situation. The restart action plan is to include all expected NRC actions required to be taken before the NRC approves a plant for restart. Accordingly, the staff will use the restart action plan to track and monitor all significant NRC actions necessary to support a decision on restart approval.

With the recent formation of the SPO, the Acting Director of NRR and the Region I Regional Administrator have consolidated many of the functions and responsibilities of both the region and NRR, as described in MC 0350, within the SPO. The specific changes in the functions and responsibilities have been incorporated into the discussions below.

Millstone Restart Panel

For each plant restart subject to oversight in accordance with MC 0350, regional and headquarters management normally establishes a restart panel to oversee and coordinate NRC's restart activities. The function of the restart panel, as described in MC 0350, is to maintain and update the restart action plan, review the licensee's corrective actions, maintain an ongoing overview of licensee performance, and provide a written recommendation regarding restart based on the completion of the licensee's corrective actions. The restart panel will also modify, as necessary, the restart action plan to address emergent issues that require use of NRC resources.

The Millstone Restart Panel has been established to fulfill the functions described in MC 0350. The panel consists of the following members from the SPO:

- Director, SPO (Chairman)
- Deputy Director, Inspections
- Deputy Director, Licensing
- Deputy Director, ICAVP Oversight
- Chief, Inspections Branch
- Project Managers
- Senior Resident Inspectors
- Division of Reactor Safety Coordinator

Millstone Restart Assessment Plan

In accordance with MC 0350, the Millstone Restart Panel has issued the plant-specific restart action plan, titled the "Millstone Unit 3 Restart Assessment Plan" (RAP, Attachment 1). [Note: Unit 3 has been the primary focus of the licensee's recovery/restart activities. On December 17, 1996, the licensee announced a major redirection towards parallel corrective actions for all 3 units.] The RAP consists of several major elements that require resolution before plant restart and relate to the root causes for the decline in licensee performance. These elements include the corrective action programs, work planning and control improvements, procedure upgrade programs, employee concerns, and quality assurance and management oversight improvements. The plan also includes staff activities to evaluate the licensee's response to NRC's 10 CFR 50.54(f) letters regarding Millstone Units 1, 2, and 3, and completion of the ICAVP. The actions listed in the MC 0350 generic restart checklist that are applicable to Millstone, such as those regarding management effectiveness and self-assessment capability, are also included in the plan. The plan provides for the conduct of an operational safety team inspection (OSTI), which is normally carried out to assess the overall readiness of the plant for startup after a prolonged shutdown. Other issues in the Millstone Unit 3 RAP that require NRC review before restart are pending 10 CFR 2.206 petitions, enforcement actions, and allegations.

The RAP contains two enclosures: the Significant Issues List and the Process Check List. The Significant Issues List is a list of actions and issues that the staff intends to review before any restart recommendation for Millstone Unit 3. The Process Check List is a list of tasks based on the MC 0350

generic restart checklist that guides the general NRC restart review process.

The RAP is a "living" document that the Millstone Restart Panel will revise as it identifies emergent issues and inspection activities that are completed. The panel recently revised the RAP to reflect the formation of the SPO. It will be further revised to include activities needed to address the October 24, 1996, order regarding employee concerns. The RAPs for Units 1 and 2 are likely to contain the same programmatic issues as the Unit 3 RAP, supplemented with plant-specific technical issues.

Independent Corrective Action Verification Program

The ICAVP audit required by the NRC is expected to provide independent verification, beyond the licensee's quality assurance and management oversight programs, that the licensee's corrective action programs have identified and satisfactorily resolved existing nonconformances with the design and licensing bases; documented and utilized the licensing and design bases; and established programs, processes, and procedures for effective configuration management. The ICAVP, with oversight by NRC, is required to be completed before the restart of each of the Millstone units and is included as an element in the RAP. NRC's ICAVP oversight activities are discussed in more detail in Attachment 2.

The Director of NRR has established a branch, headed by a Senior Executive Service manager, that is responsible for overseeing the implementation of the ICAVP. This branch reports to the Director, SPO. The staff's oversight objectives are to ensure that the review by the ICAVP contractor is independent of the licensee and its design contractors, is performed by qualified individuals, and is comprehensive, incorporating appropriate engineering discipline and operational reviews. As part of the RAP, NRC oversight of the ICAVP will support the MC 0350 restart assessment process by providing important insights to the restart panel regarding (1) the effectiveness of the licensee's root cause analysis process, (2) the effectiveness of the licensee's corrective actions, (3) the licensee's compliance with the licensing basis, (4) the effectiveness of the licensee's design and configuration control processes, and (5) the licensee's process for deferring completion of certain corrective actions until after restart. These insights are necessary to ensure the licensee's readiness to restart. The ICAVP oversight staff will provide information to the restart panel on issues and observations identified during all phases of the ICAVP process. The restart panel will use this information to update, as necessary, the RAP. To facilitate the communication of information, the Deputy Director, ICAVP Oversight, will be a member of the restart panel. The results of the ICAVP review are expected to provide the NRC with critical insights for determining whether the licensee has been thorough in its identification and resolution of configuration control problems at the Millstone units.

As stated in the August 14, 1996, order, the NRC must approve the ICAVP contractor proposed by the licensee. Members of the public have expressed concern about the process used to select and approve this contractor. The principal concerns relate to the potential for bias by a contractor that derives a substantial portion of its income through work in the commercial

nuclear power industry and has been selected and paid by the licensee. The staff has built checks and balances into the ICAVP contractor selection and implementation processes to assist in ensuring independence. For example, the independent contractor organization will have no current involvement with the unit being reviewed, will have had limited prior involvement, and will not have ownership interest in the licensee. Further, the individual contractor reviewers will have had no prior involvement with the unit being reviewed and have no current financial interest in the licensee, such as ownership of stocks or bonds or participation in the pension plan. This approach recognizes the practical difficulty in identifying a technically competent organization that has no previous involvement with the licensee. On December 18, 1996, the licensee submitted information to the NRC on its proposed ICAVP contractor (Sargent and Lundy). The staff is currently reviewing the adequacy of this contractor's qualifications and independence.

The staff is developing a communications protocol to ensure that communication between the licensee and the ICAVP contractor occurs in an open forum. (Additional aspects of public openness and participation are presented later in this paper.) This protocol will require that representatives of the NRC monitor interactions during which technical issues are discussed either by telephone or in person between the contractor and the licensee. As stated in the order, the ICAVP contractor will provide its findings concurrently to both the licensee and the NRC. The staff will evaluate the contractor's reviews and findings throughout the ICAVP. The contractor will also periodically provide to the NRC its comments on the licensee's proposed resolution of its findings and recommendations. These documents will be placed in the NRC Public Document Room. In addition, to maintain independence from the licensee, the contractor will conduct most of the ICAVP review activities at a location remote from the Millstone site to minimize interaction between the contractor and the licensee.

The licensee has indicated that its review scope for Unit 3 will include approximately 80 structures, systems, and components that it has categorized through the implementation of the maintenance rule as either Group 1 (safety-related and risk-significant) or Group 2 (safety-related or risk-significant). The ICAVP audit must provide insights into the effectiveness of the licensee's programs so that the results, either positive or negative, can be reasonably extrapolated to the systems that were not reviewed in the audit. Accordingly, the scope of the ICAVP must be broad enough to give the NRC confidence that the current configuration of each unit is in conformance with its licensing basis.

The NRC will review, and must approve, the ICAVP contractor's plan for implementing the ICAVP. As such, the NRC will determine the scope and depth of the ICAVP. The ICAVP contractor's audit plan for each unit will include a justification for its proposed scope and depth as a method for evaluating the effectiveness of the licensee's corrective action programs. The staff has determined that the ICAVP audit should be conducted using a multi-tiered approach. For Unit 3, in the first tier, four systems will be selected to provide a representative sample by which to test the thoroughness of the licensee's review in identifying potential nonconformances with the design and licensing bases. (Attachment 2 provides additional information on ICAVP

sample size.) The ICAVP contractor will review the design and operational aspects of these systems in depth, including maintenance, surveillance, training, and corrective actions for identified deficiencies. The number of systems selected for Tier 1 evaluations at Units 1 and 2 will be determined as additional information is obtained by the staff.

The second tier of the ICAVP contractor audit will address Group 1 and Group 2 systems that are not reviewed in Tier 1. These system reviews will be more limited in scope than those performed on the Tier 1 systems. The objective of these reviews is to identify and review some critical design characteristics of the systems that are important to ensure that these systems can perform their specified functions. The ICAVP contractor will propose a list of systems and characteristics to be reviewed to the NRC for approval. The scope (i.e., the systems and design characteristics) of the Tier 2 review will be determined by the staff following its evaluation of the ICAVP contractor's audit plan. Accident mitigation functions would be a specific focus of the Tier 2 reviews. This effort will not include a review of passive design considerations such as seismic design, piping and pipe hangers, and environmental qualification. The Tier 1 review will examine these aspects in sufficient depth to provide insights into the licensee's conformance with the licensing basis. The Tier 2 review will achieve additional assurance of the adequacy of the licensee's programs by broadening the scope of the review to other Group 1 and 2 systems.

The third tier of the ICAVP contractor audit will be a review of examples of the implementation of various processes used by the licensee to change or modify the facility. A sample of changes, randomly selected from among the licensee's design change processes, will be evaluated by the ICAVP contractor. The Tier 3 reviews will provide insights into the effectiveness of the licensee's processes that control the plant's configuration.

The staff plans to use the following process to select the specific systems to be evaluated in the Tier 1 reviews. Following the review of the contractor's proposed audit plan for Unit 3, the staff will select four systems to be reviewed using objective elements such as risk significance, system characteristics and complexity, previous opportunities for introducing inappropriate changes to the system or design bases, and previous problems with a system. Prior to finalizing its selection of four systems, the staff will offer to the Connecticut Nuclear Energy Advisory Council (NEAC), the opportunity to recommend one or two systems using any method that it deems appropriate. The NRC will consider including one or both of the systems recommended by the NEAC. This would address the public concern regarding the potential for the list of systems to be disclosed to the licensee before the start of the ICAVP. A similar two-part process is planned for system selections at Units 1 and 2.

In addition to overseeing the ICAVP contractor, the staff will perform an independent inspection, similar to the ICAVP three-tier audit discussed above. At Unit 3, the staff plans to conduct independent vertical-slice inspections of two systems, one within the scope of the ICAVP and one outside the scope, to provide additional assurance regarding the adequacy of the licensee's and the ICAVP contractor's reviews. Similar inspections will be used at Units 1

and 2. The staff will evaluate the final results of the ICAVP contractor's audit and assess the licensee's corrective actions. Additional details regarding the staff's inspection activities are included in the ICAVP Oversight Plan (Attachment 2).

Licensee Restart Items List

The licensee's ongoing problem identification activities in response to the 10 CFR 50.54(f) letters for Millstone Units 1, 2, and 3 have already resulted in the identification of several thousand design and configuration-management deficiencies. The licensee has developed a list of these deficiencies, which vary in scope and safety significance. This list contains deficiencies that must be corrected before restart and others that the licensee is planning to correct after restart. The NRC staff will review the list of deficiencies that the licensee proposes to correct after plant restart. The NRC staff conducted a preliminary review of the Millstone Unit 3 deficiency list in October 1996 and found the licensee's characterization of the deficiencies generally appropriate. In its continuing reviews of the deficiency list, the NRC staff will ascertain whether the licensee has appropriately scheduled safety-significant items for completion before restart, and whether those items that the licensee will defer until after restart are appropriate.

In addition to the deficiencies identified by the configuration-management corrective action activities, the licensee also maintains lists of work items identified in its routine work control and corrective action processes. These lists comprise such items as procedure upgrades, design changes, work orders, and administrative deficiencies. These lists will be reviewed as part of the routine inspection program and the OSTI. The NRC staff will assess the overall safety significance of the lists of open work items and evaluate whether they are being effectively managed.

Employee Concerns

The October 24, 1996, order requiring independent third-party oversight of the licensee's implementation of the resolution of employee concerns issues requires the licensee to submit, for NRC approval, a proposal for an independent, third-party organization that would oversee implementation of the licensee's employee concerns activities. NRC staff approval of the organization will be contingent on a finding that personnel proposed to accomplish the oversight function are independent and qualified to perform the tasks specified in the order. The order also requires that the licensee submit, for NRC review, a comprehensive plan for reviewing and dispositioning safety issues raised by its employees and ensuring that employees who raise safety concerns are not subject to discrimination. The order further requires that the third-party oversight organization submit, for NRC review and approval, an oversight plan for conduct of its activities. The staff is developing approaches for reviewing these licensee plans and their implementation and will keep the Commission informed of their status.

In a letter dated November 25, 1996, the licensee requested an extension of 30 days to submit a proposed third-party organization to review the employee concerns process. The staff granted the extension on December 12, 1996.

Public Participation

The staff will continue to ensure that the public has the opportunity to raise questions about the evaluation process or the substantive technical issues being addressed in the restart process. The staff has solicited public participation in the Millstone restart process during meetings near the Millstone site. These meetings have provided information about such topics as 10 CFR 2.206 petitions, the licensee's corrective action programs, licensee and NRC restart plans, employee concerns, and the ICAVP. As the restart assessment process continues, the staff will conduct public meetings near the Millstone site to discuss the restart plans and the results of NRC's oversight activities. To the extent practicable, the staff will also hold technical meetings with the licensee at the Millstone site, rather than at NRC regional or headquarters offices. These meetings will be open for public observation. However, there will be a need to conduct some meetings at NRC headquarters or Region I, such as periodic briefings of the Commission.

The NRC has invited representatives from both the State of Connecticut and the NEAC, constituted by the Connecticut State legislature, to observe activities associated with NRC's oversight of the ICAVP process. Representatives from the NEAC have agreed to observe the activities associated with NRC's oversight of the ICAVP and have signed a memorandum of understanding with the NRC. The NEAC has designated two observers and two alternates. The staff has also participated in several meetings with the NEAC regarding Millstone restart activities.

Restart Authorization Process

The process for NRC authorization to restart is described in detail in MC 0350. When the restart review process has reached a point where relevant issues have been identified, corrected, and reviewed, a restart authorization process is begun. Normally, the restart panel provides a recommendation for restart approval to the Regional Administrator. In Millstone's case, the SPO Director has been delegated the responsibilities and authority of both the Regional Administrator and the Associate Director for Projects, NRR. Since the attention of the SPO Director will be focused exclusively on Millstone activities, he will chair the restart panel. The SPO Director will forward the restart panel's recommendation for restart approval through the Director of NRR to the Executive Director for Operations (EDO). The EDO, after discussions with the SPO Director, the Regional Administrator, and the Director of NRR, will then forward the recommendation to the Commission regarding restart for each Millstone unit.

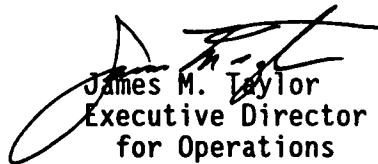
In addition, the staff normally briefs the Commission (1) after the staff has agreed to a corrective action plan and (2) about a month before the licensee anticipates a plant restart. Because of the scope and depth of the corrective actions for Millstone, the staff plans to hold periodic status briefings for the Commission.

RECOMMENDATION:

It is my intention to take the following actions unless, within the next 10 working days, the Commission directs otherwise.

1. Continue to implement the attached Restart Assessment Plan, and any subsequent revisions approved by the Millstone Restart Panel, for Millstone Unit 3.
2. Implement the attached ICAVP Oversight Plan, including plans for ICAVP scope and system selection processes, and any subsequent revisions approved by the Director, SPO, for Millstone Unit 3.

The staff will continue to keep the Commission informed of its planning and activities regarding NRC oversight at Millstone through periodic status briefings.


James M. Taylor
Executive Director
for Operations

Attachments: 1. Restart Assessment Plan
2. ICAVP Oversight Plan

SECY NOTE: In the absence of instructions to the contrary, SECY will notify the staff on Wednesday, January 22, 1997 that the Commission, by negative consent, assents to the action proposed in this paper.

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MILLSTONE UNIT 3
RESTART ASSESSMENT PLAN



Approved: William D. Travers
William D. Travers, Director
Special Projects Office

Date: 12/17/96

MILLSTONE RESTART ASSESSMENT PLAN

1.0 BACKGROUND

The three Millstone units are shut down to formulate responses to a series of 10 CFR 50.54(f) letters requiring them to affirm their compliance with the conditions of each unit's license and NRC regulations. The NRC performed a series of inspections at Units 2 and 3 with a 20 person Special Inspection Team (SIT) to ascertain the extent of the unit's compliance. Currently, the results of those inspections are under assessment by the team and NRC management. The licensee is focusing on Unit 3 as the lead plant for restart.

On June 28, 1996, the Executive Director for Operations (EDO) issued a letter to the licensee that stated the Commission had decided to place the three Millstone units in Category 3 on the Watch List and would vote on the restart of the Millstone units. The staff will implement the appropriate aspects of NRC Manual Chapter 0350, "Staff Guidelines for Restart Approval" for the restart of all three units. The NRC will schedule and implement its inspection program after the licensee has indicated that the activities necessary for restart are complete and ready for inspection. The NRC has been dealing with Northeast Utilities on broader performance issues which go beyond the 10 CFR 50.54(f) concerns. These broader concerns are considered contributory causes for the current poor performance, which the 10 CFR 50.54(f) issues are a subset. These issues have been formalized by the licensee in a program titled "Improving Station Performance" (ISP) and are topics that will be addressed by the licensee and reviewed by the NRC Millstone Restart Assessment Panel. A meeting conducted on April 30, 1996, disclosed that the licensee was neither adequately managing its program nor tracking progress.

The salient concerns embodied in the ISP include leadership, communications (employee concerns), the corrective action program, procedural adherence and procedure upgrades, work planning and control, and operational enhancements. The NRC restart assessment program will focus on the broader issues of the ISP, licensee self assessments, and management oversight, recognizing the necessity to complete the 10 CFR 50.54(f) process. The NRC plan for inspection of the Improving Station Performance issues is discussed in more detail in Section 3 of this plan.

On November 3, 1996, the agency established the Special Projects Office (SPO) to consolidate NRC efforts under a single Senior Executive Service manager who reports to the Director of Nuclear Reactor Regulation (NRR).

2.0 10 CFR 50.54(f) ACTIVITIES

Each Millstone unit has been requested to submit information describing actions taken to ensure that future operations will be conducted in accordance with the terms and conditions of the unit's operating license, the Commission's regulations, and the Updated Final Safety

Analysis Report. The NRC requested that the information be submitted no later than 7 days prior to the restart of the respective Millstone units. In the May 21, 1996, letter, the NRC requested that NU provide for each unit its plans for completing the licensing bases reviews.

To aid in NRC understanding of how deficiencies were identified and dispositioned, the NRC's May 21, 1996, letter also requested that NU provide for each Millstone unit a comprehensive list of design and configuration deficiencies and information related to how each deficiency was identified and will be dispositioned.

On August 14, 1996, the NRC issued a Confirmatory Order establishing an Independent Corrective Action Verification Program (ICAVP). The independent effort will verify the adequacy of NU's efforts to establish adequate design bases and design controls, including translation of the design bases into operating procedures and maintenance and testing practices, verification of system performance, and implementation of modifications since issuance of the initial facility operating licenses. NRC oversight of the ICAVP and activities will be separate from, and in addition to, the activities described in this restart assessment plan (RAP). The ICAVP results will be incorporated into this restart plan and considered a significant part of the decision regarding recommended restart. The deficiencies found by the licensee as a result of the 50.54(f) letters will be evaluated by the Millstone Restart Panel to identify restart issues.

3.0 MC 0350 PROCESS

Millstone Unit 1 entered a routine refueling outage in October 1995. At the January 1996 Senior Management Meeting, the site was placed on the "Watch List" for various reasons, including a concern for regulatory compliance. On December 13, 1995, the NRC sent a 10 CFR 50.54(f) letter requiring the licensee to certify compliance with the regulatory requirements before restarting the unit. Subsequently, Millstone Units 2 and 3 were sent similar letters which required responses before restart.

The NRC Inspection Manual Chapter 0350, "Staff Guidelines For Restart Approval", provides guidelines and a list of tasks and activities that should be considered before a plant that has been shut down for cause can restart. Because of NRC concerns relating to the licensee's management effectiveness, the appropriate aspects of MC 0350 will be applied to the restart of Units 1, 2 and 3 to ensure applicable requirements have been met (Enclosure 2).

The regional inspection effort will focus on selected areas of the ISP and completing the routine inspection program requirements. This assessment plan will be maintained and updated by the Millstone Restart Panel. It is intended that the restart panel will identify new issues to be added to the plan as the Millstone facilities' restart plans

evolve; there is no intent to require NRC senior management approval for minor changes to this assessment plan.

The Director, SPO, in coordination with the Office of the EDO, and the Director of NRR, will make a recommendation regarding restart. SPO will inform the Commission of the staff's and licensee's restart activities through Commission papers, periodic briefings, and communications to the EDO. The Commission will then vote on whether to approve the restart of each Millstone unit.

3.1 SPECIAL PROJECTS OFFICE

The Special Projects Office was created on November 3, 1996, to oversee the restart of the Millstone units. The intent of the change was to consolidate the NRC resources devoted to the restart efforts under one SES manager. The office is organized into three primary elements: licensing, inspection and independent corrective action verification program oversight. The Licensing Branch will administer the typical licensing actions performed in NRR. The Inspection Branch will implement the inspection programs normally managed from the region, and the ICAVP Oversight Branch will oversee the licensee's licensing and design bases review process.

Within the SPO, the restart panel will meet to assess the licensee's performance and its progress in completing the designated restart activities. The restart panel is composed of the Director, SPO (chairman); the Deputy Directors of Licensing, Inspections, and Independent Corrective Action Verification Program Oversight; the Project Managers for the three Millstone units, the Inspection Branch Chief, the Senior Resident Inspectors for the three Millstone units, and the appointed Division of Reactor Safety representative. The function of the Millstone Restart Panel is described in Manual Chapter 0350.

3.2 MILLSTONE OPERATIONAL READINESS PLAN

On July 2, 1996, NU submitted the Unit 3 Operational Readiness Plan, which was discussed at a July 24, 1996, meeting and updated at an August 19, 1996, meeting. However, the licensee has replaced many of the line managers. With these replacements, the submitted plan for Unit 3 and the proposed plans for Units 1 and 2 are being changed substantially. The restart panel will review these plans and hold periodic public meetings with the licensee to discuss the schedule for implementation and coordination of NRC restart activities.

The deficiency lists associated with the restart plans for each unit, which will be updated periodically by the licensee, include restart and deferred items, and will be audited by the NRC to verify the acceptability of the criteria used to defer items from the restart list.

3.3 CORRECTIVE ACTION PROGRAM

The NU corrective action program has been weak in ensuring comprehensive and effective corrective actions. There are many instances of narrowly focused corrective actions that failed to address all aspects of the underlying problem. Additionally, the licensee has failed to follow up on corrective actions to ensure they were effective. Consequently, the restart panel has determined that any restart effort should examine the current state of the licensee's corrective action program. Because of the large number of Adverse Condition Reports (ACR) being identified by the licensee's staff, the NRC resident and regional inspection staff will concentrate on issues for each unit identified by the ACR process and audit the licensee's corrective actions for completeness. The staff has selected level "A" and "B" ACRs for review. Additionally, other ACRs will be examined to provide a spectrum of safety-significant and lesser risk issues. The initial list of selected Unit 3 items is contained in Enclosure 1.

The intent of this effort is to primarily assess the corrective action program while dealing with the safety-significant technical issues. Examination of the corrective action program must include review of the Action Requests (AR) from the Action Item Tracking and Trending System (AITTS) program, which is an extension of the ACR process, and commitments regarding violations and inspection items. Further, significant information of use in assessing the licensee's corrective action program is derived from the normal inspection program, where valuable insights regarding the effectiveness of corrective actions are routinely collected from technical safety inspections.

Additionally, the NRC ICAVP Oversight Branch will assess the licensee's corrective actions for design-related degraded and non-conforming conditions. Finally, the Operational Safety Team Inspection (OSTI) will audit portions of the corrective action process during the course of its activities.

Demonstration of improvements in the process will be judged by the completeness of the licensee's corrective actions for each of the inspected ACRs. There must be a high ratio of successfully completed ACRs to the total population inspected. There should only be minor comments regarding the processing, evaluation, directed corrective actions and closure of an issue.

3.4 WORK PLANNING AND CONTROLS (C.4.)¹

Work planning and controls are other areas in which the licensee has shown weakness. The ability to plan, control and complete work is fundamental to implementing adequate corrective actions. Effective work planning and controls are prerequisites for reducing and managing

¹Reference to applicable MC 0350 section.

backlogs. Weak work planning and control was demonstrated during the Unit 2 outage wherein tagging boundary violations resulted in an extensive corrective effort by the licensee. Work control and planning were also issues at Unit 1, and resulted in a management meeting.

There will be a complete review of the Automated Work Order (AWO) process by the resident or regional staffs. The AWO process is an integral part of the work planning and control system and is instrumental in establishing the scope of the work, providing the appropriate procedures, and establishing the tagging boundaries. Consequently, the Unit 1 resident staff has been directed to use the available initiative inspection hours to do a comprehensive inspection of the AWO process, which is a site-wide process.

The OSTI will assess the engineering and maintenance backlogs during its operational readiness inspection. The OSTI will determine if there are safety-significant issues that must be resolved before restart.

3.5 PROCEDURE UPGRADE PROGRAM (C.3.3.e)

The quality of and adherence to procedures has been a chronic problem at the Millstone site. The issue was an element in "Improving Station Performance" and was one of the subjects of discussion at the periodic meetings between Northeast Utilities and the NRC. In response to NRC concerns, the licensee developed the Procedure Upgrade Program in the early 1990's to improve station procedures.

The resident inspectors will relate procedural inspection findings back to the procedural upgrade program (PUP), identifying whether the procedures reviewed during the course of an inspection have been upgraded and characterize the quality of the document. This will establish a basis for assessing the effectiveness of the licensee's PUP. The NRC staff will develop an inspection plan for examining selected portions of each unit's individual efforts.

3.6 OVERSIGHT (C.1.4)

The licensee has identified its oversight function as deficient through self assessments and external and internal audits and as a contributing factor in the licensee's declining performance. The report of Assessment of Past Ineffectiveness of Independent Oversight by Yankee Atomic examined the failure of Quality Assessment Services, the Independent Safety Evaluation Group, and the Nuclear Review Board to identify the deficient UFSAR control process and the radioactive waste conditions. They found that management did not support these functions adequately.

In addition, the Joint Utilities Management Association (JUMA) issued its report on July 17, 1996, concluding in part that the quality assurance program audits, surveillances, and inspections were not effective in the implementation of their mission and resolution of

identified problems. In addition, the JUMA audit found that recommendations for improving QA effectiveness identified in previous QA internal and external assessments had not been addressed.

The NRC assessment of the nuclear oversight function will be addressed as part of the restart panel's review of the ISP program and through insights gained from the normal inspection program. In addition, the NRC will perform a special inspection of the oversight function using the services of its Human Factors Assessment group. Late in the restart process for each unit, there will be an inspection to evaluate the effectiveness of the oversight groups and management's utilization of the oversight process. There should be positive indications that the oversight function has been made an integral part of the licensee's management team assessment process. The oversight function should result in meaningful findings, have access to line management and provide assessments of process and program effectiveness through periodic reports. There should be evidence that the reports are forwarded to the responsible manager and that management has dealt with the contents appropriately. Oversight should be adequately staffed with qualified and experienced personnel. The audit and surveillance programs need to be clearly defined, proceduralized, and implemented with established schedules.

3.7 ENFORCEMENT

Outstanding enforcement items will be reviewed to determine if any issues require closure before plant restart. The outstanding restart enforcement items will be added to the NRC Significant Issues List. The agency is currently accumulating escalated enforcement items concerning the spent fuel pool and design bases issues which may require a licensee response before recommending restart of each unit. There are also potential enforcement items that may result from the efforts of the Office of Investigations, the allegation process review group, the Office of the Inspector General, the Special Inspection Team, routine resident and regional inspection efforts and the 10 CFR 2.026 petition process.

A Pre-decisional Enforcement Conference was held with the licensee on December 5, 1996, to discuss 64 individual apparent violations. The licensee did not contest any of the violations at the conference, and the staff is in the process of finalizing the enforcement package.

3.8 EMPLOYEE CONCERNS

The Millstone site has had a chronic problem in dealing effectively with employee concerns. The NRC continues to receive an inordinate number of allegations from the staff at the Millstone site. The current series of 10 CFR 50.54(f) letters were initiated as a result of an allegation and subsequent 10 CFR 2.206 petition concerning the Unit 1 spent fuel pool. The NRC has issued two enforcement actions for harassment and intimidation to Northeast Utilities in the past three years and has a

current escalated enforcement action pending.

The NRC initiated two task groups to examine Northeast Utilities' handling of employee concerns, and the recent layoffs that affected several previous allegeders. With regard to handling of employee concerns, the task group identified a number of root causes for the licensee's problems in this area. The task group also concluded that past problems and their root causes still remain. Subsequently, the NRC issued an order, dated October 24, 1996, requiring NU to establish a comprehensive program to address employee concerns, and hire an independent party to oversee the implementation of the program. The output from these two task groups and the licensee's response to the order will be reviewed for restart issues.

3.9 SIGNIFICANT ISSUES LIST

The technique to be used for the restart assessment will be for NRC to review and approve the licensee's proposed restart issues list, ensure that the licensee imposes controls on adding, removing, or deferring items from the list, have the SPO staff review the list to ensure it includes issues of interest to the NRC, and have the SPO staff review the deferred list to ensure that appropriate rationales for deferral have been documented (See item B.4.3. of MC 0350). As the result of the 10 CFR 50.54(f) activities, the licensee initially determined that about 600 items did not meet criteria for inclusion as restart items. The resident inspector, assisted by headquarters staff, reviewed this list and confirmed that the licensee adequately assessed the discrepancies. This process will be used in the restart assessment of each unit. The restart panel will determine that the licensee's restart issues list includes appropriate restart items from licensee programs such as ACRs, ARs (AITTS), engineering work requests, and commitments.

The enclosed NRC Significant Issues List for Unit 3 (Enclosure 1) contains items that are being used to audit and evaluate licensee programs such as the corrective action process and significant safety/regulatory technical issues.

Restart issues will meet at least one of the following criteria:

1. Resolution of the issue is required to ensure safe operation of the facility, to include satisfaction of the technical specifications or licensing basis.
2. Inspection of the issue will provide an insight to an identified programmatic deficiency such as the corrective action system.
3. Inspection of the issue will provide assessment of management effectiveness or personnel performance.

3.10 RESTART INSPECTION

Selected portions of NRC Inspection Procedure 93802, "Operational Safety Team Inspection," will provide the framework for a team inspection of each unit during restart. The procedure scope will be modified to address pertinent issues at Millstone. The inspection will cover self-assessments by the licensee, the licensee's implementation of its startup plan, control room observations during the approach to criticality and power ascension, selected systems readiness inspection and observation of management oversight.

The resident inspectors will provide close monitoring of each unit during mode changes to ensure compliance with each unit's technical specifications and UFSAR design bases.

3.11 PLANT PERFORMANCE REVIEW

On May 16-17, 1996, the Millstone Oversight Team conducted a Plant Performance Review (PPR). The PPR was used to identify issues that needed to be inspected for the Millstone Station. The review identified several issues that warrant NRC inspection before plant restart of the unit. The unit-specific issues as well as station-wide issues identified by the PPR are contained in the Significant Issues List for each unit as inspection items.

3.12 LICENSE AMENDMENTS

Millstone Unit 3 currently has two license amendments required for startup in the review process. They concern: 1) changing the over-temperature ΔT time constants and the steam line pressure negative rate high steam line isolation time constant; and 2) changing operational modes with both shutdown margin monitors inoperable and revising the locked valve list. It is expected that additional license amendments may be required prior to restart.

**MILLSTONE UNIT 3
SIGNIFICANT ITEMS LIST**

REF.	ITEM	RESP.	STATUS ²
ACR 10733	RSS AND QSS PIPING TEMPERATURE MAYBE HIGHER THAN ANALYZED (NRR REVIEW ENG. ANALYSIS, DRS INSPECT INSTALLATION)	NRR/DRS	UPDATE IR96-06
	DEGREE FSAR NEEDS TO BE UPDATED BEFORE RESTART	SPO	
ACR 05715	REACTOR POWER INCREASE WHEN UNBORATED CATION DEMIN PLACED INTO SERVICE 3CHS-DEMIN2	SPO	CLOSED IR96-08
ACR 01895	EDG SEQUENCER CDA SIGNAL OUTPUT "A" TRAIN COMPONENTS STARTED	DRS	CLOSED IR96-09
ACR 01844	FAILURE TO ENTER AN ACTION STATEMENT WHEN MSIVS WERE CLOSED	SPO	
ACR 04199	RCP SEAL INJECTION FILTER "B" GASKET FAILED RESULTING IN SPILL OF COOLANT TO FLOOR DRAINS	SPO	CLOSED IR96-08
ACR 06092	RCS CHECK VALVE BODY TO BONNET LEAK; 3 RCS*V146	SPO	CLOSED IR96-06
ACR 01535	WHILE DEWATERING SPENT RESIN, THE WASTE TEMPERATURE IN THE LINER RAISED FROM 90 TO 310°F	SPO	CLOSED IR96-06
ACR 10543	NEED FOR ADDITIONAL REVIEW OF RESPONSE TIME TESTING FOR PROCEDURES	DRS	
ACR 11322	CLOSURE OF PIR WITHOUT ADDRESSING DESIGN FEATURE OF AFFECTED COMPONENTS	SPO	
ACRs 10774, 10780	TURBINE DRIVEN AUX FEEDWATER DESIGN CONCERN	SPO	*
ACR 6323	CONTAINMENT FOUNDATION EROSION	NRR	

² Special Inspection Team findings (IR 96-201) that relate to items on this list are marked with an asterisk (*).

**MILLSTONE UNIT 3
SIGNIFICANT ITEMS LIST**

ACRs 96-0326, 13427	CCP SYSTEM OPERATION ABOVE DESIGN TEMPERATURE; 3 RHS*HCV 606/607 FAILING OPEN	SPO	* UPDATE IR96-08
ACR 7745	SGCS OPERATIONAL CONFIGURATION CONTROL	DRS	
ACR 96-0159	LETDOWN HEAT EXCHANGER LEAKAGE AND DESIGN DISCREPANCIES	SPO	UPDATE IR96-06
Unit 2 ACR 01935	DUAL FUNCTION VALVE CONTROL AND TESTING	SPO/NRR	
ACR 7266	RCP SEAL HOUSING LEAKAGE AND BOLT CORROSION	DRS	
ACR 10562, PPR G.2	CONTROL AND USE OF VENDOR INFORMATION	DRS	*
	RESOLUTION OF AFW VALVES AND HELB	DRS	*
	REVIEW OUTPUT FROM HANNON'S EMPLOYEE CONCERNS REPORT	SPO	
	REVIEW ENFORCEMENT AND UNRESOLVED ITEMS FOR RESTART ISSUES	SPO	
IR96-201	REVIEW NRR SPECIAL TEAM FINDINGS FOR RESTART ISSUES	SPO	*
	REVIEW ALLEGATIONS FOR RESTART ISSUES	SPO	
	REVIEW ALL OPERABILITY DETERMINATIONS AND BY-PASS JUMPERS BEFORE RESTART	SPO	
	FATIGUE CYCLE OPEN ITEMS IP 37750	DRS	COMPL.
	PART 70 STORAGE AND INVENTORY IP 84750	DRS	COMPL.
	REVIEW TRM FOR TECH. SPEC. INTERPRETATIONS	SPO/DRS	
	FORMALITY OF NON-ROUTINE SECURITY ACTIVITIES AND NEW FUEL SECURITY IP 81064	DRS	CLOSED IR96-05
ESSIG MEMO	LACK OF ON SHIFT DOSE ASSESSMENT CAPABILITY	DRS	

URI 96-01-08	OVERLAP TESTING OF RPS/ESF	DRS	
	REVIEW LICENSEE EVENT REPORTS FOR RESTART ISSUES.	SPO	
	MATERIAL, EQUIP. AND PARTS LIST (MEPL) PROGRAM EVALUATION	NRR	*
ACRs 96-277, 278, 627, 8805, 12862	MOTOR OPERATED VALVE PROGRAM GL89-10	DRS	
PPR G.1.C, G.2	RESIDENT EMPHASIS: MISSED SURVEILLANCES/TEST CONTROL	SPO	CLOSED IR96-08
PPR G.1.C	RESIDENT EMPHASIS: DILUTION EVENTS	SPO	CLOSED IR96-08
PPR G.1.C	RESIDENT EMPHASIS: FEEDWATER HAMMER	SPO	CLOSED IR96-01
PPR G.1.C, ACR 96-0855	RESIDENT EMPHASIS: AFW CHECK VALVE LEAKAGE	SPO	
PPR G.1.C, G.2	RESIDENT EMPHASIS: WORK-AROUNDS AND ABUSE OF USE-AS-IS DEFICIENCIES	SPO	
PPR G.2	RESIDENT EMPHASIS: AWO QUALITY AND BACKLOG CONTROL	DRS	
PPR G.2	RESIDENT EMPHASIS: SEISMIC II/I	SPO	*
	EFFLUENT/ENVIRONMENTAL SAMPLING AND ANALYTICAL PROFICIENCY	DRS	IR96-09 (SCHED)
	RADWASTE SYSTEMS/CONTROLS	DRS	UPDATE IR96-08
	HEAT EXCHANGER PERFORMANCE (GL-89-07/89-13)	DRS	
IR96-04	REVIEW LICENSEE CORRECTIVE ACTION PROGRAMS FOR EFFECTIVENESS TO INCLUDE ACR's AND NCR's	SPO	
	REVIEW 0737 ACTION ITEMS FOR COMPLETION	SPO	
	REVIEW ENGINEERING BACKLOGS	DRS	
	REVIEW 50.54F ISSUES FOR RESTART	SPO/NRR	
ACR 7007	REVIEW SELF ASSESSMENT ROOT CAUSES AND VERIFY CORRECTIVE ACTIONS (IP40500)	SPO ISP	
	FIRE PROTECTION PROGRAM	DRS	

ORDER	PHASE II OF THE ICAVP	SPO	
ACRs 12116, 96-0325	CYCLE 6 BORON DILUTION ANALYSIS POTENTIALLY NON-CONSERVATIVE AND PGS FLOW RATE TO CHARGING PUMPS MAY BE IN ERROR	DRS	
ACRs 96-0524, 08897	INITIAL SETTINGS FOR ECCS THROTTLE VALVES INADEQUATE AND POTENTIAL CLOGGING	SPO	UPDATE IR96-06
ACR 96-0183	LOW PRESSURE SAFETY INJECTION PENETRATIONS	SPO	
ACR 96-0391	RHR HEAT EXCHANGER BOLTING SUSCEPTIBLE TO BORIC ACID	DRS	
ACR 10397	LLRT "AS FOUND" TOTAL LEAKAGE EXCEEDED MAX ALLOWABLE		CLOSED IR 96-08
ACR 96-0324	FUEL TRANSFER TUBE BELLOWS SEAL CONNECTION NOT TESTED		CLOSED IR 96-08
ACR 96-0446	DOCUMENTATION OF CONTAINMENT SYSTEMS DISCREPANCIES	DRS	
ACRs 96-0339, 96-0389	WALWORTH VALVE YOKE GENERIC ISSUE	DRS	
ACR 10795	SWP TEMPERATURE SWITCHES DEFEATED BY BYPASS JUMPER FOR SWP*P3A1B (BOOSTER PUMPS)	SPO	*
ACR 96-0449	PIECES OF ARCOR FOUND IN 3RSS*E1A AND 3RCC*E1C	SPO	UPDATE IR96-09
ACR 96-0181	NUMEROUS BOLTS ON BACK DOOR ON 4160V SWITCHGEAR MISSING		CLOSED IR96-08
ACR 96-0467	FAST TRANSFER TEST FAILURES	DRS	CLOSED IR96-09
ACR 12495	SHUTDOWN MARGIN MONITOR ALARM SETPOINT		CLOSED IR96-05
ACRs 96-0080, 96-0081	POTENTIAL ELECTRICAL SEPARATION VIOLATIONS	DRS	
ACRs 96-0557, 96-0685	THERMAL RELIEF VALVE SETPOINTS	SPO	*
ACRs 96-0775, 9124, 0846	USE OF BORAFLEX IN SFP RACKS	SPO	
ACRs 96-0718, 0821	ANALYSIS OF SOV FAILURE MODES	SPO	UPDATE IR96-09

U2 ACR 7923	EEQ PROCESS	DRS	
ACR 13788	TSP BASKET SAFETY EVALUATION POSSIBLY NOT VALID	SPO	
ACR 96-0396	3MSS*MOV17D MISSED IST SURVEILLANCE REQUIREMENT	SPO	CLOSED IR96-08
ACR 08614	REACTOR PROTECTION LEAD LAG CIRCUITS MAY BE SET NONCONSERVATIVELY		CLOSED IR96-05
ACR 96-0745	SIL/SIH VALVES POWERED FROM NONSAFETY TRAIN	NRR	
ACR 96-0483	CCP AND CCE NON-Q COMPONENTS CAUSE Q-COMPONENTS NOT TO FAIL SAFE	SPO	
ACR 96-0621	SBO POSSIBLE OVERLOAD IN EVENT OF AN SIS ACTUATION	DRS	*

**MILLSTONE UNIT 3
RESTART APPROVAL**

The following items recommended by the guidance in MC 0350 are considered applicable to the restart of Millstone Unit 3:

REF.		APPL.	STATUS	RESP
4.01	<u>Director, Special Projects Office (SPO)</u> Notifies the Executive Director for Operations (EDO) and the Commission, as appropriate, of the NRC actions taken concerning shutdown plants and the proposed followup plan.	X	C	NRR
4.02	<u>Director, SPO</u> a. Discusses with the Deputy Executive Director for Nuclear Reactor Regulation, Regional Operations and Research, the Office of Enforcement (OE), and NRR, as appropriate, the need for an order or confirmatory action letter (CAL) specifying the actions required of the licensee to receive NRC approval to restart the plant and the proposed followup plan.	X	C	RA
	b. Decides, in consultation with the NRR Associate Director for Projects, whether this manual chapter applies to a specific reactor restart.	X	C	RA
	c. In coordination with the NRR Associate Director for Projects, decides whether to establish a Restart Panel.	X	C	RA
	d. Develops a written Restart Assessment Plan, including a case-specific checklist, to assign responsibilities and schedules for restart actions and interactions with the licensee and outside organizations.	X	C	DSPO

REF.		APPL.	STATUS	RESP
	e. Coordinates and implements those actions prescribed in the Restart Assessment Plan that have been determined to be the Special Project Office's responsibility. These include, when appropriate, interactions with State and local agencies and with regional offices of Federal agencies.	X		DSPO
	f. In conjunction with NRR, reviews and determines the acceptability of licensee's corrective action program.	X		SPO OSTI NRR
	g. Approves restart of the shutdown plant after approval/vote by the Commission.	X		EDO
4.03	<u>Director, SPO</u> a. Acts as the focal point for discussions within NRR to establish the appropriate followup actions for a plant that has been shut down.	X		DSPO
4.04	<u>Deputy Director, Licensing</u> a. Coordinates participation in followup conference calls and management discussions to ensure that the Director, SPO, is directly involved, when appropriate, in followup action.	X		SPO
	b. Coordinates and implements actions prescribed in the Restart Assessment Plan that have been determined to be Licensing's responsibility. These include, where applicable, appropriate NRC Office or NRR Division interaction with other Federal agencies (e.g., Federal Emergency Management Agency (FEMA), Department of Justice (DOJ)) pursuant to any applicable Memoranda of Understanding.	X		SPO

B.1	<u>INITIAL NRC RESPONSE</u> The facts, the causes, and their apparent impacts should be established early in the process. This information will assist the NRC in characterizing the problems, the safety significance, and the regulatory issues. Early management appraisal of the situation is also important to ensure the proper immediate actions are taken. The following items should have been completed or should be incorporated into the CSC as appropriate. Refer to Section 5.02 of this manual chapter for additional information.			
	a. Initial notification and NRC management discussion of known facts and issues.	NA		
	b. Identify/implement additional inspections (i.e. AIT, IIT, or Special).	NA		
	c. Determine need for formal regulatory response (i.e. order or CAL).	NA		
	d. Identify other parties involved (i.e., NRC Organizations, other Federal agencies, industry organizations).	NA		
B.2	<u>NOTIFICATIONS</u> Initial notification of the event quickly communicates NRC's understanding of the event and its immediate response to the parties having an interest in the event. Notification to regional and headquarters offices of cognizant Federal agencies may be appropriate. As the review process continues, additional and continuing notifications may be required.			
	a. Issue Daily and Directors Highlight.	NA		
	b. Issue preliminary notification.	NA		
	c. Conduct Commissioner assistants' briefing.	NA		
	d. Issue Commission paper.	NA		
	e. Cognizant Federal agencies notified (i.e., FEMA, EPA, DOJ).	NA		

	f. State and local officials notified.	NA		
	g. Congressional notification.	NA		
B.3	<u>ESTABLISH AND ORGANIZE THE NRC REVIEW PROCESS</u>			
	a. Establish the Restart Panel.	X	C	RA
	b. Assess available information (i.e. inspection results, licensee self-assessments, industry reviews).	X		SPO
	c. Obtain input from involved parties both within NRC and other Federal agencies such as FEMA, EPA, DOJ.	X		SPO
	d. Conduct Director SPO briefing.	X		SPO
	e. Conduct NRR Executive Team briefing.	X	C	SPO
	f. Develop the case-specific checklist.	X	C	SPO
	g. Develop the Restart Assessment Plan.	X	C	SPO
	h. Director SPO approves Restart Assessment Plan.	X	C	DSPO
	i. NRR Director approves Restart Assessment Plan.	X	C	DONRR
	j. Implement Restart Assessment Plan.	X		SPO
	k. Modify order as necessary.	X		DONRR
B.4	<u>REVIEW IMPLEMENTATION</u>			
B.4.1	<u>Root Causes and Corrective Actions</u>			
	a. Evaluate findings of the special team inspection.	X		OSTI SPO
	b. Licensee performs root cause analysis and develops corrective action plan for root causes.	X		OSTI
	c. NRC evaluates licensee's root cause determination and corrective action plan.	X		SPO OSTI

B.4.2	<u>Assessment of Equipment Damage</u> For events where equipment damage occurs, a thorough assessment of the extent of damage is necessary. A root cause determination will be necessary if the damage was the result of an internal event. The need for independent NRC assessment should be considered. The licensee will need to determine corrective actions to repair, test, inspect, and/or analyze affected systems and equipment. These actions are required to restore or verify that the equipment will perform to design requirements. Equipment modifications may also be required to ensure performance to design requirements. Potential offsite emergency response impact for external events such as natural disasters, explosions, or riots should be considered. NRR should obtain information from FEMA headquarters reaffirming the adequacy of State and local offsite emergency plans and preparedness if an event raises reasonable doubts about emergency response capability.			
	a. Licensee assesses damage to systems and components.	NA		
	b. NRC evaluates licensee damage assessment.	NA		
	c. Licensee determines corrective actions.	NA		
	d. NRC evaluates corrective actions.	NA		
B.4.3	<u>Determine Restart Issues and Resolution</u> The establishment of the restart issues that require resolution before restart demands a clear understanding of the issues and the actions required to address those issues by both the NRC and the licensee. This section outlines steps to determine the restart issues and NRC's evaluation of their resolution.			
	a. Review/evaluate licensee-generated restart issues.	X		SPO
	b. Independent NRC identification of restart issues.	X		SPO
	c. NRC/licensee agreement on restart issues.	X		SPO

	d. Evaluate licensee's restart issues implementation process.	X		SPO
	e. Evaluate licensee's implementation verification process.	X		SPO
B.4.4	<u>Obtain Comments</u> Since some shutdowns involve a broad number of issues, solicitation of comments from diverse sources may be appropriate. The decision to solicit comments from a group and the level of participation should be made on a case-by-case basis. Input from these groups should be factored into the restart process when they contribute positively to the review. Note: If needed, comments concerning the adequacy of state and local emergency planning and preparedness must be obtained from FEMA headquarters through NRR.			
	a. Obtain public comments.	X		SPO
	b. Obtain comments from State and Local Officials.	X		SLO
	c. Obtain comments from applicable Federal agencies.	X		SPO
B.4.5	<u>Closeout Actions</u> When the actions to resolve the restart issues and significant concerns are substantially complete, closeout actions are needed to verify that planned inspections and verifications are complete. The licensee should certify that corrective actions required before restart are complete and that the plant is physically ready for restart. This section provides actions associated with completion of significant NRC reviews and preparations for restart.			
	a. Evaluate licensee's restart readiness self-assessment.	X		SPO OSTI
	b. NRC evaluation of applicable items from Section C "ISSUES" complete.	X		SPO
	c. Restart issues closed.	X		SPO OSTI
	d. Conduct NRC restart readiness team inspection.	X		OSTI

	e. Issue augmented restart coverage inspection plan.	X		OSTI
	f. Comments from other parties considered.	X		SPO
	g. Determine that all conditions of the Order/CAL are satisfied.	X		SPO
	h. Re-review of Generic Restart Checklist complete.	X		SPO
B.5	<u>RESTART AUTHORIZATION</u> When the restart review process has reached the point that the issues have been identified, corrected, and reviewed, a restart authorization process is begun. At this point the Restart Panel should think broadly and ask: "Are all actions substantially complete? Have we overlooked any items?"			
	a. Prepare restart recommendation document and basis for restart.	X		SPO
	b. NRC Restart Panel recommends restart.	X		SPO
	c. No restart objections from other applicable HQ offices.	X		SPO
	d. No restart objections from applicable Federal agencies.	X		SPO
	e. DSPO concurs in restart recommendation.	X		DSPO
	f. NRR Director concurs in restart recommendation.	X		DONRR
	g. EDO concurs in restart recommendation when required.	X		EDO
	h. Conduct ACRS briefing when requested.	X		SPO
	i. Conduct Commission briefing when requested.	X		DSPO
	j. Commission approves restart authorization.	X		COMM
	k. EDO authorizes restart.	X		EDO

B.6	<u>RESTART AUTHORIZATION NOTIFICATION</u> Notify the applicable parties of the restart authorization. Notifications should generally be made using a memorandum or other format consistent with the level of formality required. Communication of planned actions is important at this stage to ensure that NRC intentions are clearly understood. a. Commission (if the Commission did not concur in the Restart Authorization or as requested).	NA		
	b. EDO (if the EDO did not concur in the restart recommendation or as requested).	NA		
	c. Congressional Affairs.	X		OCA
	d. ACRS (a briefing may be substituted for the written notification if the ACRS requests a briefing).	X		SPO
	e. Applicable Federal agencies.	X		SPO
	f. Public Affairs.	X		OPA
	g. State and local officials.	X		SLO
	h. Citizens or groups that expressed interest during the restart approval process.	X		SPO
C.1.1	<u>Root Cause Assessment</u>			
	a. Conditions requiring the shutdown are clearly understood.	X		SPO
	b. Root causes of the conditions requiring the shutdown are clearly understood.	X		SPO
	c. Root causes of other significant problems are clearly understood.	X		SPO
	d. Effectiveness of the root cause analysis program.	X		SPO
C.1.2	<u>Damage Assessment</u>			
	a. Damage assessment was thorough and comprehensive.	NA		

	b. Corrective actions clearly restored systems and equipment or verified they can perform as designed.	NA		
C.1.3	<u>Corrective Actions</u>			
	a. Thoroughness of the corrective action plan.	X		SPO
	b. Completeness of corrective action programs for specific root causes.	X		SPO
	c. Control of corrective action item tracking.	X		SPO OSTI
	d. Effective corrective actions for the conditions requiring the shutdown have been implemented.	X		SPO OSTI
	e. Effective corrective actions for other significant problems have been implemented.	X		SPO OSTI
	f. Control of long-term corrective actions.	X		SPO OSTI
	g. Effectiveness of the corrective action verification process.	X		SPO OSTI
C.1.4	<u>Self-Assessment Capability</u> The occurrence of an event may be indicative of potential weaknesses in the licensee's self-assessment capability. A strong self-assessment capability creates an environment where problems are readily identified, prioritized, and tracked. Effective corrective actions require problem root cause identification, solutions to correct the cause, and verification methods that ensure the issue is resolved. Senior licensee management effectiveness in ensuring effective self-assessment is treated separately.			
	a. Effectiveness of Quality Assurance Program.	X		SPO
	b. Effectiveness of Industry Experience Review Program.	X		OSTI
	c. Effectiveness of licensee's Independent Review Groups.	X		SPO OSTI

	d. Effectiveness of deficiency reporting system.	X		SPO OSTI
	e. Staff willingness to raise concerns.	X		OE SPO
	f. Effectiveness of PRA usage.	X		OSTI
	g. Effectiveness of commitment tracking program.	X		SPO
	h. Review applicable external audits.	X		OSTI
	i. Quality of 10 CFR 50.72 and 50.73 reports.	X		SPO
C.2.1	<u>Management Oversight and Effectiveness</u>			
	a. Goals/expectations communicated to the staff.	X		OSTI
	b. Demonstrated expectation of adherence to procedures.	X		SPO OSTI
	c. Management involvement in self-assessment and independent self-assessment capability.	X		SPO
	d. Effectiveness of management review committees.	X		SPO OSTI
	e. Management's demonstrated awareness of day-to-day operational concerns.	X		SPO OSTI
	f. Management's ability to identify and prioritize significant issues.	X		SPO OSTI
	g. Management's ability to coordinate resolution of significant issues.	X		SPO OSTI
	h. Management's ability to implement effective corrective actions.	X		SPO OSTI
C.2.2	<u>Management Support</u>			
	a. Impact of any management reorganization.	X		SPO
	b. Effective and timely resolution of employee concerns.	X		SPO
	c. Adequate engineering support as demonstrated by timely resolution of issues.	X		DRS OSTI

	d. Adequate plant administrative procedures.	X		SPO
	e. Effective information exchange with other utilities.	X		SPO OSTI
	f. Participation in industry groups.	NA		
	g. Effectiveness of Emergency Response Organization.	X		DRS
	h. Coordination with offsite emergency planning officials.	X		DRS
C.3.1	<u>Assessment of Staff</u>			
	a. Demonstrated commitment to achieving improved performance.	X		SPO OSTI
	b. Demonstrated safety consciousness.	X		OSTI SPO
	c. Understanding of management's expectations and goals.	X		OSTI
	d. Understanding of plant issues and corrective actions.	X		OSTI SPO
	e. Qualifications and training of the staff.	X		OSTI
	f. Staff's fitness for duty.	NA		
	g. Attentiveness to duty.	X		OSTI
	h. Level of attention to detail.	X		OSTI
	i. Off-hour plant staffing.	X		SPO
	j. Staff overtime usage.	X		SPO
	k. Procedure usage/adherence.	X		SPO
	l. Awareness of plant security.	X		DRS
	m. Understanding of offsite emergency planning issues.	X		DRS
C.3.2	<u>Assessment of Corporate Support and Site Engineering Support</u>			
	a. Corporate staff understanding of plant issues.	X		OSTI
	b. Corporate staff site-specific knowledge.	X		OSTI

	c. Effectiveness of the corporate/plant interface meetings.	X		OSTI
	d. Corporate involvement with plant activities.	X		OSTI
	e. Effectiveness of site engineering support.	X		DRS SPO
	f. Effectiveness of the site design modification process.	X		DRS SPO
	g. Effectiveness of licensing support.	X		SPO
	h. Coordination with offsite emergency planning officials.	X		SPO
C.3.3	<u>Operator Issues</u>			
	a. Licensed operator staffing meets requirements and licensee goals.	X		OSTI
	b. Level of formality in the control room.	X		OSTI SPO
	c. Effectiveness of control room simulator training.	X		DRS
	d. Control room/plant operator awareness of equipment status.	X		OSTI SPO
	e. Adequacy of plant operating procedures.	X		SPO
	f. Procedure usage/adherence.	X		SPO OSTI
	g. Log keeping practices.	X		OSTI
C.4	<u>ASSESSMENT OF PHYSICAL READINESS OF THE PLANT</u>			
	a. Operability of technical specification systems.	X		OSTI
	b. Operability of required secondary and support systems.	X		OSTI
	c. Results of pre-startup testing.	X		SPO OSTI
	d. Adequacy of system lineups.	X		OSTI
	e. Adequacy of surveillance tests/test program.	X		OSTI
	f. Significant hardware issues resolved (i.e. damaged equipment, equipment aging, modifications).	X		OSTI

	g. Adequacy of the power ascension testing program.	X		OSTI SPO
	h. Effectiveness of the plant maintenance program.	X		OSTI DRS
	i. Maintenance backlog managed and impact on operation assessed.	X		OSTI
	j. Adequacy of plant housekeeping and equipment storage.	X		OSTI
C.5	<u>ASSESSMENT OF COMPLIANCE WITH REGULATORY REQUIREMENTS</u>	X		SPO
	a. Applicable license amendments have been issued.			
	b. Applicable exemptions have been granted.	X		SPO
	c. Applicable reliefs have been granted.	X		SPO
	d. Imposed Orders have been modified or rescinded.	X		SPO
	e. Significant enforcement issues have been resolved.	X		SPO OE
	f. Allegations have been appropriately addressed.	X		SPO
	g. 10 CFR 2.206 Petitions have been appropriately addressed.	X		SPO
	h. Atomic Safety and Licensing Board hearings have been completed.	NA		
C.6	<u>COORDINATION WITH INTERESTED AGENCIES AND PARTIES</u>	X		DRS
	a. Federal Emergency Management Agency.			
	b. Environmental Protection Agency.	X		SPO
	c. Department of Justice.	X		OE OI
	d. Department of Labor.	X		OE
	e. Appropriate State and local officials.	X		SLO
	f. Appropriate public interest groups.	X		SPO
	g. Local news media.	X		OPA

ICAVP OVERSIGHT PLAN

1.0 Background

A significant number of design and configuration control issues have been identified at the Millstone units as a result of NRC inspections, the licensee's internal reviews, and allegations. On August 12, 1996, the NRC staff held a public meeting with Northeast Nuclear Energy Company (NNECO, licensee) to discuss the weaknesses in the design and configuration control programs at Millstone. At this meeting, the staff identified the need for independent verification of the licensee's programs for identifying and resolving existing discrepancies between the plant's configuration and its licensing and design bases. During the meeting, the NRC staff informed the licensee of (1) the reasons for requiring an independent verification, (2) the phasing of the licensee's restart corrective actions with the independent verification, and (3) the procedures for conducting and defining the scope of the independent verification program. In response to the staff's concerns, the licensee submitted a letter dated August 13, 1996, in which it committed to obtain an independent contractor to implement an Independent Corrective Action Verification Program (ICAVP) at Millstone Units 1, 2, and 3. It stated that the ICAVP will include (1) an indepth review of selected systems that will address control of the design and design basis since issuance of the operating license for each unit, (2) selection of systems for review based on risk and safety-based criteria similar to those used in implementing the maintenance rule (10 CFR 50.65), (3) development and documentation of an audit plan that will provide assurance that the quality of the results of the licensee's problem identification and corrective action programs for the selected systems are representative of and consistent with those for other systems, (4) procedures and schedules for parallel reporting of findings and recommendations by the ICAVP contractor to both the NRC and the licensee, and (5) procedures for the ICAVP contractor to use in commenting on the licensee's proposed resolution of the findings and recommendations.

The licensee also committed in its August 13, 1996, letter to a scope for the ICAVP review, encompassing modifications to the selected systems since initial licensing, including (1) a review of engineering design and configuration control processes; (2) verification of current plant conditions against design-basis and licensing-basis documentation; (3) verification that design- and licensing-basis requirements are translated into operating, maintenance, and test procedures; (4) verification of system performance through review of specific test records or observation of selected testing of particular systems; and (5) a review of proposed and implemented corrective actions for design deficiencies identified by the licensee.

On August 14, 1996, the NRC issued a confirmatory order requiring completion of an ICAVP before the restart of any Millstone unit. The order directs the licensee to obtain the services of an organization, independent of the licensee and its design contractors, to conduct a multidisciplinary review of Millstone Units 1, 2, and 3. The order states that the review is to provide independent verification that the licensee has identified and resolved existing problems; documented and utilized licensing and design bases; and

established programs, processes, and procedures for effective configuration management in the future.

On August 14, 1996, the Director, Office of Nuclear Reactor Regulation (NRR), established a team, headed by a Senior Executive Service manager, that is responsible for overseeing the implementation of the ICAVP. This team has been included in the Special Projects Office (SPO) within NRR. The staff's oversight objectives are to ensure that the review by the ICAVP contractor is independent of the licensee and its design contractors, is performed by qualified individuals, and is comprehensive enough, incorporating appropriate engineering discipline and operational reviews, to provide the NRC with confidence that the licensee has been thorough in identifying and resolving problems for the Millstone units. This activity is one element of NRC's oversight of the licensee's corrective action efforts included in the Millstone Restart Assessment Plan (RAP).

2.0 Objective of the ICAVP

The purpose of the ICAVP, as stated in the confirmatory order, is to confirm that the plant's physical and functional characteristics are in conformance with its licensing and design bases. The ICAVP audit required by the NRC is expected to provide independent verification, beyond the licensee's quality assurance and management oversight, that the licensee has identified and satisfactorily resolved existing nonconformances with the design and licensing bases; documented and utilized the licensing and design bases to resolve nonconformances; and established programs, processes, and procedures for effective configuration management in the future. The licensee's programs include efforts to identify and understand the root causes of the licensing- and design-basis issues that led to NRC issuance of the 10 CFR 50.54(f) letters to NNECO and implementation of corrective actions that will ensure that the licensee will maintain the plant's configuration and compliance with its design and licensing bases. The licensee has indicated that the scope of its corrective programs will include those systems that it has categorized as either Group 1 (safety-related and risk-significant) or Group 2 (safety-related or risk-significant), using criteria developed in carrying out the maintenance rule. The ICAVP audit must provide insights into the effectiveness of the licensee's programs so that the results can be reasonably extrapolated to the structures, systems, and components that were not reviewed in the audit.

NRC activities to ensure effective corrective actions, including oversight of the ICAVP, will provide additional layers of assurance that the licensee's corrective action programs have been effectively implemented. NRC oversight activities will include in-process reviews of the ICAVP contractor's activities, reviews of the ICAVP results, and additional independent reviews of compliance with the licensing bases for several systems.

3.0 Acceptance Criteria

Before the start of the ICAVP audit, the staff needs to establish acceptance criteria, and a process for handling individual findings from the ICAVP contractor. The staff intends to define a "defect" as any condition that

results in the plant being outside its current licensing bases. For example, this would include a condition that would be considered an unreviewed safety question in accordance with 10 CFR 50.59. It would also include a condition that would prevent a structure, system, or component from meeting a regulatory requirement applicable to the unit. The significance of any defect identified by either the ICAVP contractor or the NRC will be assessed by the SPO staff.

The licensee's corrective actions in response to the 10 CFR 50.54(f) letters are expected to identify and correct any existing defects before verification is performed by the ICAVP contractor or the NRC staff. Therefore, any defects identified by the ICAVP or the NRC staff, and their significance, will be important factors in the staff's restart recommendation. The ICAVP order included a requirement for the ICAVP contractor to develop procedures for reporting findings to the NRC. Upon notification that the ICAVP contractor has identified potential defect, the NRC will review and validate the issue. This NRC review may include meetings with the ICAVP contractor and the licensee. The NRC will assess the safety significance of any identified defects. Following consultation with senior NRC management, identified defects could result in a decision to suspend the ICAVP, to expand the scope of the ICAVP, or to reperform the ICAVP following additional licensee corrective action.

In addition to a focus on the identification of any defects, the ICAVP contractor and the NRC staff will evaluate all noted deficiencies that do not meet the definition of a defect (such as a calculation error that does not place the plant outside the licensing bases), to determine if any programmatic trends are evident. The NRC may determine that additional corrective action by the licensee is necessary if the number and significance of the deficiencies indicate that programmatic issues exist.

4.0 Scope of the ICAVP

Before the start of the ICAVP audit, the NRC must approve the ICAVP contractor's audit plan for each unit. Although the licensee will conduct a detailed review of the Group 1 and Group 2 safety-related or risk-significant systems (approximately 80 systems), the staff's expectation is that the ICAVP contractor will perform indepth reviews of four systems. The scope of the ICAVP audit must, however, be developed to provide confidence that the licensee has verified that the facility conforms to its design and licensing bases.

To provide the level of assurance necessary to support a unit restart decision, the staff's expectation is that the contractor will conduct the ICAVP audit in a three-tier process. First, for Unit 3, four systems will be selected to provide a representative sample to test the thoroughness of the licensee's reviews in identifying potential nonconformances with the design and licensing bases. The number of systems selected for Tier 1 evaluations at Units 1 and 2 will be determined as additional information is obtained by the staff. (The selection methodology for these systems is discussed in Section 5.0.) The ICAVP contractor will review all design and operational aspects of these systems, including maintenance, surveillance testing, and training. The contractor will also review the licensee's corrective actions for all

previously identified design-related deficiencies for the selected systems, including the deficiencies discovered during the implementation of the licensee's corrective action programs. For example, the ICAVP contractor will review previous design deficiencies identified by the architect/engineer before initial operation that were to be corrected after initial startup. These Tier 1 reviews will encompass the original design for the selected systems and all design changes, both implemented and proposed. The Tier 1 reviews will provide insights into the effectiveness of the licensee's design change processes. For example, the reviews will include an evaluation of the interfaces among the licensee's organizations involved with the design change process, the licensee's knowledge and understanding of the original design considerations and licensing bases that formed the point of departure for plant design changes, and the consistency among the plant's as-built configuration and design-basis records.

The second tier of the ICAVP audit will address other Group 1 and Group 2 systems that have not been reviewed as part of the Tier 1 reviews. These reviews will be more limited in scope than those performed on the Tier 1 systems. The objective of these reviews is to identify and review some critical design characteristics of the systems that are important to ensure that the licensee's corrective actions have resulted in these systems being capable of performing their accident mitigation functions as specified in Chapter 15 of the UFSAR. The ICAVP contractor will provide the NRC, for agency approval, a list of systems and characteristics to be reviewed. This Tier 2 review is not expected to include a review of passive features such as design of piping and pipe supports. (The ICAVP contractor will review these design aspects as part of the Tier 1 system review.) The Tier 2 review will provide additional assurance of the adequacy of the licensee's programs by broadening the scope of the review to include other Group 1 and 2 systems. This review will also ensure that the fundamental functional requirements of the systems have been met.

The third tier of the ICAVP audit will be a review of some of the various processes used by the licensee to change or modify the facility as described in the licensing bases. These processes include, but are not limited to, calculation changes, proposed technical specification changes, modifications, drawing changes, procedure changes, set point change requests, and replacement item evaluations. A sample of changes, randomly selected from among the licensee's design change processes, will be evaluated by the ICAVP contractor. This approach will provide insights into the effectiveness of the various change processes in controlling the plant's configuration. In addition, this approach will confirm that the design change processes, which the licensee highlighted as opportunities to incorrectly change the design bases in its root cause analysis, were adequately reviewed.

If defects are not identified, the three-tier audit by the ICAVP contractor will give the NRC confidence that the facility conforms to its licensing bases and that appropriate configuration control processes are in place to ensure that future operation of the facility will be conducted in accordance with its licensing bases.

5.0 Methodology for Selecting Systems

As discussed previously, the licensee will conduct a detailed review of risk-significant and safety-related systems, through its corrective action programs, to identify and correct existing design- and licensing-basis deficiencies. The licensee has indicated that it plans to review the Group 1 (safety-related and risk-significant) and Group 2 (safety-related or risk-significant) systems, as defined by its criteria used in implementing the maintenance rule. The NRC reviewed the licensee's list of systems within the scope of the maintenance rule during an inspection completed on November 8, 1996, and identified several problems in this list. The staff will again review the licensee's list of systems after the licensee has addressed the inspection findings.

The ICAVP Tier 1 review (vertical slice) for Unit 3 will include reviews of four Group 1 and Group 2 systems to verify the adequacy of the licensee's corrective action programs. The August 14, 1996, order states that the ICAVP audit plan, which the licensee must submit to the NRC before implementation, must describe risk and safety-based criteria for selection of the systems for review.

The staff plans to use the following process to select the specific systems to be evaluated in the Tier 1 reviews for Unit 3. Following NRC staff evaluation of the ICAVP contractor's audit plan, including the contractor's proposed system selection criteria, the staff will select four systems for review by the ICAVP contractor. The staff will consider objective elements in selecting the systems. These elements include risk significance, system characteristics and complexity, previous opportunities for introducing inappropriate changes to the system or design bases, and previous problems with a system. Other elements considered in this step will be the engineering disciplines involved in the system design, and the results from previous reviews by the NRC or an outside party.

Prior to finalizing its selection of four systems the staff will offer the Connecticut Nuclear Energy Advisory Council (NEAC), the opportunity to recommend one or two systems using any method it deems appropriate. The NRC will consider including one or both of the systems recommended by the NEAC. This would address the public concern regarding the potential for the list of systems being predetermined and available to the licensee before the start of the ICAVP. A similar two-part process is planned for system selections at Units 1 and 2.

6.0 Sample Size

The staff has reviewed the question of system selection in conjunction with sample size to determine how much independent review is necessary to provide reasonable assurance that the licensee has identified existing design- and licensing-basis deficiencies. In its letter of August 13, 1996, the licensee committed to use, for system selection, risk and safety-based criteria similar to those used in implementing the maintenance rule (10 CFR 50.65). The August 14, 1996, order stated that the licensee must describe the risk and

safety-based criteria used for the selection of systems to be reviewed by the ICAVP contractor. The staff will approve the proposed selection criteria as part of its approval of the contractor's audit plan.

The licensee has indicated that, for Unit 3, it intends to perform a detailed design- and licensing-basis review of approximately 80 safety-related or risk-significant systems encompassed by the maintenance rule. The ICAVP contractor will review a subset of these systems to provide additional assurance that the licensee was effective in identifying and correcting nonconformances with the design and licensing basis. The NRC will inspect the results of the ICAVP contractor's reviews and independently review several systems, providing a third level of review.

In its evaluation of the audit plan proposed by the ICAVP contractor, the staff must determine whether the contractor has proposed an audit with a breadth of scope sufficient to examine all principal design disciplines. The staff considered using a statistical approach to quantify a level of assurance that could be achieved by selecting a specific number of systems for the audit. However, as discussed below, the staff has reached the conclusion that a statistical approach is not the most effective and may not be appropriate in determining the number of systems that the ICAVP contractor should review in its audit.

The systems requiring evaluation by the licensee as a function of risk and safety significance are disparate in terms of system size, function, design attributes, number and type of components, and involvement of design disciplines. For example, the population of systems at Unit 3 includes such diverse systems as service water, emergency diesel generator starter, vital 4160 Vac, containment isolation, boron thermal regeneration, and emergency safety features building ventilation. These systems vary from very specific systems (such as the diesel generator starter system) to global systems (such as the vital 4160 Vac). Assuming that the population of systems is essentially identical, a large number of systems would need to be reviewed to achieve a high degree of confidence that defects do not exist in the systems not sampled. For example, assuming that the population of systems is essentially identical, a statistically based sample would require that a minimum of 59 systems be evaluated to have 95 percent assurance that 95 percent of the systems have no defects. From a practical standpoint, the contractor and NRC resources that would be expended for verification of 59 systems would be extraordinary and would not be justified.

The independent design verification program (IDVP) and integrated design inspection (IDI) program, which are the models for the ICAVP, were used to verify that the plant configuration was consistent with the licensing basis for near-term operating license (NTOL) reviews. As a point of reference, the IDVPs, which were conducted by an independent third party, typically reviewed from one to three systems depending on the system's technical attributes and complexity. The IDIs, which were conducted by the NRC staff, typically reviewed only one system. In addition, the safety system functional inspections (SSFIs), which were conducted to assess the operational performance capability of safety systems at operating plants, typically reviewed only one system. In contrast, the scope of the proposed three-tier

ICAVP audit is significantly more than that performed for any previous NTOL reviews and SSFIs.

In addition to the vertical-slice review (Tier 1), to provide additional confidence, the staff approach includes ICAVP contractor review of (1) critical design characteristics of safety-related systems necessary to mitigate the consequences of a postulated accident, to provide additional assurance that these systems can perform their specified functions (Tier 2); and (2) a random sample of design changes from each of the licensee's design change processes (Tier 3). This is the three-tier ICAVP audit discussed in Section 5.0. The Tier 1 review will provide insights into the effectiveness of the licensee's implementation of its corrective action programs. The Tier 2 review will provide additional confidence that the systems required for accident mitigation will perform their specified functions. The Tier 3 review will provide additional confidence that nonconformances with the facility's licensing basis have not been introduced through the licensee's design change processes.

7.0 NRC Oversight of ICAVP Activities

The objective of NRC's oversight of the ICAVP is to ensure that the audit conducted by the ICAVP contractor is independent of the licensee and its design contractors, is performed by qualified individuals, and is comprehensive, incorporating appropriate engineering discipline and operational reviews. The NRC's ICAVP oversight will also include an evaluation of systems that are not within the ICAVP contractor's scope. The results of the licensee's corrective action programs, the ICAVP, and NRC's ICAVP oversight activities will be used as one element within the overall Millstone Restart Assessment Plan, to determine if the licensee has been thorough in identifying and resolving problems for the Millstone units.

The NRC's review of the ICAVP will include review of ICAVP implementation, the ICAVP results, the licensee's corrective actions, and independent reviews similar to the contractor's three-tier audit. The NRC will assess the independence and qualifications of the contractor and individual team members. The staff will interview each member of the ICAVP contractor team to verify that each has the appropriate level of knowledge and experience to conduct the review and to ensure that none of the members has a professional or financial interest in the facility under review. The staff will also review and approve the scope and depth of the ICAVP audit plan and select some of the systems to be reviewed by the ICAVP contractor. The staff will review selected portions of the ICAVP contractor's completed reviews. The NRC will conduct independent vertical-slice reviews of two systems at Unit 3, one within the scope of the ICAVP and one outside the scope, to provide additional assurance regarding the adequacy of the licensee's and ICAVP contractor's reviews. Similar inspections will be used at Units 1 and 2. The staff will also independently review selected critical design characteristics and samples of changes from the licensee's design change processes. The staff will evaluate the final results of the ICAVP audit and assess the licensee's corrective actions. Additional details regarding the NRC's inspection activities are included in the attached inspection plan.

Attachment: ICAVP Oversight Inspection Plan

MILLSTONE

INDEPENDENT CORRECTIVE ACTION VERIFICATION PROGRAM

OVERSIGHT INSPECTION PLAN

Submitted by:

E V Imbro *Dec. 19, 1996*
Eugene V. Imbro
Deputy Director, ICAVP Oversight

Approved by:

William D. Travers *12/19/96*
William D. Travers, Director
Special Projects Office Date

Attachment

MILLSTONE INDEPENDENT CORRECTIVE ACTION VERIFICATION PROGRAM OVERSIGHT INSPECTION PLAN

I. BACKGROUND

On August 14, 1996, the Director of the Office of Nuclear Reactor Regulation (NRR) established a team to provide regulatory oversight of the Millstone Independent Corrective Action Verification Program (ICAVP). The charter directs that an inspection program be developed to oversee the ICAVP in a manner similar to that outlined in NRC Inspection Manual Chapter (MC) 2535, "Design Verification Programs," for Independent Design Verification Programs (IDVP). The team will be composed of inspectors from headquarters, regional offices (other than Region I), and contractors with specialized design expertise. The team's efforts are to be coordinated with the MC 0350, "Staff Guidelines for Restart Approval," process.

II. INSPECTION OBJECTIVE

The objective of NRC's oversight of the ICAVP for the Millstone units is to ensure that the review conducted by the ICAVP contractor is effective, performed in a manner independent of the licensee and its design contractors, and performed by qualified individuals. The oversight is to be comprehensive, incorporating appropriate engineering discipline and operational reviews, such that the NRC can be confident that Northeast Nuclear Energy Company (NNECO) has been thorough in identification and resolution of design deficiencies and configuration control problems for the Millstone units.

III. INSPECTION METHODOLOGY

The inspection of the ICAVP will be conducted in a manner similar to the IDVP, as outlined in NRC MC 2535. However, the MC 2535 inspection will be modified because the ICAVP will address the adequacy of the original design, design modifications, and control of the design and design bases since issuance of the initial operating license, where the IDVPs were conducted prior to the issuance of the initial operating license. The ICAVP, conducted by an independent contractor, will be similar to inspections described in Inspection Procedure (IP) 93801, "Safety System Functional Inspections," and MC 2530, "Integrated Design Inspection Program," in that the ICAVP will review the current configuration, including the aspects of the original design that have not been modified, and the modifications made since issuance of the initial operating license to determine that the systems conform to their licensing bases and will be capable of performing their intended function.

The NRC's oversight of the Millstone ICAVP for each unit will provide confidence that the licensee's configuration management corrective action programs have been effective. This inspection plan is based on the NRC's understanding of the licensee's activities and will be modified, as necessary, to reflect new information. Millstone Unit 3 is currently scheduled to be the lead plant for the ICAVP. The scope and methodology for the inspection of the ICAVP for Units 1 and 2 may be adjusted based on insights gained from the Unit 3 inspection and the licensee's proposed programs for those units.

IV. INSPECTION CONDUCT

The NRC's ICAVP oversight staff will perform a number of tasks to ensure that the licensee's configuration management corrective action programs, and the ICAVP, have been effectively implemented. These tasks include the (1) review and approval of the contractor, and individual contractor specialists, selected by the licensee to perform the ICAVP; (2) review and approval of the contractor's audit plan for performing the ICAVP; (3) independently assessing the licensee's implementation of its configuration management corrective action programs; (4) assessing the performance of the ICAVP contractor's implementation of the ICAVP; (5) monitoring the contractor interactions with the licensee as specified in the approved communication protocol to ensure continued independence from the licensee; and (6) evaluating the adequacy of the licensee's corrective actions, and their implementation, including corrective actions developed in response to the ICAVP contractor's findings and recommendations, and the findings from the NRC's ICAVP oversight. In performing these tasks, a number of inspection and oversight activities will be performed as described below. Detailed inspection guidance for the NRC's ICAVP oversight staff will be prepared that incorporates the applicable aspects from MC 2530, MC 2535, and IP 93801.

1. Review and approve the selection of the contractor to perform the ICAVP.

PURPOSE: To ensure that the contractor selected to perform the ICAVP is technically and financially independent of the licensee, the NSSS vendor, and the architect-engineer (AE); and technically capable of effectively performing the ICAVP.

ACTIVITIES: To complete this task the NRC's ICAVP oversight staff will perform the following:

- a. Review the information provided by the licensee and the selected contractor to determine whether the contractor has any financial interest or had any technical involvement with the design or construction of the subject Millstone unit.
- b. Verify that the contractor has adequate technical and managerial qualifications to conduct the ICAVP.
- c. Verify that the individual specialists have the appropriate technical background to participate in the ICAVP. The evaluation will include interviews, as well as a review of individual resumes and certifications.
- d. Verify that the individual specialists have no financial interest in NNECO, the NSSS vendor, or the AE for the subject Millstone unit.
- e. Verify that the individual specialists have had no prior involvement with the subject Millstone unit.

2. Review and approve the ICAVP audit plan submitted by the ICAVP contractor.

PURPOSE: To ensure that the ICAVP contractor's audit plan accomplishes the objectives of the August 14, 1996, confirmatory order, includes a sufficient scope and depth, and provides sufficient guidance and instructions to its specialists to effectively implement an assessment of the capability and

effectiveness of the licensee's configuration management corrective action programs at identifying and addressing licensing-bases deficiencies.

ACTIVITIES: To complete this task, the NRC's ICAVP oversight staff will perform the following:

- a. Review the contractor's ICAVP audit plan to ensure it employs a three-tier approach for assessing the licensee's effectiveness at identifying and correcting licensing-bases deficiencies that includes:
 - Tier 1: A vertical-slice system review method for the approximately four systems similar to the guidance provided in IP 93801 and MC 2530.
 - Tier 2: A review of accident mitigation systems that assesses critical design characteristics to ensure that the systems and components can perform their specified safety functions. This activity requires the NRC's ICAVP oversight staff to review and approve the critical design characteristics proposed by the ICAVP contractor.
 - Tier 3: A review of examples from the various processes used by the licensee to change the facility design or change the characteristics, procedures, or practices for maintaining, operating, testing, and training on safety or risk significant systems, structures, and components.
- b. Review the contractor's ICAVP audit plan to ensure it has sufficient depth to enable the contractor to:
 - (1) Verify that the licensee's design engineers have sufficient technical guidance to perform assigned engineering functions.
 - (2) Verify, for the selected systems, that the regulatory requirements, and licensing-bases are correctly implemented in specifications, drawings, calculations, and procedures and that systems can perform their specified functions.
 - (3) Verify that the updated Final Safety Analysis Report (FSAR) accurately reflects the current licensing bases, current plant configuration and operational characteristics of the unit for the selected systems.
 - (4) Verify that the analyzed facility configuration in the design bases is consistent with the current plant configuration and operational characteristics of the unit for the selected systems.
 - (5) Verify that the correct licensing-bases information has been reflected in the responsible engineering, maintenance, and operations procedures.
 - (6) Verify that system design changes have not invalidated preoperational and startup acceptance testing.

- (7) Verify that design controls, as applied to the original design, have also been applied to design changes, including permanent modifications, temporary modifications, procedure changes, and any other processes the licensee uses to change the configuration or operation of the facility.
 - (8) Verify the adequacy of the licensee's corrective actions and assess the effectiveness of the licensee's implementation of the corrective actions developed as part of the CMP and in response to the ICAVP findings.
 - (9) Define the contractor's review and inspection schedules for NRC planning.
- c. Verify that the procedures and review plans developed by the ICAVP contractor have sufficient administrative and technical instructions and guidance to its specialists to enable them to implement the ICAVP audit plan as approved by the NRC staff, including:
- (1) Instructions for documenting and reporting observations, findings, and recommendations in a manner consistent with the August 14, 1996, confirmatory order.
 - (2) Providing comments to the NRC on the licensee's recommended corrective actions in response to the ICAVP observations, findings and recommendations.
 - (3) Instructions for communicating with the licensee that are consistent with the communication protocol developed for the process.
- d. Review the ICAVP contractor's proposed system selection criteria. The August 14, 1996, order states that the ICAVP audit plan, which the licensee must provide to the NRC before implementation, must describe risk/safety based criteria for selection of systems for review.
- e. Select approximately three systems to include within the scope of the ICAVP contractor review. In selecting these systems, the staff will consider the ICAVP contractor's proposed criteria. Also considered by the NRC for system selection are the (1) system's risk significance; (2) system's design and operating characteristics; (3) number and complexity of changes to the system; and (4) number of previously identified deficiencies and operating problems. In addition, to address public concerns with system selection, the staff will offer to a third party, such as the Connecticut Nuclear Energy Advisory Council (NEAC), the opportunity to select one other system using any method that they deem appropriate.
3. **Independently assess the effectiveness of the licensee's performance of its configuration management corrective action programs and performance of the ICAVP contractor in the implementation of its audit plan.**

PURPOSE: To provide the NRC with an independent assessment of the licensee's ability to identify and resolve licensing-bases deficiencies; and assess the

effectiveness of the ICAVP contractor in verifying that the licensee has identified and addressed licensing-bases deficiencies as intended by the confirmatory order.

ACTIVITIES: To complete this task, the NRC's ICAVP oversight staff will perform the following activities to assess the ICAVP contractor's Tiers 1, 2, and 3 reviews, and provide the NRC with an independent assessment of the licensee's performance:

- a. The NRC ICAVP oversight staff will perform a vertical slice review of two systems. One of the reviews will be on a system within the scope of the Tier 1 (vertical-slice) system reviews of the ICAVP contractor. The second review will be of a system outside the scope of the ICAVP Tier 1 system reviews. The vertical slice reviews performed by the NRC's ICAVP oversight staff will include a review of design calculations and analyses for both the unmodified portions of the original system configuration and design modifications, system walkdowns, review of procedural controls for modifying or changing the facility operational characteristics. The vertical slice review will verify that:
 - (1) The current configuration accurately reflects the licensing-bases, including the updated FSAR.
 - (2) The calculations and analyses were performed using recognized and acceptable analytical methods.
 - (3) The assumptions made in any calculations or analysis supporting the change are technically sound.
 - (4) The results of calculations or analysis supporting the unmodified portions of the original configuration and design changes are reasonable (based on engineering judgement) for the scope of the change.
 - (5) The licensee considered the effect of a change on design margins and the design changes received the appropriate level of engineering and management review during the design phase and prior to implementation.
 - (6) The licensee considered the effect of a change on pre-operational, startup, or system baseline acceptance test results.
 - (7) Design changes were accomplished in accordance with the licensee's approved procedures.
 - (8) Design changes are accurately reflected in operating, maintenance, and test procedures, as well as in training materials.
 - (9) Proposed design changes, subsequently cancelled, were not replaced by procedural changes that imposed excessive burdens on plant operators.

- b. In performing the vertical slice review, the NRC's ICAVP oversight staff will conduct in-plant system walkdowns for the two systems reviewed. The walkdowns will be performed in accordance with specific inspection guidance based on IP 93801 and MC 2535. The walkdowns will be multi-disciplinary reviews including, as a minimum, areas such as mechanical systems, mechanical components, electrical power, civil and structural design, and instrumentation and control. The walkdowns will be used to:
- (1) Verify adequate control of operational procedures, maintenance procedures, test and surveillance procedures, operator training, and control of the plant simulator configuration.
 - (2) Verify that the current configuration is consistent with the licensing bases at the level of detail contained in piping and instrumentation diagrams (P&IDs) or system flow diagrams, piping isometric drawings, electrical single-line diagrams, and emergency, abnormal, and normal operating procedures. This includes:
 - (a) Verification of the licensing-bases information contained in the updated FSAR and docketed correspondence.
 - (b) Verification that the analyzed configuration is consistent with the current plant configuration.
 - (c) Verification that equipment location and identification numbers are as indicated on the P&ID or process flow diagram, and equipment name plate data is consistent with design specifications and analyses.
 - (d) Verification that the location of pipe supports, snubbers, and other pipe restraints is consistent with design specifications and piping stress analyses.
 - (e) Verification that divisional separation of safety-related systems, structures and components, seismic II/I, and other topics addressed by the licensee's hazards analyses are reflected in the current plant configuration.
 - (3) During the walkdowns, the team will also take note of modifications that appear to have been recently completed. These modifications will be screened to assure adequate documentation exists and will be included in further review.
- c. The NRC's ICAVP oversight staff will select two postulated accidents analyzed in the accident analysis section of the FSAR and independently review the critical characteristics of the systems relied upon to mitigate the consequences of the selected accident scenarios to assess the ICAVP contractor's Tier 2 review. The oversight staff will ensure that the systems can perform their safety function(s) specified to mitigate the selected FSAR accident scenarios, and that the ICAVP contractor has thoroughly verified the critical characteristics for the systems associated with the selected accident scenarios.

- d. The NRC's ICAVP oversight staff will select samples from each of the change processes within the scope of the ICAVP Tier 3 review, both reviewed by the ICAVP contractor and not reviewed by the contractor, to ensure that the contractor's review was effective in identifying specific and programmatic design process control deficiencies. For those samples reviewed by the ICAVP contractor include an evaluation of the validity of:

- (1) The ICAVP contractor's review methods for assessing the changes.
- (2) Any assumptions made by the ICAVP contractor in its review of the changes.
- (3) Any independent calculations or analysis performed by the ICAVP contractor during its review of the changes.

- e. Verify that NRC comments and recommendations provided to the ICAVP contractor on the scope of the ICAVP were effectively implemented or otherwise satisfactorily resolved.

- f. The NRC's ICAVP oversight staff will review the findings and observations made by the licensee during the implementation of the configuration management corrective action programs and the ICAVP contractor to determine whether the oversight staff's reviews have identified any licensing-bases deficiencies that were not identified by the licensee or the ICAVP contractor.

4. Assess the continued independence of the contractor and its specialists during implementation of the ICAVP.

PURPOSE: To ensure that the ICAVP contractor maintains an adequate level of independence from the licensee during conduct of the ICAVP.

ACTIVITIES: The NRC's ICAVP oversight staff will control and monitor the interactions between the ICAVP contractor and the licensee as specified in the communication protocol. To perform this task the NRC's ICAVP oversight staff shall perform the following activities:

- a. Control and monitor meetings and verbal communication between the ICAVP contractor and the licensee. Ensure that reasonable efforts are made to allow observation by the designated Connecticut NEAC observers or their alternates.
- b. Review the written questions posed by the ICAVP contractor to the licensee and the written replies by the licensee.

5. Assess the adequacy of the licensee's corrective actions, and their implementation, in response to the findings of licensee conducted programs (e.g., CMP), the ICAVP contractor's findings and recommendations, and the findings of the NRC's ICAVP oversight staff.

PURPOSE: To provide the principal input into the NRC's assessment of the ability of the licensee to maintain the licensing bases of the subject unit in the future.

ACTIVITIES: The NRC's ICAVP oversight staff will review the licensee's corrective actions resulting from its configuration management review, the ICAVP contractor's review, and the NRC's ICAVP oversight staff activities. This part of the inspection will be conducted after the ICAVP contractor has completed its review of the selected systems, including the corrective actions for issues previously identified by the licensee or its other contractors, and the corrective actions for issues identified by the ICAVP oversight staff. The staff will interface closely with the Millstone Restart Panel during this phase to ensure each deficiency has been appropriately resolved. To complete this task the NRC's ICAVP oversight staff will perform the following:

- a. Review the licensee's design-related corrective actions for the systems within the scope of the ICAVP Tier 1 review to assure that:
 - (1) The root cause(s) of and causal factors associated with the issue have been identified.
 - (2) The specific deficiency has been resolved.
 - (3) The applicability of the deficiency to other systems, and programmatic and operational aspects not reviewed by the ICAVP contractor has been addressed.
 - (4) The corrective actions have been adequately documented.
 - (5) Those corrective actions required to be implemented prior to restart have been completed, and that those not completed are adequately justified and acceptable to the ICAVP oversight staff.
- b. Ensure the results of the ICAVP, including all observations, findings, and recommendations made by the ICAVP contractor, and open items established by either the ICAVP contractor or the NRC staff, have appropriately been addressed by the licensee's corrective actions and that those corrective actions have been completed.
- c. Review the comments from the ICAVP contractor submitted to the NRC as required by the order regarding the corrective actions proposed by the licensee to resolve or address the ICAVP contractor's findings and recommendations. Verify that the licensee has considered the ICAVP findings and recommendations in the development of its corrective actions.
- d. Evaluate the overall results and conclusions of the ICAVP contractor to determine whether the licensee's configuration management corrective action programs were effective in:
 - (1) Providing the licensee with a clear understanding of the licensing and design bases of the subject unit.
 - (2) Providing confidence that the configuration of the unit under review is in accordance with the updated FSAR, NRC regulations, and other commitments.

- (3) Providing confidence that the licensee's configuration management programs, if properly implemented, will maintain the subject Millstone unit's compliance with its licensing basis.

V. ICAVP OVERSIGHT TEAM COMPOSITION

The NRC ICAVP Oversight Team will include the following:

Deputy Director, ICAVP Oversight	E. Imbro, NRR/SPO
Branch Chief, ICAVP Oversight	L. Plisco, NRR/SPO
Operations Inspectors	J. Nakoski, NRR/SPO A. Gody, RIV/DRP
Mechanical Systems Inspectors	(2 minimum)
Electrical Power Systems Inspectors	(2 minimum)
Instrumentation & Control	(2 minimum)
Piping/Structural	(2 minimum)

VI. DELEGATION OF RESPONSIBILITIES

The Director of the Office of Nuclear Reactor Regulation has delegated to the Senior Executive Service (SES) Manager responsible for the staff oversight of the Millstone ICAVP, the authority to approve changes to the initial ICAVP audit plan, within the scope of the August 14, 1996, confirmatory order, and to modify this inspection plan as necessary to ensure adequate oversight of the licensee's ICAVP audit plan. Changes to the ICAVP audit plan proposed by the licensee that are in conflict with the confirmatory order shall be approved by the Director of NRR.